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STRATEGY OF LOCAL RESOURCES-BASED SOCIAL EMPOWERMENT TO ACHIEVE FOOD SECURITY AT THE BORDERS OF INDONESIA-MALAYSIA

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ABSTRACT
In fact, the development of food security is social empowerment, which means that it improves self-supporting (independence) and capacity of the communities to play their roles in order to ascertain food availability, food distribution, and food consumption from time to time. Social empowerment can be striven for through improving human resources capacity in managing local potencies. Objective of this research was to formulate the strategy of social empowerment in order to achieve food security at the borders of Indonesia-Malaysia. Location of the research was at the North Sebatik Subdistrict of Nunukan Regency. Method of the data analysis used SWOT analysis. Results of the research showed that the strategy of local resources-based social empowerment to achieve food security at the borders of Indonesia-Malaysia is strategy I, Aggressive Strategy, by taking opportunity and strength, which include: developing local potency-based empowerment program, developing agricultural-based industry by developing derivative product to increase added value, optimizing the extension performance, increasing number and improving quality of the crops product and horticulture.

KEY WORDS
Social empowerment, local resources, food security, borders.

Rapid growth of population in Indonesia has become great threat in supplying national foods. It is due to the increase number of population is in accordance with the increase demand for foods along with the economy growth, purchasing power of the public, and the change of taste. Dynamic from the demand side causes the needs for food increase that relates to number, quality, variability, and security. Besides that, the problem of foods occur due to limited natural resources, means and infrastructure in food sector, strict competition with imported products, and greater proportion of the poor (The Board of Food Security, 2010).

Jokolelono (2011) suggested that in developing countries or in under-developed countries, two-third or more populations live at the suburban and make their living in agricultural sector. One of efforts to bring it into reality is improving food security due to food is the basic needs for human and how to fulfill it is the human right. So, it is no exaggeration to say that high food security is guarantee of health, prosperity, and welfare of a country. Local resources potency as food source must be explored optimally in order to increase food availability to fulfill the needs for foods consumption, which must be qualified, assorted, and reachable at the household level, to raise the farmer’s income, and to support natural resources conservation.

Actually, the development of food security is social empowerment, which means that it improves self-supporting (independence) and capacity of the communities to play their roles in order to ascertain food availability, food distribution, and food consumption from time to time. Social empowerment and food security at the North Sebatik Subdistrict is still in medium level (Suryana, 2017)

Geographically, North Sebatik Subdistrict has area, which is divided in two, a part area belongs to Indonesia and the other part belongs to Malaysia. This island is one of the outer islands that should become the main priority of development due to it is adjacent to the neighboring country, Malaysia. Sebatik Island has much potency in various sectors, such as agriculture, plantation, fishery, and tourism (Suryana, 2017).
Agricultural products as food source have not well managed, limited off farm industry has caused the farmers prefer to sell their products to the neighboring country even in lower price, quantity and quality of the foodstuffs of their own products have not fulfilled the needs of community continuously and the increase of human resources quality through extension has not optimal yet, cause the accessibility to qualified and varying foods have not been fulfilled optimally.

Objectives of the research were: (1) to study both external and internal factors, which affect social empowerment in order to achieve food security at the borders, and (2) to formulate the strategy of social empowerment in order to achieve food security at the borders of Indonesia-Malaysia.

**LITERATURE REVIEW**

*Local Resources.* Local resources or local potency are ability or strength or power of a region that can be developed to bring about benefit/advantage for the related region (Kasmini 2017). Local potency can be assessed from some elements, such as social capital, social system, and cultural system. Social capital is resources, which emerge as a result of interaction in a community among individual or institution that create emotional bond, such as trust, reciprocal relationship, and social network, values and norms, which establish social structure in order to coordinate and cooperate in achieving the goal. Social system is a complex of activities and actions, which have specific pattern that derived from human in society, for example, social cohesion, social institution, as well as social organization. Cultural social is a part of culture as a complex of ideas, initiatives, concepts, values, norms, and regulations. Those ideas are unseparated, but they close to each other, interrelated to become a system.

Natural resources play important role for human life. For communities in Indonesia, natural resources do not only have economic value, but also have social, cultural, and political meanings (Hidayat, 2011).

Human resources play their roles in human resources change in order to reach the success of empowerment process. Human capital is marked by adequate educational level, which is supported by educational means and infrastructure development that lead to empowerment development and, of course, it will significantly affect on social independence or self-supporting of the community (Widjajanti, 2011). The concept that has been developed by Romer (1990) suggested that human capital as antecedent of the empowering process. Huseini (1999) described that human capital is reflection of education, experience, intuition, and expertise.

Social resource is important facilitator in economic development. Social capital, which is formed in accordance with social and economic activities in the past are viewed as factor that could enhance economic development and it may strengthen the developmental effectiveness if it is applied appropriately (Suharto and Yuliani, 2005). Based on those explanations, it can be concluded that social capital is a norm or value, which has been mutually understood by community that will strengthen positive social network, mutualism cooperation, generate great concern and high solidarity, as well as enhance mutual trustworthiness in order to achieve the goals (Widjajanti, 2011).

*Social Empowerment.* Basically, social empowerment concept is a development concept, which is centered on community in order to grow and improve creative initiatives of the community in handling problems and developing the superior potencies continuously by improving social ability to develop products of the development to better direction continuously (Efendi.et.al, 2014). Social empowerment is intended to create independent individual and community. Such independence includes independence in thinking, taking action, and controlling what they have done. Social independence is a condition, which is experienced by the community that is marked by their ability to think, decide, and do something appropriately in order to solve the problem by using their own abilities. The related abilities refer to cognitive, conative, psychomotoric, and affective, as well as physical/material resources. Of course, in order to achieve social independence, it requires learning process.
Communities who have attended the learning process will gradually gain power, strength, and abilities, which are useful in decision-making process independently (Widjajanti, 2011). Sumodiningrat (2000) suggested that social empowerment, which is marked by independence, will be achieved through social empowerment process. Social empowerment may be brought into reality through active participation of the community, which is facilitated by the empowerment agents. The main targets of social empowerment are individuals who are weak, powerless, have no strengths or abilities to access productive resources, or the marginalized community in the development. The final goal of the social empowerment process is to create independent individuals in the community in order to increase their living standards of their families and to optimize their own resources.

Social empowerment can be brought into reality through active participation of the community, which is facilitated by the empowerment agents. The main targets of social empowerment are individuals who are weak, powerless, have no strengths or abilities to access productive resources, or the marginalized community in the development. The final goal of the social empowerment process is to create independent individuals in the community in order to increase their living standards of their families and to optimize their own resources (Mardikanto, 2010).

Food Security. Food security is the availability of foods, both quantity and quality, which can be accessed by the community, not only economically but also locally, in order to establish productive and healthy life. Therefore, it can be concluded that there are three components in the definition of food security, which include food availability, food accessibility, and food absorption (Suryana, 2017).

Increasing food security is the main priority in development due to foods is the most basic needs for human, so that food plays important role in the national economic growth. Food security means the foods are available in sufficient quantity and quality, well distributed along with affordable price, and safe to eat by everyone in order to support their activities during the day. Therefore, food security covers both household and national levels (Rachman, 2002).

Moreover, Rachman (2002) suggested that in globalization era and free-trade, which is highly competitive in international market, Indonesia has faced heavy threats in formulating food policy that could fulfill the needs for foods of the Indonesian people. Such food policies include efforts to sustain and enhance availability of various food commodities and effort to improve diversification of the consumed foods. Under limited resources, some policies must be applied to increase foods that relates to how to sustain food security, for instance, using various resources to produce competitive food commodities, both in price and quality, against the imported products. In such condition, food production activity must be oriented to international market.

METHODS OF RESEARCH

Based on objective of the research, mixed methods were used as research approach by combining quantitative and qualitative approaches (Creswell, 2010).

The research was conducted at North Sebatik Subdistrict of Nunukan Regency. North Sebatik Subdistrict lies at the East end of Nunukan Regency, Indonesia. It lies on Sebatik Island, which is divided in two regions, a part belongs to Indonesia, and other part belongs to Sabah, Malaysia.

Data of the research used primary and secondary data, which derived from diverse sources.
- Primary data will be derived from questionnaires and interview with farmers, breeders, and fisherman, as well as depth interview with public figures, farmer group leader, extension agents, and the headman.
- Secondary data will be derived from information, which is provided by official governmental institutions that are related to activities of the research, such as: Central Bureau of Statistics, Agency for Regional Development, Department of
Agriculture, Animal Husbandry, and Crops, as well as Department of Fishery and Oceanic Affairs, and other institutions, which have relevant data.

Data of the research was collected through some methods, such as observation in the field, interview, questionnaire distribution and depth-interview. Data documentation process will be done in the form of written documentation and audio records to make sure validity of the data.

Populations of the research were members of farmer group at the North Sebatik Subdistrict, which comprised of 195 farmers. Samples were taken by using Simple Random Sampling, a sample determination method that was taken randomly regardless of the members' strata (Sugiono, 2012). Numbers of sample in the research were 65 farmers.

Data was analyzed using SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. It also used Internal Factor Evaluation and External Factor Evaluation. Internal factor evaluation (IFE) is used to study the internal factors in a company/organization that related to strength and weakness, which are considered important. External factor evaluation (EFE) is used to study the external factors in a company/organization that related to opportunity and threat (David 2006). The next stages are as follow: 1) Identifying and studying deeply against each factor that becomes strength and weakness (internal factor), as well as opportunity and threat (external factor) of the social empowerment in order to improve food security at the borders of Indonesia-Malaysia; 2) Weighing each factor by using paired comparison method. Score is given on the paired comparison between two factors relatively in accordance with level of importance; 3) Ranking 1 to 4 on each internal factor, whereas 4 is the main strength, 3 is low strength, 2 is low weakness, and 1 is the main weakness; 4) Multiplying weight of each factor with the rank on each factor to obtain weighted score; and 5) Counting up all the weighted scores to obtain total weighted scores; 6) SWOT (Strengths-Weaknesses-Opportunities-Threats) matrix. After conducting both external and internal environmental analysis, it brings about opportunity and threat as external strategic factor, while strength and weakness are considered as internal strategic factor. Those factors are arranged in SWOT matrix in order to facilitate the alternative strategic formulation by adjusting between strength and opportunity (SO strategy), strength and threat (ST strategy), weakness and opportunity (WO strategy), as well as weakness and threat (WT strategy).

DISCUSSION OF RESULTS

Internal and external analyses were used to find out strategic factors, which affect on social empowerment to achieve food security at the North Sebatik Subdistrict. Internal analysis is used to study the strength and weakness factors, while external factor is used to study opportunity and threat factors.

Strength factor of the internal environment has total score 1.32 that includes farmers who produce foodstuffs by the highest score 0.36, the second strength are potency of plantation and agricultural yields by score 0.33, and followed by the factor of farmer group and association of the farmer group (GAPOKTAN) by score 0.24, social empowerment program by score 0.22, agricultural extension agent by score 0.12, and wide farming land (> 0.2 ha) by score 0.05.

Meanwhile, other factor of internal environment is weakness factor, which has total score 1.03, the weakness factors comprise of infrastructural facilities of the farm operations that have not completed yet by score 0.36, fluctuative yield of foods production by score 0.24, low diversification of foods by score 0.14, low independence of the farmers by score 0.08, and low participation of the farmers in social empowerment program by score 0.03.

Opportunity factor of the external environment has total score 1.34 that includes utilizing regional potency, which has not optimal and has not been developed by the highest score 0.39, and then expansion of the market (abroad) by score 0.36, increasing needs for food by score 0.33, governmental assistance by score 0.08, and District-owned Corporation (BUMDES) by score 0.08.
Table 1 – Weight and Rank of Internal Strategic Factor on the Process of Local Resources-Based Social Empowerment to Achieve Food Security at the North Sebatik Subdistrict

<table>
<thead>
<tr>
<th>Internal Strategic Factor</th>
<th>Rank</th>
<th>Weight</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths (S):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers produce foodstuffs</td>
<td>0.12</td>
<td>3</td>
<td>0.36</td>
</tr>
<tr>
<td>Potency of plantation and agricultural yields</td>
<td>0.11</td>
<td>3</td>
<td>0.33</td>
</tr>
<tr>
<td>Association of farmer group and GAPOKTAN</td>
<td>0.12</td>
<td>2</td>
<td>0.24</td>
</tr>
<tr>
<td>Wide farming land owned by the farmer (&gt; 2 Ha)</td>
<td>0.05</td>
<td>1</td>
<td>0.05</td>
</tr>
<tr>
<td>Social empowerment program</td>
<td>0.11</td>
<td>2</td>
<td>0.22</td>
</tr>
<tr>
<td>Agricultural extension agent</td>
<td>0.06</td>
<td>2</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>1.32</strong></td>
</tr>
<tr>
<td><strong>Weaknesses (W):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowerment program has not completely conformed to the needs of community/farmers</td>
<td>0.09</td>
<td>2</td>
<td>0.18</td>
</tr>
<tr>
<td>Incomplete infrastructural facilities of the farm operations</td>
<td>0.12</td>
<td>3</td>
<td>0.36</td>
</tr>
<tr>
<td>Fluctuative yield of foods production</td>
<td>0.08</td>
<td>3</td>
<td>0.24</td>
</tr>
<tr>
<td>Low participation of the farmers in social empowerment program</td>
<td>0.03</td>
<td>1</td>
<td>0.03</td>
</tr>
<tr>
<td>Low diversification of foods</td>
<td>0.07</td>
<td>2</td>
<td>0.14</td>
</tr>
<tr>
<td>Low independence of the farmers</td>
<td>0.04</td>
<td>2</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>1.03</strong></td>
</tr>
<tr>
<td><strong>External Strategic Factor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Opportunity (O):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilization of the regional potency has not optimal and has not been developed</td>
<td>0.13</td>
<td>3</td>
<td>0.39</td>
</tr>
<tr>
<td>Market expansion (abroad)</td>
<td>0.12</td>
<td>3</td>
<td>0.36</td>
</tr>
<tr>
<td>District-Owned Corporation (BUMDES)</td>
<td>0.08</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>Increasing needs for food</td>
<td>0.11</td>
<td>3</td>
<td>0.33</td>
</tr>
<tr>
<td>Governmental assistance</td>
<td>0.09</td>
<td>2</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>1.34</strong></td>
</tr>
<tr>
<td><strong>Threats (T):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of free trade (globalization) that lead to greater imported-foods</td>
<td>0.14</td>
<td>3</td>
<td>0.42</td>
</tr>
<tr>
<td>Influence of the elites in the empowerment process (politic)</td>
<td>0.03</td>
<td>1</td>
<td>0.03</td>
</tr>
<tr>
<td>Agricultural institution has not optimal</td>
<td>0.11</td>
<td>2</td>
<td>0.22</td>
</tr>
<tr>
<td>Ineffective communication between stakeholders</td>
<td>0.07</td>
<td>2</td>
<td>0.14</td>
</tr>
<tr>
<td>Conversion of farming land to non farming land</td>
<td>0.12</td>
<td>3</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>1.17</strong></td>
</tr>
<tr>
<td><strong>Source:</strong> Processing Primary Data, 2018.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Threats factor of the external environment include the implementation of free trade (globalization) that increase imported-foods by the highest score 0.42, conversion of farming land to non farming land has score 0.24, and then the agricultural institution has not optimal by score 0.22, ineffective communication between stakeholders has score 0.14, and influence of the elites in the empowerment process (politic) has score 0.03.

Total score of the strength is 1.32 and the weakness factor is 1.03. In order to find the value of x, total score of the strength factor (1.32) minus total score of the weakness factor (1.03) equals 0.29, which is so-called x value. Total score 1.34 is total score of the opportunity factor, and 1.17 is total score for threat factor. So that, y value can be determined by subtracting score of the opportunity factor (1.34) and total score of the threat factor (1.17) equals 0.17.

Based on analysis of internal and external factors along with AIE and AEE matrix, the next stage is arranging those factors in SWOT matrix. Through SWOT analysis, four cells of alternative strategy can be arranged, such as Strengths-Opportunities (SO) strategy that utilizing strength to fight for and take the opportunities, as well as Weaknesses-Opportunities (WO) strategy that minimizing weaknesses by utilizing opportunity, Strengths-Threats (ST) strategy uses strengths to overcome threats, and Weaknesses-Threats (WT) minimize weaknesses and avoid any threats. Alternative strategy of SWOT matrix.

Based on results of analysis, the selected strategy to improve social empowerment in order to achieve food security at the borders of Indonesia-Malaysia is Strengths-
Opportunities (SO) strategy, which utilize strengths to fight for and take the opportunities, such as (1) Developing local potency-based empowerment program; (2) Developing agricultural-based industry by developing derivatives of products to increase added value; (3) Optimizing performance of the extension; (4) Increasing quantity and quality of the crop products and horticulture. According to Widjajanti (2011), in order to improve the empowerment, community should not only develop the physical capital, but also improve quality of the human resources as requirements of success in performing the empowerment.

![SWOT Analysis Diagram](image_url)

### Table 2 – Strategic Analysis

<table>
<thead>
<tr>
<th>Analysis of Internal Environment (AIE)</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilization of the regional potency has not optimal and has not been developed</td>
<td>Farmers produce foodstuffs</td>
<td>Empowerment program has not completely conformed to the needs of community/farmers</td>
</tr>
<tr>
<td>Market expansion (abroad)</td>
<td>Potency of plantation and agricultural yields</td>
<td>Incomplete infrastructural facilities of the farm operations</td>
</tr>
<tr>
<td>District-Owned Corporation (BUMDES)</td>
<td>Association of farmer group and GAPOKTAN</td>
<td>Fluctuative yield of foods production</td>
</tr>
<tr>
<td>Increasing needs for food</td>
<td>Wide farming land owned by the farmer (&gt; 2 Ha)</td>
<td>Low participation of the farmers in social empowerment program</td>
</tr>
<tr>
<td>Governmental assistance</td>
<td>Social empowerment program</td>
<td>Low diversification of foods</td>
</tr>
<tr>
<td>Agricultural extension agent</td>
<td>Agricultural extension agent</td>
<td>Low independence of the farmers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis of External Environment (AEE)</th>
<th>Strategy SO</th>
<th>Strategy WO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities Strategy</td>
<td>Developing local potency-based empowerment program</td>
<td>Strengthening economic institution of the farmer by establishing cooperation</td>
</tr>
<tr>
<td>- Utilization of the regional potency has not optimal and has not been developed</td>
<td>Developing agricultural-based industry by developing derivatives of the product to enhance added value</td>
<td>Improving knowledge and skills of the community about foods diversification through extension and training</td>
</tr>
<tr>
<td>- Market expansion (abroad)</td>
<td>Developing the extension performance</td>
<td>Improving competence of the extension agent through education and training</td>
</tr>
<tr>
<td>- District-Owned Corporation (BUMDES)</td>
<td>Increasing quantity and quality of the crops product and horticulture</td>
<td>Developing local foods by establishing social awareness to improve food security</td>
</tr>
<tr>
<td>- Increasing needs for food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Governmental assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Agricultural extension agent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threats</th>
<th>Strategy ST</th>
<th>Strategy WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of free trade (globalization) that lead to greater imported-foods</td>
<td>Improving position of the farmer through market guarantee</td>
<td>Designing empowerment program through social mapping</td>
</tr>
<tr>
<td>Influence of the elites in the empowerment process (politic)</td>
<td>Developing superior commodities, which are comparative and competitive, particularly for crops</td>
<td>Improving institutional competence that could attract the stakeholders’ roles in the implementation of social empowerment</td>
</tr>
<tr>
<td>Agricultural institution has not optimal</td>
<td>Utilizing land use in accordance with layout and region</td>
<td>Integrated food policy to control the foodstuffs price and instability condition on subsystem of food security that include availability, distribution, and absorption of foods</td>
</tr>
<tr>
<td>Ineffective communication between stakeholders</td>
<td>Developing participative social empowerment program</td>
<td></td>
</tr>
<tr>
<td>Conversion of farming land to non farming land</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processing Primary Data, 2018.
CONCLUSION AND RECOMMENDATIONS

Analysis of internal and external factors on SWOT matrix is on quadrant I along with recommendation of the strategy Strengths – Opportunities (SO), which utilizing strength to fight for and take the opportunity.

The strategy of local resources-based social empowerment to achieve food security include: (1) Developing local potency-based empowerment program; (2) Developing agricultural-based industry by developing derivatives of the product to enhance added value; (3) Optimizing the extension performance; (4) Increasing quantity and quality of the crops product and horticulture.

The government should cooperate with the related stakeholders to facilitate the community in developing the available potency, and build the required means and infrastructures to support the achievement of food security, particularly at the borders.

REFERENCES

SOCIAL CONFLICT OF INDONESIAN BORDER COMMUNITIES AND THE DEMOCRATED REPUBLIC OF TIMOR LESTE: A CASE STUDY OF BOUNDARIES IN NORTH CENTRAL TIMOR AND OECUSSE DISTRICTS

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ABSTRACT
Border is the gateway of the state which at the same time becomes an international door between one country and another; therefore it is appropriate if the border region becomes the face of the country concerned. However, this has not yet been seen in the fact that the people in the North Central Timor Regency are directly adjacent to the Republic of Timor Leste's Democratic Republic, due to the fact that various social conflicts have taken place there. Therefore, this paper examines the dynamics of the conflict that occurred in the border region between Indonesia and the Democratic Republic of Timor Leste in relation to the boundary conflict between the two countries. Using the theory of social conflict put forward by Ralf Dahrendorf, researchers tried to explore the reality of social conflict in the border region, by using a case study approach and qualitative methods, it was concluded that the reality of existing social conflicts based on interviews found indications of structural conflict, and functional because of conflicts that occur because the government does not involve community elements in issuing policies so that the determination of boundaries is not in accordance with the expectations of the community, causing conflict between the two groups of people in the border area, namely the people in six villages in North Central Timor Regency community in Oecusse District.

KEY WORDS
Social Conflict, Structural Conflict, Functional Conflict

The Unitary State of the Republic of Indonesia is very famous for a thousand islands stretching along its sovereign territory consisting of 17,508 islands, both small islands and very long border perimeter with neighboring countries. One of the territories of the Republic of Indonesia which is in the form of land and directly adjacent to other countries is the North Central Timor Regency which is part of the province of East Nusa Tenggara.

East Timor before becoming a sovereign country, this region became part of one of the twenty-seven provinces in Indonesia and became part of Indonesia since 1975, under the control of President Suharto. But East Timor finally split and declared independence in 1999 through a poll conducted on 30 August 1999 under the supervision of the United Nations Mission in East Timor (UNAMET). After separating from the Republic of Indonesia the interim administration was run by the United Nations through the United Nations Transition in East Timor (UNTAET) until the transfer of sovereignty in 2002. After the transfer of full sovereignty by the United Nations Transition in East Timor (UNTAET) to the new government of East Timor on 20 May 2002 the people of East Timor hold a government as an independent State, the government of the Republic of Timor Leste Democratic Republic of Indonesia (RDTL) as the implementation of the people's mandate certainly seeks to maintain all territories both land, sea and air. One of the problems faced by RDTL is the issue of setting borders, especially the border on land with the Unitary Republic of Indonesia (NKRI). This is because the two countries' land borders consist of two parts, namely the border around Oecusse,
which is an enclave that is part of Timor Leste’s sovereignty in West Timor which is the territory of the Republic of Indonesia, and separated about 60 km from its parent region, both borders along 149.9 km. which divides the island of Timor into West Timor and East Timor in the East, so that the determination of territorial boundaries is the main goal that must be resolved for good relations between the two countries of Indonesia and the Democratic Republic of Timor Leste.

A long history of conflict issues the boundary between the two countries of Indonesia and the Democratic Republic of East Timor can be grouped into five periods, there is a long period since the time of colonialism to the present. The grouping of the period can be described as follows. First: the period of Colonialism. This period began in 1701-1945 where at that time the Dutch colonized Indonesia and the Portuguese occupied East Timor. During this period there was a dynamic division of regions between the two nations, as a limit for natural resource management, so that the two countries agreed to carry out delimitation and demarcation, which was known as the A Convention for Demarcation of Portuguese and Dutch Dominions on the Island of Timor, which was signed On 1 October in the Netherlands, which did not go well, a second ensuing negotiation came to be known as the Permanent Court of Arbitration (PAC), which was made in 1914. This period ended with the independence of the Indonesian people in 1945, and the border region changed the name of the border between Indonesia and Portuguese Timor. Second: Post-Independence Indonesia. During this period Indonesia was independent and had the right to regulate and manage its entire territory, but at this time the East Timor Island was still under Portuguese Colonialism so that the area was known as Portuguese Timor. At that time an attempt was made to demarcate specifically in the Oecusse region carried out by Indonesia and Portuguese Timor. Third: Integration of East Timor. This period occurred in 1975-1999 where in this period the ownership of the area changed from Portuguese Colonial to Indonesian, starting with the Carnation Revolution by the Fretilin which caused the Portuguese to leave East Timor, followed by the integration of East Timor into a part of Indonesia as a province 27th at that time. Then the existing territorial boundary has changed to the provincial boundary. At this time there was no conflict between communities because both Indonesia and East Timor were still part of Indonesia. During this period, efforts were also made by Indonesia to determine its territorial boundaries but were not recognized by the International Boundary or International Recognition. Fourth: Pre-independence, which began after the East Timor reverendum in 1999-2002. It was at this time that a new country was born, facilitated by the United Nations through UNAMET (United Nation Mission in East Timor), so that everything related to East Timor was represented by UNTAET, including bilateral relations with Indonesia to the establishment of national borders. During this time UNTAET and Indonesia formed a Joint Border Committee (JBC), to determine the border areas of the two countries. Fifth: Independence as a Sovereign State, starting from 2002 to the present. Confirmation of the territorial boundaries was again made by the two countries because UNTAET no longer had a role as a representative of the East Timorese government, because East Timor was officially independent as a sovereign country and changed its name to the Democratic Republic of East Timor. or the Indonesian Democratic Republic of Timor Leste. the efforts of both countries to determine the boundaries of the establishment of sub-committees that are at the technical level affiliation borders of the country called by the technical sub-committee of Border Demarcation Regulations or abbreviated TSC-BDR.

Up to this time the issue of social conflict borders between Indonesia and the Democratic Republic of Timor Leste, especially in the North Central Timor District with the Oecusse District there are six points, among them the First; Bijaelsunan / Oelnasi / Crus, part of Manusasi Village, West Miomaffo District, which has Unresolved segment status because the status of land in this area is still sterile and should not be controlled by both countries, both Indonesia and the Democratic Republic of East Timor. Second; Tubu Banat / Oben, located in Naulat and Tubu Village, Bikomi Nilutul District. Third; Nefo Nunpo is located in Haumeniana Village, Bikomi Nilutul District. Fourth; Pista is located in the village of Inbate and Nainaban, which is located in the Bikomi Nilutul District. Fifth ; Subina located in the village of Inbate and Nainaban. The boundary problem in the Bikomi Nilutul District is
included in the category *Unsuveyed segment* because the Indonesian people in Bikomi Nilulat consider that this land is ulayat land, which is unilaterally taken by Timor Leste (Oecusse District), the area referred to is ± 14 Km which, if the imposition of state borders is based on the 1904 treaty between Portuguese and Dutch colonials. The people claim this area because they have customary agreements that have occurred before the Dutch Colonial and Portuguese colonized the island of Timor. Social conflicts that occur in various border areas, including the sale of fuel oil, because the price offered in Oecusse is very high, and there are illegal border crossers, but the most prominent of all forms of social conflict is the establishment of boundaries between the two countries, which can affect other social problems.

Referring to the concept put forward by Ralf Dahrendrof that the reality of conflicts that occur in community groups is a common thing to happen in order to create life stability, and structural aspects in a society where each component is mutually influential, then the conflict or consensus according to Dahrendrof can be solved by rescue valves that can come from inside groups and also outside groups involved in the conflict. Rescue valves that are able to bridge the issue of border conflict, because they see the highest authority and power that exists in the community and the district government of North Central Timor because the community understands the problem of conflicts that occur in their own territory, without neglecting the participation of other parties to take part in the problem conflict between the two countries.

Based on the description above, the focus of this research is to look at the dynamics of the conflict of the Indonesian border community with the Republic of Timor Leste, the case study in North Central Timor District and Oecusse District.

**METHODS OF RESEARCH**

The research approach used is qualitative research, with case study methods. In addition to the case study method there are still other methods such as experiments, surveys, historical, and documentary information analysis but researchers are more interested in the case study method. The case study method was chosen because it was very helpful for researchers in analyzing the case to be studied because the case study method helps researchers in defining the case to be investigated, determining that the data collected is really relevant, and what should be done in relation to the collected data.

The focus of the research carried out in this paper is to look at the dynamics of social conflict, and the conflict process and see the role of traditional leaders, central and regional governments in overcoming social conflicts on the border of North Central Timor Regency, especially at several points of potential conflict, namely in Bijaelsunan, Tubu, Nefo Nunpo, Pistana, Subina, Bah Ob / Nelu, with the Democratic Republic of East Timor, especially the Oecusse District.

This research emphasizes how the process of social conflict occurs, then how to see the actors behind social conflict, and what solutions are offered to resolve border social conflicts. The research site is the place where the observation object of the research object will be examined by researchers. The site of this study is the six points of conflict in the North Central Timor Regency, namely: Bijaelsunan / Oelnsi located in Manusasi Village, West Miomafo District, North Central Timor Regency. Pistana is located in Sunkaen Village, Bikomi Nilulat District, North Central Timor Regency. Subina, located in Inbate Village, Bikomi Nilulat District, North Central Timor Regency. Nelu / Bah Ob located in Sunsea Village, Naibenu District, North Central Timor Regency.

The stages of the research are three stages: *first stage*: literature review of various types of research that have been carried out in the border areas mentioned above, both from individual researchers, students and survey institutions. *the second stage*: analyzing and identifying the components and aspects related to social conflict issues that are examined and integrated with the data obtained in the field. *the third stage*: describes the problems of social conflicts that occur and includes various kinds of new elements that have a reciprocal relationship with the reality of conflicts that occur in border communities.
RESULTS OF STUDY

Dynamics Of Conflict In Indonesia And Timor Leste Borders. Conflicts that occurred on the border of North Central Timor District with Oecusse District were inter-community conflicts in both border regions between 2012-2013. The conflict that occurred in 2012, exactly on the 31st, happened to strike each other between the people of Haumeniana Village and the Pasabbe community, which was triggered by the construction of Customs Service Offices, Immigration and Quarantine Offices (CQI), East Timor in the disputed neutral zone. All the trees in the area were cut down by the East Timorese side, and this action triggered a mutual attack between the two border communities, before finally being disbanded by the TNI and UPF (East Timor Border Security Forces).

After a year of running precisely in 2013 there was also a conflict between the two border communities, triggered by the construction of a new road carried out by the East Timorese, which according to the people of North Central Timor the road had crossed the NKRI as far as 500 meters and also passed the free zone as far as 50 meter. While based on an agreement between the two countries in 2005, the two countries did not have the rights to the designated free zone. In addition to building new roads, the East Timorese government also damaged border poles, damaged the gates of the Indonesian guard post and also damaged nine ancestral graves of the Nelu community in North Central Timor Regency.

The reality that occurred on the ground was that the East Timorese people built houses and settled in the disputed areas and this was the lack of good response from the Indonesian border community because the East Timorese were deemed not to have carried out the agreements that had been implemented in 2005, between the two countries may not use free zones.

Another problem that occurs is the closure of the traditional market (international market), by the TNI serving on the border precisely on 12 May 2018 because there are people who were arrested in Oecusse for entering Timor Leste through illegal channels, resulting in the economy in the border region become obstructed due to the incident. Based on the results of interviews with several community leaders in Haumeniana Village it is known that this kind of incident is not the first time it has happened but has repeatedly happened. Therefore, issues related to borders need to get important attention in establishing a brotherhood between communities in the border regions of both Indonesia and the Democratic Republic of Timor Leste.

The Role of Indigenous Families and Central and Regional Governments. There are two categories of boundary conflicts between Indonesia and the Democratic Republic of Timor Leste, namely unresolved segment and elemental segment. The area included in the unresolved segment in North Central Timor Regency is the Manusasi Village precisely in Bijaelsunan, East Miomaffo District. The status of the land is sterile and cannot be managed by both parties, both Indonesian and Timorese people, and this land has not been measured together. The community is still questioning the 489 land area, which is 2.7 km long, or an area of 142.7 Ha in the area. The Indonesian side (Manusasi community) wants the national borders to start from Tugu Bijaelsunan, follow the ridge to Oben, while the East Timorese (Oecusse people), want the border to start from Tugu Bijaelsunan following the Miomaffo River Valley, to Oben (Kolne, 2017). This difference of opinion is based on the customary agreement that has taken place between the two parties in ancient times, so that until now the problem has not been resolved with certainty and clearness. Whereas the areas included in the category are the unsuveyed segmentSubina segment up to the Oben, which has an area of ± 14 Km, which is actually for the border communities of Indonesia, this land becomes the customary rights of the border community of North Central Timor Regency, Bikomi Nilulat District which includes 6 Villages namely: Inbate, Sunkaen, Nainaban, Haumeniana, Nilulat, and Tubu (Kolne, 2017). The people claimed that their territory was taken over by the government of Timor Leste, if they used the division of the border area based on the Dutch and Portuguese colonial treaties. So far the efforts that have been made between the government and the people of the two countries are by holding ameeting.
Technical Sub-Committee on the Border Demarcation Regulation, which discusses technical matters related to border issues and the last agreement made in 2017 includes the following:

- Strengthening the rope brotherhood in order to preserve the values of customs that have been instilled by the ancestors in the philosophy of Ansaof Mese Atoni Pah Meto Nekaf Mese;
- Support the establishment of peace on the boundary as stipulated in the customary oath by the ancestors and expected by both countries;
- Establish cooperation in order to improve the dignity of the community in the social, cultural and economic fields;
- Recognize and strengthen the customary boundaries between the Kingdoms of Liurai Sila, Sonbai Sila, Beun Sila, and Afo Sila according to their oath;
- Inter-state boundary lines do not become a point of dispute as they have been so far, but rather become a social point and point of brotherhood;
- The results of the meeting need to be socialized to the entire community of both countries;
- Encouraging the governments of the two countries to facilitate a similar meeting in 2018 in Ambenu, technical matters related to the attendance of the participants so as not to be complicated.

The results of the study indicate that there are indications that the main cause of the conflict is the establishment of rules regarding the boundary between the two countries, namely Indonesia and the Democratic Republic of East Timor. Using Ralf Dahrendorf's conflict theory of conflict, some basic conclusions can be drawn, namely:

First, the conflict that occurred at the border of North Central Timor and Oecusse Districts is a functional structural conflict because the determination of policies related to borders is very detrimental to the local community. The government policy stipulates the division of national borders based on inheritance from Portuguese and Dutch colonials when colonizing the island of Timor.

Second, the people of North Central Timor Regency are guided by customary law (unwritten law) where an agreement has been made between the king of Miomaffo (one of the great kings in the District of Central Timor with King Amu who is from Oecusse, when the marriage occurred in ± 1700.

Third, coordination and discussion with border communities, especially those in North Central Timor District about the border to get the implication from the community before making a bilateral agreement between the two countries.

**CONCLUSION**

Based on the discussion on the border social conflict in North Central Timor District with Oecusse District, it can be concluded among others are:

Basis of the agreement used as the setting of the boundary between the two countries that used the 1904 treaty which was the result of inheritance from the Portuguese and Dutch colonial governments should again be reviewed, taking into account the customary agreements that have taken place between the two a community group around the border regions of the two countries.

The social conflict that occurred in North Central Timor and Oecusse Districts was a structural conflict, in which conflicts involving the communities of the two countries were due to legal products caused by the improperly targeted central government that caused prolonged conflict in the midst of at the border.

Conflict is also a functional conflict in which the conflict also occurs due to the dysfunction of the implementation of the duties and responsibilities of the central government and its coordination with the very weak regional government, so that there is the potential of throwing responsibilities from the regional government to the central government.

The existence of a very complicated bureaucracy causes overlapping responsibilities for managing border issues.
Recommendations and proposals given by the regional government as an intermediary for the community to the central government have not been followed up firmly.

Weak central government attention to the management of conflict issues borders between the two countries, even though the border itself has a very large influence where the border region is an international entrance.

Based on the perspective of the cultural approach of the two communities which are on the border, the two countries have the same background of one descendant with the same cultural background and customs.

Monitoring, securing, controlling the parties who violate the results of the convention with neighboring countries.

Make important improvements to the relevant legal / bilateral products so that they do not have an impact on political, economic, cultural, and security issues.

RECOMMENDATIONS

Based on some of the conclusions above, there are some recommendations that need to get serious attention in solving the problems of social border conflicts between Indonesia, especially in North Central Timor District with the Democratic Republic of Timor Leste or Oecusse District, among them The following:

The Indonesian government in this case the central government needs to negotiate with the government of the Republic of East Timor in resolving the boundaries of the social conflict that occurred in 6 villages in the North Central Timor Regency, whose status is still in dispute.

A dialogue is needed to listen to the input and suggestions from the community at the village level, so that the resolution of social conflicts on the borders of the two countries is right on target, taking into account local wisdom or unwritten agreement that has occurred between border communities.

The need for the construction of facilities and infrastructure in the border region because the conditions in the border area in six villages in North Central Timor Regency are very alarming.

There needs to be budget support both from the central government and the regional government to develop the border area to become a state and international gateway.

There needs to be an improvement in the applicable legal products related to the establishment of boundaries so that there will no longer be victims of border communities between the two countries.

REFERENCES

DOI https://doi.org/10.18551/rjoas.2018-09.03

SPATIAL DYNAMICS AND DETERMINANT OF FOREIGN DIRECT INVESTMENT IN INDONESIA: A COMPARATIVE STUDY OF PRE AND POST AUTONOMOUS AREA, 1990-2014

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ABSTRACT
The purpose of this study is to analyze determinant of foreign investment in Indonesia for the period of 1990 to 2014, before and after the implementation of regional autonomy. The analysis method is using a panel data regression throughout Indonesia with provincial analysis unit, Entrophy Theil Index and GIS analysis, which is divided into two intervals ie, before the 1990-2000 regional autonomy, and after the 2001-2014 regional autonomy. Factor that affect the determinant of foreign investment in Indonesia are Market Size indicators (GDP of province and population of province), Resources indicators (labor force and human capital) and Competitiveness indicators (installed electric power, long road, wages, and level of economic openness). The analysis result using GLS fixed-effect method showed that only two significant indicator of the determinant of foreign investment which are Resources and Competitiveness indicator. The results of the analysis before and after the regional autonomy shows that the pattern of spread of foreign investment between the provinces in Indonesia tends to be spread with the dispersal patterns shaped "U" upside down. This reflects that the spatial distribution pattern of foreign investment uneven. These findings provide the conclusion that decentralization has not had a positive impact on the development of foreign investment in Indonesia.

KEY WORDS
Market size, competitiveness, resources, regional autonomy, investment.

In terms of regional development, investment plays an important role to drive economic growth. Investment generally, both in the form of domestic investment (PMDN) and foreign investment (PMA), requires the presence of a healthy climate as well as ease and clarity of investment procedures. Regional economic development dynamics have so far been driven by domestic consumption, but it should also be driven by investment and export. Thus, it requires a conducive investment climate (Kuncoro, 2004). According to Tambunan, (2006), a conducive investment climate is a climate that encourages a person to make investment with the lowest cost and risk that are possible, yet with high long-term benefits. In addition, there are various factors that affect whether the investment climate in Indonesia is good. These factors are related to not only its political and social stability, but also economic stability, basic infrastructure conditions (electricity, telecommunications, road and port infrastructure), well-functioning financial sector and labor market (including labor issues), regulation and taxation, bureaucracy (in terms of time and cost that are created), good governance issues including corruption, consistency and the certainty of government policy.

Data of the last five years from 2011-2015 show that the inflow of foreign investment in Indonesia was very striking. Java Island attracted 57 percent of the accumulated foreign investment worth US$43542.23 million. On the other hand, other areas such as Borneo Island only reached 14 percent valued at US$ 7987.94 million. Sumatera Island reached 13
percent worth US$ 7733.98 million and Sulawesi Island reached 5 percent or US$ 3424.38 million (see Table 1).

Table 1 – Development of Foreign Direct Investment Realization by Island in 2011-2015 (US$ Million)

<table>
<thead>
<tr>
<th>No</th>
<th>Region</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sumatera</td>
<td>2076.56</td>
<td>3729.29</td>
<td>3395.35</td>
<td>3,844.6</td>
<td>3,732.8</td>
<td>7733.98</td>
</tr>
<tr>
<td>2</td>
<td>Jawa</td>
<td>13234.54</td>
<td>13659.92</td>
<td>17326.38</td>
<td>15,436.7</td>
<td>15,433.0</td>
<td>43542.23</td>
</tr>
<tr>
<td>3</td>
<td>Bali dan Nusa Tenggara</td>
<td>952.65</td>
<td>1126.55</td>
<td>888.87</td>
<td>993.4</td>
<td>1,265.1</td>
<td>3513.87</td>
</tr>
<tr>
<td>4</td>
<td>Kalimantan</td>
<td>1918.85</td>
<td>3208.65</td>
<td>2773.4</td>
<td>4,673.6</td>
<td>5,842.9</td>
<td>7987.94</td>
</tr>
<tr>
<td>5</td>
<td>Sulawesi</td>
<td>715.26</td>
<td>1507.03</td>
<td>1498.16</td>
<td>2,055.7</td>
<td>1,560.4</td>
<td>3424.38</td>
</tr>
<tr>
<td>6</td>
<td>Maluku</td>
<td>141.54</td>
<td>98.77</td>
<td>321.23</td>
<td>111.8</td>
<td>286.2</td>
<td>583.2</td>
</tr>
<tr>
<td>7</td>
<td>Papua</td>
<td>1345.14</td>
<td>1234.47</td>
<td>2414.16</td>
<td>1,414.0</td>
<td>1,155.7</td>
<td>3080.37</td>
</tr>
<tr>
<td></td>
<td>Total Number</td>
<td>19474.53</td>
<td>24564.67</td>
<td>28617.55</td>
<td>28529.7</td>
<td>29275.94</td>
<td>69865.97</td>
</tr>
</tbody>
</table>

Source: Indonesia Statistic in period of 2011-2015, reprocessed.

Java in general is more attractive to foreign investors compared to other regions because it has a number of attractiveness such as the availability of adequate facilities and infrastructure, abundant labor, as well as relatively better transportation and information access. The development of investment for Foreign Direct Investment (PMA) which has been approved in the last five years (2011-2015) shows that FDI was still concentrated in Java, especially in DKI Jakarta, West Java, Banten and East Java (see Table 2).

Table 2 – Development of FDI Realization in Java Island in 2011-2015 (US$ Million)

<table>
<thead>
<tr>
<th>No</th>
<th>Region</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DKI Jakarta</td>
<td>4,824.08</td>
<td>4107.72</td>
<td>2591.13</td>
<td>4,509.36</td>
<td>3,619.39</td>
<td>19,651.69</td>
</tr>
<tr>
<td>2</td>
<td>Jawa Barat</td>
<td>3,839.36</td>
<td>4210.70</td>
<td>7124.88</td>
<td>6,561.95</td>
<td>5,738.71</td>
<td>27,475.60</td>
</tr>
<tr>
<td>3</td>
<td>Jawa Tengah</td>
<td>174.96</td>
<td>241.51</td>
<td>464.30</td>
<td>463.36</td>
<td>850.40</td>
<td>2,194.53</td>
</tr>
<tr>
<td>4</td>
<td>DIY</td>
<td>2.41</td>
<td>84.94</td>
<td>29.58</td>
<td>64.89</td>
<td>89.11</td>
<td>270.92</td>
</tr>
<tr>
<td>5</td>
<td>Jawa Timur</td>
<td>1,312.04</td>
<td>2298.78</td>
<td>3396.26</td>
<td>1,802.51</td>
<td>2,593.38</td>
<td>11,402.96</td>
</tr>
<tr>
<td>6</td>
<td>Banten</td>
<td>2,171.69</td>
<td>2716.26</td>
<td>3720.23</td>
<td>2,034.63</td>
<td>2,541.97</td>
<td>13,184.78</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12,324.54</td>
<td>13659.92</td>
<td>17326.38</td>
<td>15,436.69</td>
<td>15,432.96</td>
<td>74,180.48</td>
</tr>
</tbody>
</table>

Source: Indonesia Statistic in period of 2011-2015, reprocessed.

The fact that foreign direct investment is concentrated in Java Island has become interesting when Indonesia is developing regional autonomy policies. When local governments are expected to be self-sufficient in developing their regions, the reality shows that only less than ¼ (quarter) of the regions are economically self-sufficient because these regions happen to have natural resources. However, the rests are still facing difficulties in meeting the needs for capital and investment to carry out economic development in their regions (Kurniawan, 2002).

Regarding the broad implementation of regional autonomy (Otda) since 2001, after the change of the New Order regime to the Reform Era, there are many hopes for changes and it becomes a turning point to change the relationship pattern from dominant-dependent to mutually interdependent pattern. The spirit to change the relationship pattern among these regions must be promoted by both the central and regional governments, supported by systematic and serious efforts to achieve it. If the inter-regional relationship pattern has changed to become mutually interdependent, all regions will contribute optimally to the national economic development and economic growth, and at the same time minimizing inter-regional economic disparities.

Nonetheless, after sixteen years of regional autonomy, equity in development has not yet been achieved; inter-regional development disparities continue to occur. Without any correction, inter-regional development disparities will continue to occur. Java and Sumatera still get more than 2/3 GRDP distribution of the total national GDP. Inter-regional development disparities are still occurring in Indonesia because its economic activity tends to be geographically concentrated in the Western Region of Indonesia in the last 5 decades. BPS data in 2015 showed that spatial economic activity was still dominated by provinces in
Java Island which contributed 58.27 percent, followed by Sumatera Island of 22.37 percent, but the Eastern Region of Indonesia (KTI) only contributed the rest of about 17.96 percent. Table 3 below shows the detailed roles of regions/islands in the composition of the national GDP.

Table 3 – The Roles of Regions/Islands in National GDP Composition (Percent)

<table>
<thead>
<tr>
<th>Regional</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatera</td>
<td>23.5</td>
<td>23.74</td>
<td>23.81</td>
<td>23.63</td>
<td>22.37</td>
</tr>
<tr>
<td>Jawa</td>
<td>57.6</td>
<td>57.65</td>
<td>57.99</td>
<td>58.51</td>
<td>58.27</td>
</tr>
<tr>
<td>Bali dan Nusa Tenggara</td>
<td>2.6</td>
<td>2.51</td>
<td>2.53</td>
<td>2.58</td>
<td>3.38</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>9.6</td>
<td>9.30</td>
<td>8.67</td>
<td>8.21</td>
<td>7.99</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>4.6</td>
<td>4.74</td>
<td>4.82</td>
<td>4.97</td>
<td>5.01</td>
</tr>
<tr>
<td>Maluku dan Papua</td>
<td>2.1</td>
<td>2.06</td>
<td>2.18</td>
<td>2.10</td>
<td>2.98</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Indonesia Statistic in period of 2011-2015, reprocessed.

Foreign Direct Investment (FDI) is defined as long-term investments made directly by foreign investors in a business field of domestic citizens. The investment in the form of FDI is a relatively stable investment in a long-term period. There are several types of FDI as follows: 1) FDI vertical. FDI made vertically involves geographical decentralization of a company's production flow. The company will carry out its production activities in a country with low labor costs, then the products produced in that country will be brought back to the host country. For example, a product whose production process is capital intensive will move its production process to a country that is rich in capital. 2) Horizontal FDI. FDI made horizontally will produce the same products in several countries. The motivation of this type of FDI is to search for new markets. The benefit of this type of FDI is efficiency in transportation costs because the production site is closer to its consumers.

The decision of foreign investors to make investment in the form of FDI compared to other forms of investment in a country is influenced by several conditions of the host country of FDI (pull factor) that may include market conditions, resources, competitiveness, trade and industry-related policies as well as FDI policies. In addition, there are also the conditions and strategies of foreign investors (push factors) that make investment (Kurniati, Prasmuko, & Yanfitri, 2007). According to Ohlin, traditional trading theory considers FDI as a form of international capital movement. The presence of inter-country relative differences of labor and capital may cause differences in rate of return of capital as stated in the interest rate. This encourages capital movement from rich to poor countries.

Spatial Dynamics of Investment. A study by Sarungu, (2008) in Indonesia has interesting findings in terms of the spatial distribution pattern of investment by island and archipelago categories. Although Sumatera, Borneo, and other islands in Indonesia show changes in the distribution patterns in the direction that tends to spread, Sulawesi Island shows a pattern that tends to be concentrated. Even Java Island, which becomes the largest investment attractiveness in Indonesia because of both government policies and economic infrastructure facilities that are more adequate compared to other regions, shows the distribution pattern of investments that tends to be concentrated. This way, it is time to make efforts in order to achieve equitable distribution of development activities, and the results are also seen from the perspective of the islands and archipelago, instead of only seen from the perspective of the Western Region (KBI) and Eastern Region (KTI) of Indonesia.

Kang, An, & In, (2008) conducted a study in China. The study results show that regional policy on FDI in China has had an impact, so the FDI disparity decreased from 24% in 1989 to 13% in 2005; indicating that the regional policy on the inflow of FDI becomes less influential in China, resulting in regional FDI disparity. It is necessary to have changes in regional preferential policy that dominates all other factors in reducing regional disparity.

A study by Castro, (2007) in Argentina indicates the importance of the effect of regional size (in this case it is shown by the weighted average of distance GPP/ the number of citizens in the neighboring provinces) and domestics as well as the regional public
infrastructure (for example paved roads) in determining the spatial distribution of FDI. A study by Hao Huang and Y.H. Dennis Wei, (2011) in China shows that institutional, transportation, and agglomeration are the main factors determining the location of FDI in China. However, Guangdong, Pan-YRD and BRR have different factors in determining its concentration. Institutional is the most influential factor on the investments in Guangdong; transportation is the most influential factor in Pan-YRD, and agglomeration affects most of the investments in BRR area. This study shows the importance of certain policies that are appointed by the central government. A comparison of spatial and temporal changes of FDI in Guangdong, Pan-YRD and BRR shows the importance of national government incentives, especially in the early stages.

A study by Firdaus, (2010) in Indonesia shows that there are several spatial determinants of foreign direct investment inflows, namely: market size, economic development level, infrastructure, and educational attainment level; these are statistically significant in attracting foreign investors to come to a province. Investment is proven to play an important role in overcoming regional disparity issues. Government should prioritize some efforts to attract foreign direct investment to the province. Some of the remote areas and eastern parts of Indonesia should be given larger incentives because regional policies have not been effective in attracting foreign investors. These policies include preferential policies in taxation, preferential policies in land use, increase in government and local investment in expanding foreign investment in the remote and eastern parts of Indonesia. The central government should pay more attention to the development of infrastructure and improvement of educational programs in the remote and eastern parts of Indonesia.

Determinants of Investment: A study by Chidlow, Salciuviene, & Young, (2009) in Poland shows that, first, regional autonomy in Poland has relatively made a difference in the attractiveness for foreign direct investment, regional potential, and economic development. Second, governments should focus on both short-term and long-term measures that are designed to strengthen economic fundamentals and institutional systems. Local governments with the highest attractiveness for FDI will be suggested to focus on efforts to improve their investment climate through political, economic and institutional reforms in their regions.

Ang, (2008) examined the determinants of FDI in Malaysia. The results are consistent with the findings of Asiedu, (2002) and Fedderke & Romm, (2004), where greater trade liberalization may be conducive to foreign direct investment. FDI inflows react negatively to the increase in corporate tax rates. This result is in accordance with the opinion that reducing corporate tax rates is an effective policy instrument to increase FDI. Interestingly, macroeconomic uncertainty seems to encourage FDI inflow, this way, the study results imply that the composition of FDI may have shifted towards a more speculative foreign investment that is not necessarily pro-growth.

Kok, (2009) conducted a study in developing countries. The results show that appropriate domestic policies will help attract FDI and maximize its benefits, and at the same time also remove obstacles to local business. Foreign corporations, similar to those in the host country, search for a good business environment. Foreign corporations tend to look for regions that offer government incentives, transparency and accountability. Therefore, it is essential for local governments and companies to provide a credible and effective framework for the society, environment, and the local citizens’ lives.

A study by Chiang, (2010) was carried out with a case study in China. The results confirm the compatibility with the theory, i.e. the presence of positive effect of economic infrastructure and agglomeration on FDI. Econometric model also shows that the political capacity of provincial government may become an important factor that influences the inflows of FDI. Apart from increasing the resolution of the theory of FDI location to local level, this study also discusses the importance of political considerations in terms of international production. Further, the findings also indicate that development level is positively significant in model 2 but not in model 1. The measurement of infrastructure (transportation and human resources) has a positive and significant effect to attract FDI inflow. Empirical results confirm the positive effect of infrastructure and agglomeration on FDI inflows. Econometric model
shows that the political capacity of provincial government may become important to influence the inflow of FDI in China.

A study conducted by Liu, Daly, & Varua, (2012a) in China shows a diverse picture, for example we found that market size becomes a priority for FDI inflows into coastal and northeastern regions, while the level of openness is the most important determinant of FDI inflows in the central regions. The quality of labor does not have any impact in the central region but has a positive impact on the FDI inflows in the coastal and northeastern regions. This result has important implications for Chinese regional policymakers as it can help them identify the types of industries that respond specifically as well as identify any regional socioeconomic characteristics that are more attractive for FDI inflows.

Rho, T, NanJoo, P. (2012) conducted a study in Korea with an analysis unit of provinces and found that the location characteristics (endowment) of each region at the time of FDI inflow influence the final decision regarding location selection. In addition, a study by Liu, Daly, & Varua, (2012b) in China revealed that market size, labor quality, and government incentives to attract FDI have a positive and significant effect on FDI inflows. On the other hand, high labor costs reduce the attractiveness of an area. Physical infrastructure in the central regions is an important factor to attract FDI because a large number of low-tech, labor-intensive FDI from new industries are concentrated in the central region.

A study by Y. Liu, Daly, & Varua, (2013) suggests that regional disparities into FDI inflows have important policy implications because there is relationship between FDI inflows and China’s economic growth. This study found that the determinants of location in the coastal and northeastern areas are quite similar. In addition, the study also revealed that market size, labor quality, and government incentives to attract FDI have a significant and positive effect on FDI inflows, while high labor costs reduce the attractiveness of a region. Physical infrastructure in the central regions is an important factor to attract FDI.

A study by Trinh, (2013) in Vietnam has contributed to the literature on agglomeration economies, location and foreign direct investment in various aspects. Empirical findings on agglomeration economies are useful for provincial governments in designing policies to attract more foreign direct investments. The results of the study also indicate that provincial characteristics are an important determinant in attracting foreign investors. A study by Fitriani, Kakinaka, & Kotana, (2014) has some important implications on public policies intended to attract foreign direct investment in certain provinces in Indonesia. Infrastructure development is needed to increase FDI inflows; the government should pay more attention to the quality of infrastructure development for foreign companies. Apart from that, regarding the fact that a large government spending may drive down FDI inflows due to crowding-out effect, the government should limit its intervention and promote private as well as and private economic activities.

Theil’s Coefficient (Entropy Theil Index). To measure variation and diversity of the average investment allocation, coefficient of Theil Entropy Index was used (Kuncoro, 2013). The greater the value, the higher the disparity of investment distribution by province or region. This shows that the distribution pattern is increasingly concentrated in a particular province or region. On the other hand, if the value is closer to 0, the distribution pattern tends to spread more.

The calculation of the coefficient of Theil Entropy Index was carried out in the following way:

Variation of investment allocation among provinces in all regions in Indonesia:

\[ I(y) = \sum_{i=1}^{N} y_i \log \frac{y_i}{N} \]

\( I(y) \) is the overall entropy index of the spatial disparity of investment, \( y_i \) is the province’s share of the total investment in Indonesia, \( N \) is the total number of provinces in Indonesia.

Geographic Information System (GIS). Geographic Information System (GIS) is a specialized information system that manages data that contain spatial information (spatial
reference), or in a more narrow sense, it is a computer system that has the ability to build, store, manage and display information that is geographic reference, for example data that are identified by location in a database. Another source mentions that GIS is an information system designed to work with spatial reference or geo-coordinated reference data. In other words, GIS is a database system with special ability to handle spatial reference data along with a set of operations (Baba, B and Wiradisastra 2000).

**Decrease in Estimation Model.** The model used in this study was panel data and translog model (Sun & Tong, Wilson, 2002) written as follows:

\[
\ln Y_{it} = \alpha_i + \sum \beta_k \ln X_{it} + \varepsilon_{it}
\]

Where \( Y_{it} \) is the value of investment, \( X_{it} \)'s is the the determinant of investment location, \( \alpha_i \) is individual effect that is constant between t time and specific for each unit of cross section i. \( i = 1,2, ..., n \) refers to the unit of cross section, and \( t = 1,2, ..., t \) refers to a given time. Ordinary least square method could give consistent and efficient estimation of \( \alpha \) and \( \beta \). In addition, the determinants of investment, \( X_{it} \) consists of, the effects of objective economic condition of a region (market, resources, and competitiveness) in a region/province towards the selection of investment location pre and post regional autonomy, so that the translog model turns to be the following:

\[
\ln Y_{it} = \alpha_i + \sum \beta_k \ln MarketSize_{it} + \sum \varphi_k \ln Resources_{it} + \sum \lambda_k \ln Competitiveness_{it} + \varepsilon_{it}
\]

Thus, the determinant of investment location by inserting all the variables could be written as follows:

\[
\begin{align*}
\ln Y_{it} & = \alpha_i + \beta_1 \ln x_{1it} + \beta_2 \ln x_{2it} + \beta_3 \ln x_{3it} + \beta_4 \ln x_{4it} + \beta_5 \ln x_{5it} + \\
& \quad \beta_6 \ln x_{6it} + \beta_7 \ln x_{7it} + \beta_8 \ln x_{8it} + \varepsilon_{it}
\end{align*}
\]

Where: \( t \): time (1990-2014); \( i \): region/province (26 provinces); \( Y \): the value of FDI realization; \( X_1 \): regional/provincial GRDP; \( X_2 \): the number of citizens in a region/province; \( X_3 \): workforce is the number of workforce in a region/province; \( X_4 \): Human Capital is the number of graduates from High School level in a region/province; \( X_5 \): Electricity installed capacity in a region/province; \( X_6 \): Length of road in a region/province; \( X_7 \): UMP is provincial minimum wages; \( X_8 \): is the level of economic openness (export netto) in a region/province; D Otda: Dummy for Regional Autonomy Policy.

Equation (2) above, \( \beta_1 \) is the elasticity of GRDP and \( \beta_2 \) is the number of citizens that are expected to be positive. Dimension of Resources is workforce (\( \beta_3 \)), based on the theory, the sign is expected to be positive. Coefficient of human capital (\( \beta_4 \)) is expected to positively contribute to the disparity of investment. Dimension of Competitiveness is the electricity installed capacity and the length of road that are also expected to contribute positively. So, \( \beta_5 \) and \( \beta_6 \) are expected to have positive signs, while provincial minimum wage is ambiguous \( \beta_7 \neq 0 \). Further, economic indicator including export netto (\( \beta_8 \)) is expected to have positive sign. From the above two models, overall panel data regression (1990-2014) and separation between the time pre autonomy (1990-2000) and post regional autonomy (2001-2014) were done to each, so that it can show the effects of the variables in the models in influencing FDI both before and after regional autonomy.

**Estimation Technique.** Theoretically, there are several benefits from using the combined data. First, there are more number of observations for the interest of estimating population parameters that bring positive results by increasing the degree of freedom and reducing the possibility of collinearity among independent variables. Second, it is possible to
have separate estimation between each individual characteristic and characteristics according to time. Therefore, the analysis of estimation results will be more comprehensive since it includes things that are closer to reality (see, Hsiao, 1995).

In the classical linear regression model, error terms are always stated to be homoscedastic and serially uncorrelated. Thus, the use of ordinary least square method will result in the best linear unbiased estimator. Nonetheless, assumptions regarding the error terms cannot be applied to panel data. Panel data, composed of multiple individuals for several periods, bring a new problem in the characteristics of the error terms. The problem is that the current disturbances or error terms are in the form of three types: time-series related disturbances, cross-section disturbances and disturbances coming from both. (see, Gujarati, 2003).

If all the section disturbances \( (\mu_i) \), time disturbances \( (\lambda_t) \) and random noise are combined into one and follow all the initial assumptions of random noise that is distributed normally-freely-identically, then the use generalized least square method will produce the best linear unbiased estimators. In other words, this method states that all the disturbances that occur follow a normal distribution, with an expected value of zero, as assumed in the classical linear regression model. This method is well-known as Random Effect Model, or Error Components Model.

However, if the assumption that all the disturbances are stated to not follow the whole assumption of random noise as in the classical linear regression model, then the use of neither ordinary least square or generalized least square model will yield results that satisfy the best linear unbiased characteristics. Thus, the components of time-series disturbances and cross-section disturbances will be combined in the constant of intercept model. This method is known as Fixed Effect Model or also called Dummy Variable Model. This estimation method produces an efficient estimator by applying an estimation process to deviation data from the average by time, the average by sections, and the average by both. Thus, to determine whether to use dummy variables model or error components model, this research used Hausman statistics.

**Specification of Hausman Test.** The main assumption in regression model is that the component of error or \( E(u_n / X_n) = 0 \). This is crucial because the factor of disturbance contains invariant individual effect \( (\mu_i) \) that is unobserved and possibly correlated with \( X_n \). For example, in an equation where \( \mu_i \) might be denoted as unobservable individually and possible correlated with a number of variables on the right-hand side of the equation. In this case, \( E(u_n / X_n) \neq 0 \) and estimator GLS \( (\hat{\beta}_{GLS}) \) will be bias and inconsistent with \( \beta \). Even so, by performing transformation \( \mu_i \) and ignoring it, then estimator \( (\hat{\beta}_{Within}) \) will be unbiased and consistent with \( \beta \). Hausman (1978) suggested to compare \( \hat{\beta}_{GLS} \) with \( \hat{\beta}_{Within} \), where both are consistent with null hypothesis \( H_o : E(u_n / X_n) = 0 \), but of course with differences in probability limit. In fact, \( \hat{\beta}_{Within} \) will be consistent even if \( H_o \) is correct or incorrect, while \( \hat{\beta}_{GLS} \) will be BLUE, consistent and asymptotic on \( H_o \), but will be inconsistent if \( H_i \) is incorrect.

Statistical test will be based on \( q_1 = \beta_{GLS} - \beta_{Within} \), with \( H_o \), \( p \lim q_1 = 0 \) and \( \text{cov}(\hat{q}_1, \hat{q}_{GLS}) = 0 \).

By considering the fact that \( \hat{\beta}_{GLS} - \beta = (X'\Omega^{-1}X)^{-1}X'\Omega^{-1}u \) and \( \beta_{Within} - \beta = (X'QX)^{-1}X'Q \), \( E(q_1) = 0 \) will be obtained:

\[
\text{cov}(\hat{\beta}_{GLS}, \hat{q}_1) = \text{var}(\hat{\beta}_{GLS}) - \text{cov}(\hat{\beta}_{GLS}, \hat{\beta}_{Within})
= (X'\Omega^{-1}X)^{-1} - (X'\Omega^{-1}X)^{-1}X\Omega^{-1}E(\mu'u')QX(X'QX)^{-1} = (X'\Omega^{-1}X)^{-1} - (X'\Omega^{-1}X)^{-1} = 0
\]
Further, if $\hat{\beta}_{\text{within}} = \hat{\beta}_{\text{GLS}} - \hat{q}_1$, will be obtained $\text{var}(\hat{\beta}_{\text{within}}) = \text{var}(\hat{\beta}_{\text{GLS}}) + \text{var}(\hat{q}_1)$.

Since $\text{cov}(\hat{\beta}_{\text{GLS}}, \hat{q}_1) = 0$, then; $\text{var}(\hat{q}_1) = \text{var}(\hat{\beta}_{\text{within}}) - \text{var}(\hat{\beta}_{\text{GLS}}) = \sigma_i^2 (X^T Q X)^{-1} - (X^T \Omega X)^{-1}$.

This way, Hausman statistical test is as follows: $m_i = q_1 \left[ \text{var}(\hat{q}_1) \right]^{-1}$. Where $H_o$ is asymptotic and distributed as $\chi^2_K$ where $K$ is the dimension of slope vector $\beta$. Next, in order to meet the technical-operational aspect, $\Omega$ will be replaced by the consistency of estimator $\hat{\Omega}$, so that GLS is possible to perform. The rejection of Hausman statistics means the rejection of fixed effect model or dummy variable model. Thus, the greater the value of Hausman statistics, the greater the possibility to the acceptance of error components model estimation (Baltagi, 2003).

RESULTS AND DISCUSSION

Results of Entropy Theil Index. The results of entropy theil index before the implementation of regional autonomy is shown in Table 4 as follows.

<table>
<thead>
<tr>
<th>Years</th>
<th>Theil Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>0.198071522</td>
</tr>
<tr>
<td>1991</td>
<td>0.349071654</td>
</tr>
<tr>
<td>1992</td>
<td>0.329348574</td>
</tr>
<tr>
<td>1993</td>
<td>0.176085268</td>
</tr>
<tr>
<td>1994</td>
<td>0.2001158</td>
</tr>
<tr>
<td>1995</td>
<td>0.165498661</td>
</tr>
<tr>
<td>1996</td>
<td>0.053715809</td>
</tr>
<tr>
<td>1997</td>
<td>0.15328229</td>
</tr>
<tr>
<td>1998</td>
<td>0.176309311</td>
</tr>
<tr>
<td>1999</td>
<td>0.364823974</td>
</tr>
<tr>
<td>2000</td>
<td>0.279645617</td>
</tr>
</tbody>
</table>

Source: processed data.

Table 4 shows that the total entropy theil index indicates a high spatial disparity of foreign investment before autonomy. Another important finding was that the era between 1990 until 2000 (before regional autonomy) had a pattern of ups and downs, in 1990 it was 0.19, from 1991 to 1992 there was an increase by 0.34, then it decreased steadily until 1998 to 0.17 and in 1999 it reached its peak with an index of 0.36 (increased disparity). The substantial increase from 1998 to 1999 shows that, starting in 1999, Indonesia’s economy began to recover from the crisis, so investment was also increasing in line with the improvement of macroeconomic conditions. Increased investment will, in turn, encourage an increase in the value of theil entropy index, meaning that the disparity of foreign investment increases. This reflects an uneven spatial distribution pattern of investment in the era prior to regional autonomy (see Figure 1).

Figure 1 – Trend of Theil Index of FDI before Regional Autonomy
Figure 1 shows that Theil Entropy Index in 1991 increased then fell to the lowest point in 1996 and rose again until 2000, or formed letter "U". This reflects that there is a dispersion trend of foreign investment before regional autonomy spatially among the provinces in Indonesia. In the period before 1996, there was a declining pattern, reflecting an increase in the spread of FDI in Indonesia. In other words, until 1996, there was evidence that spatial concentration tends to decrease. However, the opposite pattern occurred between 1996 and 2000, where spatial concentration tends to increase. Even in 1998 there was a sharp increase.

The results of entropy theil index after the implementation of regional autonomy is shown in Table 5 as follows.

Table 5 – Theil Entropy Index of FDI after OTDA

<table>
<thead>
<tr>
<th>Years</th>
<th>Entropy Theil Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0.10022149</td>
</tr>
<tr>
<td>2002</td>
<td>0.21825783</td>
</tr>
<tr>
<td>2003</td>
<td>0.41274667</td>
</tr>
<tr>
<td>2004</td>
<td>0.16773457</td>
</tr>
<tr>
<td>2005</td>
<td>0.09187596</td>
</tr>
<tr>
<td>2006</td>
<td>0.07995996</td>
</tr>
<tr>
<td>2007</td>
<td>0.16239832</td>
</tr>
<tr>
<td>2008</td>
<td>0.33747562</td>
</tr>
<tr>
<td>2009</td>
<td>0.35254287</td>
</tr>
<tr>
<td>2010</td>
<td>0.18420002</td>
</tr>
<tr>
<td>2011</td>
<td>0.39375384</td>
</tr>
<tr>
<td>2012</td>
<td>0.345627475</td>
</tr>
<tr>
<td>2013</td>
<td>0.151961085</td>
</tr>
<tr>
<td>2014</td>
<td>0.13008833</td>
</tr>
</tbody>
</table>

Source: Processed data.

Table 5 shows that Entropy Theil Index after the era of regional autonomy is fluctuating, indicating that in the era of regional autonomy, each region/province in this study has been competing to get investors. This means that the regions/provinces have been increasingly aware of the importance of investment to increase their regional economic growth. It can be seen that from 2005-2007 there was a decrease (low disparity); in 2008 there was an increase to be 0.33, in 2010 it decreased, in 2011-2012 it increased, and decreased again in 2013-2014 increased slightly (see Figure 2).

Figure 2 – Trend of Entropy Index of FDI after Regional Autonomy

Figure 2 shows that the distribution pattern of FDI after the implementation of regional autonomy is also fluctuating as that before the implementation of regional autonomy. However, the increase and decrease from year to year is not significant (the disparity is more evenly distributed). An increase only occurred in 2003 (highest position) after the implementation of regional autonomy. The distribution pattern of FDI from 2003 to 2006 decreased (the disparity is increasingly evenly distributed). Then starting in 2007, it
increased until 2009 (the disparity is uneven). In 2010, it decreased then rose again until 2012, after which it decreased until 2014 (the disparity is more even).

This is possible because after the era of regional autonomy, the regions have more authority to attract investors both domestic and foreign investors, so that each region competes with each other in attracting investors, by marketing their regions. Based on a study by KPPOD-BKPM in 2008, the commitment of local government is the main component that gives the greatest proportion in the establishment of investment climate in the regions. The commitment of local government in creating a conducive climate is important to provide certainty to investors in easily making investment and business expansion.

Results of Geographic Information System (GIS). The distribution of FDI prior to the era of regional autonomy by main islands (% of total) in 1990 was dominated by Java, Sumatera and Borneo. Then in the next five years or in 1995 there was a change in which it was dominated by Java, Sumatera, Maluku and Papua. This change is mainly due to an increase in FDI in the eastern regions (Maluku and Papua) that is more resource or asset-seeking oriented because these regions are rich in natural resources. In 2000, it was dominated by three islands namely Sumatera, Bali, East and West Nusa Tenggara, followed by Java. This can be seen in Table 1.10. This change is mainly caused by an increase in FDI in Bali, East and West Nusa Tenggara which are associated with the tourism sector because these islands are well-known as a tourist destination in Indonesia even in the world. Thus, this investment can be categorized as market seeking oriented investment. This is shown in Table 6.

Table 6 – Distribution of FDI by Main Region (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>1995</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatera</td>
<td>10.32</td>
<td>12.85</td>
<td>49.99</td>
</tr>
<tr>
<td>Jawa</td>
<td>73.13</td>
<td>64.67</td>
<td>19.90</td>
</tr>
<tr>
<td>Bali, NTB dan NTT</td>
<td>6.97</td>
<td>0.77</td>
<td>25.74</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>8.01</td>
<td>3.88</td>
<td>2.28</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>1.54</td>
<td>5.61</td>
<td>1.20</td>
</tr>
<tr>
<td>Maluku &amp; Papua</td>
<td>0.04</td>
<td>12.22</td>
<td>0.88</td>
</tr>
<tr>
<td>Jumlah</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Processed data.

Figure 3 – Map of FDI Distribution before Regional Autonomy
Figure 3 shows that the distribution of FDI before the implementation of regional autonomy (1990-2000) was dominated by Java Island, followed by Sumatera Island; but slowly Papua Island and Bali Island began to change the dominance. This indicates that the spatial concentration of FDI by islands is still dominated by Java Island, namely the provinces of West Java and East Java and Sumatera Island, namely Riau Province. The spatial concentration of FDI is in line with figure 1.9, where there is a bias to Java Island as the main island and Sumatera Island as the second main island. These findings are in line with a study by (Sarungu, 2008) which found that Java Island, which so far has become the largest center of investment attraction in Indonesia because of both its government policy and its economic infrastructure facilities that are more adequate compared to other regions, is increasingly showing the distribution pattern of investment that tends to be concentrated.

The distribution of FDI after the era of regional autonomy by main islands (% of total) in 2001 was dominated by Java, Sumatera, Bali, East and West Nusa Tenggara. Then in the next six years or in 2007, it underwent a change where it was dominated by Java, Sumatera and Borneo. In 2012, it was similar to that in 2006: dominated by Java, Sumatera and Borneo Island. The only difference is that Island Borneo increased from 8.92 percent in 2007 to 13.48 percent in 2014. The increase in the percentage of FDI in Borneo Island is dominated by investment in natural resources because this island is rich in natural resources, especially coal. In other words, FDI in Borneo Island has more orientation on resources or asset seeking. This is shown in Table 7.

Table 7 – Distribution of FDI by Main Region (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>2001</th>
<th>2007</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatera</td>
<td>26.04</td>
<td>14.74</td>
<td>13.48</td>
</tr>
<tr>
<td>Jawa</td>
<td>63.53</td>
<td>73.91</td>
<td>54.11</td>
</tr>
<tr>
<td>Bali, NTB dan NTT</td>
<td>5.81</td>
<td>1.83</td>
<td>3.48</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>2.68</td>
<td>8.92</td>
<td>16.38</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>0.78</td>
<td>0.26</td>
<td>7.21</td>
</tr>
<tr>
<td>Maluku &amp; Papua</td>
<td>1.16</td>
<td>0.34</td>
<td>5.35</td>
</tr>
<tr>
<td>Jumlah</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Processed data.

Figure 4 – Map of FDI Distribution after Regional Autonomy
Figure 4 it can be seen that the distribution of FDI after the implementation of regional autonomy (2001-2012) was dominated by Java Island especially West Java Province, followed by Sumatera Island (Riau Province) and Borneo (East Kalimantan Province). The distribution pattern of FDI after regional autonomy had no significant difference with that before autonomy, indicating that the spatial concentration of investment is still biased to Java Island, as the main island, followed by the second main islands i.e. Sumatera and Borneo Island.

**Results of Panel Data Regression.** The stage of Hausman test or Hausman statistical test was to test between fixed and random effect approach. Hausman test results for the three periods show that chi square count is greater than chi square table so Ho is rejected. This way, the estimation shows that the fixed effects approach is better than the random effect approach, meaning that there is a difference among units that can be seen through a difference in constant term. In the fixed effects model, it is assumed that there is no time-specific effect and only focuses on individual-specific-effects.

### Table 8 – Hausman Test

<table>
<thead>
<tr>
<th>Period of Observation</th>
<th>χ² Count</th>
<th>χ² Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Data (1990-2014)</td>
<td>56.927053***</td>
<td>20.09</td>
</tr>
<tr>
<td>Pre Autonomy (1990-2000)</td>
<td>58.953258***</td>
<td>20.09</td>
</tr>
<tr>
<td>Post Autonomy (2001-2014)</td>
<td>233.451563***</td>
<td>20.09</td>
</tr>
</tbody>
</table>

*Source: Processed Data.*

**Notes:** *** sig on α = 0.01.

The estimation results using fixed effect model are presented in the following table:

### Table 8 – The Result of Estimation of the Regression Equation of Fixed Effect

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG PDRB</td>
<td>-0.000318*** (-4.156773)</td>
<td>-3.55E-05 (-0.213481)</td>
<td>0.0002050* (1.824667)</td>
</tr>
<tr>
<td>LOG JP</td>
<td>1.64E-08*** (7.497322)</td>
<td>1.85E-08*** (2.674948)</td>
<td>1.00E-08*** (4.544089)</td>
</tr>
<tr>
<td>LOG UMP</td>
<td>6.19E-08** (2.179606)</td>
<td>1.54E-07*** (2.599870)</td>
<td>4.64E-08* (4.90114)</td>
</tr>
<tr>
<td>LOG AK</td>
<td>0.009206*** (25.64417)</td>
<td>0.001985 (0.975298)</td>
<td>0.010581*** (42.90104)</td>
</tr>
<tr>
<td>LOG EKSP</td>
<td>1.51E-07*** (3.194558)</td>
<td>1.94E-06** (2.029006)</td>
<td>2.83E-08 (0.879494)</td>
</tr>
<tr>
<td>LOG DL</td>
<td>2.78E-10 (0.254094)</td>
<td>2.79E-08** (2.207583)</td>
<td>1.30E-09* (1.819534)</td>
</tr>
<tr>
<td>LOG PJ</td>
<td>0.000757*** (6.914184)</td>
<td>-0.000643 (-0.622300)</td>
<td>0.000455*** (4.801749)</td>
</tr>
<tr>
<td>LOG HC</td>
<td>0.00138*** (5.089244)</td>
<td>0.000351*** (4.848077)</td>
<td>3.33E-05 (1.599225)</td>
</tr>
<tr>
<td>D OTDA</td>
<td>0.807315*** (20.99076)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Processed Data.*

**Notes:** *** sig on α = 0.01; ** sig on α = 0.05; * sig on α = 0.10.

The results of analysis using fixed effect method indicate that, from all the indicators used in this study, the significant indicators to the variable of FDI in Indonesia are Market Size, Competitiveness and Resources.

The dummy variable of regional autonomy affects FDI in Indonesia, indicating that the government's policy on regional autonomy in Indonesia results in the change of FDI. In the current Indonesia's economy, regions are increasingly varying from one another to attract larger amount of investment, especially foreign direct investment. Several provinces or regions absorb more than others. Thus, an important element that makes economic disparity among regions larger is the inflow of investment as a growth engine. Data in the last five
years from 2011-2015 indicate that the inflows of FDI in Indonesia were very striking. Java attracted 57 percent of foreign direct investment (BPS, 2015).

Indicator of Market Size is significant to FDI in Indonesia in the three observation periods (1990-2014), before regional autonomy (1990-2000) and after autonomy (2001-2014). This provides evidence that FDI invested in Indonesia aims for market seeking, both domestic-market oriented and export-market oriented. This finding is in line with previous studies. This is reasonable considering that Indonesia has a very large population. In addition, in this study FDI was not differentiated by sectors, so that it is not known which sectors are the most dominant (only using the total FDI in each province). The results of this study are in line with the study by Wahid, Sawkur, & Seetanah, (2009) in Africa, resulting that abundant natural resources become positive and significant (supporting the presence of resource-seeking FDI) and in line with a study by Asiedu, (2002) and Campos & Kinoshita, (2008).

Indicator of Resources: the workforce variable has effects with a positive sign, for the whole periods (1990-2014) and the period after regional autonomy (2001-2012). This is in accordance with the existing studies on investment, stating that FDI or MNCs are more interested in coming to a country that has the a large and inexpensive availability of workforce (Hayter, 2000). A study of (Sun & Tong, Wilson, 2002) in China also provides evidence that the importance of FDI determinants moves over time. The quality of labor and infrastructure is also an important determinant of FDI distribution. High labor quality and good infrastructure attract foreign investors. Such findings indicate that during the period of this study and after the era of regional autonomy, Indonesia has a superior value in the perspective of investors, particularly on the availability of workforce and low labor wages. The human capital Variable also positively influences FDI in provinces in Indonesia for the entire periods (1990-2014) and the period before regional autonomy (1990-2000). This result is in line with a previous study by K. Liu et al., (2012b), showing that quality of labor has a significant and positive effect on FDI inflows. The same study conducted by Raluca, (2010) using the variable of the number of scientists shows a positive and significant relationship with the inflows of FDI. The fact that human capital variable is significant in this study provides evidence that, in the case of the provinces in Indonesia, the existence of human capital in proxies with the number of senior high school graduates may affect foreign direct investment into the provinces. However, for the period after regional autonomy (2001-2014) the variable of human capital has no effect on FDI. This indicates that the FDI that comes to Indonesia after regional autonomy does not recognize the skills of high school graduate workers, so it is necessary for local governments to improve the quality of human resources considering the fact that the quality of human capital is becoming more important in influencing foreign direct investment in Indonesia.

Indicator of Competitiveness: From the variable of electric power and road length for the entire period (1990-2014), only road length was influential. Meanwhile, the variable of electricity installed capacity is significant with a positive sign only before regional autonomy (1990-2000). Although this result is not in line with a previous study Fitriandi et al., (2014), infrastructure in this study has an effect on FDI in Indonesia. A study conducted by Fitriandi et al., (2014) in Indonesia has clear evidence that supports the argument that infrastructure development, in terms of electricity distribution, road length, water distribution, and water capacity, plays an important role in attracting FDI to the provinces in Indonesia. In the period after autonomy (2001-2014), both electric power and road length positively affect FDI in Indonesia, indicating the importance of infrastructure variables on the inflows of FDI to the provinces in Indonesia. This way, infrastructure development in the provinces is a condition to be undertaken by local governments in order to ensure the presence of investment in the regions.

The wage Variable has a positive and significant relationship with the variable of FDI for the entire period of observation (1990-2014), the period before the regional autonomy (1990-2000) and the period after the regional autonomy (2001-2014). This positive relationship is because investors currently no longer take into account low wages, but more on production cost efficiency and optimization of the productivity of any existing resources (Hayter, 2000).
Several studies conducted by Smith & Florida found that Japanese automotive companies tend to select locations with higher wage rates (Smith, Jr., Donald F., Florida, 1994). Meanwhile, a study conducted by Kuncoro in Indonesia from 1976-1996 found that wage rates are positively associated with FDI (Kuncoro, 2002). So, it can be stated that the variable explained by the wage does not only have an effect on the cost, but also on skills. This finding was in line with some studies of Changwatchai, (2010), that found the result that the level of wage had a positive correlation with FDI. Nonetheless, for the period after regional autonomy (2001-2012), the variable of wage is not significant. A study from Sun & Tong, Wilson, (2002) in China provides evidence that the importance of FDI determinants moves over time. Wages had a positive relationship with FDI before 1991. The economic openness Variable has a positive and significant impact on FDI in the provinces for the whole period (1990-2014) and before regional autonomy (1990-2000). The similar result from Wahid et al., (2009) revealed that the openness had a positive impact on FDI and this is in line with the fact that an efficient environment supported with more openness towards the trade might attract the foreign companies. Ang, (2008) found a different result stating that the openness in trade promoted the FDI. Sharma & Bandara, (2010) showed that the open countries had the larger domestic market and that similar language and culture in Australia have attracted most of foreign investment. The same study by Y. Liu et al., (2013) shows that the more open an economy, the more connected with economic activities throughout the world. Thus, a high level of openness in a region is more attractive for FDI inflows, especially for export-oriented FDI inflows. These findings are in line with several studies conducted by Asiedu, (2002) and Fedderke & Romm, (2004). Therefore, the results imply that greater trade liberalization is conducive to foreign direct investment.

CONCLUSION AND SUGGESTIONS

Local governments are expected to issue a new policy that encourages investment at regional level, both domestic and foreign investors, so as to promote regional economic growth and reduce income disparities.

Local governments also need to make coordination about legislative regulations both at the vertical level (among the central-provincial-municipal/regency level government) and at the horizontal level (among any relevant departments and agencies), so that it is necessary to have fundamental reforms related to improving the business climate, export and FDI in Indonesia. The reform agendas that need to be undertaken are: first, to review all local regulations from the provincial and regency/municipal governments in their respective areas regarding investment, second, to have cooperation with the central government and the governments of other provinces in developing procedures and standards for reviewing local regulations related to investment.

The results of this study have some important implications related to public policy aimed at attracting foreign direct investment in several provinces in Indonesia. Infrastructure development is highly needed to increase the inflow of investment; the government should pay more attention to the development and quality of infrastructure for foreign companies. Another policy for the government to attract more investments is to prioritize human resources sector, consisting of education and improvement of human capital.

REFERENCES

7. Changwatchai, P. (2010). the Determinants of Fdi Inflows By Industry To. the University of Utah.


ACCESSIBILITY, FINANCIAL RISK PERCEPTION AND FARMERS’ SATISFACTION TO MICROFINANCE SERVICES QUALITY IN DEVELOPING COUNTRIES

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ABSTRACT
Government provides many farming finance loan programs to farming community, but many farmers still feel that financial institutions that are given trust by the government are difficult to access. Thus, this study aims: first, to reveal farmers' assumptions about accessibility, secondly to analyze risk perceptions of micro finance and the final goal is to analyze whether microfinance services can satisfy farmers' needs. This research was conducted on two groups of farmers, such as rice farmers in Singosari District and orange farmers in Dau District, Malang Regency, East Java Province, Indonesia. Data analysis method uses quantitative descriptive, with the use of farmer perceptions scoring regarding accessibility dimensions, namely affordability, impact and sustainability, and perception of financial risk, while service quality dimensions are Tangibles, Reliability, Responsiveness, Assurance, Emphaty by using SEM-PLS analysis. Both rice farmers and orange farmers have good accessibility, but there are differences in the actions of borrowing funds from the two groups of farmers. Rice farmers do not dare to borrow funds if they have not coordinated with farmers' group association, while orange farmers dare to borrow individually. At present, farmers are getting a loan from one of the government programs, and the results of the study indicate that the risk is very low if borrowing is done through a farmers’ group association. While the results of the analysis of the quality of microfinance services that are closely related to the satisfaction of orange farmers as borrowing customers are the dimensions of Reliability, Assurance and Emphaty. Although the service dimensions are positively related to satisfaction, there are several indicators that microfinance must improve so that farmers are more satisfied with the government programs mandated by the institution. Indicators that must be corrected by microfinance are employees 'knowledge of government programs in detail and giving more attention to farmers’ customers.

KEY WORDS
Accessibility, quality of service, perception of financial risk, farmer satisfaction, microfinance.

Accessibility to capital resources is still limited, especially for farmers who control narrow land which is the largest community of rural communities and small-scale business actors [1]. Credit is an important factor in production activities, because credit can increase farm operational size and resource productivity [2]. In addition, credit can facilitate innovation adoption activities that can increase farm production and profits so that capital formation occurs.

Credit is many people's choice as a way to meet the ever-increasing needs, including the agricultural sector. Inadequate income, encouraging the trend of lending to tend to increase, both in formal financial institutions and informal institutions. The availability of access to finance provides opportunities for farmers to buy inputs or other capital to increase productivity and income in the future [3].

However, this access has not been fully enjoyed by farmers. The agricultural sector only receives 6.92% with an interest rate of 11.6% of the total loans disbursed by commercial banks. Distribution through the People's Financing Bank that distributed loans was only 17.60% with an interest rate of 33.35% of the total loans granted. Credit disbursement is far different from the trade sector which gets a credit of 25.53% with an interest rate of 12.99% in commercial banks [4]. Low lending in the agricultural sector, because this sector is considered to have high risk by the microfinance sector so they need to be cautious. The
risks faced by this sector include the risk of crop failure, price fluctuations and businesses that depend on weather factors, and it is very difficult to accurately calculate cash flow and do not have adequate guarantees [5].

The reason for formal financial institutions not to give credit to farmers is due to uncertainty and time lag in the production process [6] which does not allow farmers to pay credit by the usual mechanism. This was also caused by: (a) Experience and trauma of several banks facing the reality of non-performing loans during credit disbursement; (b) Central bank regulations in Indonesia are quite strict so that prudent banks in the distribution of funds; and (c) Many banks (especially large banks) that do not have the experience of distributing microcredit [7].

The government has sought to help alleviate the capital burden of farmers and small businesses by establishing various financing schemes that are easily accessible so that they can have a positive impact on the development of smallholder farmers and businesses in Indonesia. Financial institutions have great potential in supporting farmers' financing because formally is a financial intermediary institution [5]. The banking sector supports the implementation of national government programs in order to improve equity, economic growth and national stability.

However, can this intermediary institution be easily accessible to farmers? And what about the perception of farmers' risk to microfinance? And what about the quality of microfinance services to farmers? Where, the quality of service is an effort to fulfill the needs and desires of consumers as well as the accuracy of delivery in keeping up with consumer expectations [8].

**LITERATURE REVIEW**

Farmers are said to have access to a credit source if they are able to borrow (have credit worthy) [9]. If farmers cannot borrow because of various constraints (credit constraints), the farmer does not have access to credit sources. The performance of a microcredit channeling institution is said to be accessible, can be measured from three categories, namely outreach, impact and sustainability, which are referred to as the triangle of microfinance [10]. Microfinance institutions in expanding outreach to farmers are determined by the institution's ability to maintain financial sustainability. So that the financial institution has a positive multiplier effect on economic development ranging from the environment of the financial institution to the national environment.

![Figure 1 – Triangle of Microfinance](10)

Informal capital sources as an alternative for farmers and business people, often impose requirements standards that are less suitable for the needs of all economic sector actors in their contract letters. Actors from the agricultural sector, for example, often suffer losses due to inflexible credit contracts. In fact, micro-finance institutions or non-bank MFIs generally provide loans to landless farmers and require returns as soon as possible after a loan is granted. Strict payment schedules also often encourage farmers to undertake long-
term investments, given the longer production cycle in the agricultural sector than other economic activities. As a result, farmers are faced with routine payment obligations and risks related to climatic conditions.

Thus, the Indonesian government still plays an important role in the capital of farmers and forces MFIs to either banks or non-banks to serve farmers. So, it is very important to analyze the quality of microfinance services to farmers' satisfaction. There are five dimensions of service quality [11] used in this study are:

- **Tangibles** are services that are seen from the appearance of physical facilities, equipment, personnel, and communication materials;
- **Reliability** is the ability to perform guaranteed and accurate services;
- **Responsiveness**: namely Willingness to provide fast service and help customers;
- **Assurance** The ability of employees to express trust and confidence and confidence in the level of their respective knowledge;
- **Empathy** is a service that is viewed from individual attention given by the company to its customers.

Satisfaction [12] is a feeling of pleasure or disappointment that arises because of comparing the perceived performance of the product (or outcome) to their expectations. If performance fails to meet customer expectations, the customer feels dissatisfied. If the performance is in line with expectations, then the customer will be very satisfied.

So the hypothesis of the third objective of this study are:

H1: Tangibles has a significant positive correlation with farmers' satisfaction;
H2: Reliability relates significantly positively to farmers' satisfaction;
H3: Responsiveness relates significantly positively to farmers' satisfaction;
H4: Assurance has a significant positive correlation with farmers' satisfaction;
H5: Empathy has a significant positive correlation with farmers' satisfaction.

This research aims to describe farmers' access to capital loans at financial institutions; analyze farmers' perceptions of risk in microfinance; analyze the relationship between service quality dimensions to the farmers' satisfaction.

### METHODS OF RESEARCH

Respondents were 34 rice farmers in Watugede Village, Singosari Sub District and 40 Orange farmers in Gading Kulon Village, Dau Sub District, Malang Regency, East Java, Indonesia. The study was conducted in April - June 2018. Data analysis methods using SEM-PLS using Warp PLS 5.0.

### RESULTS AND DISCUSSION

Rice farmers in Singosari Subdistrict obtain financing from the government under the name "Hulu Hilir" Program, which is coordinated by Makmur Santoso Group Farmers Association through Government Bank. The farmers' perception of the accessibility of microfinance through Gapoktan is as follows: Aspect Outreach: as many as 73.1 farmers stated that loan access is easy to reach, 61.5% of farmers said they were not reluctant to borrow, and 92.4% of farmers stated that lending conditions were easy; Impact Aspect, as many as 65% of farmers stated that the loans had a significant impact on farming and 61.5% of farmers stated that loans had an impact on household use; Aspect Sustainability, as many as 90% of farmers do not know whether this loan will continue in the next planting season.

The government provides the "Kredit Usaha Rakyat (KUR)" program and many orange farmers access it independently. Meanwhile, the perception of accessibility to the Government Bank appointed to carry out these services is as follows: Aspect Outreach: as many as 87.5 farmers stated that access to loans is easily accessible and 85% of farmers stated that the information came from farmer groups; Impact Aspect, as many as 77.5% of farmers stated that the loans had an impact on farming and Sustainability Aspects showed that as many as 90% of farmers wanted to continue loans for their farming needs.
Research shows that rice farmers do not dare to access their own financial loans to microfinance, so the tendency of farmers' risk perception leads to associations of farmer groups that administer administration. Based on this, 88.4% of farmers stated that they did not risk lending procedures, 65.4% found no risk to the length of the disbursement process, 88.5% considered that farmer groups association could be trusted, 69.2% assumed that collateral was not a risk, 53.86% stated that farmers did not at risk of loan repayment, 53.9% of farmers will use loans for their farms, and 57.7% of farmers say interest rates are not risky.

The constraints felt by orange farmers are the value of insurance that is too high that burdens the respondents to pay. In addition, there are respondents who say that the money spent on administration differs significantly from other respondents.

This analysis is not carried out on rice farmers, it is feared that the answer is bias towards the quality of service by farmer groups associations and not to microfinance. Analysis was carried out on orange farmers with the following results: SEM stages have been carried out well, Reliability indicator value has been eliminated. Reflective indicators have fulfilled the first requirement of reliability because the value of the loading factor has been above 0.7 with a significance value of P-value below 5%. While considering the value of Indicator Reliability and Composite Reliability, the evaluation of measurement model also considers the value of Average Variant Extracted (AVE). Recommended AVE values must be greater than 0.5 or 50%. R-Squares value shows a value of 0.650, thus, it can be concluded that the relationship between exogenous dimensions and endogenous is good. Adj Value. R-Squared meets SEM-PLS criteria and has a strong model. The full collinearity value of VIF indicates that the remote dimension is a collinearity problem. Q-Squared shows the number 0.621 it can be concluded that the model used in this model has predictive relevance because it is greater than 0. Based on the structure model that is formed that there are three dimensions that are significantly positive with the satisfaction of farmers as customers, namely the dimensions of Reliability, Assurance, and Empathy has a positive and significant relationship with consumer satisfaction of 0.39, 0.45, and 0.33 with a significance value of <0.01.

![Structural Model](Source: Primary Data Processed, 2018)

CONCLUSION

Microfinance has been well accessed by farmers, even though rice farmers must be assisted by farmer groups association. Farmers state that when dealing with microfinance will not be risky. Three dimensions of service quality that are significantly positively related to satisfaction of orange farmers, namely the dimensions of Reliability, Assurance and Empathy
with each relationship of 39%, 45% and 33%. This means that the improvement of services in these three dimensions will be followed by the increasing satisfaction of farmers as customers.

Managerial implications:

Building the capacity of agricultural institutions is very beneficial for the financial development of farming;

For microfinance, it is expected to maintain trust by increasing and paying attention to services in terms of alertness in handling transactions and complaints of farmers. Another indicator that must be improved by microfinance is the knowledge of employees regarding the government program in detail and giving more attention to farmers' customers;

For the Government, the program of granting capital to farmers is considered effective so that there needs to be new innovations related to the capital of farmers in order to create economic stability, especially in agriculture.

ACKNOWLEDGEMENTS

We would like to thank Indonesian Ministry of Research, Technology and Higher Education and University of Brawijaya especially the Research and Community Services Institution.

REFERENCES

ABSTRACT

Indonesian bureaucracy is facing problems and challenges that are very serious in the midst of a very fast and unpredictable flow of change. The emergence of the era of disruption has broad implications for the order of life in the community, the private world and the government bureaucracy. Efforts to accelerate bureaucratic reform will face obstacles, if the behavior and culture of the bureaucratic apparatus do not change for the better; feeling safe and comfortable in a stable position. What is needed now is the ability to see developments far ahead, to respond to it quickly, to dare to act for a breakthrough (innovation), and to take risks to dismantle the paradigm of the past to be faster, more efficient, smarter, more accurate and more useful in service.

KEY WORDS

Bureaucratic reform, public policy, innovation, disruption.

“We live at a time of great change, a time in a new beginning. We live at a time when things start to end”. It is one of the views stated by John Naisbitt in his book ‘Global Paradox’, which became a best seller in the early 1990s. Two decades later, the founder of the House of Change, as well as a Professor of the Faculty of Economics and Business at the University of Indonesia, Rhenald Kasali, wrote the book “DISRUPTION: Nothing Cannot Be Changed Before Facing Enough Motivation” (2017), stating that we are currently entering an “end of time”. It is not the end of time in the sense of apocalypse, but it means we have entered a new era, namely a digital age, or also called the era of disruption.

The arrival of this new era is marked by the rapid progress of information technology, the emergence of new generations and new entrepreneurs with their breakthroughs. The new generation is called “Millennials”, which is very connected to the internet and social media (gadget mindset), and is very different from its predecessor in various ways. This generation prioritizes freedom above all, does not like competition, but prefers to collaborate. This generation is recognized from the disruption they do to and their impact on the business world. The pre-existing business managers begin to fear the work of millennials, because their products/services would be able to take over businesses managed by conventional companies, such as those experienced by the online transportation industry (Grab, Uber, Gojek), hospitality (Airbnb), Tokopedia, Financial Technology (FinTech), and others.

For those who do not immediately realize the changing times will be trapped in the past, feel anxious, and insist on being resistant to changes that cannot be resisted. This new era is called the Disruption era which is characterized by things getting simpler (easier), cheaper (cheaper), accessible (more affordable), and faster (faster). Business competition tends to face unseen opponents, making it more difficult for business people to do their business because they are required to innovate to not only compete with products, but also competes in business models. The death of large companies, such as Kodak, Nokia, and a number of giant retailers at home and abroad is not because of the decline in purchasing power, but because of the era of disruption (Renald Kasali, 2017).

The 7th Indonesian President Joko Widodo (Jokowi), despite not using the term disruption, but in various contexts has admitted that the era of disruption was indeed happening and had to be anticipated. The President stated that today the world is entering the 4th industrial era, triggered by the rapid advancement of information and telecommunications technology which affects various aspects of life. In an era like this, according to the President, it is not the strong country that defeats the weak country, not the
big one defeating the small one, but rather, the fast one defeating the weak one. At present there are 42 thousand regulations that complicate and ensnare ourselves, are not flexible and will not make us able to compete with other countries. The world has changed rapidly, while we still are working monotonously, do not want to change, do not want to innovate. When we are still learning the internet, other countries are already using mobile internet and smart-office. While other countries have all gone paperless/digital, our State Civil Servants spend more of their daily time making pages of printed reporting documents. When other countries have been talking Tesla mobile, hyperload, managing the outer space for humans, we are still struggling with unproductive problems such as, strikes and rallies, slander, blasphemy, and hoaxes (collected from various online media sources).

In the opening ceremony of the 2018 National Development Planning Conference at the Grand Sahid Jaya Hotel in Jakarta, President Jokowi reiterated that our number 1 enemy is the habit of wasting time. How expensive is the time wasted because the way our bureaucracy is working is still beating around the bush, the work process is still complicated, and the chain of bureaucracy and licensing always takes too long to complete, while with the development of information technology that is making everything easier now, our productivity should have increased. Unfortunately, it is not easy to realize it, because the mindset has not changed. If this condition continued, we can forget about moving forward (Mediaindonesia.com, 20/04/2018).

It was not only once or twice that President Jokowi repeated his strong statement about the performance of the slow bureaucracy. Considering the period of Jokowi-JK administration will end in 2019, it means that it would be very difficult for him to turn Indonesian bureaucracy the way he has expected since there is only one year left (unless elected for the second time). There are still a lot of bureaucratic issues that must be addressed; not just about the technical, systemic and complicated administrative procedures, but also changes in the behavior, mindset and culture of bureaucratic officials who still subscribe to ‘zaman old’ practices - being in a comfort zone and not willing to change to ‘zaman now’ way of working. This, at the same time, proves that the agenda of ‘mental revolution’ which Jokowi-JK have stated in Nawacita can be considered as not achieving the expected results.

This paper elaborates the relationship between bureaucratic reform policy and disruption, which is now a contemporary phenomenon.

Understanding the basic concepts of disruption. Lately, we hear and read the term disruption more often in both conventional and digital mass media. In fact, if we google the keyword “disruption concept”, then within 0.34 seconds, Google will manage to display 88,500 results. Several seminars and public discussions have been held by private and government parties that link disruption to various contextual themes.

The growing popularity of the term disruption in public discourse cannot be separated from the publication of the book “Disruption” by Renald Kasali which discusses Disruption by taking case studies at home and abroad. Tracing its history, the term disruption itself was first introduced by Clayton M. Christensen and Joseph Bower in their writing entitled ‘The Disruptive Innovation’ which was published in the Harvard Business Review Journal (1995). The article was actually intended for executives who determine funding and purchases in a company related to future earnings. Then in his book ‘The Innovator’s Dilemma’, Christensen introduced the Disruptive Innovation Model. Simply put, the basic concept of Disruptive Innovation is an innovation that helps create a new market, disrupt or damage an existing market, and ultimately replace the previous technology. Disruptive innovation develops a product or service in a way that is not predictable, generally by creating different types of consumers in new markets and lowering prices in pre-existing markets. Disruption is a process that continues to repeat itself, and with the advancement of information technology that is accelerating, the process of change is increasingly fast and unpredictable.

Renald Kasali in his book ‘Disruption’ explores the theory of Clayton M. Christensen by taking the example of recent cases, both in the business field and in the government and social bureaucracy. What does disruption mean? According to Kasali Renald, disruption can be translated as a disturbance, troublemaker, or culprit. When connected with digital words, it means something that comes after the digital era and disrupts the stability of businesses that
do not use internet and digital technology as their added value. Disruption as an innovation, will replace the entire old system in new ways. Disruption will replace the old, all-physical technology with digital technology that produces something that is truly new and more efficient, also more useful. Or in other words, disruption changes the old way to become more current, practical, simple, effective, efficient and able to adapt to changing times.

In the 15th chapter of the book Disruption: “No Ordinary Disruption”, Renald Kasali explains that there is now an unusual process of disruption (no or ordinary), even complicated that makes many people anxious if they are too long handled by people who are only capable of making discourses. The development of information technology has broad implications on various aspects of life: (a) technology has connected all people around the world with extraordinary speed (early great disruption), (b) changes are no longer exponential, but linear. It used to be 38 years for radio to reach 50 million users, now it only takes 3 years for the internet, 1 year for Facebook and 9 months for Twitter, (c) the speed of spreading news in seconds, causes most people to move most of their activities, change the way they predict public action, (d) robots make everything automatic, and thus threatens the working class, and (e) money is no longer visible, only virtual records in the digital world.

The strategy to face the era of disruption is to conduct self-disruption by looking far ahead and bravely dismantling old ways. To see changes in the future requires the ability to look forward (visionary), but unfortunately the changes that will occur in the future are something that is not easy to see and read. After seeing it, the next step is moving and solving the problem. The task of the leader is to make what he sees is also seen by his subordinates, then moves them to complete the changes thoroughly. Three things are suggested, namely:

First, do not be comfortable being a “Winner”. An organization that has long been established may seem that it no longer needs to make many innovations. The feeling of security that arises is due to the assumption that the customer will continue to be loyal. Whereas in reality, the shift in the consumer segment (from the previous Generation X to Millennials) requires the development of various aspects, including services.

Second, do not be afraid to cannibalize our own product. Learning from Kodak’s bankruptcy case, an organization should always carry out innovations. Including having the courage to become cannibals for their own products. This is a proactive step before other parties do. In the Kodak case, they feel that their expertise in negative film providers will not be eroded by technology. Whereas on the contrary, the presence of a digital camera actually forces Kodak have to go out of business.

Third, reshape or create a new one. In the era of disruption, there are two choices that can be taken, namely to reshape or create, or choose both. When deciding to reshape, it can come from innovating the product or service that are already owned. Meanwhile, if you choose create, you have to be brave to have innovations that are in accordance with consumer habits. If you can “read” the situation well then see the opportunities that exist, that's how you can survive in an era of disruption.

Meanwhile, the characteristics of officials/leaders needed in the era of disruption are: (a) self-disciplined, (b) risk taker, (c) have the ability to simplify, (d) have mindset growth, (e) have assertive communication skill, (f) have broad and wise perspectives, (g) have the ability to think critically, and (h) have the ability to think creatively (Renald Kasali, 2017).

In his writing “Straightening the Understanding of Disruption” which was published in Kompas online (Kompas.com, 05/05/2017), Renald Kasali redirected various views which he considered inappropriate in interpreting disruption, because there are still many who think that disruption is only related to information and communication technology alone, or more specifically about online transportation (Grab, Uber, GoJek), or disruption means only the issues of business application, or a start-up business, and some even think that disruption is just a matter of online services. Understanding that disruption only occurs in the digital industry, according to him is clearly not right, because disruption occurs everywhere, in any industry, even in government bureaucracy. Disruption has even changed the relationship base from individual ownership to collaborative collective. Disruption is not just a phenomenon today, but the phenomenon of tomorrow (the future) brought by the reformers.
to the present. To provide a more accurate understanding, Renald Kasali identified the characteristics of disruption as follows:

- Disruption results in saving a lot of costs through business processes that become simpler;
- Disruption makes any quality it produces better than the previous one. If it is worse, then it obviously is not disruption;
- Disruption has the potential to create new markets, or make those who have been excluded become included. Making a market that has been closed open;
- Products/services resulting from disruption must be more easily accessed or reached by its users. Like online taxi or taxi services, or banking services and including financial technology, everything is now available in the hand, on our smartphones;
- Disruption makes everything now smarter, more time-saving and more accurate.

Current Indonesian Bureaucracy Situation. President Joko Widodo’s (Jokowi) to-the-point statement on the introduction of this paper complaining about the condition of the Indonesian bureaucracy is not only discourse-like or rhetoric, but it is true. This can be evidenced by empirical facts from various research results that Indonesian bureaucracy is still lagging behind with other countries, including neighboring countries. The 2017-2018 Global Competitiveness Report released by the World Economic Forum (WEF) in 2018 reduced Indonesia’s competitiveness rating from 37th position in 2016 to 41st 2017. Indonesia is only superior to the Philippines (57), Vietnam (60), and Laos (93). Some of the fundamental problems in the Indonesian bureaucracy that got the spotlight from the World Economic Forum (WEF) included corruption, which ranked first with 13.8 score, government bureaucracy inefficiencies (11.1), infrastructure limitations (9.2), access to finance (8.8), inflation (8.6), political instability (6.5), poor work ethic (5.8), tax rate (5.2), limited educated human resources (4.3), regulation taxation (4.8), currency regulation (4.6), government instability (4.0), poor people’s health (4.0), theft (4.0), lack of innovation (2.5), and policies inhibiting labor (4.0) (https://www.weforum.org, 17/01/2018).

The findings of the World Economic Forum (WEF) are almost the same as the results of the Kompas R & D Survey (September 2016) carried out in 14 major cities in Indonesia that place the problem of corruption and complicated bureaucracy (bureaucratic inefficiency) as the main problem still faced by the bureaucracy in Indonesia up to now.

Meanwhile, KemePAN-RB dated January 24, 2018 released the results of the 2017 Provincial/District/City Government Public Service Performance Evaluation, as the implementation of Article 7 paragraph (3) point c, Law Number 25 of 2009 concerning Public Services which states that the Minister responsible for the use of the state apparatus is tasked with monitoring and evaluating the performance of public service delivery. The results of the 2017 Public Service Performance Evaluation is shown in the graph below:
The graph above shows that only 2 provinces received the Very Good (A-) ranking from 34 existing provinces, namely DKI Jakarta Province and Riau Province. Meanwhile, for districts/cities, there are 18 of them which obtained the title of Very Good (A-). Interestingly, there are still 3 provinces and 2 regencies/cities that are “lacking” with no ranking (guidance priorities are needed). This condition is very ironic, because even though bureaucracy reformation has been implemented for decades, especially in the public service sector, there are still regional governments that have not progressed/changed performance. So, what have regional government officials done so far to serve the people in the area?

The bureaucracy problem above correlates with the findings of the State Ombudsman which reported that during 2017 there were 7,999 reports from the public about mis-administered procedures carried out by ASN at the central and regional levels. The top five types of mis-administration are: (a) procedure deviations (1,714), (b) not providing services (1,355), (c) incompetent on receiving complaints (802), (e) abuse of authority (666), and (f) money, goods and services requests as rewards (605) (Kompas.com 29/12/2017).

Some of the findings about the bureaucratic conditions above reinforce the argument that bureaucratic reform policies including the implementation of public services have shown changes, but in various aspects harder work is needed to improve. Two of the most crucial aspects are corruption and bureaucratic inefficiency. This fact also proves that Indonesian bureaucracy is still unable to fully respond to the demands and expectations of society and adapt to the global environment that is changing very rapidly.

This condition was acknowledged by the Minister of State Apparatus Empowerment and Bureaucratic Reform, Asman Abnur, that Indonesia faces difficult challenges. The first is about how to gain public trust by convincing the people of changes that can be made by the government. This becomes very important considering the people’s trust is the basic capital of development. Second is about how the country can improve competitiveness among...
countries in the world so that it has an impact on increasing the ability of the state to provide welfare for the community (Kompas.com, 08/02/2017).

Bureaucracy and Disruption Reform Policy. What is bureaucratic policy reform? It is related to government policy or state policy which is also called public policy (public policy), meaning a series of actions that is established and implemented or not implemented by the government which has a purpose or is oriented towards a specific goal for the benefit of the whole community (Irfan Islamy, 1997). Whereas, bureaucratic reform is interpreted as an effort to make fundamental reforms or changes to governance in various aspects, such as legislation, institutions, business processes and human resources in order to realize good governance and corruption-free (clean governance) (KemenPAN-RB, 2014). So, bureaucratic reform policy can be briefly translated as a government policy that aims to reform fundamentally (various) aspects of the administration of general government and especially public services. If bureaucratic reform policy is linked to disruption, then its understanding becomes a policy reform that is able to respond and adapt to the dynamics of strategic environmental changes triggered by the rapid development of information technology and the increasing demands of society to realize a modern bureaucracy (world-class bureaucracy).

Bureaucratic renewal policy is basically carried out in every period of government even though it uses different terms. Even since Indonesia's independence (Old Order) day, continued to the New Order period, and gained momentum in the reform era of 1998. Since the reform era, the government has issued various policies as a legal basis for the implementation of reformation, including: (a) The Law No. 25 of 2009 on Public Services, (b) Government Regulation No. 96 of 2012 on Implementation Instruction of Law No. 25 of 2009 on Public Services, (c) Presidential Regulation No. 81 of 2010 on Grand Design of Bureaucratic Reform for 2010-2025, and (d) Regulation of Minister of State Apparatus Empowerment and Bureaucratic Reform No. 20 of 2010 on Road Map of Bureaucratic Reform for 2010-2014, and other relevant regulations, with three main objectives: (a) the realization of a clean and corruption-free government, (b) improvement of the quality of public services, and (c) increase of the capacity and accountability of bureaucratic performance, with the ultimate goal of creating a clean, competent and serviceable bureaucracy.

Additionally, the government also issued several policies to strengthen and accelerate bureaucratic reform, including:

- From the institutional aspect, the government has issued Government Regulation No. 18 of 2016 on Regional Instruments, which regulates the establishment, type and criteria of regional instruments, as mandated in Law Number 23 of 2014 on Regional Government.
- From the aspect of government administration, there has been an order issuing Law Number 30 of 2014 on Government Administration. This policy provides an opportunity for ASN officials to carry out discretion and innovation when there is a regulatory vacuum.
- From the aspect of the management of the State Civil Apparatus, the government issued Law No. 5 of 2014 on the State Spil Apparatus. This policy mandates the establishment of a non-structural institution, the State Civil Apparatus Commission (KASN), which aims to ensure the recruitment of merit-based ASN-based officials based on competency in order to realize the right men in the right place.
- From the aspect of work management and service behavior, the government has issued Presidential Instruction No. 12 of 2016 on the National Movement for Mental Revolution. This policy placed the PANRB Minister as the implementing coordinator focused on enhancing ASN's HR capacity, improving enforcement of the Apparatus discipline, improving service standards and innovative service systems (e-government), improving the performance of management system and improving public service behavior which is expected to be fast, transparent, accountable, and responsive.
- To evaluate the performance of bureaucratic reform, the government has issued...

- For the preparation of community satisfaction surveys, the government has issued KepmenPAN-RB Number 14 of 2017 on Guidelines for Preparing the Community Satisfaction Survey for Public Service Providers.
- For the use of Social Media (Social Media), the government has issued PermenPAN-RB Number 83 of 2012 on Guidelines for Utilizing Social Media of Government Agencies.
- To encourage the acceleration of public service innovation, the government has organized a Public Service Innovation Competition (KIPP) by requiring every Ministry/Institution and Regional Government to create at least 1 (one) innovation every year known as one agency one innovation. This policy is outlined in PermenPAN-RB Number 30 of 2014 on Guidelines for Public Service Innovation.
- To eradicate illegal levies, the government has issued Presidential Decree Number 87 of 2016 on the Task Force for Clearing Illegal Levies (Illegal Levies Siber). The job is to eradicate illegal levies by optimizing the utilization of personnel, work units and infrastructure, both in the ministries / institutions and regional governments.
- To provide convenience and affordability of public services, the government has issued PermenPAN-RB No. 23 of 2017 on the Implementation of Public Service Malls (MPP). This policy aims to provide convenience, speed, affordability, security and comfort to the public in obtaining services, and improve global competitiveness in providing ease of business.
- For ease of effort (Ease of Doing Business, EoDB), the government has issued dozens of economic policy packages in order to simplify and cut the long and complicated licensing chain, by applying the principle of HGSL (delete, merge, simplify, bestow).

The list of policies above will be even longer if it is associated with the elaboration of policies issued by Ministries/Institutions and Regional Governments (Provinces/Regencies/Cities), in the form of Ministerial Regulations, Institutions, Regional Regulations, Governor Regulations and Regulations of Regents/Mayors throughout Indonesia. So, considering the aspects and scope, the bureaucracy reform policy is actually quite complete, including the measurement instruments.

The question is: why is the implementation of bureaucratic reform still running slowly? Here are some critical notes to answer this question.

Policies are less responsive and adaptive to changing times. Every policy made by the government, whatever its form, aims to respond to changing times in order to ensure the creation of security, order, order, peace, harmony, rights and obligations in the order of life of the nation and state within the framework of the Republic of Indonesia (NKRI) and participate in maintaining world peace based on Pancasila, the 1945 Constitution and Unity in Diversity. So, the policy is made at a certain time, for certain purposes that apply as long as the policy is not revoked by a new policy or aborted by the Constitutional Court because there are parties who filed a judicial review.

The problem is, the fast changing times are very difficult to predict, causing policies to become less relevant to developments. Actually the solution is easy, change immediately with a new policy when the situation requires, then the problem is solved. But in practice, it’s not that easy. Moreover, the policy is in the form of a Law (UU) or Regional Regulation (Perda), because these two government policies must be formulated and approved by the legislature (Houses of Representatives). In reality, formulating a law or regional regulation requires a long and winding time, an unavoidable pull of interests and political lobbies which causes the delay on when the law or regulation should be passed. Even in some cases that surfaced to the public, the process of making laws or regional regulations had occurred acts of corruption and collusion between executive officials and the legislature. Articles and paragraphs and the ratification of regulations become commodities that can be traded.
(transactional) which have high value. As a result, there is a legal vacuum that narrows and inhibits the movement of the apparatus as implementing the policy (implementor).

The performance of lawmakers is also often questioned by the public, because their performance has been declining from time to time. According to a study by the Indonesian Parliamentary Community Concern Forum (Formappi) the performance of the House of Representative members in the field of legislation (law making) is very low. This can be seen until the end of the 2017 session; the legislative body only ratifies 6 Priority Draft Laws (RUU), whereas there are 52 bills that are included in the priority national legislation program. In addition to the 6 laws, there are 11 laws that were also passed by the House of Representatives, but the Law includes open cumulative categories, such as international conventions, budget Laws, and Government Regulations Substituting Laws (Perppu). The category law does not require design or discussion so that the approval process is faster. For comparison, in 2015 and 2016, the House of Representatives each passed 3 laws from 10 priority draft bills (BBC Indonesia, 21/12/2017).

Another problem is the limited ability or competency of lawmakers or regional regulations makers, both the executive and legislative bodies, in foreseeing further progress so that they can be anticipated in the laws or regulations that are being made. In the era of disruption like now this capability becomes very important, so that the resulting policies are not quickly outdated (expired).

A real example to provide an overview of the problem is Law Number 22 of 2009 on Road Traffic and Transportation. When formulating this law, none of the legislators were able to imagine that 8-9 years later there would be online-based public transportation (Grab, Uber and GoJek). As a result, there is no single article and paragraph in the Law that regulates it. Why the law is not immediately changed? Because, as described above, the problem of making or changing the law is not easy, it takes a long process. The short cut is to take the Regulation of the Minister of Transportation and the National Chief of Police Department as the legal basis, so that online-based transportation is not considered illegal.

Implementation of policies: Synergy and Egocentric. Many parties argue that one of the causes of the slow performance of the Indonesian bureaucracy is due to the lack of synergy between policy implementers, both between the Ministry and Institutions in the center and between the center and the regional government. This is due to several things, including: (a) the existence of sectoral or institutional egos, (b) conflicts of interest, (c) the inability of ASN’s HR to implement policies, (d) lack of socialization, and (d) the presence of political economy. According to the Deputy Head of Policy Research at the State Administrative Institution (LAN), there has been no significant change in the bureaucratic reform agenda due to the lack of synergy between existing agencies/ministries/institutions. Bureaucratic reform cannot be done by each institution alone, but rather as a team. Furthermore, it is said that until now each agency is still in the early stages of reforming, far from reaching the targeted output. Since it was first launched in 2010, there are 8 areas of bureaucratic reform that are scheduled by the government, namely institutions, human resources, governance, supervision, service, accountability, regulation, and mindset of the state apparatus. Of these 8 areas, 4 are the most difficult to change, including the mindset aspect, institutions, regulations, and human resource of the apparatus recruited (Tempo.co, 22/08/2017).

According to Professor of Public Administration at the Faculty of Social and Political Sciences, Universitas Gadjah Mada, Wahyudi Kumorotomo, there are still many matters handled by public institutions with a paradigm to make it difficult for service users. Regulations that are under executive control may have begun to improve, but there are still many needs for improvement of regulations under the law that require downsizing, such as HO (Hindrance Ordinance), TDP (Company Registration), Unification of Principle Licenses and Location Permits. Many regions are still fixated on the old regulations on licensing and there is no breakthrough. In some areas, the centralization of matters conducted in UPTSA has increased efficiency and simplified the procedures, but there are regions that have set new types of licenses for the same function. Consequently, although the national level of ease of doing business at the level has improved, in many regions the ranks have worsened.
What is needed now is a paradigm shift at the level of implementation, not a debate about the paradigm of bureaucratic reform at the concept level (Jawa Pos, 15/12/2017).

The issue of synergy is very important in the implementation of a cross-sectoral policy, in addition to considering the vast geography of Indonesia, and the unequal diversity of its human resources which makes building into the same vision not easy. Therefore, President Joko Widodo, in addition to carrying out activities to various parts of the country, also gathered several regional government leaders (Governors, Regents, Mayors and members of House of Representative) to the Presidential palace to equalize the vision and perceptions in implementing bureaucratic reforms to eliminate sectoral and institutional egos that hinder policies cannot be implemented as well as expected.

Public Service Innovation: Competition and Collaboration. Innovation is the creative process of creating knowledge in making different new discoveries and/or modifying existing ones. Public Service Innovation is a breakthrough type of service, either original creative ideas and/or adaptations/modifications that provide benefits to the community, both directly and indirectly (PermenPAN-RB Number 30 of 2014).

The policy of the Public Service Innovation Competition (KIPP) has been implemented since 2014 with the concept ‘one agency one innovation’. This policy is actually a very good policy, and can even be said to be a breakthrough to encourage the acceleration of bureaucratic reform, because this policy is (mandatory) followed by Ministries/Institutions/Local Governments. The objectives are: (a) selecting, documenting, disseminating, and promoting innovation as an effort to accelerate the improvement of the quality of public services, (b) providing appreciation for public service providers whose innovations are designated as Top Public Service Innovations, (c) motivating public service providers to increasing innovation, and professionalism in providing public services, (d) improving the image of public service providers, and (e) being a means of exchanging experiences and learning innovations (KemenPAN-RB, 2018).

Strategies to use include: (a) innovation is included in institution budgets, (b) innovation is part of institution’s tasks and functions, (c) innovation has a legal basis, and (d) innovation is used as an organizational culture (Muhamad Imanuddin, 2018). Following are the results of the development of KIPP implementation within 3 years.

Table 1 – Results of the development of KIPP implementation of 2014-2017

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered innovations</td>
<td>515</td>
<td>1.189</td>
<td>2.476</td>
<td>3.054</td>
</tr>
<tr>
<td>Stage Result:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desk Evaluation</td>
<td>Top 99</td>
<td>Top 99</td>
<td>Top 99</td>
<td>Top 99</td>
</tr>
<tr>
<td>Stage Result:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Presentation and Interview</td>
<td>Top 9</td>
<td>Top 25</td>
<td>Top 35</td>
<td>Top 40</td>
</tr>
<tr>
<td>• Field Verification</td>
<td></td>
<td></td>
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</tbody>
</table>


KIPP’s policy is very relevant in the current era of disruption, to encourage or even force all institutions to make breakthroughs or innovations in their respective area, while at the same time changing the passive/monotonous and slow bureaucracy culture to be creative and move dynamical so that it can be adaptive and responsive to the changes that occur. But based on experience, because the author has also been involved in this competition, there are several notes that need to be considered in the future.

First, innovation is the result of creative ideas to respond to the demands of society and changes in the environment. It takes people who have sufficient competence to create creative ideas, and translate them into a proposal within the format, system, number of words
and weight of assessment that have been determined by the organizer (KemenPAN-RB) before registering it online to sinovik.menpan.go.id.

The problem that arises at this stage is the limited human resources to develop very clear proposals. More often than not, institutions having creative and innovative ideas are not able to pour them well into a good proposal document. As a result, their proposals are eliminated at the Desk Evaluation stage. The solution is to use consulting services with the consequence of additional costs. HR competency ASN is again at stake when passing the Desk Evaluation stage to the next stage, namely the presentation and interview stages. If there is a good possibility of innovation in the proposal, but the people tasked to present and answer questions from the jury do not master the skills, they will be eliminated at this stage.

Second, this innovation is contested (competition), putting winners into the Top category, but the fact is there are more people who do not win (lose). This can be proven by comparing the number of innovations registeres to the number of innovations that get the Top title as shown in the table above.

In this context, there are two questions that must be answered: (a) for innovations that do not win or lose in the competition. Can these innovations be implemented to improve the performance of the institution or be simply thrown away, because they are considered losing (not innovative), even though they may still be useful for the institution, (b) for innovations that get the Top title. Is there a guarantee that the innovation will be implemented continuously in the institution? Because innovation needs to be developed and adapted to developments, especially the technology-intensive ones. Based on experience, not all innovations that fall into the Top category can be carried out consistently in the relevant institution. There are several factors, including: (a) lack of maintenance and development, (b) new regional leaders or agencies who consider innovations made by previous leaders not the results of their work, which in would make the innovation be used in vain.

Third, in the future it will be necessary to consider increasing the value and benefits of implementing public service innovations, namely: (a) the need for monitoring and evaluation of innovations that have been awarded Top Category. If not implemented, the Top ranking may be revoked, and transferred to similar institutions in other areas, (b) the need to change the approach, from competition to collaboration, and/or merge the two approaches, aiming to make the innovations that have been created, whether the ones receiving the title of Top Category and those that fail to, to be used to improve service performance, and (c) the change in approach from competition to collaboration requires a more in-depth study, because the problems faced are not easy. But if successful, most of the innovations made by Ministries/Institutions/Local Governments will be utilized to its maximum potential.

Information Technology Infrastructure: Limitation and Self-Disruption. The acceleration of bureaucratic reform is almost impossible without utilizing information technology. So, it needs not only the availability of Human Resources who are sufficient and competent in the field of IT, but also the availability of reliable and evenly distributed IT infrastructure throughout the country. This is a big challenge for the government if it wants to implement e-governance or smart governance, smart city or smart office or whatever term is used, which aims to integrate data and information in real time.

In some areas, especially in big cities, infrastructure technology might be very adequate. However, in other areas, it is not uncommon for people to have to climb the hills just to get mobile services, sometimes they might even need to climb trees. Running an internet-based application for public services demands speed and stability of internet access. Another crucial problem is that electricity is not always accesible in some regions. Even if it is available, there is no guarantee that people can rely on it for 24 hours. Without the availability of electricity, then any sophisticated device and application used will be in vain.

Cooperation with other countries that have succeeded in implementing e-government is also very much needed, such as South Korea which has succeeded in developing mobile government (m-gov). The results of the research by Prof. Kyoung Yul Bae (2011) shows that South Korea has consistently developed e-gov since the 1980s. Continuous development is carried out to adapt to technological progress. Now the South Korean government has been able to implement mobile government (m-Gov) by utilizing wireless-based communication
technology in the administration of government. M-Gov did not replace e-Gov, but rather it improves e-Gov to be accessible through cellphones, Personal Digital Assistants (PDAs), Wi-Fi devices, and mobile networks.

On April 18, 2018, President Jokowi led a Limited Meeting in Bogor to discuss the acceleration of reforms in the field of business licensing and plans to implement an integrated online licensing system called Online Single Submission (OSS). The plan is for the government to issue Presidential Instruction or Presidential Regulation to force all ministries, institutions and regional governments throughout Indonesia to simultaneously implement OSS, without waiting for the readiness of the local government. Conceptually, OSS is considered as a large-scale change to make all permits from the center to integrated areas become a single unit, so that licensing arrangements can be completed faster. Its other objective is to change the bureaucratic culture and eliminate sectoral egos (Tempo.co, 18/04/2018).

The idea of implementing OSS is very good, and it should have been implemented since a long time ago. President Jokowi has dared to conduct self-disruption by looking at the challenges that might be faced by the government in the future and to dismantle the old ways, despite dealing with bureaucratic culture and infrastructure conditions that have not fully supported, let alone the geographical issue of Indonesia, accompanied by the inequality of infrastructure development. This requires high commitment and consistency from government leaders to succeed as expected.

**State Civil Apparatus and Officials Recruitment: Competence and Corruption.**

The State Civil Service (ASN) Human Resources occupies a very important and strategic position in determining the success of the Indonesian bureaucratic reform. This is because ASN is the executor of various policies and the provider of services to the community. ASN is the driving force and agent of bureaucratic change so that it can compete with other nations in the world. So, no matter how well the regulations are made, or how well the system is built, and how sophisticated the technology used is, it all depends on ASN HR, both from the levels of education of the recruited that may influence competence and its distribution between regions and institutions, as well as its management.

The issuance of Law Number 5 of 2014 on State Civil Apparatus (ASN) can be considered as a major reform in the management of the state civil apparatus compared to the previous regulation of Law Number 8 of 1974 on the Principles of Civil Service. There are several new terms contained in this Act, including: State Civil Apparatus (ASN), Civil Servants Employees, (c) Civil Servants (PNS), (d) Government Employees with Employment Agreements (PPPK). In addition, the following naming of types of positions also changed: (a) Administrator Position, (b) Functional Position, and (c) High Leadership Position. The High Leadership Position (JPT) is divided into: (a) Main High Leadership Position (JPTU), (b) Middle High Leadership Position (JPTM), and Primary High Leadership Position (JPTP).

Another new thing is the establishment of a new non-structural institution named the State Civil Apparatus Commission (KASN). His duties are to promote and oversee the implementation of the ASN Basic Values, the implementation of the ASN employee code of ethics and code of conduct, and the implementation of merit systems in ASN policy and management, and maintain the neutrality of ASN employees from political intervention and ASN professional development.

Based on the 2017 KASN report released in January 2018, it can be seen that ASN in Indonesia is the driving force for bureaucratic reform, based on age groups and education, as shown in the graph below.

In its report, KASN also mentions several ASN problems that have the potential to disrupt the acceleration of bureaucratic reform in the future, including: (a) distribution of employees that do not meet needs, where most employees work in urban areas, (b) qualifications and competencies of existing employees do not match as required. At present, the number of administrative staff exceeds the need, while the number of technical staff is still very limited, especially in the expansion area, (c) the quality of the existing staff is still low, and (d) the ratio of ASN to the population is the lowest among neighboring countries (1.64%). This low ratio reflects the low ability of the bureaucracy to serve the community,
while the percentages in neighboring countries are as follows: Singapore (4.0%), Malaysia (5.0%), Philippines (2.9%), and Brunei Darussalam (11.4%). Other problems as the result of the zero growth policy and moratorium on CPNS acceptance over several years are: (a) aging ASN employees will disrupt the smooth succession of 440,000 ASN leadership positions, (b) “tsunami” threat of retirees because more than 40% of ASN employees over 51 years old (KASN, 2018).

Meanwhile, in the implementation of recruitment of officials, especially the High Leadership Officials (JPT), KASN has launched the High Leadership Position Selection (SIJAPTI) application which aims to facilitate the assessment of various parameters measured in the implementation of merit-based high-ranking officials recruitment. During the three years it has been implemented, the results were not very encouraging, even though it had increased. This can be seen from the comparison of the number of KASN recommendations regarding approval, repairs and cancellations/reviews, as shown in the graph below.

Parameters for repairs and cancellations/reviews indicating a still high trend can be interpreted that the recruitment process of high-ranking officials is not in accordance with the competency standards determined by KASN. This can be correlated with several cases that surfaced to the public, where officials recruitment becomes a commodity that can be traded by regional leaders. Some of the On Site Operations (OTT) conducted by KPK are related to the practice of buying and selling official positions, such as the case of the Klaten Regent, Nganjuk Regent, and Jombang Regent. This is an iceberg phenomenon, because it is not a
secret anymore and it has happened everywhere, not only in the three regions mentioned. To occupy a position, there will be some kind of fee requested. The more strategic the position, the higher the cost. This is a classic problem that has not been able to be completely eliminated until now. The recruitment of officials for high-ranking positions then seems only for show, because those who will occupy the positions are not determined by quality (competence), but rather by how much they are willing to pay (bribe).

This kind of practice causes some negative impacts in the long run, including: (a) the quality of officials appointed does not meet the required competency standards (incompetent), and this is one of the causes of the bureaucracy being less responsive and adaptive to changing times, (b) the potential for corruption will be even greater, because those appointed will have to obtain back the costs incurred, so the relevant officials must find a loophole for corruption in his institution, (c) close the opportunity for employees who have competence, but do not have the ability to bribe and/or, despite having high integrity, and (d) damaging the image of the bureaucracy in the eyes of the public, which in turn will lead to increased public distrust of the government. This is a big challenge to improve the bureaucracy in Indonesia in the future.

Closing: Millennials and a New Era of Indonesian Bureaucracy. In the midst of various problems and severe challenges faced by the Indonesian bureaucracy as described above, the question is, is there still an opportunity to improve the bureaucracy, considering the jargon of “World Class Bureaucracy”? There are two possible answers for that: (a) no, there is not (pessimistic), and (b) yes, there is (optimistic). The opportunity is not in reach anymore (pessimistic) because the bureaucracy system now is still run by ASNs who are now approaching retirement (51-60 years) which amounts to 1.5 million (34%) people of the total ASN available. However, there is still something we can improve (optimistic) if a massive recruitment is carried out to replace retired ASN with a new generation, millennial generation, by tightening the competency-based CPNS recruitment system (by merit), so that the best of our fresh generation will be recruited based on the level education, mastery of information technology, mastery of foreign languages (English), idealism, and integrity and work culture. If this can be done, bureaucracy will surely experience significant changes.

With regard to this matter, on March 27, 2018, KemenPAN-RB along with Ministries and Institutions across fields held a Presidential Lecture for CPNS at Istora Senayan Jakarta with the theme “United in Harmony: Towards a World Class Bureaucracy in 2024”. The event aims to improve insight and knowledge and open the perspective of CPNS to understand the challenges of the task in the industrial era 4.0. In addition to debriefing from President Jokowi, other speakers included Minister of Finance Sri Mulyani Indrawati, Head of BPIP (Pancasila Ideology Development Agency) Yudi Latief, and CEO Gojek Nadiem Makarim.

MenpanPAN-RB, Asman Abnur in his report stated that in 2017, selection was made for 37,138 CPNS formations in 62 ministries/institutions and 1 province with a total of over 2.4 million applicants. This number is divided into a general formation (34,167), Cumlaude graduate formation (2,310), disability formation (168), and the formation of youths from Papua and West Papua (493). Full recruitment used a Computer Assisted Test (CAT) system, which made the results accesible to be viewed in real time. This is to keep the selection process clean, transparent, objective and free from corruption, collusion and nepotism. Therefore, it is expected that ASN who passed the 2017 selection are the best of the nation’s fresh generation.

Meanwhile, in order to increase the capacity of ASN, KemenPAN-RB with the Institute of State Administration (LAN) are transforming the conventional Education and Training for ASN into a Training based on Human Capital Management through the development of ASN Corporate University. This breakthrough training functions all government agencies as learning institutions by combining various educational progressive training systems, such as e-learning, coaching, mentoring and On the Job Training (OJT) (KemenPAN-RB, 2018).

CPNS recruitment that has been implemented in 2017 and the transformation of the Education and Training model that will be developed to increase ASN’s capacity are very relevant to the current disruption era. Because: (a) the recruitment system has changed significantly compared to the recruitment of CPNS in previous times which tend to be just for
show and filled with corruption practices, (b) those recruited are millennials who have several advantages in terms of education, including being cumluade graduates, mastering information technology, being familiar with social media and foreign languages (English), (c) the bureaucratic environment is undergoing changes towards the better future as the result of bureaucratic reform, and (d) a more modern education and training model.

However, there are a number of things that pose challenges in the future, both to the sustainability of the CPNS recruitment system and the capacity and career development of the CPNS themselves.

First, the sustainability of the application of the CPNS recruitment system. This system can be considered relevant to today’s demands. The problem is, if there is a change in the presidential position and/or the minister who handles this problem, there is no guarantee that the system will continue. Because based on experience, new leaders’ orientation regarding policies will differ from the previous leader.

Second, for CPNS itself. The number of CPNS recruited in 2017 is still small compared to the number of existing ASN, meaning that newcomers will have to adjust to pre-existing environment that has been established with a certain mind-set and culture-set. Will these newcomers be “contaminated” with old patterns or will they be able to become an initiator and agent of change within the institution where he is placed?

A New Era of Indonesian Bureaucracy will be realized as a World Class Bureaucracy, if CPNS recruited from the millennial generation are able to become initiators and agents of change in their respective institutions. If not, then we have to wait longer, until most of the ASN from the old generation are replaced by millennials.

REFERENCES

1. Balipos.com, 19/05/2017. Renald Kasali Translated “Digital Disruption” at the Second National Coordination Meeting (Rakornas) on Tourism.
2. BBC Indonesia, 21/12/2017. 2017 House of Representative Performance Image: Corruption cases, leadership and failing to meet the target
7. 08/02/2018. 2018 Launching of Public Service Innovation Competition. (https://menpan.go.id)
10. Kompas.com, 08/02/2017. Asman the Minister: Indonesia’s International Competitiveness Declined from Ranking 37 to 41
11. Kompas.com - 08/02/2017,s.com, 29/12/2017. Throughout 2017, Ombudsman Received 7.999 Public Complaints.
13. Monitor.co.id, 29/12/2017. Here are the Challenges Faced by ASN to Reform Bureaucracy
17. Renald Kasali, 2017. Disruption. Nothing is Going to Change If We Do Not Face It,
Motivation is Not Enough. Competing with the Unseen in Uber Era. Gramedia Pustaka Utama.
22. Tempo.co, 22/08/2017. LAN: The Insignificant Bureaucratic Reform of Indonesia
24. Wikipedia.org, 2017. Disruption Innovation
MUTUAL FUND PERFORMANCE IN INDONESIA

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ABSTRACT
The purpose of this study was to explain the performance of equity funds in Indonesia for the 2013-2017. The research subjects were equity mutual funds listed on the Indonesia Stock Exchange (IDX) with a number of samples taken as many as 73 equity mutual fund products, with purposive sampling method. Data analysis method uses two average difference test analysis techniques (Independent Sample t-test). The results show that the performance of equity funds has not been able to outperform market performance during the observation period. Comparison between the performance of equity funds and market performance shows that there are no significant differences. There is no difference in investments through mutual funds of shares or ordinary shares in generating risk adjusted returns. The practical implication that can be given from the findings of this study is that this study can be used as information for investors in choosing investment instruments in the Indonesian capital market. In accordance with the results of the study, investors can invest in the form of ordinary shares or equity funds because it produces the same rate of return adjusted risk.

KEY WORDS
Mutual funds, performance, market, investment.

Mutual funds according to Capital Market law number 8 of 1995 article 1, paragraph (27) "Mutual funds are a container used to raise funds from the public for further investment in securities portfolios by Investment Managers". Mutual fund products are sold in the form of investment units. The investment unit is stated as the number of investors' ownership in the mutual fund. NAB (Net Asset Value) is the amount of funds managed in a mutual fund. NAB is obtained by calculating the total market value of portfolio securities minus liabilities, then divided by the number of shares outstanding (Jones, 2012). The return on mutual funds is obtained based on the difference between the NAV per unit of participation when making a purchase with the NAV per unit of participation when reselling.

Equity mutual funds are mutual funds with an investment portfolio of at least 80% which are securities in the form of shares (Wijaya, 2013). Mutual funds generally use an active strategy approach. Investment managers actively conduct market research and buy assets to form a mutual fund portfolio. The purpose of investment managers doing market research and asset change is to outperform benchmarks in order to get a greater return (Baker et.al, 2016). Changes in assets that form a mutual fund portfolio have an impact on the performance of equity funds. Periodic evaluation of mutual fund performance is one of the important factors in choosing a mutual fund that can provide optimal results.

The benchmark that can be used to compare the rate of return on a mutual fund is the market rate of return. Market returns in Indonesia are often used as a benchmark, namely the Composite Stock Price Index. The performance condition of mutual funds is seen from the rate of return compared to the JCI during 2017.

Research on the performance of mutual funds has been carried out in several countries. Research conducted by Ashraf and Sharma (2014) on the performance of mutual funds in India shows that most mutual funds outperform market benchmarks. This research was supported by Panda and Moharana (2014), Goyal (2015), Choudary and Chawla (2016), Agarwal and Mirza (2017), Yalavatti and Bheemannagouda (2017). Research on the performance of mutual funds in Croatia shows that mutual funds are able to outperform market performance in Novakovic (2015), Curkovic and Kristo (2017). The performance of
mutual funds in China shows better performance than the benchmark in research conducted by Kiymaz (2015). Research by Ömer Faruk Tan (2015) also shows that South African equity funds have a good performance. Other studies such as Ravi et al. (2013), Abdullah and Nur (2014), Qamruzzaman (2014), Lemensko and Rejnjus (2015), Srinidhi et. al (2016) showed different results, that the performance of mutual funds showed a performance that was not better than the performance of the benchmark.

LITERATURE REVIEW

Investment is the current commitment to a certain amount of funds held in a certain period of time to gain profits in the future (Reilly and Brown, 2012). According Jogiyanto (2013), investment is a delay in current consumption to be included in productive assets for a certain period of time. Jones (2014) defines investment as a broad activity and leads to deposits in physical form such as gold or buildings, or in the form of letters, bonds, shares or mutual funds.

The approach commonly used in managing portfolios is Markowitz’s approach. Markowitz’s approach bases the portfolio management framework based on the principle of returns and risks. Markowitz also introduced the concept of diversification which aims to reduce portfolio risk without sacrificing expected returns (Wiksuaana, 2017). Portfolio management recognizes the concept of risk reduction as a result of adding securities to the portfolio. The more number of shares that make up a portfolio, the greater the benefits of risk reduction (Tandelllin, 2010). The concept of risk minimization is in line with the law of large numbers in statistics. The concept states that the greater the sample size, the more likely the sample average is to approach the expected value in the population (Jones, 2012). The more the amount of securities entered into the portfolio, the greater the risk reduction benefits obtained. Risk minimization can occur due to variations in income levels between securities in a given period, so combining various securities in a portfolio causes portfolio income levels to become more stable and reduce risk (Wiksuaana 2017).

Passive portfolio strategy is a strategy where investors tend to be passive in investing in stocks and only base the movement of stocks on the movement of the market index. Investors are not active in seeking information or buying and selling shares that can produce abnormal returns. Investors with a passive strategy, believe that the market price that occurs is a price that reflects the intrinsic value of the stock. The strategy that belongs to the passive portfolio strategy is the buy and hold strategy and the indexing strategy. Active portfolio strategy is a strategy where investors tend to be active in finding information, buying and selling shares, following the time and movement of shares, as well as various other active actions to get abnormal returns. There are two approaches to stock analysis, namely a fundamental analysis approach and a technical analysis approach. Fundamental approach, analyzing a stock based on company data and reports. Technical approach, analyzing a stock by looking for patterns of stock price movements to estimate its movement in the future. The strategies included in the active portfolio strategy are stock selection strategies, sector rotation strategies and price momentum strategies.

Definition of mutual funds according to the Capital Market Law Number 8 of 1995 Article 1, paragraph (27): "Mutual funds are a place to raise funds from the investor community which will then be invested in securities portfolios by the Investment Manager". Mutual funds come from the words 'mutual' and 'funds'. Mutual means maintaining or maintaining funds means money so that mutual funds can be interpreted as a collection of money that is guarded by certain parties to make a profit. As for other definitions, where mutual funds are a collection of funds obtained from investors, then managed by investment managers (Sekhar, 2017). Mutual funds are like a basket in which there are various types of stocks owned by an investment manager. The shares contained therein will vary between one mutual fund and another. The selection of stocks depends on the decision of the investment manager of the mutual fund manager.

One important factor in investment decisions is to assess portfolio performance. Portfolio performance provides information about the funds that have been invested.
According to Tandellilin (2010), portfolio performance evaluation is related to 2 things, namely whether portfolio return is able to provide a return that is greater than portfolio return which is used as a benchmark and whether the return obtained is in accordance with the level of risk that must be borne. There are 3 methods of measuring portfolio performance based on the concept of return and risk. These three measures are known as risk-adjusted returns because they combine return and risk in a calculation (Tandellilin, 2010).

An efficient market is defined as a market where the price of all securities fully reflects all available information (Jones, 2012). The price of securities in an efficient market reflects the information available so as to provide a rate of return that is consistent with the level of risk. Relevant new information enters the market and relates to assets, resulting in the information being used in the analysis and interpretation of the value of the assets concerned. The result is a possible shift to the new equilibrium price. The equilibrium price will change when other new information enters the market. The market reacts quickly and accurately to form a new equilibrium price that fully reflects the information available. Such conditions are called efficient markets.

**Hypotheses.** Portfolio performance evaluation is related to 2 things, whether portfolio return is able to provide a return that is greater than portfolio return which is used as a benchmark and whether the return obtained is in accordance with the level of risk.

Research on India equity funds performance by Ashraf and Sharma (2014) shows that mean of equity funds return is higher than the average market return. Goyal (2015), Choudary and Chawla (2016) also found results that the mean of mutual funds return was higher than benchmark returns. Other research on the performance of mutual funds in China by Kiymaz (2015) shows that overall mutual funds in China have better performance than their benchmarks.

Based on the description of the theory and the results of previous studies, the hypothesis proposed in this research is:

H1: There are significant differences between the performance of equity funds and market performance.

**METHODS OF RESEARCH**

This research includes quantitative descriptive research because this study aims to look for the performance of equity funds. This study wants to find out performance of equity funds in the Indonesia Stock Exchange (IDX). Variable in this research is performance of equity funds (\(T_{RD}\)), which is calculated using the Treynor index, which is one of the risk-adjusted return measures.

\[
T_{RD} = \frac{R_{RD} - R_{RF}}{\beta_{RD}}
\]

Where:
- \(T_{RD}\) = Treynor measures per equity funds product;
- \(R_{RD}\) = mean of equity funds return in t-period;
- \(R_{RF}\) = mean of risk free rate return in t-period;
- \(\beta_{RD}\) = equation of linear regression (risk).

The results of the calculation of the performance of equity funds using the Treynor will be compared to market performance, to see whether the performance of equity funds is better or worse than market performance. This study also aims to see whether the performance of equity funds has a significant difference with market performance. This research was conducted using historical data on Net Asset Value (NAV) of equity funds on the IDX.

The population used in this study is all equity funds listed on the Stock Exchange in the period 2013-2017 as many as 216 equity funds. The method of determining the sample in this study is the purposive sampling method that is by selecting a sample with certain criteria. The criteria used are equity funds that are sampled as conventional non-mutual fund
mutual funds. Islamic mutual funds do not solely take into account high returns. Sharia mutual fund management involves the process of cleaning non-halal income. This research focuses on finding a high rate of return with the lowest possible risk, so that only the conventional equity funds are calculated. The samples obtained were 73 samples. Test the hypothesis by testing the normality first. This test is conducted to find out whether the data comes from a population that is normally distributed. Testing normality using the Kolmogorov Smirnov (K-S) test. After that hypothesis testing is done to see the significance of differences in the performance of equity funds using the two average difference test (independent T-test).

\[
t = \frac{X_1 - X_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{1}{\sqrt{n_1 + n_2 - 2}}
\]

Where:
- \(X_1\) = average performance of equity funds (Treynor);
- \(X_2\) = average market performance;
- \(S_1\) = standard deviation of the performance of equity funds;
- \(S_2\) = standard deviation of market performance;
- \(n_1\) = number of sample performance of equity funds;
- \(n_2\) = total sample market performance.

**RESULTS OF STUDY**

*Results of Calculation of Market Returns.* The calculation of mutual fund return in this study uses the mutual fund return formula described in the operational definition. The data used to calculate mutual fund return is the annual NAV of 73 mutual fund samples for the period 2013 to 2017.

![Figure 2 – Mean Return Equity Fund Per Year](image)

Return on equity funds in 2013 showed that 70% of equity funds had negative returns, while the other 30% had positive returns. This period's equity funds produced an average return of -0.0206401%. Return on equity funds in 2014 shows that almost all equity funds have a positive return. The equity fund for the period of 2014 resulted in an average return of 0.271969831%. The opposite happened in 2015, all mutual funds have negative returns. The equity funds for the 2015 period resulted in an average return of -0.141704062%. Returns on equity funds in 2016 and 2017 showed 95% and 93% of equity funds had positive returns. The equity fund for the period of 2016 resulted in an average return of 0.109324565%, while the 2017 mutual fund period was able to generate a return of 0.127786557%.

*Results of Calculation of Market Returns.* Market return is a market rate of return that uses data from the Composite Stock Price Index (CSPI). Market return calculation is done as a benchmark for the performance of equity funds. Calculation of market return in this study
uses annual CSPI data during the study period. The results of the calculation of market returns during the study period indicate a fluctuating return. Market return in 2013 showed a negative return of -0.00984783%. The market return in 2014 showed a positive return of 0.222913089%. Market return in 2015 showed a negative return of -0.121282844%. Market return in 2016 shows a positive return of 0.153211795%. The market return in 2017 shows a positive return of 0.199924632%.

Figure 2 – Return Market per Year

Risk-free Return Calculation Results. Risk-free returns are assumed to be at interest rates for Bank Indonesia Certificates (SBI). The calculation of risk-free return in this study uses the average annual SBI interest rate during the study period. Following is the result of risk-free return calculation.

<table>
<thead>
<tr>
<th>Year</th>
<th>Risk Free Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>6.48%</td>
</tr>
<tr>
<td>2014</td>
<td>7.54%</td>
</tr>
<tr>
<td>2015</td>
<td>7.52%</td>
</tr>
<tr>
<td>2016</td>
<td>6.00%</td>
</tr>
<tr>
<td>2017</td>
<td>4.56%</td>
</tr>
</tbody>
</table>

Table 1 – Risk Free Return

Primary Data, 2018.

Figure 3 – Comparison Mean of Equity Fund with Mean of Market Return Period 2013-2017

Beta Calculation Results. Beta calculation is obtained by regressing between return on equity funds and market returns. Beta is a measure of the sensitivity of return on equity
funds to market changes. Beta calculation in this study uses Microsoft Excel program with a formula \( = \text{SLOPE}(y, x) \), where \( y \) is a mutual fund return and \( x \) is a market return. The higher the beta, the higher the potential risk that can occur. Beta calculations are conducted per sample in equity funds.

**Performance Calculation Results using the Treynor Method.** Comparison of the average performance of equity funds with the average market return is shown in Figure 3.

The results of performance calculations during the study period indicate that there are no equity funds that consistently outperform market returns. The Treynor ratio in 2013 showed that 5 equity funds had a positive Treynor ratio and 68 equity funds with a negative Treynor ratio. Comparison of the performance of equity funds with market returns shows that there are 5 equity funds that have a performance above market performance (outperform). The Treynor ratio in 2014 shows that 72 equity funds have a positive Treynor ratio and 1 equity mutual fund with a negative Treynor ratio. Comparison of the performance of equity funds with market performance shows that 66 equity funds have performance above market performance (outperform).

![Significance Difference Testing between Equity Funds Performance and Market Performance](image)

**Figure 4 – Significance Difference Testing between Equity Funds Performance and Market Performance**

The Treynor ratio in 2015 shows that 1 equity fund has a positive Treynor ratio and 72 equity funds with a negative Treynor ratio. Comparison of the performance of equity funds with market performance shows that 1 equity fund has a performance above market performance (outperform). The Treynor ratio in 2016 shows that 68 equity funds have a positive Treynor ratio and 5 equity funds with a negative Treynor ratio. Comparison of the performance of equity funds with market performance shows as many as 45 equity funds that have performance above market performance (outperform). The Treynor ratio in 2017 shows that as many as 64 equity funds have a positive Treynor ratio and 9 equity funds with a negative Treynor ratio. Comparison of the performance of equity funds with market performance shows as many as 55 equity funds that have performance above market performance (outperform).

The results of hypothesis testing using independent sample t-test showed a significance value above 0.05, which mean performance of equity funds and market performance that there are no significant differences. There is no significant difference between the performance of equity funds and market performance, indicating that the risk adjusted return of equity funds is the same as the rate of return of market. This is shows that there is no abnormal return. Investments through conventional stocks or equity funds will provide the same return.
CONCLUSION AND SUGGESTIONS

The performance of equity funds in Indonesia in this study shows that the performance of equity funds has not been able to outperform market performance consistently during the observation period. Comparison between the performance of equity funds and market performance shows that there are no significant differences. There is no difference in investments through mutual funds of shares or ordinary shares in generating risk adjusted returns. Investors can invest in the form of ordinary shares or equity funds because it produces the same rate of return adjusted risk. Investors who choose to invest through mutual funds can choose a mutual fund that has a mean performance above the market mean return. The limitations in this study are the assessment of the performance of equity funds based on Treynor performance calculations. For further researchers to add other factors in assessing the performance of equity funds such as assessing the ability of investment managers through market timing ability, composition of investment portfolios, analyzing the influence of AUM (asset under management) on the performance of equity funds.

REFERENCES

IS ACCOUNTING FOR AGRICULTURAL ASSET APPLICABLE IN INDONESIA?

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ABSTRACT
The study aimed to discuss underlying reason why the national agricultural industry, dominated by small and middle sector, did not establish a standardized accounting for agricultural assets instead of adopting IASB accounting system. This new standard would become a better fit for the culture and characteristics of the national agricultural sector. The study used critical paradigm because until recently Indonesia has not adopted IAS 41 yet and as the consequence, there was not any document that recorded biological assets of the livestock industry comprehensively. As an agraris country, Indonesia should establish standardized accounting system for agricultural asset. The finding showed that the national agricultural asset was regulated in an accounting standard that had worked effectively since January 1, 2018. This standardized accounting system adopted IAS 41 accounting system. However, IAS 41 only worked for large-scale agricultural industry and did not work as effectively for the small and middle-scale agricultural industry Indonesia had. The major obstacle was to establish fair value, more particularly one for reliable measurement. Establishment and adoption of standardized accounting system should take local culture and wisdom into account. It is expected that the National Standard Establishment Board’s idea to adopt IAS 41 does not lead to new capitalism since evidence showed potentials for nepotism between actors of the agricultural industry.

KEY WORDS
Fair value, historical cost, agricultural assets, IAS 41.

The study focuses on the lack of financial accounting standard for the national agricultural asset. As an agraris country, Indonesia has currently implemented “Standar Akuntansi 69,” an accounting system adopted from IAS 41 on January 1, 2018 after a two-year delay. Standardized harmonization is the reason for the adoption of IAS 41 in PSAK 69. Based on study of the Institute of Chartered Accountants of Scotland (published in February 2011), once the system was implemented, IAS 41 had various drawbacks (Aryanto, 2011). Elad (2004) stated that IAS 41 was controversial because it showed the most radical and comprehensible distinction of fair value accounting and thus, caused both theoretical and practical issues. This distinction may be seen in value of company’s assets, revenues and profit among others. Elad (2004) also explained that using subjective assessment in fair value estimation, for example similar asset market prices or the use of current value models, would result in different treatments which may inhibit comparability and harmonization. Furthermore, Herbohn and Herbohn (2006) and Dowling and Godfrey (2001) emphasized on increase in volatility, manipulation and subjectivity from reported income based on fair value.

Another purpose of the adoption of IAS 41 into PSAK 69 is standard harmonization. Some studies showed criticism towards standard harmonization that similar accounting standard worked in all countries. Mulawarman (2012) and Rodrigues and Craig (2007) described hegemony of nation through accounting standard. Furthermore, Rodrigues and Craig (2007) revealed that IFRS accounting standard could accommodate interest of listed company only, and therefore, it was suggested that IFRS accommodate that of both listed
company and small medium enterprises (SME). Furthermore, convergence refers to a process that should take harmonization between industries and environmental sustainability into account. Therefore, plan to adopt IAS 41 completely become paradoxical picture since, based on the data from the Department of Agriculture, the national agricultural industry is dominated by small and middle-scale agricultural industry. Thus, instead of using IAS 41 as the sole basis of PSAK 69, it should take into account recognition, assessment and disclosure of agricultural assets for smaller industry.

The researchers used this rationale to discuss underlying reason why the national agricultural industry, dominated by small and middle sector, did not establish a standardized accounting for agricultural assets instead of adopting IASB accounting system. Previous studies on agricultural assets are dominated by ones discussing crops; very few studies on the sector focused on livestock. Literatures on IAS 41-based agricultural asset mostly discussed crops and plantation, for example Mates and Grosu (2008), Bohušová et al. (2012), Kurniawan et al. (2014), Grege-Staltmane (2010), Jana and Marta (2014), Lefter and Roman (2007), Josep et al. (2009), Sedlacek (2010), Athanasios, Athianos, Strergios (2010), Feleaga et al. (2012), Arglès Bosch et al. (2012), Cooper and Sherer (1984). Very few studies discussed cattle or livestock. This is an interesting phenomenon, since according to IAS 41, agricultural asset involves both plant and also living animal (Lefter and Roman, 2007).

In general, based on the previous elaboration, there are several aspects related to the government’s plan to adopt IAS 41 into ED PSAK 69 to criticize and discuss in this study. Elad and Herbohn (2011) conducted study in France, England and Australia. The study revealed interesting fact. Even though IAS 41 is implemented in those countries, but asset recognition with cost model is the most common model used for agricultural asset. The study explained that 9 out of 17 companies in France that were legally required to adopt IAS 41 refuted assumption that reliable assessment of fair value was possible; it justified the use of cost model although various alternatives for fair value were applicable, for instance net present value, independent or external assessment for apraisal, net realizable value, as well as market value. Implementation of these alternatives from one country to another is not similar. Therefore, IAS 41 has failed to improve comparability of accounting practice for agricultural sector in international level. IAS 41 adoption into PSAK 69 that treats all agricultural assets equally, is predicted to result in similar issues. IAS 41 used accretion as treatment for all agricultural assets, creating problem for its implementation in the industry. Based on agricultural industry actors in Malaysia and India, it is a challenge to apply fair value method for biological assets before harvest (AOSSG, 2013). Malaysia Accounting Standard Board (MASB) suggested IASB to develop practical guidance for measuring biological asset before harvest but IASB has not come up with one yet until recently. There is a possible that similar issue will take place once Indonesia adopts IAS 41.

Rodrigues and Craig (2007)’s study revealed that IFRS accounting standard accommodated interest of listed company only, and therefore, IAS 41 may only be implemented in large industry more particularly companies listed in secondary market. How about livestock industry in Indonesia? Data from the Agricultural and Livestock Office showed that until 2013 small and middle-scale industry dominate agricultural commodity in Indonesia (Nurtini and Anggriani, 2014: 10). Adoption of IAS 41 into PSAK 69 allow only very few industries to meet standardized disclosure for agricultural asset. In order to benefit the national agricultural industry, PSAK 69 should take the current condition of the industry into consideration.

**METHODS OF RESEARCH**

*Critical Paradigm as Research Foundation.* The study used qualitative design since there was relationship between the theoretical framework and the statement of problem and meaning attached to individual or group in natural social environment. The sources of data were participants, the researchers’ intuitive reflection, interpretation and description of the statement of problem as well as review of related literatures. The objective was to make
interpretation on particular issue without quantitative data analysis (Creswell, 2013:59). Paradigm in social definition was one of the specific aspects of Weber’s analysis on social action. There are three theories in the social definition paradigm, namely action theory, symbolic interactionism, and phenomenology. Herbert Blumer, one of symbolic interactionism experts, stated that human society organization was framework in which individual behavior was not deciding factor of social action.

The study used critical paradigm. This paradigm was used because until recently livestock industry in Indonesia has not adopted IAS 41 yet and therefore, there was not any sufficient record for the industry’s agricultural asset. As an agraris country, Indonesia should establish an accounting standard for its agricultural asset.

**Research Setting and Unit of Analysis.** Preliminary observation was conducted to decide research setting, unit of analysis and informant. Based on the observation, the researchers found out that Indonesia has not established an accounting standard for either livestock or plant. There is a regulation issued by the Ministry of Finance. In addition, most cattlefarms, more specifically cows, are located in Java and most of these cattlefarms are small-scale industry. Culture plays significant role in agricultural industry and assets and as the consequence, IAS 41 adoption was quite a challenge. Based on the phenomenon, the setting of the study was agricultural industry. The unit of analysis was how readers (informants) put meaning towards agricultural asset recording in different scales of agribusiness industry. The informants were agricultural business actors, auditor, and academics.

Purposive sampling was used to select the informants. Criteria for being selected as the informants were individuals who were involved in activities that become the target of this study frequently and for significant amount of time. The informants were able to not only give information but also had comprehension towards the national agricultural industry due to their active participation. Their active participation in this environment or activity was the primary consideration in selecting these individuals as the informants.

**Data Collection Technique.** The researchers acted as research instrument so that they were able to organize field activities and path of study (Moleong, 2006: 163). The data collection methods were focus group discussion (FGD), interview, field observation in agricultural industry and documentation.

The interview was conducted in both formal and non-formal setting depending on context of the study in order to obtain data on the informants’ perspectives on biological asset assessment. Interview allowed the researchers to have natural interaction with the informants and convey meaning behind the interaction.

The researchers also developed some questions based on the informants’ feedback. These feedbacks would convey meaning in an interaction between the actors in biological asset assessment. Meaning was sometimes conveyed in interaction with other people’s help instead of random act. Interaction between people held developing meaningful comprehension. Such comprehension, according to Moleong (2006:11), was essential in symbolic interaction. Hence, interaction became conceptual paradigm that exceeded “intrinsic motivation,” “personal characteristics,” “subconscious motivation,” “coincidence,” “socio-economic status,” “role obligation” or its physical environment. These theoretical concepts may be beneficial but was only relevant once definition process has begun.

**Method of Analysis.** This study was intended to give interpretation towards reality taking place in agricultural asset assessment using critical perspective. Traditionally, agricultural asset was based on recognition, acquisition, recording, and asset valuation. Agricultural asset became interesting because it was a growing asset. In small-scale cattlefarm, there was an interaction between farmers because cross-breeding where the farmers lent and borrowed livestock between each other was a common phenomenon in the cattlefarm.

The analysis and discussion were continued with understanding meaning of the biological assets assessment through valuation symbols as a phenomenon in livestock business. Methods to understand interaction was through symbols used by individuals in
performing an action and interaction. The data obtained from the informants were then analyzed using the principles of symbolic interactionism (Ritzer and Goodman, 2013: 373).

RESULTS AND DISCUSSION

The purpose of this research was to criticize the implementation IAS 41 as the accounting standard for agricultural asset in Indonesia. The data collection techniques were focus group discussion (FGD), observation in the agriculture industry, and interviews with the actors in the industry. Based on the results of the focus group discussions (FGD) involving the National Standard Establishment Board, agricultural industry actors, auditors from public accountant offices and financial accounting lecturers, observation and interview, a standardized accounting system for agricultural assets was necessary because Indonesia as agroindustrial country planned to go towards the industrial revolution 4.0. However, the full adoption of IAS 41 was not a suitable decision because the national agricultural industry was dominated by small and medium-scale industry. IAS 41 was more suitable for listed in the listed company instead of smaller scale industries.

This research attempted to describe the implementation of IAS 41 in various countries in order that Indonesia established a more suitable accounting standard for its agricultural industry and economic structure. Criticism towards the globalization of accounting standards was also supported by the actors actively involved in this industry.

Countries in which IAS 41 is Implemented as Reflection of Agricultural Asset Implementation Researchers have conducted previous studies on implementation of IAS 41 in several countries. They generally focused on agricultural sector or crops. Malaysia Accounting Standard Boards (MASB) stated that the implementation of IAS 41 in Malaysia encountered various issues and so did in India and other countries. Elad and Herbohn (2011) conducted study on implementation of IAS 41 in UK, France and Australia. Elad and Herbohn (2011) found out that these countries applied IAS 41 on asset recognition using cost model, the most frequently used model for biological asset. The finding revealed 9 out of 17 French companies that were required by law to adopt IAS 41 refuted assumption that reliable measurement of fair value was possible. It justified the use of cost model although various alternatives for fair value were applicable, for instance net present value, independent or external assessment for apraisal, net realizable value, as well as market value. Implementation of these alternatives from one country to another is not similar. In short, IAS 41 failed to increase comparability of accounting practice in agricultural sector in international level.

Mates and Grosu (2008) conducted study on IAS 41 adoption in agricultural sector. The study tried to evaluate IAS 41 and stated that this accounting standard regulated accounting treatment as well as information related to biological asset in agricultural activities. Mates and Grosu (2008) postulated that IAS 41 did not discuss how frequent company should conduct biological asset asessment, and therefore, drew conclusion that asset evaluation or estimation should be conducted at the end of an accounting period although there was not any rules that stated as such. Mates and Grosu (2008) also explained that IAS 41 described general overview on fair value of biological assets that could be realized. IAS 41 was a standard that regulated biological asset management in terms of increase in agricultural harvest, logging, cultivation; horticulture and aquaculture. Biological transformation refers to growing, maturing, production and procreation of biological asset. This transformation may also result in new types of plants or transformation of other biological assets. Relevant characteristics to classify asset are nature, naturalness, possibility for consumption and production quality and capacity.

Various criticismo n this issue also appeared in Czech Republic. Bohušová et al. (2012) pointed out discrepancy between agricultural activities and activities unit business conducted to maintain going concern through profit-seeking. The study was conducted in Czech Republic. Agricultural activity relied on nature, environment and geographical position. Objective of the study was to identify potential issues IAS 41 might encounter and
suggestions to eliminate the issues. Bohušová et al. (2012) identified biological asset that specifically analyzed agricultural production up until asset transformation.

Finding of Bohušová et al. (2012)’s study showed similar to Indonesia, Czech Republic once used Generally Accepted Accounting Principal as accounting standard and then IAS based on FASB suggestion with IFRS standard. Bohušová et al. (2012) revealed that implementation of IAS 41, more particularly in terms of reporting, was quite sophisticated. IAS 41 did not provide any solution for transformed asset reporting. Cost model was considered more relevant for agricultural sector compared to fair value making implementation of IAS 41 in Czech Republic heavily influenced by cost method, the foundation of GAAP. Bohušová et al. (2012) also questioned what method non public accountability industry that applied IAS 41 should take in terms of reporting; in other words, IAS 41 was suitable for large-scale industry listing in secondary market only.

Kurniawan et al. (2014) also conducted study on IAS adoption plan in Indonesia. Kurniawan et al. (2014) conducted a study in plantation sector and in-depth meaning dimension. It aimed at anticipating threat that may appear in biological asset assessment due to monetary logocentrism in accounting. It offered a new concept that adopted Indonesian culture developed based on ethnomethodology from Indonesian farmers’ point-of-view as well as lives that were closely related to agricultural utility cycle. The study showed that agricultural accounting was applicable even though another approach but monetary unit was used as valuation.

Grege-Staltmane (2010) conducted study on IAS 41 in Latvia. The study focused on forest accounting because of the researcher’s assumption that forest had longer production cycle. Thus, forest accounting had distinctive characteristics. The researcher argued that accounting experts paid very little attention on accounting for forest activity. This article analyzed IAS 41 application for forest accounting using fair value as foundation. The finding showed that land and log of wood value should be recorded separately and one should predict fair value of growing piece of wood. The researcher mentioned that despite of the International Accounting Standard Board (IASB)’s effort for improving biological asset accounting using IAS 41, forest accounting still needed some improvement.

Jana and Marta (2014) also conducted study on biological asset and agricultural harvest evaluation process based on IAS 41. Objective of this study was to describe how much influence IAS 41 implementation had towards business actors’ behavior. The finding became suggestion for Exposure Draft ED/2013/8 to compare between the findings and solution stated in Bearer Biological Asset (BBA) (IAS 16 and IAS 41 Proposed Amendment), the International Accounting Standard Board (IASB) published for the comment accepted on October 28, 2013. The researchers distributed questionnaire to 104 agricultural companies and then compared the questionnaires to solution IASB proposed. Objective of this study was to verify the following hypotheses: opinion of most respondents who filled out the questionnaire on how to use biological asset assessment value and agricultural harvest and whether or not it was conflicting to the solution when ED was adopted.

IAS 41 was considered as important standard because it was starting point for consistent transition from Historical Cost (HC) principle to fair value (FV) accounting (Lefter and Roman, 2007). Besides that, this economic branch play significant role for developing countries. On the other side, 41 was also applicable for agricultural activities of companies from other sectors. Josep et al. (2009) who conducted another study on agricultural asset did not find any significant difference between fair value (FV) and historical cost (HC) in terms of biological asset revenue volatility recording. There was not any different in terms of profitability, earnings management, and cash-flow predictability in agricultural sector either. However, hypothesis-testing showed FV had higher predictive ability for future profit. The study also provided evidence on HC accounting practice in agricultural sector and concluded that FV was interesting instrument for agricultural sector in European Union. Another study on biological asset assessment and agricultural production was one conducted by Sedlacek (2010). The study analyzed implementation of the assessment in two dimensions, one taking place in Czech Republic and internationally. The researcher then analyzed the comparison and its influence towards financial report as well as differences in fair value implementation.
Athanasios, Athianos and Ekaterini (2010) conducted a study on discrepancy between accounting practice and role of accounting information in agricultural sector. The study showed that the gap caused by accounting regulation that did not represent agricultural characteristics, need for agricultural management, sustainable development in rural areas. The finding showed that after required and voluntary adoption for public company, small and middle-scale business in European Union in 2005, the researchers concluded that the main contribution of IAS 41 was to provide strong conceptual working framework in agricultural accounting practice.

Conducting a study in Romania, Feleagă et al. (2012) stated that even though agriculture was essential part of economic world, agricultural accounting had some drawbacks. IAS 41 adoption for agriculture had attempted to overcome this situation and improve comparability of financial report entity in agricultural sector. Although controversial, IAS 41 was the first step for consistent transition for fair value assessment in agricultural sector. Objective of this study was to compare between IAS 41 and agricultural accounting practice in Romania. Accounting regulation in Romania followed European accounting regulation that used IFRS referential, even though Romania had never mentioned explicitly that the country adopted IAS 41.

‘McDonaldization’ Versus Glocalization of Accounting Standard for Agricultural Asset. There is possibility that Indonesia will encounter similar issue as other countries that adopt IAS 41. Financial accounting standard is developed to maintain consistency in financial reporting. Accounting standard that works in general allows entity to make uniformed financial report that interest group understands. When every company has its own accounting standard, it will be difficult to understand financial report from other companies. However, it does not mean that accounting standard puts aside current condition, culture and growth of local industry of a country where it is applied. As the result, McDonaldization in accounting standard appears.

Ritzer (1993: 567) described McDonaldization as a society or culture who shares the same principle as McDonald, the fast-food restaurant. In McDonald, every thing was done instantly. McDonaldization society refers to society whose thinking process has shifted from traditional to rationale or modern and who emphasizes on time efficiency. This society wants to get maximum result in the least amount of time and using the least amount of energy. Ritzer (1993) identified four dimensions of McDonaldization, namely McDonald offered efficiency (quick service), predictability (no surprise) or nett price, calculating ability (fast and affordable), and control using non-human technology for its operating system (controlling both employee and customer). People are attracted to, fall in love and develop in the four components that become foundation of the rational system.

Efficiency means to select optimum instrument for final outcome that has been established previously. In this context, optimum refers to effort to access and use available facility as effectively as possible. The definition is not general description that public will understand; instead, in McDonalized society, it is impossible to trace one best instrument to achieve the final outcome. This society tends to depend upon established and institutionalized society. In other words, they are guided to have “more efficient interest.” In reality, efficiency may refer to process, product simplification and technical activities/ service that require customers to do exactly the same thing as service provider. In terms of process, Mc Donaldized organization will prepare efficient working procedure and production technic that involve a group of employee with certain tasks and modern technology.

In ‘calculation; context, McDonaldization emphasizes on calculable and countable item as well as quantity over quality. Emphasis on quantity is related to process or final outcome. Process emphasizes on speed while final outcome focuses on result of production and number of serving. It is expected that this dimension will result in efficiency because a well-designed, calculable element will support principle of efficiency.

Calculable dimension emphasizes on product quantity over quality followed by creating illusion about quantity for customer and maintaining production and service into controllable number. To create the illusion, product is presented as such in order to “look excessive” while production and service focus on measuring every element of input prior to production in
order to control both quality and quantity. Speed is another important element of this principle. McDonaldized organizations will try to create breakthrough that allows them to produce and serve as many products in relatively short amount of time.

The following dimension is predicting principle. McDonaldization provides predictability in many aspects for employee, organization and customer. This principle allows employee to get information on job description. For organization, product predictability in several aspects will get easier because of uniformed process. At last, control lies upon shift from human to non-human technology through methods to increase control over production, employee and customer. Technology in this context is related to not only machinery and equipment but also material, skill, knowledge, law, regulation, procedure and technique. Technology is designed to eliminate human-error. This dimension puts more emphasis on negative impact of McDonaldization. Rational principle that becomes working principle of modern organization in McDonaldization eventually results in irrationality, for example inefficiency, inability to make prediction or making calculation, loss of control and more importantly eliminating principle of humanity.

McDonaldization is also evident in Indonesian accounting standard. Pressure from G-20 countries forced Indonesia to develop harmonious and global accounting standard, which work for listed companies only. The study does not put aside importance of globalization and borderless business as impact of globalization. Business actors favor multinational companies and one standardized accounting standard that works across the globe will make international business a lot easier. Implementation of certain accounting standard such as PSAK 1, which adopted IAS 1 on financial reporting, PSAK 53 on share-based payment, PSAK 50, PSAK 55, and PSAK 60 on financial instrumentation will make more sense. It is nearly impossible to develop accounting standard that is not suitable with business trends in globalization era. However, IAS adoption into ED PSAK 69 is not a suitable concept for Indonesian setting because the country’s socio-cultural and agricultural aspects are different from those of other countries. PSAK 69 should take into account measurement for decreasing asset value since PSAK 48 discusses decrease of fixed asset value only.

Indonesia has IFRS-based accounting standards for commercial business called Standar Akuntansi Keuangan Entitas Tanpa Akuntabilitas Publik (SAK-ETAP) and Standar Akuntansi Keuangan Entitas Menengah Kecil dan Mikro (SAK EMKM), which is still in exposure draft stare for commercial business. These work effectively in January 1, 2018. However, IFRS-based SAK got most of the government’s attention. The National Standard Establishment Board has put much emphasis on development of IAS since 2009 and as the consequence, it took the board two more years to establish SAK ETAP in January 1, 2011. The board has never evaluated how beneficial and reliable SAK ETAP is until recently. It is evident from numerous irrelevant terminologies in SAK ETAP, for example IFRS-based PSAK 1 SAK is using the term Statement of Financial Position instead of balance sheet whereas SAK ETAP is still using the terminology.

Due to efficiency, calculability, predictability and control dimension, the National Standard Establishment Board adopted IFRS that can work effectively for large-scale industry only. Several industries that do not have public accountability are forced to apply IFRS-based SAK even though de jure they do not have responsibility to do so since SAK ETAP that stereotypically is designed for SMEs does not have interesting make up.

Improvement should be made for SAK ETAP and SAK EMKAM so that these standards provide more benefits for agricultural industry, such as for agricultural asset. The government should encourage agricultural SMEs, which do not have public accountability, to develop standard that meet social, political and cultural condition in Indonesia. The National Standard Establishment Board should shift their focus from adopting IAS 41 into PSAK 69 to develop accounting standard that is more suitable for the national agricultural asset.

Criticism towards IAS 41 adoption into PSAK 69 for agricultural asset will be directed towards glocalization of accounting standard. Glocalization refers to concept about individual, group, organization, product or service that represents both global and local standard. Roland Robetson, a sociologist, is the first person who coined the term glocalization. This terminology is a combination between “globalization” and “localization.” It is adopted from a
Japanese terminology *dochakuka*, which means adapting local context into farming technique. In other words, Japanese uses the term as marketing strategy to sell product that meets market expectation. Glocalization is frequently used since Roland Robetson made it popular in 1980.

In short, glocalization is using local value for interpretation of global value. Important elements of glocalization are first, the world is developing into a more pluralistic direction, second, local individual and group have tremendous ability to adapt, make innovation and maneuver in the world where glocalization takes place, third, all social process are related to and depend on one another and four, commodity and media are not coercive or forceful social control; instead it provides material for individual or group creation when glocalization occurs.

Glocalization is the impact of globalization. Local value is inserted into Western trends in order to make trends more acceptable in non Western countries resulting in acculturation. Therefore, assumption that globalization results in similar culture across the world is not accurate. Globalization brings new set of culture to certain setting and combines it to local value. Globalization has different impacts to each setting because each setting has different local value.

Establishment of McDonald’s across the globe is example of globalization but adjusting the fast food menu to attract local customer is an example of glocalization. Glocalization may also mean making a change to global product to meet local customer’s demand. This is an alternative phenomenon for americanization. Another more illustrative example of glocalization is McDonald’s decision to change its mascot from Ronald McDonald to Asterix, a popular French cartoon character in France. As an addition, the fast-food restaurant has Bulgogi and Kimchi Burger to attract their Korean customers.

The finding of this study showed accounting standard globalization through establishment of accounting standard generic to national agricultural sector, more particularly livestock. Based on IAS 41’s biological asset recognition, company can acknowledge its biological asset if, and only if: company controls the assets as result of past transaction; company gets economic benefit in the future; and the asset has fair value or reliable measurement for asset cost. Due to its distinctive characteristics, biological asset measurement is conducted using several approaches.

Biological transformation will change value of a biological asset. Having compared several approaches, fair value is the most frequent approach for biological asset measurement and therefore, becomes IFRS standardized biological asset measurement. In IFRS, IAS 41 consists of statement on biological asset measurement. Based on IAS 41, biological asset is measured based on its fair value. Biological asset is measured during the first recognition and on the following date of fair value subtracted by its estimated market price, unless reliable fair value measurement is not possible. Fair value of biological asset is obtained based on its price in active market. Active market refers to market in which item is traded in homogenous method, seller and buyer meet under normal circumstances and affordable price. Cost of sale includes commission for intermediaries or distributor appointed by the authority, as well as trasferrable tax or fee. Transportation fee and fee to transport item into the market are not involved in this type of cost.

Market price in active market for biological asset or harvest is the most reliable foundation to decide fair value of an asset. When active market is not accessible, there are several other methods to determine fair value of biological asset, namely: market price from current transaction, which does not have significant price difference between price during the transaction and price at the end of period or when biological asset measurement is conducted, or market price of a similar item after making some adjustment if there is any difference between price of these two.

*Mutual Relationship in Agricultural Industry.* Farmers who own small and middle-scale agricultural business are accustomed of helping each other. During breeding time, a farmer may borrow bucks (male goats) from other farmers and then they would share the kids (young goats). Another farmer stated that they did not bread cows that produce milk.
Farmers had certain bulls (male cow) and cows (female adult cow) for breeding. When they did not have one, they would make certain agreement with other farmers.

Based on the informants’ responses, implementation of IAS 41 for biological asset (dairy cows) record was quite a challenge. Based on IAS 41, biological asset was measured based on the fair value. Biological asset assessment should be conducted in the first recognition and the following recognition on fair value subtracted by an estimated market price, unless reliable measurement of fair value was not possible.

CONCLUSION

Biological asset is a type of asset that mostly used in agricultural activities. Agricultural activity is a process to transform biological assets into processed goods for consumption. Biological transformation is the main characteristic of biological asset. Biological transformation includes growing, degeneration, production and procreation which is caused by qualitative and quantitative change in living being and results in agricultural products or additional biological assets with the same type.

Standardized accounting for agricultural asset worked effectively starting from January 1, 2018. This standardized accounting system adopted IAS 41 accounting system. However, IAS 41 works effectively in large-scale industry only while the national agricultural sector is dominated by small and middle-scale industry. The major obstacle is to apply fair value, more particularly in reliable measurement. Culture and local wisdom are two elements one should take into account in developing or adopting accounting standard. It is expected that the National Standard Establishment Board’s idea to adopt IAS 41 does not lead to new capitalism since evidence showed potentials for nepotism between actors of the agricultural industry.

The limitation of the study is that it only involves agricultural industry actors as the informants. The researchers do not involve other agricultural industry actors such as horse breeder. Agricultural assets the horse breeder has are observed based on the breeding process instead of the outcome.

Future researchers should conduct a study focusing on implementation of accounting standard for agricultural asset in agricultural sectors. Considering the fact that this study was conducted at the time PSAK 69 has just been implemented for a few months, the informants have tendency to voice their concern on whether or not they are able to apply the standard successfully.

REFERENCES

Arguments for a political economy of accounting. Accounting, Organizations and Society, 9(3-4), 207–232.


DOI https://doi.org/10.18551/rjoas.2018-09.08

EFFECT OF NON-PERFORMING LOAN, BI RATE, CAPITAL ADEQUACY RATIO, OPERATING EXPENSES OPERATING INCOME AND RETURN ON ASSETS ON THE CREDIT AMOUNT OF MSME: A CASE STUDY OF SOE BANKING COMPANIES

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ABSTRACT
This research was conducted with the aim to better understand whether there are variables and how much the variables of Non-Performing Loan (NPL), BI Rate, Capital Adequacy Ratio (CAR), Operating Expenses Operating Income (OEOI), and Return on Assets (ROA) affect the credit amount of MSME distributed by SOE banking companies during the research period of 2011-2014. The data used in this research were secondary data. The population used in this research was the financial statements of SOE banking companies that belonged to as many as 4 banks consisting of PT Bank Negara Indonesia Tbk, PT Bank Rakyat Indonesia Tbk, PT Bank Mandiri Tbk, and PT Bank Tabungan Negara Tbk within the research period of 4 years since 2011-2014. The research sampling was carried out by using purposive sampling method. The methods used were classical assumption test, multiple linear regression analysis, and hypothesis testing. The findings of this research indicated that NPL and OEOI partially had significant effect on the credit amount of MSME. Meanwhile, BI Rate, CAR, and ROA partially had no significant effect on the credit amount of MSME. Moreover, simultaneously, ROA, EPS, Inflation Rate and Interest Rate had significant effect on the credit amount of MSME.

KEY WORDS
Non-performing loan, capital adequacy ratio, operating expenses, return on asset, credit.

Based on Law No. 10 of 1998 concerning “amendment to Law No. 7 of 1992 concerning banking”, financial institutions of bank consist of commercial banks and rural banks. Commercial and rural banks are allowed to carry out their business activities in the conventional form or based on Sharia principles (profit sharing). The main use of the bank itself is conducting the activity of raising funds from the community and distributing it back to the community. Financial institutions, especially banks, play a strategic role in driving the economy of a country.

MSME credit is loans distributed by banks to the debtors of micro, small, and medium enterprises that meet the definition and criteria of micro, small and medium enterprises. These definitions and criteria are regulated in Law No. 20 of 2008 concerning MSME. MSME credit is one of the government’s policies in advancing the national economy that is run through banks. The objective of distributing the credit to MSME is to encourage people to be more independent and productive.

MSME (Micro, Small, and Medium Enterprises) is a business segment that utilizes resources from the plantation, trade, livestock, and agriculture sectors. Manpower recruitment is one of the advantages so that it can help the equity process which is part of the economic development of a country (Anggraini and Nasution, 2013). The difficulty of obtaining bank credit is caused by various factors, one of which is the lack of collateral provided by the MSME which makes the banks refuse to give credit (Domeher, 2012).

NPL (Non-Performing Loan) is the provision of problem loans for customers who are late to pay or failed to pay (default). If the NPL ratio of a bank is high, the bank must quickly find a way out so that the health of the bank is not disrupted. The impact of a high NPL ratio is a decrease in distributing the credit rate in the next period. Meanwhile, if the NPL
percentage ratio of a bank gets smaller, it can be ascertained that the performance and function of the bank are working well.

BI Rate also affects the decrease or increase in credit distribution by these banks. If the inflation rate is high and cannot be controlled, then the bank efforts in raising funds from the community will be disrupted. It will make the distribution of credit to become stagnant. Credit disbursed is an important source of income for banks. According to Walijanah and Wulandari (2012), in a high inflation, the government overcomes the increase in money circulation by raising the benchmark interest rate (BI Rate) which will have an impact on the increase in deposit interest rates and followed by loan interest rates.

According to Triasdini and Denny (2010), there are some effects of CAR (Capital Adequacy Ratio), NPL (Non-Performing Loans), and ROA (Return on Assets) on working capital loans. Meanwhile, according to Wardhani (2011) there is an effect of bank interest rate spread, CAR, and NPL on credit distribution. Capital Adequacy Ratio (CAR), according to Pratama (2010), is a capital adequacy ratio that shows bank’s ability to provide funds for bank development. It is the higher the CAR, the higher the available funds to be used as business development funds and risk anticipation funds.

Return on Assets (ROA), according to Yuwono and Meiranto (2012), is the ratio used to measure the ability of a bank’s management to gain profits or benefits thoroughly. Banks that have high profitability will get good trust from the community, so that people will tend to deposit their funds to the bank. In other words, the only purpose of a company’s assets is to generate income and certainly generate profits or benefits for the company itself. This ROA or Return on Assets ratio can help the management and investors to see how well a company is able to manage its assets to become a profit.

The efficiency level of banking operational performance is also important in which the operational level is often measured by using operating expenses on operating income or commonly abbreviated as OEOI. This ratio will compare operating expenses and operating income. If this ratio is getting smaller, it means that the bank is more efficient in spending expenses to earn income.

Based on Table 1 below, it can be seen the development of NPL, BI Rate, CAR, OEOI, and ROA in the MSME segment from 2011-2014:

<table>
<thead>
<tr>
<th>Year</th>
<th>NPL (%)</th>
<th>BI Rate (%)</th>
<th>CAR (%)</th>
<th>OEOI (in IDR billion)</th>
<th>ROA (%)</th>
<th>MSME Credit (in IDR billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3.63</td>
<td>6.58</td>
<td>16.05</td>
<td>91.94</td>
<td>3.03</td>
<td>458.2</td>
</tr>
<tr>
<td>2012</td>
<td>3.40</td>
<td>5.77</td>
<td>17.43</td>
<td>70.53</td>
<td>3.11</td>
<td>526.4</td>
</tr>
<tr>
<td>2013</td>
<td>3.35</td>
<td>6.44</td>
<td>18.13</td>
<td>66.16</td>
<td>3.08</td>
<td>608.8</td>
</tr>
<tr>
<td>2014</td>
<td>4.10</td>
<td>7.52</td>
<td>17.08</td>
<td>69.57</td>
<td>3.75</td>
<td>671.7</td>
</tr>
</tbody>
</table>

Source: Indonesian Banking Statistics, processed.

In Table 1, it can be seen that the benchmark interest rate (BI Rate) was 5.77% in 2012 and 6.44% in 2013. MSME credit distribution did not seem to be affected by fluctuating non-performing loans (NPL) or BI Rate in the same period. MSME credit experienced a surge from year to year which did not seem to have been affected by the BI Rate which was proxied by macroeconomics. The BI Rate experienced fluctuations in increases and decreases. Meanwhile, the NPL ratio, from 2011-2014 amounting to less than 5%, had experienced stagnation in 2012-2013.

OEOI, in 2011 to 2013, had experienced a decrease in ratio. If the OEOI ratio gets smaller, it means that the bank is increasingly efficient in spending expenses to get income. The highest CAR amount occurred in 2013. If CAR is higher, it will strengthen the health of a bank in facing the risks. Meanwhile, the overall profit achieved by the bank (ROA) was highest in 2014 although non-performing loans (NPL) in 2014 were also the highest compared to previous years.

Research Problems:

- What is the effect of NPL, BI Rate, CAR, OEOI, and ROA on the total amount of credit that is simultaneously distributed?
What is the effect of NPL, BI Rate, CAR, OEOI, and ROA on the total amount of credit that is partially distributed?

**Research Objectives:**
- To determine the effect of NPL, BI Rate, CAR, OEOI, and ROA on MSME Credit distribution simultaneously?
- To determine the effect of NPL, BI Rate, CAR, OEOI, and ROA on MSME Credit distribution partially?

**METHODS OF RESEARCH**

The type of data used in this research was secondary data in the form of quarterly data in which the research period started from 2011-2014. The data sources were obtained from the official website of the Central Bureau of Statistics, Bank Indonesia, Indonesian Banking Statistics and quarterly financial statements from State-Owned Banks in Indonesia for the 2011-2014 period; i.e. the bank websites which were used as the research objects (www.bankmandiri.co.id, www.bni.co.id, www.bri.co.id, www.btn.co.id).

The populations used in this research were the financial statements of four banks consisting of PT Bank Negara Indonesia Tbk, PT Bank Rakyat Indonesia Tbk, PT Bank Mandiri Tbk, and PT Tabungan Negara Tbk which were carried out by using purposive sampling method because the sampling had the criteria: the banks are go-public and state-owned banks listed on the Indonesia Stock Exchange and have complete financial statements during the period of 2011-2014. Thus, the number of observations was 80 which were obtained from 4 × 20 (multiplication between the number of banks and the period of observation).

The F-test was conducted to determine whether the regression models of independent variables \(X_1, X_2, \ldots, X_n\) simultaneously had a significant effect on the dependent variable \(Y\). The significance in the ANOVA table showed the amount of the probability or significance in the ANOVA calculation. The listed values were used for feasibility test of analysis model in which a number of X variables affect the Y; under consideration that a good probability to be used as a regression model must be < 0.05. This value can be seen in the Sig column. If Sig value < 0.05, the analysis model is considered as feasible. If Sig value > 0.05, the analysis model is considered not feasible.

The hypotheses for this ANOVA test are:
- If Sig value < 0.05, H0 is rejected;
- If Sig value > 0.05, Ha is accepted.

![Graph](https://via.placeholder.com/150)

**Figure 1 – Chart of Non-Performing Loans (NPL) Variable and Credit Amount of MSME in SOE Banks**

The t-test was conducted to determine whether the regression models of independent variables \(X_1, X_2, \ldots, X_n\) partially had a significant effect on the dependent variable \(Y\). The independent variables can explain the dependent variable in which it can be seen from...
each of the independent variables. If the significance value is 0.000 then it is considered to be very significant. Testing with the use of SPSS has the following criteria:

- If the significance value of the research findings is < 0.05, the correlation between variables is significant;
- If the significance value of the research findings is > 0.05, the correlation between variables is not significant.

Figure 1 shows that the NPL pattern from January 2011 to December 2011 tended to be in the range of 5%. Based on the provisions of BI Circular Letter No.6/23/DPNP, it was concluded that SOE banks in that period were not healthy. At the same time, MSME credit declined as well. In the following period, the NPL tended to move down in the range of 3% - 4% which slowly increased the credit amount of MSME in SOE banks. Based on chart 3.1, it can be concluded that there is an effect between Non Performing Loans and credit amount of MSME.

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**Figure 2 – Chart of BI Rate Variable and Credit Amount of MSME in SOE Banks**

Chart 2 shows that the BI Rate pattern is quite stable. In the period of February 2012 - May 2013, the benchmark interest rate (BI Rate) was at 5.75% which was smaller than other periods. In September 2013-December 2014 the highest benchmark interest rate from the previous period was 7.25% - 7.75%. In the same period, high interest rates did not affect MSME’s credit which tended to increase. MSME actors needed more access to get credit from banks to do business development rather than paying attention to the increase or decrease of the benchmark interest rate (BI Rate).

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**Figure 3 – Chart of CAR Variable and Credit Amount of MSME in SOE Banks**
Figure 3 showed that the CAR pattern is fluctuating but it is still far above the safe limit (minimum 8%). According to Meydianawathi (2006), a high CAR reflects the stable amount of capital and the low risk that is owned by the bank, allowing banks to distribute more credit to the MSME sector. In other words, the correlation of CAR and credit distribution is not unidirectional because the credit amount of MSME tends to increase from year to year. Compared with CAR, at the same time it tends to fluctuate.

Figure 4 shows that the pattern of OEOI variable tends to be stable. The highest point was in January 2011 amounted to IDR 173%. Then, it slowly moved steadily in the next period in the range of IDR 66% - IDR 96%. According to Kusnandar (2012), operating income is bank income; namely interest income obtained from the placement of funds in the form of credit and other operations. It means that the smaller the OEOI the more efficient operational expenses incurred by the bank. It can be concluded that OEOI affects the credit amount of MSME because when the value of OEOI is small, the credit amount of MSME tends to increase from year to year.

Figure 5 shows that the pattern of ROA variable is quite volatile. It can be concluded that the movement of ROA variable and credit amount of MSME are not in the same direction. Credit amount of MSME tends to increase every year. ROA also has no effect on credit distribution to MSME. According to Suhardi (2003), it may occur with the possibility that the increase in profit is used as a productive asset reserve or other activity and is not prioritized to be re-managed in credit distribution.
RESULTS OF STUDY

According to Sugiyono (2006), F-test is a test tool that aims to determine whether there is a significant effect simultaneously between independent variables consisting of Non-Performing Loans (X1), BI Rate (X2), Capital Adequacy Ratio (X3), OEOI (X4), Return on Assets (X5) and the dependent variable of Credit Amount of MSME (Y). This model is intended to determine whether the independent variables (X₁, X₂, ..., X₅) simultaneously have significant effects on the dependent variable (Y). The basic criteria for decision making are through the following significant probability value:

- If the probability is > 0.05, then H₀ is accepted and Ha is rejected;
- If the probability is < 0.05, then H₀ is rejected and Ha is accepted.

The F-test results can be seen in the following table:

Table 2 – Test Results F

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.424</td>
<td>5</td>
<td>.285</td>
<td>28.466</td>
<td>.000</td>
</tr>
<tr>
<td>1 Residual</td>
<td>420</td>
<td>42</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.844</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: CREDIT AMOUNT_MSME
b. Predictors: (Constant), ROA, NPL, CAR, BI_RATE, OEOI

Based on the calculation of Analysis of Variance (ANOVA) in the above table, the value of F-count is 28.466 while the value of F-table (at the significance level of 5% with df₁ = 5 and df₂ = 42) (F(0.05; 5; 42)) is 2.44. The F-count value is in the Ha acceptance area or H₀ is rejected because the value of F-count is greater than the value of F-table (28.466 > 2.44). It is also reflected in the significance value of 0.000 which is smaller than 0.05. It means that NPL, BI Rate, CAR, OEOI and ROA simultaneously affect Credit Amount of MSME.

Statistical t-test is used to find out to what extent the effect of independent variables individually in explaining the variation of the dependent variable. If the t-value is greater than t-table, it is indicated that there is an effect of the independent variables individually on the dependent variable. If the t-value is smaller than t-table, it is indicated that there is no effect of the independent variables individually on the dependent variable. This statistical t-test can also be performed by looking at the significance of t-value. If the significance of t-value is smaller than 0.05, then it is indicated that there is an influence of independent variables individually on the dependent variable (Ghozali, 2005). The results of the t-test can be seen in the following tables:

Table 3 – Partial Test (T-Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>7.363</td>
<td>1.824</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 NPL</td>
<td>.824</td>
<td>1.38</td>
<td>.484</td>
<td>4.037</td>
</tr>
<tr>
<td>BI_RATE</td>
<td>.103</td>
<td>.056</td>
<td>.142</td>
<td>1.828</td>
</tr>
<tr>
<td>CAR</td>
<td>-.082</td>
<td>.302</td>
<td>-.20</td>
<td>-.273</td>
</tr>
<tr>
<td>OEOI</td>
<td>-.574</td>
<td>.095</td>
<td>-.518</td>
<td>-6.015</td>
</tr>
<tr>
<td>ROA</td>
<td>-.030</td>
<td>.420</td>
<td>-.006</td>
<td>.071</td>
</tr>
</tbody>
</table>

a. Dependent Variable: MSME_CREDIT

Source: SPSS, processed.

The value of t-table is \( t_{(0.05, 41)} = \pm 2.01954 \).

- Non-Performing Loan Variable on Credit Amount of MSME:

Based on the test results in table 4.7, the t-value for the NPL variable is \( t = 5.980 \) with a significance value of 0.00 < 0.05. Having a significance value below 0.05, it shows that Non
Performing Loans variable has a significant effect on Credit Amount of MSME. It means that Hypothesis 1 is accepted.

- **BI Rate Variable on Credit Amount of MSME:**
  Based on the test results in table 4.7, the t-value for the BI Rate variable is \( t = 1.828 \) with a significance value of 0.075 > 0.05. Having a significance value above 0.05, it shows that BI Rate variable has no significant effect on Credit Amount of MSME. The result shows that Hypothesis 2 is rejected.

- **Capital Adequacy Ratio Variable on Credit Amount of MSME:**
  Based on the test results in table 4.7, the t-value for the Capital Adequacy Ratio variable is \( t = -0.273 \) with a significance value of 0.786 > 0.05. Having a significance value above 0.05, it shows that CAR variable has no significant effect on Credit Amount of MSME. It means that Hypothesis 3 is rejected.

- **OEOI Variable on Credit Amount of MSME:**
  Based on the test results in table 4.7, the t-value for the interest rate is \( t = -6.015 \) with a significance value of 0.00 < 0.05. Having a significance value below 0.05, it shows that OEOI variable has a significant effect on Credit Amount of MSME. It means that Hypothesis 4 is accepted.

- **ROA Variable on Credit Amount of MSME:**
  Based on the test results in table 4.7, the t-value for the ROA variable is \( t = -0.071 \) with a significance value of 0.944 < 0.05. Having a significance value above 0.05, it shows that OEOI variable has no significant effect on Credit Amount of MSME. It means that Hypothesis 5 is rejected.

**DISCUSSION OF RESULTS**

*The Effect of NPL on Credit Amount of MSME.* The partial test result (t-test) between the NPL variable and the Credit Amount of MSME variable shows that the value of t-count is 5.980, the regression coefficient is 0.824, and the probability value is 0.00 which is smaller than 0.05. It means that the NPL has a significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the NPL ratio has a significant effect on the credit amount of MSME is accepted.

Thus, the change in NPL causes a significant change in the credit amount of MSME distributed by the SOE banks. The findings of this research supported the research conducted by Nurlestari and Mahfud (2015) showing that NPL has a significant effect on credit distribution of MSME.

It was known that NPL is a ratio used to measure how much the level of non-performing loans must be borne by the creditor; in this case, it is the bank. If there are many delinquents in credit payments by debtors, the bank cannot get back the capital that has been distributed. Thus, it can affect the soundness of the bank and the level of public trust. After the credit is distributed, the bank is required to monitor the MSME actors and the debtor's ability and compliance in fulfilling their obligations. Monitoring is performed so that credit risk can be minimized. The provisions of Bank Indonesia state that banks must maintain their NPLs below 5%. It is in line with Bank Indonesia regulations based on Bank Indonesia Circular Letter No. 6/23/DPNP dated May 31, 2004 concerning NPL.

Debtor capability from the financial side to repay the loan and its interest means without willingness and good will from the debtor. Therefore, if many debtors are in arrears in installments, it will trigger the level of NPL. Government policy can affect the high and low level of bank's NPL. For example, government policy on increasing fuel prices which will make MSME require additional funds taken from profits for the use of BBM in its production activities which will be budgeted to pay debt repayments. Thus, the company will experience difficulties in paying its debts to the bank.

*The Effect of BI Rate on Credit Amount of MSME.* The partial test result (t-test) between the BI Rate variable and the Credit Amount of MSME variable shows that the value of t-count is 1.828, the regression coefficient is 0.103, and the probability value is 0.075 which is greater than 0.05. It means that the BI Rate has no significant effect on the credit
amount of SOE bank credit. Therefore, the hypothesis which states that the BI Rate has a significant effect on the credit amount of MSME is rejected.

Thus, the change in BI Rate causes no significant change in the credit amount of MSME distributed by the SOE banks. This is in line with research conducted by Satrio and Endang (2017). The decreasing or increasing BI Rate trend does not directly affect the credit amount of MSME. One factor is the lack of collateral provided by MSME which has caused the banks to refuse to provide credit (Domeher, 2012). MSME actors need more access to credit from banks to conduct business development rather than reducing the benchmark interest rate. The next factors that make small and medium enterprises survive from all crises is that MSME does not have foreign debt, MSME is considered as unbankable so it does not have much debt to banks, MSME uses local inputs, and MSME is export oriented.

The Effect of CAR on Credit Amount of MSME. The partial test result (t-test) between the CAR variable and the Credit Amount of MSME variable shows that the value of t-count is -0.273, the regression coefficient is -0.082, and the probability value is 0.786 which is greater than 0.05. It means that CAR has no significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the CAR has a significant effect on the credit amount of MSME is rejected.

Thus, the change in CAR causes no significant change in the credit amount of MSME distributed by the SOE banks. CAR is an indicator of bank’s ability to cover its assets as a result of bank losses caused by risky assets. It is the higher the CAR, the better the bank’s ability to take into account the risk of any credit/productive assets. If the CAR is high, the bank is able to finance operational activities and make a substantial contribution to profitability. However, banks cannot determine their own CAR value, because the government has required a minimum CAR limit of 8%. Calculation of Capital Adequacy Ratio is based on the principle that every investment that contains risks must be provided with a certain amount of capital for the amount of investment.

The findings of this research are in line with the research conducted by Kusnandar (2012) that CAR does not have a significant effect on credit distribution of MSME. This happens because there is a tendency that a large CAR makes banks have sufficient capital, but the bank has not been able to control it well and profitably. According to Suhardi (2003), one of the biggest bank difficulties and risks is in terms of bank liquidity management. On the other hand, even though banks have the flexibility to expand their share of credit, the CAR ratio is quite high.

The Effect of OEOI on Credit Amount of MSME. The partial test result (t-test) between the OEOI variable and the stock return shows that the value of t-count is -6.015, the regression coefficient is -0.574, and the probability value is 0.00 which is smaller than 0.05. It means that the OEOI has a significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the OEOI has a significant effect on the credit amount of MSME is accepted.

Thus, the change in OEOI causes a significant change in the stock return of obtained by the investors. The findings of this research support the research conducted by Satrio and Endang (2012). OEOI (Operating Expenses Operating Income) is a ratio that describes the efficiency of a bank in carrying out its activities. Operating expenses are the interest costs given to customers while operating income is the interest earned from customers. The smaller the value of OEOI, the more efficient the bank will be in carrying out its activities. If banks increasingly reduce operating expenses and increase their operating income, the bank will become more efficient so that the credit distribution of MSME can grow.

The Effect of ROA on Credit Amount of MSME. The partial test result (t-test) between the ROA variable and the Credit Amount of MSME variable shows that the value of t-count is -0.071, the regression coefficient is -0.030, and the probability value is 0.934 which is greater than 0.05. It means that ROA has no significant effect on the credit amount of SOE bank credit. Therefore, the hypothesis which states that the ROA has a significant effect on the credit amount of MSME is rejected.
ROA also does not have an effect on credit distribution of MSME. According to Suhardi (2003), this can occur with the possibility that the increase in profit is used as a productive asset reserve or other activity and is not prioritized to be re-managed in credit distribution.

The Effect of NPL, BI Rate, CAR, OEOI, and ROA Simultaneously on Credit Amount of MSME. Simultaneous testing results (F-test) on the variables of Non-Performing Loans (NPL), BI Rate, Capital Adequacy Ratio (CAR), OEOI, and Return on Assets (ROA) simultaneously affect the credit amount of MSME distributed by SOE banks which shows Sig value 0.00 or < 0.05. It means that NPL, BI Rate, CAR, OEOI, and ROA have a significant effect simultaneously on the credit amount of MSME distribute by SOE banks. Thus, the hypothesis which states that the NPL, BI Rate, CAR, OEOI, and ROA have a significant effect on credit amount of MSME can be accepted.

This is in line with Ang’s theory (1997) who says that there are two factors affecting the return of an investment. The company’s internal factors include the quality and reputation of its management, its capital structure, the company’s debt structure, and so on; in this case NPL, CAR, OEOI, and ROA. Variables involving external factors include the effect of monetary and fiscal policies, the development of industrial sector, the economic factors such as inflation, and so on; in this case it is the BI Rate variable. It is found that there are many factors that may be the X variables in affecting Y variable, especially in terms of external factors of the company. In terms of external factors of the company, there are political factors that also affect the return of an investment.

CONCLUSION

The findings of the research show that the variables of Non-Performing Loans, BI Rate, Capital Adequacy Ratio, OEOI, and Return on Assets affect the Credit Amount of MSME distributed by SOE banks. It means that every change that occurs in the independent variables, namely Non-Performing Loans, BI Rate, Capital Adequacy Ratio, OEOI, and Return On Assets to Credit Amount of MSME simultaneously affect the Stock Return on SOE Banks in Indonesia.

Partially, the variables of Non-Performing Loans (NPL) and OEOI have effects on the Credit Amount of MSME and are the most dominant variables affecting the Credit Amount of MSME based on the findings of the research as follows:

- Non-Performing Loans have a significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- BI Rate has no significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- Capital Adequacy Ratio has no significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- OEOI has a significant effect on the Credit Amount of MSME on SOE Banks in Indonesia;
- Return of Assets has no significant effect on the Credit Amount of MSME on SOE Banks in Indonesia.

Based on the obtained conclusions, the implications that can be submitted are as follows:

Non-Performing Loans (NPL) are very influential on credit distribution; the lower the NPL, the greater the credit amount distributed. State-owned banks must have good credit management so that the NPL level is below the maximum limit required by Bank Indonesia, which is 5%. Thus, the state bank can distribute MSME credit to the maximum. The ability of the debtor, from the financial side to repay the principal and interest on the credit, does not mean without the will and goodwill of the debtor. Thus, if many debtors are in arrears in installments, it will trigger the increasing level of NPL.

BI Rate is the benchmark interest rate which is expected to affect other interest rates including interest rate of banking credit. If the BI Rate cannot affect changes in interest rate of banking credit, the government cannot use BI Rate as a tool by to increase credit distribution of MSME. MSME actors need more access to credit from banks to conduct
business development rather than reducing the benchmark interest rate. The next factors that make small and medium enterprises survive from all crises is that MSME does not have foreign debt, MSME is considered as unbankable so it does not have much debt to banks, MSME uses local inputs, and MSME is export oriented.

Capital Adequacy Ratio (CAR) is a capital ratio that shows the bank’s ability to provide funds for business development needs and accommodate the risk of loss of funds caused by bank operations. The high CAR indicates potential financial resources (capital). The CAR condition is quite high far above the minimum provisions required by Bank Indonesia of 8%, requiring state-owned banks to be more optimal in utilizing the use of financial resources (capital) owned through credit distribution (productive sector), especially MSME credit.

The level of bank efficiency in carrying out its operations (OE01) must be optimized. It also needs to improve the implementation of risk management to anticipate the risks and improve banking management. The smaller the value of OEO1, the more efficient the bank will be in carrying out its activities. If banks increasingly reduce operating expenses and increase operating income, banks will be more efficient so that credit distribution of MSME can grow.

Return on Assets (ROA) is a measure of a bank’s ability to cover its assets as a result of bank losses caused by risky assets. The higher the CAR, the better the bank’s ability to bear the risk of any risky credit/productive assets. If the CAR is high then the bank is able to finance operational activities and make a substantial contribution to profitability. However, banks cannot determine their own CAR value, because the government has required a minimum CAR limit of 8%. The calculation of Capital Adequacy Ratio is based on the principle that each risk-bearing investment must provide a certain amount of capital to a certain amount of investment.

REFERENCES


EFFECTS OF ORGANIZATIONAL COMMUNICATION AND WORKING GROUPS ON THE PERFORMANCE OF EMPLOYEES AT THE REGIONAL ENVIRONMENTAL AGENCY OF KUTAI KARTANEGERA REGENCY

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ABSTRACT
The purpose of this study was to determine and examine the effects of organizational communication and working groups on the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency as well as to know the most dominant variable affecting the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency. The analysis of data obtained by the researchers was done using multiple tools, multiple regression analysis, and SPSS rel12 application for Windows, resulting in the following regression equation: Y = 4.116 + 0.358X1 + 0.338X2. Based on the equation, it was found that the variable of X1 (organizational communication) amounted to 35.8%, indicating that it has a significant influence on the performance of employees. Meanwhile, the variable of X2 (working group) showed an effect of 33.8% on the employee performance, suggesting that organizational communication has the most dominant effect on the performance of employees. Thus, the second hypothesis was also accepted.

KEY WORDS
Organizational communication, working group, employee, performance.

Long-term human resource development is an increasingly important aspect of an organization. In general, the development of human resources is a goal of national development, which is the development of the nation. Meanwhile, specifically, the development of human resources is oriented to organizational environment. Human resources make other organizational resources able to run well. However, skilled, capable and ingenious human resources have not guaranteed the creation of good work performance. One of the benchmarks of the success of an organization in carrying out its development or operational activities is the work productivity level of employees in the organization. Organizations that can be said to be successful are those who have been able to achieve a maximal productivity with effective and efficient ways of work. In addition to skill and experience, organizational communication is also highly influential to employee work performance because bad communication process in working will negatively affect the results of work. Moreover, it is possible that the work results are not satisfying or not according to the desired expectation. Therefore, organizational communication in work can be said as one of the things that greatly support employee performance. Besides, working groups (dividing people into several teams) certainly have an effect on the performance of employees. Some people in a team/ group tend to give a less optimal performance, negatively affecting the completion of the assigned tasks.

Regional Environmental Agency is one of the Local Government institutions of Kutai Kartanegara Regency established based on the regional regulation of Kutai Kartanegara Regency Number 23 of 2008. Problems often occurring at the Regional Environmental Agency is miscommunications or misunderstandings, for example, the internal scope miscommunication between superiors and subordinates in carrying out their duties, causing many employees make mistakes while working or the work efficiency not comparable with the job. Meanwhile, in the division of working groups, there is often a gap between one to another in which the attention given by the superiors is uneven, making employees more strive in improving their work performances. The performance of employees should be built
in a sustainable manner that is expected to increase the performance of both employees and the organization as a whole. Thus, performance-based management practices can involve target specification to be achieved and resource allocation, as well as measure and evaluate the performance. Target specification is a crucial element in formulating policies and programs in which both policies and programs are set to meet community needs. To realize the target needs resource allocation. Then, the performance is spelt out through performance indicators in the performance measurement design. According to Bawono (2009), performance will describe the level of achievement of the implementation of an activity, program, and policy in realizing the goals, targets, mission, and vision of a work unit within the government.

The purpose of this research was to determine and study the effects of organizational communication and working groups on the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency, as well as to know the most dominant variable affecting the performance of the employees at the Regional Environmental Agency of Kutai Kartanegara Regency.

According to Emil Salin in his book entitled "The Aspect of Mental Attitude in Human Resource Management", performance is an individual work result on the given task that he carried out effectively and efficiently with his full responsibility (Emil Salim, 2000:73).

On the other side, Mangkunegara in his book entitled "Human Resource Management in Companies" stated that performance is the result of work in quality and quantity achieved by a public servant in carrying out his duties accordingly with the responsibilities given to him (Mangkunegara, 2001:67). Moreover, according to Hasibuan (2001:87), the meaning of work assessment is to assess the ratio between the real work result and the quality and quantity standards produced by every employee.

Based on some definition of performance expressed above, it can be concluded that performance is the result or the level of success someone achieves in his field of work according to certain criteria, which is evaluated by certain people, especially his superiors.

Wibowo (2008:76) defined that there are seven performance indicators, two of which have a very important role, namely goals and motives. Performance is determined by the purposes or goals to be achieved and to do so, motives are required. Without the driving factors or motives, performance will not run for reaching the goals. Thus, goals and motives are key indicators of performance. However, performance requires the support of facilities, competencies, opportunities, standards, and feedback.

The term of communication (in Indonesian komunikasi) derives from its Latin word which is similarly spelt "communication", and it is also sourced from the Latin word of "communis" which means “similar” (Effendi: 2007;9). However, the meaning of communication described above is basic, in the sense that communication at least must contain the similarity of meaning between the two parties involved. It is said to be minimal because communication activities are not only informative that make others understand and know, but also persuasive that make others willing to accept an understanding or belief, to perform an act or activity, and so on.

Another notion is that communication can be defined as a process of receiving information from the sender to the receiver by using various effective mediums so that the message can be clearly and easily understood by the receiver of the message (Banggun: 2008; 149).

Communication within an organization becomes important to create a common understanding or information conveyed to each other. According to Robbins (1996), communication is a transfer of meaning or understanding to others in the form of signs, symbols, or certain languages so that people who receive the information understand the purpose or meaning of the information conveyed.

An organization is a unity or association consisting of people or divisions in which there are cooperative activities based on the rules to achieve common goals (Pace and Faules, 2005).
Several studies have revealed that communication shows a correlation with the overall together implementation of an organization. Furthermore, Pace and Faules (2005) stated that employees who have better information will be better employees as well.

Communication within an organization can occur in the form of written or spoken words, or symbols resulting in changes in the organization, either between managers and employees involved in giving information or exchanging information (Pace & Faules, 2005). According to Pace & Faules (2005:150), based on its function, the flow of communication occurring within a formal organization consists of vertical flow (downward communication, upward communication), horizontal flow, and two-way communication:

- Downward Communication Flow;
- Upward Communication Flow;
- Horizontal Communication Flow;
- Two-way Communication.

For many employees, working is also a way to fill the need for social interaction (Robbins, 2006:182). It is, therefore, not surprising that having friendly and supportive co-workers will lead to increased job satisfaction. The behaviour of a boss is also a major determinant of satisfaction. It is no secret that most employees will feel a sense of satisfaction when their boss is friendly and understand themselves, praise their good performance, listen to their opinions and show a personal interest.

The definition of an organization working group is a group of people, consisting of two or more members with these following criteria (www.ellopedia.blogspot.com):

- Having the same goals;
- Having the same interests;
- Working together;
- Interconnected;
- Having a sense of belonging;
- Dependent on each other.

There are some reasons why people join in groups (www.ellopedia.blogspot.com):

- Security;
- Status;
- Self-esteem;
- Conjugation;
- Power;
- Good achievement.

Ranupandojo and Husnan (2006:195) stated that the desire to have a compact colleague is a reflection of social needs. An employee may feel objected to being promoted simply because he does not want to lose a compact co-worker. Furthermore, Nitisemito (2006:195) argued that the passion and excitement of work is essentially the manifestation of high work morale.

Shelley Mac Dermid, an assistant professor from Purdue University, in his research article entitled “Co-Workers closeness performance” of 1995 found a fact that work environments with a close interpersonal relationship can help the individuals overcome the problems existing in the workplace, which will also affect their performance at the workplace (findarticles.com).

From the empirical studies explained above, it was obtained an idea of the effects of organizational communications and working groups on employee performance. In detail, the idea is illustrated through this following framework:

After considering the description of the problems of this research, the researchers made provisional opinions or hypotheses as follows:

- Organizational Communication and Working Group have a significant effect on the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency;
Organizational Communication is the most dominant factor that significantly influences the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency.

In accordance with the title and discussion of this research, the object studied in this research was the Regional Environmental Agency of Kutai Kartanegara Regency which is precisely located in Akhmad Dahlan Street, Tenggarong District.

This research was conducted during March 2014. The population of this research was the civil servants (PNS) and freelance/contracted employees working at the Regional Environmental Agency of Kutai Kartanegara Regency. The total population was 100 employees, consisting of 76 civil servants and 24 freelance/contracted employees. Of the total population, the samples were taken according to Krejci table with 5% error level (Sugiyono, 2007, 43) with a total sample number of 79 employees.

In analyzing the magnitude of the influence of Organizational Communication and Working Group on the Performance of Employees, it was used a tool of multiple linear regression analysis with this following equation model:

\[ Y = a + b_1X_1 + b_2X_2 + \hat{e} \]  

(Sugiyono, 2007: 250)

Where: \( Y \) = Performance; \( X_1 \) = Organizational Communication; \( X_2 \) = Working Group; \( b_1, b_2 \) = Partial Regression Coefficients; \( a \) = Constant, i.e. the value of \( Y \) that cannot be affected by variable \( X \); \( \hat{e} \) = Error or residual.

In analyzing, the researchers used the assistance of computer with SPSS (Statistical Product Service Solution) Version 17 program.

RESULTS OF STUDY

Based on the table above, the value of \( R \) obtained was equal to 0.654, meaning that there was a strong correlation of organizational communication variable and working group
variable on the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency because the number of 0.654 is above 0.5 and close to 1.0.

Meanwhile, the value of $R^2$ is a value that shows the closeness of the correlation between independent and dependent variables. In this research, the value of $R^2$ obtained was 0.428 deriving from 0.6542. Because the value of $R^2$ was greater than the value of adjusted $R^2$, the $R^2$ determination used was the value of $R^2$. That was, that the organizational communication and working group variables together or simultaneously influenced the employee performance variable at the Regional Environmental Agency of Kutai Kartanegara Regency as much as 42.8% and the rest 57.2% of the performance of employees (100% - 42.8% = 57.2%) was influenced by other variables that were not examined or discussed in this study, such as motivation, incentive, and so forth.

The result of the $F$-test calculation was obtained by this following $df$ (degrees of freedom):

$$df1 = k - l = 3 - 1 = 2; \text{ and } df2 = n - k = 79 - 3 = 76$$

Therefore, the $F$ table obtained 3.12, meaning that the calculated $F (F_{count}) > tabulated F (F_{table})$ or 28.404 > 3.12. From the calculated $F$ value of 28.404, it was obtained the probability level of 0.000. Since the probability level was much smaller if compared to 0.05, the regression model could be used to predict the employee performance. Thus, the first hypothesis posed by the researchers in this research ("Organizational Communication and Working Group have a significant effect on the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency") was accepted and proven to be valid.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>2</td>
<td>47.923</td>
<td>28.404</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>76</td>
<td>1.687</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>78</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Source: SPSS Output, processed 2014.

Table 1 – F Test Results

Based on the SPSS outputs, it can be seen that the $t$-value of each variable is as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>$t$-Test</th>
<th>$t$-Table</th>
<th>Sig.</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organizational Comm.</td>
<td>3.307</td>
<td>1.991</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>Working Group</td>
<td>4.070</td>
<td>1.991</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Data Source: SPSS Output, processed 2014.

The $t$-table value of 1.991 was calculated using the formula of degrees of freedom (df) in which n-2 = 79 -2 = 77, and the alpha ($\alpha$) = 0.05.

Based on the table above, it can be explained that:

The organizational communication variable ($X_1$) obtained $t_{count} = 3.307 > t_{table} = 1.991$ and Sig. or ($p$) = 0.001 < 0.05, indicating that $H_0$ was rejected and $H_a$ was accepted. In other words, the organizational communication variable was partially or severally able to show a
significant effect on the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency.

In addition, the research results showed that the organizational communication variable positively affected the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency. These results prove that vertical communication (upward and downward communications), horizontal communication, and two-way communication within an organization can influence the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency.

The working group variable \( (X_2) \) obtained \( t_{\text{count}} = 4.070 > t_{\text{table}} = 1.991 \) and Sig. or \( (p) = 0.000 < 0.05 \), indicating that \( H_0 \) was rejected and \( H_a \) was accepted. In other words, the working group variable was partially or severally able to show a significant effect on the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency.

The research results suggested that the working group variable positively affected the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency. These results also prove that the security, status, good achievement and cooperation or teamwork can influence the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency.

Based on the calculation results explained above, it can be seen that the organizational communication variable \( (X_1) \) was the most dominant factor, which was partially able to show its influence significantly to the performance of employees. Meanwhile, the working group variable was the second most dominant factor in predicting or determining the performance of employees at the Regional Environment Agency of Kutai Kartanegara Regency. Thus, the second hypothesis proposed by the researchers in this research ("Organizational Communication is the most dominant factor that significantly influences the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency") was accepted and proved to be valid.

**DISCUSSION OF RESULTS**

The regression equation is as follows:

\[
Y = 4.116 + 0.358X_1 + 0.338X_2
\]

The constant value of 4.116 indicates that if there were no independent variables (Organizational Communication and Working Group), the employee performance value would be 4.116. Based on the equation, it can be interpreted that any changes in both \( X_1 \) and \( X_2 \) would positively influence \( Y \) (employee performance). The constant value (a) resulted of 4.116 also states that if the organizational communication and working group variables were null, the performance of employees at the Regional Environmental Agency of Kutai Kartanegara Regency would be 4.116 or increase by 411.6%.

The regression coefficient of the organizational communication obtained 0.358. It means that if the organizational communication variable was increased by one unit, the performance of employees would improve by 35.8%.

On another side, the regression coefficient of the working group obtained 0.338. It indicates that if the working group variable was increased by one unit, the performance of employees would improve equal to 33.8%.

**CONCLUSION**

Based on the results of the data analysis and discussion of this research, it can be drawn conclusions as follows:

- The organizational communication and working group variables are together able to show significant effects on the performance of employees. Therefore, the first hypothesis is accepted.
The organizational communication has the most dominant effect on the performance of employees. Thus, the second hypothesis is accepted.

REFERENCES

DOI https://doi.org/10.18551/rjoas.2018-09.10

THE INFLUENCE OF ORGANIZATIONAL CULTURE AND WORK MOTIVATION ON EMPLOYEE PERFORMANCE OF INDUSTRIAL AND TRADE SERVICES IN AMBON CITY, INDONESIA

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ABSTRACT
This study is a research on the scope of human resource management about organizational culture and motivation on employee performance of Industrial and Trade Services Office in Ambon City Maluku Province, this research includes explanatory research which aims to explain the influence of organizational culture variables (X1) and motivation variables (X2) on employee performance variables (Y). This study was conducted on 45 employees, with the sampling technique used was a census. Data collected through a questionnaire. Data analysis using multiple linear regression approach with the help of SPSS program for Windows 22. The results of the analysis concluded that simultaneously and partially the organizational culture and work motivation had a significant influence on the employees performance in Industrial and Trade Service of Ambon City; work motivation variables has a dominant influence on employee performance in Industrial and Trade Service Office of Ambon City. The results of this study recommend the importance of high work motivation and supported by organizational culture which is an important factor in the employees’ performance of Industrial and Trade Services in Ambon City.

KEY WORDS
Organizational culture, motivation, performance, public service.

The performance of individual employees will be achieved if the employee has the motivation to work. This work motivation will be achieved if there is a willingness from her/himself and get encouragement from other parties. Encouragement will arise in employees if basic needs and others are given appropriately. Thus the existence of skilled and professional human resources could be one of the factors that determine the performance of human resources concerned (Kamau, 2015). Employee performance in this case is one of indicator that can be used in determining the success or failure of a job in terms of quantity, quality and timeliness. Performance is a manifestation of work carried out by employees in the organization concerned. Good performance is a step towards achieving organizational goals. (Nawai, 2008).

The performance in this study focused on the assessment of work result and the implementation of employee work in Industrial and Trade Service Office of Ambon City in carrying out its duties and functions. Industrial and Trade Service of Ambon City led by a Head of Service who in carrying out his duties is technically operational under and responsible to the Mayor through the Regional Secretary. The main tasks and functions of the Industrial and Trade Services are the implementers of regional autonomy in the field of industrial and trade and administratively responsible to the Mayor as an element of the regional government. Both of them have different backgrounds, namely government elements from bureaucrats and political elements, so that this will indirectly affect the performance of some employees in the Industrial and Trade Services/ Disperindag. The thing that happened in the Industrial and Trade Services / Disperindag of Ambon City was that some of its employees prioritized service to the community and ignored their obligation to comply with the provisions applicable to local government civil servants such as lack of compliance with official working hours. The official working hours are from Monday to Thursday starting at 08.00 WIB and ending at 16.00 WIB and Friday starts at 07:30 WIB ends at 15.00 WIB, but in reality some of the civil servants in the Disperindag of Ambon City
arrived above 08.00 WIB so they did not attend the morning roll and go home before 16.00 WIB.

Based on the above conditions, it is necessary to have a suitable organizational culture to be implemented, so that it is expected that the organizational culture can help the performance of the government apparatus in running the government based on the Decree of the Minister of State Apparatus Reforms Number 4 Year 1991 on The Work Culture Correctional Guidelines which were later updated by the Decree of the Minister of State Apparatus Reforms Number 25/Kep/M.PAN/2002 on the Development of Apparatus Work Culture.

On the basis of the above, can be explained that the implementation of work culture in the Ambon City Government environment will not succeed if it is not supported by the role of employees in the organization, especially in the Industrial and Trade Services/ Disperindag of Ambon City. If employees in the organization, especially in the Industrial and Trade Services/ Disperindag of Ambon City, are dynamic and united, then the organization will be able to live and develop well. But on the contrary if humans in the organization are static, then the organization will not be able to run well.

How important the culture as an organization's identity is in accordance with the opinion of Robbins (1994: 41) that suggests several cultural functions for an organization, namely: 1) Culture acts as an organizational boundary. 2) Culture can bring a sense of identity to its members. 3) Culture can foster a broader commitment and loyalty to members of the organization. 4) Culture can increase the stability of the social system. 5) Culture functions as a mechanism for meaning and control that can shape the attitudes and behavior of its members.

Culture that is not good or negative will also affect employee performance. Employees will be lazy to work because there are no positive values that can encourage them to work better. Positive values grow from good work motivation (Dobre, 2013). Motivation is a complex problem in an organization, because the needs and desires of each member of the organization differ from one another. In the relation with the work environment, Mangkunegara (2002: 94) suggests that work motivation is defined as an influential condition that awakens, directs and maintains behaviors related to the work environment. Based on the description above, the researcher intends to conduct a study of The Influence of Organizational Culture And Work Motivation On Employee Performance Of Industrial And Trade Services In Ambon City.

Hypothesis. The research hypothesis formulated as follows:

- It is suspected that organizational culture and motivation have a significant effect on employee performance at the Industrial and Trade Services of Ambon City;
- It is suspected that motivation has a dominant influence on employee performance at the Industrial and Trade Services of Ambon City.

METHODS OF RESEARCH

This research is a type of explanatory research with analytical survey methods. This type of research aims to analyze the relationship between the influence of organizational culture variables and motivation on employee performance at the Industrial and Trade Services Office of Ambon City. In this study researchers used independent variables (X) includes X1 = Organizational Culture, X2 = Motivation, and the dependent variable (Y) is Employee Performance.

Organizational Culture Variable (X1) the indicator namely Communication (X1.1), Creative and innovative (X1.2), Reward (X1.3) and Teamwork (X1.4). Motivation Variable (X2) the indicator namely Physiological (X2.1), Sense of security (X2.2), Social (X2.3), Appreciation (X2.4) and Self-Actualization (X2.5). Performance Variable (Y) the indicator namely Work quantity (Y1.1), Work quality (Y1.2), and Timeliness of Work (Y1.3).

Based on the characteristics as the conditions determined by the researcher to be used as a reference as a respondent, then after obtaining information in the form of the number of employees, the population is all the Civil Servants of the Industrial and Trade
Service of Ambon City, as many as 45 people, because the target population is quite small, so that in this study conducted census research and did not use sampling techniques. Data analysis in this study uses a multiple linear regression approach that describes the linear influence between independent variables and dependent variables. Multiple linear regression analysis model:

\[ Y = a + b_1X_1 + b_2X_2 + e \]

Where: \( Y \) = Employee performance; \( a \) = Constants; \( b_1, b_2 \) = Regression Coefficients of Organizational Culture and Motivation; \( e \) = Error.

**RESULTS OF STUDY**

This regression analysis is used to Statistic the amount of influence between independent variables, namely organizational culture \((X_1)\) and work motivation \((X_2)\) on the dependent variable, namely employee performance \((Y)\). Hypothesis testing is carried out simultaneously and partially.

**Simultaneous Hypothesis Test.** To test the existence of a positive and significant influence between variables of organizational culture \((X_1)\) and variables of work motivation \((X_2)\) on the Industrial and Trade Service in Ambon City simultaneously used the Test, hypothesis testing criteria as follows:

- \( H_0 \) rejected if \( F \text{ Statistic} > F \text{ table} \) or significance value <0.05;
- \( H_0 \) accepted if \( F \text{ Statistic} < F \text{ table} \) or significance value >0.05.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>442.264</td>
<td>2</td>
<td>221.132</td>
<td>49.495</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>187.647</td>
<td>42</td>
<td>4.468</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>629.911</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( a. \) Predictors: (Constant), Work Motivation, Organizational Culture.

\( b. \) Dependent Variable:

Source: Primary data processed, 2018.

In Table 1, it can be explained at a 95% confidence level \((\alpha = 0.05)\) and \(df = 2: 42\) obtained the value of \(F_{\text{table}}\) equal to = 3.22 while the value of \(F_{\text{Statistic}} = 49.495\), thus the value of \(F_{\text{Statistic}} > F_{\text{table}}\) so that \(H_0\) rejected or \(H_1\) accepted, so it is statistically proven that there is a real influence of organizational culture and work motivation simultaneously on employee performance. Therefore the hypothesis which states that there is a positive and significant influence between organizational culture variables \((X_1)\) and work motivation variables \((X_2)\) simultaneously on improving the employees performance of the Industrial and Trade service of Ambon City can be accepted and tested statistically.

**Hypothesis Testing in Partial (t test).** T test to determine whether the organizational culture variable \((X_1)\) and work motivation variable \((X_2)\) partially have a significant effect on the Industrial and Trade Service in Ambon City and to determine whether the motivation variable \((X_2)\) has a dominant influence on employee performance. If \(T_{\text{Statistic}} > t_{\text{table}}\) or \(-T_{\text{Statistic}} < -T_{\text{table}}\) at a significance level of \(\alpha = 0.05\) then \(H_0\) rejected and \(H_1\) accepted. Meanwhile if \(T_{\text{Statistic}} < t_{\text{table}}\) or \(-T_{\text{Statistic}} > -T_{\text{table}}\) then \(H_0\) accepted and \(H_1\) rejected. The results of the t test can be shown in Table 2.

Hypothesis testing based on Table 2 can be explained:

Table 2, obtained the value of \(T_{\text{Statistic}}\) of the leadership variable equal to 4.490. whereas \(t_{\text{table}}\) amounted to 1.681. As \(T_{\text{Statistic}} > T_{\text{table}}\) namely 4.490 > 1.681 or significance value \((0.00<0.05)\) then \(H_0\) rejected and \(H_1\) accepted so it can be concluded that partially the organizational culture influences the employee performance of Industrial and Trade Service.
of Ambon City. A positive regression coefficient indicates the relation direction is parallel / in the same direction between organizational culture and employee performance. This means that the higher the organizational culture will improve the employee performance of the Industrial and Trade Service of Ambon City.

Table 2 – Partial Test (t Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.067</td>
<td>2.257</td>
<td></td>
</tr>
<tr>
<td>Organizational culture</td>
<td>.240</td>
<td>.053</td>
<td>.392</td>
</tr>
<tr>
<td>Work motivation</td>
<td>363</td>
<td>.049</td>
<td>.645</td>
</tr>
</tbody>
</table>

*a. Dependent Variable:*

*Source: Primary data processed, 2018*

Based on Table 2, the regression equation is obtained as follows:

\[ Y = 2.067 + 0.240X_1 + 0.363X_2 + e \]

Hypotheses testing for work motivation variables in Table 2, obtained the value of \( T_{\text{Statistic}} \) equal to 7.388. Meanwhile \( t \) table equal to 1.681. As \( T_{\text{Statistic}} > T_{\text{table}} \) namely 7.388> 1.681 or significance value (0.00<0.05) then \( H_0 \) rejected and \( H_1 \) accepted so that it can be concluded that partially the work motivation influence the employees performance of the Industrial and Trade Service of Ambon City. Positive regression coefficient indicates the relation direction is parallel / in the same direction between work motivation and employee performance. This means that the higher the employee work motivation will improve the employees performance of Ambon City Industrial and Trade Service. To find out the variables that have the most dominant influence can be seen from the value of the regression coefficient on each independent variable. The results of the analysis show that the variable of work motivation has a dominant influence compared to the organizational culture variable. Estimator value of work motivation variable is equal to 0.363.

**Determination Coefficient \( (R^2) \).** To find out the magnitude of the contribution of the independent variable to the dependent variable used the \( R^2 \) value presented in Table 3:

Table 3 – Determination Coefficient

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.806</td>
<td>0.702</td>
<td>0.688</td>
</tr>
</tbody>
</table>

*Source: Primary data processed, 2018.*

The determination coefficient is used to Statistic the influence or contribution of the independent variable to the dependent variable. In Table 3, Correlation coefficient 0.702, indicating that performance is influenced equal to 70.20% by organizational culture variables and work motivation and the remaining 29.80% is influenced by other factors outside this research. These results concluded that the ability or great diversity of leadership and motivation in explaining the performance was 70.20%.

**DISCUSSION OF RESULTS**

*The Influence of Organizational Culture on Employee Performance.* The results of hypothesis testing show that there is a positive and significant influence between organizational culture on the employees’ performance of the industrial and trade service of Ambon City, and it can be concluded that the higher the organizational culture, the higher the
performance of employees. This is in accordance with the study of Henry's (2006), Dwyer, S., Richard & Chadwick (2003), Marcoulides & Heck (1993), Homburg & Pflesser (2000), Lim (1995), and Novriansyah (2017) expressed that organizational culture had a positive and significant effect on employee performance. This is because organizational culture is a pattern of basic assumptions found, created or developed by a particular group with the intention that the organization can resolve, overcome problems arising from external adaptation and internal integrity that have been running quite well so that it needs to be taught and applied to new members as the right way to understand, think about and feel friends with them (Scain in Lako, 2004) in Novriansyah (2017).

Another research supporting this research are Maslukhan (2015), Chan et al., (2004), Asree et al., (2010), Joiner (2001) which shows that organizational culture has a significant and positive effect on employee performance, it is stated that organizational culture that becomes a strong value system will foster a sense of ownership and increase morale, and this will have an impact on improving employee performance. Culture within the company or organization has the aim to develop human resources at the company or organization in order to be able to change their attitudes and behavior to improve their performance in terms of confronting the challenges of the future.

The results of the study are the same as Suryani and Budiono (2016) which shows that organizational culture has a positive and significant influence on employee performance. This is because organizational culture is the principal solution to external and internal problems that are carried out consistently by a group that then bequeaths to new members as the right way to understand, think about, and feel about related problems.

This study is different from research conducted by Haryanti, et al (2014) which states that organizational culture does not affect employee performance, but that influences employee performance is employee competence. Competence is the main variable that must be possessed by an employee to be able to carry out his work in order to complete his work in accordance with the targets set by the company (Basori, dkk, 2017).

Organizational culture is related to how employees understand the cultural characteristics of an organization, and is not related to whether employees like these characteristics or not. The importance in organizational culture seeks to measure how employees perceive their organizations. Organizations as a place where people gather, collaborate rationally and systematically, in utilizing organizational resources efficiently and effectively to achieve their intended goals. Directional cooperation is carried out by following the pattern of interaction between each individual or group in interacting in and out of the organization (Putri, 2016). The findings related to organizational culture are: (1) A strong organizational culture helps the performance of business organizations because it creates an extraordinary level in employees; (2) Strong organizational culture helps organizational performance because it provides the necessary structure and control without having to rely on rigid formal bureaucracy and which can reduce the growth of motivation and innovation (Sadirjo, et al, 2012).

The Influence of Motivation on Employee Performance. The results of hypothesis testing show that there is a positive and significant influence between motivation on the employees performance of the industrial and trade service of Ambon City, and it can be concluded that the higher the motivation given, the higher the employee's performance. This is consistent with the research of Ghaffari et al., (2017), Nabi et al., (2017), Setiawan (2015), Amalia and Fakhr (2016) which states that motivation has a positive effect on employee performance, This is because the purpose of providing the motivation according to Hasibuan (2003: 146) in Lutfi (2014) is to improve employee morale and job satisfaction, increase the employee work productivity, maintain the stability of company employees, improve the employee discipline, streamline the employee procurement, create an atmosphere and relationships good work, increase loyalty, creativity and employee participation, improve the level of employee welfare, enhance employees' sense of responsibility towards their duties and improve the efficiency of the use of tools and raw materials.

This study is supported by the opinions of Chaudhary, & Sharma (2012) that Employee Motivation is a valuable asset that provides great value to the Organization. Motivation
occupies an important place and position in the whole management process. This technique can be used fruitfully for encouraging workers to make positive contribution for achieving organizational objectives. Motivation is necessary as human nature needs some sort of inducement, encouragement or incentive in order to get better performance. Motivation of employee's offers may benefits to the Organisation and also to the employees. This suggests the importance of motivating employees. Motivation acts as a technique for improving the performance of employees working at different levels.

This research is supported by the research of Ali, et al (2016) which states that motivation plays an important role in employee performance, this is because motivation will encourage employees to seriously do their jobs and responsibilities. Motivation is one aspect that is very important in determining employee performance. The high and low performance of the workforce owned by a company will be strongly influenced by factors such as the work motivation of individual employees. According to Hasibuan (2005: 141) in Indarto (2015) motivation is important because motivation is the thing that causes, distributes, and supports human behavior in order to want to work hard and enthusiastically achieve optimal results.

In contrast to the research of Murti and Srimulyani (2013) which shows that motivation does not have a significant effect on employee performance, this is because humans are a social being who has desire. This desire occurs continuously and will only stop when the end of his life arrives. A need that has been satisfied is not a motivator for the perpetrator, only unmet needs will be a motivator. In line with Omolo's research (2015) which shows that motivation does not have a significant effect on employee performance, according to him that can improve employee performance is money reward.

**CONCLUSION**

Some conclusions can be drawn from this study, namely the organizational culture and work motivation simultaneously and partially influence the change in the employees performances of the Industrial and Trade Service of Ambon City. In addition, it was found that the work motivation variable had a dominant influence on the employees performance of the Industrial and Trade Service of Ambon City. This result accommodates the importance of high work motivation that is supported by a high organizational culture that has an impact on the further employee performance.

**REFERENCES**

DOI https://doi.org/10.18551/rjoas.2018-09.11

EFFECTS OF TRANSACTIONAL LEADERSHIP ON JOB SATISFACTION, ORGANIZATIONAL COMMITMENT AND INTENTION TO STAY: A STUDY ON EMPLOYEES OF OUTSOURCING COMPANIES IN BANJARMASIN CITY, INDONESIA

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ABSTRACT
This research aimed to determine the variables influencing the intention to stay of outsourcing employees in Banjarmasin City, South Kalimantan Province. The samples were 218 of a total population of 482 employees from 8 (eight) outsourcing companies. The research data were analyzed using descriptive and inferential statistics, namely Generalized Structured Component Analysis (GSCA). The results showed that all the variables (Transactional Leadership, Job Satisfaction, and Organizational Commitment) significantly affected the intention to stay. The fact underlying this research implementation was that outsourcing companies can absorb a large number of local workers so as to reduce the level of open unemployment in Banjarmasin City. The novelty of this research was the analysis of the effects of transactional leadership and compensation on the intention to stay.

KEY WORDS
Transactional leadership, job satisfaction, organizational commitment, intention to stay.

The hegemony world condition due to the power of global capitalism is increasingly threatening all elements of life. According to Tabb, institutional construction to regulate the world order is carried out through international organizations or agents including WTO (World Trade Organization), GATT (General Agreement on Tariffs and Trade), WB (World Bank), IMF (International Monetary Fund) and other institutions. The capitalism economy emphasizes the role of capital that is all types of wealth, including goods used in other goods production. Capitalism as a comprehensive social system is more than just an economic system. Capitalism has caused adverse effects economically and socially, leading to gaps in people lives. These all are the impact of the cruel capitalism occurring in several developing countries including Indonesia.

The slow economic recovery has caused increased joblessness due to scarce employment, leading to the increased number of poor people. In Indonesia, Law No. 13 of 2013 on Manpower regulates the protection of workers, including outsourcing workers. According to Yuwono (2010), in the outsourcing working pattern, generally, several jobs are handed over to other companies that have legal entities in which one company does not directly deal with workers but only to the worker distributor company. One of the outsourcing working system developments is the improvement of the competitiveness of companies being hit by the economic crisis by reducing expenditure on the employment side. Banjarmasin is the capital city of South Kalimantan Province is a city of government, port, industry, trade and tourism. According to Central Bureau of Statistics, in 2015, Banjarmasin City had a population of 675,440 people with a density of 9,381 people per km². Banjarmasin is greatly responsible for labor absorption.

To retain employees in an organization is the key for the organization to ensure the implementation of organizational goals. Outsourcing companies employ their employees as the driving source of their activities. Besides, outsourcing companies as the resource transferring companies have an interest in making employees stay in the organization. The intention to stay is highly important to note so that the company's operations certainly continue to run. The high employee turnover can be caused by employee dissatisfaction in the workplace, resulting in weak employee commitment to the organization. Based on the previous studies, the intention to stay can be influenced by job satisfaction. That is, the
higher employee job satisfaction will lead to the greater intention to stay in the organization (Kudo, 2006). Besides job satisfaction, organizational commitment possessed by a person can influence the intention to stay. Shanker (2013) stated that the higher an employee’s commitment is, the bigger his intention to stay in the organization will be. Meanwhile, job satisfaction and organizational commitment can be affected by various factors including leadership. Riaz and Haider (2010) proved the positive effect of transactional leadership on job satisfaction while Othman (2013) found that a positive effect of transactional leadership on organizational commitment.

This research was oriented toward HR management by concerning the effect of leadership, job satisfaction and organizational commitment to the intention to stay in outsourcing companies. The existence of a leader determines the employees’ intention to leave or stay in the organization. There are different results between one and another researcher regarding the effect of Transactional Leadership on Job Satisfaction. Riaz and Haider (2010) and Othman (2013) found a positive effect of transactional leadership on job satisfaction and organizational commitment. This is in line with the concept of Burns (1978) describing transactional leadership as follower motivation, primarily through contingent reward-based changes. Bass (1985) revealed that typically, the main focus of transactional leadership is on the goal setting, clarification of the relationship between performance and rewards, and constructive feedback to subordinates in carrying out duties. Differently, Emery and Barker (2007) found an insignificant effect of transactional leadership on job satisfaction and organizational commitment.

The novelty of this dissertation research was the analysis of the effect of transactional leadership on the intention to stay. The intention to stay in organizations is highly influenced by the organizational commitment and individual job satisfaction. Based on the phenomena and previous studies, this research was done to understand the complete relationship model between transactional leadership, job satisfaction, organizational commitment and the intention to stay.

This research was conducted considering the fact that outsourcing companies can absorb a large number of local workers so as to reduce the level of open unemployment in Banjarmasin City. The novelty of this research was the analysis of the effects of transactional leadership on the intention to stay.

Hypothesis. Here are the hypotheses proposed in this research:
H1: Transactional Leadership has an effect on Job Satisfaction;
H2: Transactional Leadership has an effect on the Intention to Stay;
H3: Transactional Leadership has an effect on Organizational Commitment;
H4: Job Satisfaction has an effect on Organizational Commitment;
H5: Job Satisfaction has an effect on the Intention to Stay;
H6: Organizational Commitment has an effect on the Intention to Stay.

METHODS OF RESEARCH

This research was an explanatory research with a quantitative approach. This research discusses the causal relationship and effects between the variables through hypothesis testing.

The sampling was done using a Proportionate Stratified Random Sampling technique. In this technique, the number of samples taken for each stratus is proportional (Sugiyono, 2008) using Slovin formula as follows (in Ridwan, 2005):

\[ n = N / (1 + Ne^2) \]

Where: \( n \) = Number of Samples; \( N \) = Population; \( e \) = Standard of Error.

The level of Standard of Error was set at 0.05 or 5%, meaning that the significance level was at 95%. With the total population of 482 employees, the sample size is measured as 218 employees.

The total sample of 218 employees was obtained through proportional selection with the following distribution (Table 1).
Table 1 – Number of Samples and the Distribution in Each Work Unit

<table>
<thead>
<tr>
<th>No</th>
<th>Outsourcing Company Name</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PT. PRIMA KARYA SARANA SEJAHTERA</td>
<td>203</td>
<td>203/482x218=92</td>
</tr>
<tr>
<td>2.</td>
<td>PT. PESONA PRIMA UTAMA</td>
<td>87</td>
<td>87/482x218=39</td>
</tr>
<tr>
<td>3.</td>
<td>PT. INTRIAS MANDIRI SEJATI</td>
<td>33</td>
<td>33/482x218=15</td>
</tr>
<tr>
<td>4.</td>
<td>PT. SHANDY PUTRA MAKMUR</td>
<td>26</td>
<td>26/482x218=12</td>
</tr>
<tr>
<td>5.</td>
<td>PT. JATIM SOLUSION</td>
<td>28</td>
<td>28/482x218=13</td>
</tr>
<tr>
<td>6.</td>
<td>PT. ALFABIYA MIRTA UTAMA</td>
<td>39</td>
<td>39/482x218=18</td>
</tr>
<tr>
<td>7.</td>
<td>PT. RISSA</td>
<td>38</td>
<td>38/482x218=17</td>
</tr>
<tr>
<td>8.</td>
<td>PT. PRISMA JAMINTARA</td>
<td>28</td>
<td>28/482x218=12</td>
</tr>
</tbody>
</table>

Total 482 218


The data analysis method used in this research was a descriptive and inferential statistics, namely Generalized Structured Component Analysis (GSCA).

The validity test results of this research can be seen in the following table:

Table 2 – Validity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension Indicator</th>
<th>Item</th>
<th>Validity Coefficient</th>
<th>Cut Off</th>
<th>Des.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contingent reward</td>
<td>X1.1.1</td>
<td>0.938</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X1.1.2</td>
<td>0.938</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Management by exception (Active)</td>
<td>X1.2.1</td>
<td>0.895</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X1.2.2</td>
<td>0.940</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Management by exception (Passive)</td>
<td>X1.3.1</td>
<td>0.889</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X1.3.2</td>
<td>0.897</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>Satisfaction with salary</td>
<td>Y1.1.1</td>
<td>0.850</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y1.1.2</td>
<td>0.933</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with supervision</td>
<td>Y1.2.1</td>
<td>0.923</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y1.2.2</td>
<td>0.901</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with promotion</td>
<td>Y1.3.1</td>
<td>0.708</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y1.3.2</td>
<td>0.809</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with the job itself</td>
<td>Y1.3.3</td>
<td>0.737</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y1.4.1</td>
<td>0.868</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with colleagues</td>
<td>Y1.4.2</td>
<td>0.866</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Affective commitment</td>
<td>Y2.1.1</td>
<td>0.865</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y2.1.2</td>
<td>0.899</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Continuous commitment</td>
<td>Y2.2.1</td>
<td>0.910</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y2.2.2</td>
<td>0.898</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Normative commitment</td>
<td>Y2.3.1</td>
<td>0.876</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y2.3.2</td>
<td>0.930</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Thinking to stay</td>
<td>Y3.1.1</td>
<td>0.862</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y3.1.2</td>
<td>0.877</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Thinking another job</td>
<td>Y3.2.1</td>
<td>0.900</td>
<td>0.3</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y3.2.2</td>
<td>0.851</td>
<td>0.3</td>
<td>Valid</td>
</tr>
</tbody>
</table>


The summary of the reliability test results can be seen in Table 3 below:

Table 3 – Summary of Reliability Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Reliability Coefficient</th>
<th>Cut Off</th>
<th>Des.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contingent reward</td>
<td>0.864</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td>Transactional Leadership</td>
<td>Management by exception (Active)</td>
<td>0.799</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Management by exception (Passive)</td>
<td>0.746</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with salary</td>
<td>0.718</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with supervision</td>
<td>0.795</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with promotion</td>
<td>0.612</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with the job itself</td>
<td>0.670</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with colleagues</td>
<td>0.610</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Affective commitment</td>
<td>0.655</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>Continuous commitment</td>
<td>0.776</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Normative commitment</td>
<td>0.760</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Thinking to Stay</td>
<td>0.677</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Thinking Another Job</td>
<td>0.691</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

RESULTS OF STUDY

Linearity and Goodness of Fit Tests. The hypothesis testing on GSCA was done using a resampling approach with a Bootstrap method, so it did not require data normality assumption. Assumption required in GSCA is the effect between linear variables. This assumption testing results can be seen in Table 4:

<table>
<thead>
<tr>
<th>Relationship between Variables</th>
<th>F</th>
<th>Sig.</th>
<th>Des.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transactional Leadership</td>
<td>Job satisfaction</td>
<td>14.126</td>
<td>0.000</td>
</tr>
<tr>
<td>2. Transactional Leadership</td>
<td>Organizational commitment</td>
<td>16.939</td>
<td>0.000</td>
</tr>
<tr>
<td>3. Job Satisfaction</td>
<td>Organizational commitment</td>
<td>102.671</td>
<td>0.000</td>
</tr>
<tr>
<td>4. Job Satisfaction</td>
<td>Intention to stay</td>
<td>55.112</td>
<td>0.000</td>
</tr>
<tr>
<td>5. Organizational Commitment</td>
<td>Intention to stay</td>
<td>97.244</td>
<td>0.000</td>
</tr>
<tr>
<td>6. Transactional Leadership</td>
<td>Intention to stay</td>
<td>32.695</td>
<td>0.000</td>
</tr>
</tbody>
</table>


Based on Table 4 above, it can be seen that all the relationships between variables were linear, thus the linearity assumption was fulfilled. The measures of Goodness of Fit model in GSCA were in the forms of FIT and AFIT. The results of the Goodness of Fit test in this research model are presented as follows:

<table>
<thead>
<tr>
<th>FIT Model</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIT</td>
<td>0.494</td>
</tr>
<tr>
<td>AFIT</td>
<td>0.488</td>
</tr>
</tbody>
</table>

Based on Table 5 above, the goodness of fit-inner model showed a FIT value of 0.494, indicating that the research model could explain the effect of several variables (according to the model in the conceptual framework) on the variable of Intention to Stay with a significance level of 49.4%. That is, the contribution of the effects of other variables outside this research model added with the error was 48.8%.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Exogenous</th>
<th>Endogenous</th>
<th>Path Coefficients</th>
<th>SE</th>
<th>CR</th>
<th>Des.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>TL</td>
<td>JS</td>
<td>0.210</td>
<td>0.095</td>
<td>2.21</td>
<td>Significant</td>
</tr>
<tr>
<td>H2</td>
<td>TL</td>
<td>ITS</td>
<td>0.232</td>
<td>0.082</td>
<td>2.83*</td>
<td>Significant</td>
</tr>
<tr>
<td>H3</td>
<td>TL</td>
<td>OC</td>
<td>0.125</td>
<td>0.075</td>
<td>1.67</td>
<td>Not Significant</td>
</tr>
<tr>
<td>H4</td>
<td>JS</td>
<td>OC</td>
<td>0.583</td>
<td>0.088</td>
<td>6.63</td>
<td>Significant</td>
</tr>
<tr>
<td>H5</td>
<td>JS</td>
<td>ITS</td>
<td>0.272</td>
<td>0.083</td>
<td>3.28*</td>
<td>Significant</td>
</tr>
<tr>
<td>H9</td>
<td>OC</td>
<td>ITS</td>
<td>0.431</td>
<td>0.078</td>
<td>5.53*</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Note: *= significant at a 5%. Source: Processed Data (2018).

![Figure 1 – Path Diagram of Hypothesis Testing](image-url)
In this research, there were 3 (three) endogenous variables and 1 (one) exogenous in which the effect of one on another was measured. Effects of the Transactional Leadership variable were measured on the Job Satisfaction, Organizational Commitment, and Intention to Stay variables. Moreover, the effects of the Job Satisfaction variable were measured on the Organizational Commitment and Intention to Stay variables. The Organizational Commitment variable was measured for its effect on the Intention to Stay. Further explanation of the effects between variables in this research is as follows.

The Effect of Transactional Leadership on Job Satisfaction (H1). The results of this research proved that Transactional Leadership ($X_1$) significantly affected Job Satisfaction ($Y_1$) with a path coefficient of 0.210 and CR of 2.21*. These values indicate that the better implementation of transactional leadership through the indicators of Contingent reward, Management by exception (Active), and Management by exception (Passive) increased the job satisfaction level of employees working at outsourcing companies in South Kalimantan. Leaders are role models for subordinates and greatly determine the performance of subordinates. Leadership can be interpreted as the ability to influence groups to be able to achieve organizational goals (Robbins, 2003: 324), and in a dynamic environment, we need leaders to face the status quo conditions to create a future vision and inspire organizational members to realize the vision. According to Bass and Avolio (1994), transactional leaders try to motivate their subordinates by giving rewards for what they do.

Job satisfaction is usually related to the theory of justice, and motivation. Job satisfaction is influenced by the reward size and individual engagement in the job. The reward size may not be a big problem as long as it is considered fair by the employees who receive it. Realizing this, one of the important targets in human resource management is the creation of job satisfaction for organizational members so as to increase their performance. With high job satisfaction, employees are expected to maximize their working and be willing to do works beyond their responsibilities so as to accelerate the process of achieving organizational goals.

These results support Riaz and Haider (2010) finding that transactional leadership positively affects job satisfaction, but are not consistent with Ermery and Barker (2007) stating that transactional leadership does not correlate with job satisfaction. Meanwhile, Burns (1978) argued that transactional leaders try to motivate subordinates through rewards for what they do. Transactional leaders believe the ability of subordinates, making subordinates confident to work independently. Subordinates are expected to maintain their work quality according to the standards, and the leaders will take actions only if there are problems leading to job failure (the actions can vary and provide information about what happened and how to make improvements up to the subordinate dismissal from their jobs).

The Effect of Transactional Leadership on the Intention to Stay (H2). The results of this research showed that Transactional Leadership ($X_1$) significantly affected the Intention to Stay ($Y_3$) with a path coefficient of 0.232 and CR of 2.83*. Based on these values, it can be explained that the level of Transactional Leadership would affect the Intention to Stay.

According to Tett and Meyer (1993), the intention to stay is a conscious willingness to stay in an organization. There are various reasons underlying employee willingness to work for a company. The most common reason is that employees are social creatures who need others (groups or organizations). Employees have limitations in meeting their various needs which can only be achieved or fulfilled with the assistance of or jointly with others through organizations. The needs of employees certainly vary (Maslow, 1975; Mc Clelland in Manundar, 2010; and Alderfer in Mangkunegara, 2010) and have different intensity levels and are very dynamic, developing along with the demands of changes in the surrounding environment. In addition to motivating subordinates through rewards for what they do, a transactional leader often follows employees’ desires to just make them stay in the organization. The employees’ needs are expected to be fulfilled by companies through the better management practices of human resources.

The Effect of Transactional Leadership on Organizational Commitment (H3). The results of this research showed that Transactional Leadership ($X_1$) did not significantly affect Organizational Commitment ($Y_2$) with a path coefficient of 0.125 and CR of 1.67. These
values were considered as critical values, so the strength of the effect between both variables was included into the low category. In other words, the implementation of transactional leadership had no effect on the level of organizational commitment.

According to Steers and Porter (1983), a form of commitment emerging is not only passive loyalty but also involves an active relationship with work organizations that have the aim of providing all efforts for the success of the organization concerned. Furthermore, Steers and Porter stated that low commitment reflects a form of employee attachment to the organization. In carrying out activities to help the organization achieve its goals, employees highly depend on the rewards or feedback given by the organizations. In other words, employees’ organizational commitment is not generated by the pure encouragement from within the individual or the conformity of values possessed by the individual. These results support Emery and Barker (2007) suggesting that transactional leadership does not correlate with organizational commitment. In contrast, Othman (2013) found that transactional leadership influences organizational commitment, strengthen by Setyaningdyah et al. (2013) and Dhammika (2013) who also found a significant effect of transactional leadership on organizational commitment.

The Effect of Job Satisfaction on Organizational Commitment (H4). The results of this results suggested that Job Satisfaction (Y1) significantly affected Organizational Commitment (Y2) with a path coefficient of 0.583 and CR of 6.63*. It means that the level of Job Satisfaction given by the companies would affect the Organizational Commitment of outsourcing employees.

From the point of view of the community and individual employees, job satisfaction is the desired outcome. Employees with high job satisfaction tend to have better physical health, learn tasks related to new jobs more quickly, have fewer workplace accidents, less complain, and have a low-stress level (Luthans, 2006). Besides, employees with high job satisfaction feel contented in doing their jobs and not try to seek other alternative jobs. Conversely, employees who are dissatisfied with their jobs tend to seek other alternative jobs and choose to quit the company because they expect a more satisfying job (Modley, 1979).

These results support Abeer Imam et al. (2013) finding that job satisfaction significantly influences organizational commitment (affective, continuous and normative commitment). It is further strengthened by Khan and Jan (2014) stating that job satisfaction, especially related to salary, promotion, and work environment, positively affects organizational commitment.

The Effect of Job Satisfaction on the Intention to Stay (H5). The results of this research exhibited that Job Satisfaction (Y1) had a significant effect on the Intention to Stay (Y3) with a path coefficient of 0.272 and CR of 3.28*. These values indicate that the higher Job Satisfaction would increase the Intention to Stay.

In other words, someone decides to apply for a job in a certain company because he wants to fulfill his needs and he expects that the needs can be fulfilled by the company where he works. These needs are the most basic motive or reason underlying the employee willingness to work for the company. The needs of employees certainly vary (Maslow, 1975; Mc Clelland in Manundar, 2010; and Alderfer in Mangkunegara, 2010) and have different intensity levels and are very dynamic, developing along with the demands of changes in the surrounding environment. Besides, these needs are what employees expect to be fulfilled by companies through good resource management practices. The results of this research support Kudo (2006) explaining that job satisfaction strongly affects the intention to stay, especially of senior workers.

The Effect of Organizational Commitment on the Intention to Stay (H6). As proved by this research, Organizational Commitment (Y2) significantly affected the Intention to Stay (Y3) with a path coefficient of 0.431 and CR 5.53*. These values indicate that the implementation of organizational commitment would impact the level of the intention to stay.

Employees’ organizational commitment is an important behavioral dimension that can be used to measure and evaluate the extent to which employees can survive and carry out their duties and obligations in the company. Knowing employees’ organizational commitment possessed, a company can direct its policies with a strong and empowered capital of human
resources. Commitment is a condition felt by employees, leading to strong positive behavior towards the organization. The results of this research are consistent with Shanker (2013) discovering that organizational commitment influences the intention to stay.

Research Implication. This research contributes theoretically and practically regarding the effect of transactional leadership on job satisfaction, organizational commitment and the intention to stay of outsourcing employees in Banjarmasin City. The implications of this research are expected to benefit the development of science, especially on outsourcing companies in Banjarmasin City.

Theoretical Implication. The findings of this research are expected to contribute theoretically in terms of scientific development that is as a test material and clarification of the theories developed in this research and its consistency with the previous studies. The theoretical implications of this research are explained further as follows:

- This research becomes an empirical basis in the development of the Transactional Leadership theory developed by Bass & Avio (1994), and reinforces the previous studies, including Riaz and Haider (2010) and Robert et al. (2014), finding a significant direct effect of Transactional Leadership variable on Job Satisfaction. Thus, empirically, transactional leadership has a significant effect on job satisfaction.
- This research constitutes an empirical basis in the development of the Transactional Leadership theory developed by Bass & Avio (1994) and supports the results of previous studies showing a significant direct effect of Transactional Leadership variable on the Intention to Stay. Thus, empirically, it can be said that transactional leadership significantly affects the intention to stay.
- This research becomes an empirical basis in the development of the Transactional Leadership theory developed by Bass & Avio (1990), and supports the results of previous studies, including Ermery and Barker (2007), stating that Transactional Leadership variable has no significant direct effect on Organizational Commitment. Thus, empirically, it is concluded that transactional leadership has no significant effect on organizational commitment.
- This research empirically underlies the development of the job satisfaction theory developed by Luthans (2006) and strengthens the previous studies, including Abeer Imam et al. (2013) and Khan and Jan (2015), finding a significant direct effect of Job Satisfaction variable on Organizational Commitment. Thus, empirically, job satisfaction has a significant effect on organizational commitment.
- This research constitutes an empirical basis in the development of the Job Satisfaction theory developed by Luthans (2006) and supports the testing results of previous studies, including Kudo (2006), showing a significant direct effect of Job Satisfaction variable on the Intention to Stay. Accordingly, it is obtained that, empirically, job satisfaction significantly affects the intention to stay.
- This research also becomes an empirical basis in the development of the Organizational Commitment theory developed by Meyer and Alien (1996) and the Intention to Stay theory developed by Tett and Meyer (1993), as well as supports the results of previous studies, including Shanker (2013), indicating a significant direct effect of Organizational Commitment variable on the Intention to Stay. Thus, empirically, organizational commitment significantly affects the intention to stay.

Practical Implication. In addition to the theoretical implications, the findings of this research provide practical contributions that can be used as an input for outsourcing companies in Banjarmasin City:

- The results of this research proved that Transactional Leadership significantly affected Job Satisfaction and the Intention to Stay, but not significantly affected Organizational Commitment. This implies that transactional leadership can provide outsourcing company employees with job satisfaction so as to generate their intention to stay and encourage their commitment to work;
- Outsourcing company leaders need to increase job satisfaction and organizational commitment so that employees intend to stay with the company.
CONCLUSION

Transactional leadership has a significant effect on the employees' job satisfaction in outsourcing companies in Banjarmasin. It can be interpreted that transactional leadership through the indicators of contingent reward, management by exception (active), and management by exception (passive) can significantly affect job satisfaction. That is, if transactional leadership applied by leaders is increasingly acceptable to employees, the employees' job satisfaction will get higher.

Transactional leadership has a significant effect on the employees' intention to stay in outsourcing companies in Banjarmasin. It can be interpreted that transactional leadership through the indicators of contingent reward, management by exception (active), and management by exception (passive) can significantly affect the intention to stay. That is, if transactional leadership applied by leaders is increasingly acceptable to employees, the employees' intention to stay will get stronger.

Transactional leadership has no significant effect on the employees' organizational commitment in outsourcing companies in Banjarmasin. It indicates that transactional leadership through the indicators of contingent reward, management by exception (active), and management by exception (passive) insignificantly affects organizational commitment. That is, if transactional leadership applied by leaders is increasingly acceptable to employees, the organizational commitment will get higher but not too significant.

Job satisfaction has a significant effect on the employees' organizational commitment in outsourcing employees in Banjarmasin. It can be interpreted that job satisfaction through the indicators of salary, satisfaction with supervision, satisfaction with the job itself, and satisfaction with colleagues can significantly affect organizational commitment. That is, the higher the employees' job satisfaction is, the higher their organizational commitment will be.

Job satisfaction has a significant effect on the employees' intention to stay in outsourcing companies in Banjarmasin. It means that job satisfaction through the indicators of salary, satisfaction with supervision, satisfaction with the job itself, and satisfaction with colleagues can significantly affect the intention to stay. In other words, the higher the employees' job satisfaction is, the stronger their intention to stay will be.

Organizational commitment has a significant effect on the employees' intention to stay in outsourcing companies in Banjarmasin. It can be interpreted that organizational commitment through the indicators of affective, continuous, and normative commitment can significantly affect the intention to stay. That is, the higher the employees' organizational commitment is, the stronger their intention to stay will be.

Limitation and Suggestion for Further Studies. Some limitations of this research can be used as a reference for future researchers. First, this research was only focused on one type of outsourcing job, namely cleaning service, thus the results of this research cannot be generalized to other types of outsourcing jobs. Second, in the respondent selection, male and female workers were not differentiated. To enrich the findings, future studies on the effect of transactional leadership on employee performance are suggested to explore the transactional leadership style.

REFERENCES

2. Bass, B.M. 1990. "From transactional to transformational leadership: earning to share the vision, Organizational Dynamics” Winter: pp. 19-31


THE EFFECT OF COMPANY FINANCIAL PERFORMANCE AND MACROECONOMIC VARIABLES ON STOCK RETURNS IN PROPERTY AND REAL ESTATE SECTORS IN INDONESIA STOCK EXCHANGE

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ABSTRACT
This study aims to determine the effect of company financial performance and macroeconomic variable on stock return of the Property and Real Estate companies listed on Indonesia Stock Exchange. There are five variables tested: Debt to Equity Ratio, Price to Book Value, Net Profit Margin, and Inflation and Interest Rate. The population of this study is sector of property and Real Estate listed on Indonesia Stock Exchange period 2014-2017. The numbers of samples are 26 companies. This study uses Multiple Linear Regression analysis and purposive sampling method. The results of this study found that Debt to Equity Ratio, Price to Book Value, Net Profit Margin, Inflation, and Interest Rate have a significant influence on stock return. Based on partial testing (t test) found that the Price to Book Value and Interest Rate have a positive and significant effect on stock return, while Debt to Equity Ratio, Net Profit Margin, and inflation have no significant effect on stock returns.

KEY WORDS
Stock return, debt to equity ratio, price to book value, net profit margin, inflation, interest rate.

The decision to choose an investment is not easy in determining it; careful consideration is needed by prospective investors from various points of view. Considerations can be made by conducting fundamental analysis and technical analysis. According to Jones (2014: 348) the stock assessment process consists of three stages, namely economic analysis, industrial analysis, and company analysis. Economic analysis (macro) is an analysis of external and macro factors in the form of events that occur outside the company and affect all companies so that they cannot be controlled by the company. Industry analysis aims to determine which industries are profitable and which are not good prospects. Company analysis aims to determine any company in the chosen industry that has good prospects.

Stock analysis provides an illustration of whether the selected stock will provide a level of profit that is in accordance with the expected level of return or vice versa. Shares known as "high risk-high return" characteristics have a high risk but also provide a high profit opportunity. Stocks allow investors to get a large amount of return or profit (capital gain) for a fairly short period of time. The volatility of stock prices can affect investors experiencing large losses in a short time, as well as not getting dividends and experiencing losses (capital loss). There are various alternative stocks offered by the capital market for investors, namely stocks in: Agriculture sector, mining sector, basic industrial and chemical sector, miscellaneous industry sector, consumer goods industry sector, property and real estate sector, infrastructure, utilities & transportation sector, financial sector, trade, services and investment sectors.

The Indonesia Stock Exchange Trading in the property and real estate sectors also still showed positive performance, however, the companies engaged in this sector also had a high sensitivity to changes in macroeconomic conditions which affected the trading of shares on the Indonesia Stock Exchange (written by T.G Diredja; Kompas, October 25, 2013).

This research will focus on economic analysis and company analysis because it will focus on financial and macroeconomic ratios that can affect stock returns in the sector. Financial ratios are one of the measuring tools in analyzing a company's financial condition (Kasmir, 2010). According to Sutrisno (2012) stock returns can be influenced by financial
performance such as liquidity ratios, profitability ratios such as solvency ratios, and market ratios. Tandelilin (2010: 342) summarizes some of the macroeconomic factors that influence stock returns are inflation, interest rates, currency exchange rates, economic growth rates and so on.

The variables of the company's financial performance in this study are Debt to Equity Ratio (DER), Price to Book Value (PBV) and Net Profit Margin (NPM), these variables are examined because they still have a research gap and are able to describe the condition of a company in terms of profit produced by the company, seeing the company's ability to pay its debt, and the market share price. While the macroeconomic variables studied are inflation and interest rates because there is a research gap and the two macroeconomic variables are most sensitive to the reaction of stock prices and stock returns. The interest rate uses the BI Rate as a reference because it becomes a benchmark in determining the amount of interest on loans and savings.

LITERATURE REVIEW

Fundamental analysis is used by investors to determine which market price is lower than its intrinsic value (undervalued) so that it is worth buying and which stock market price is higher than its intrinsic value (overvalued) so that it is profitable to sell. Choosing investments requires consideration by conducting fundamental analysis and technical analysis. According to Jones (2014: 348) the analysis process of stock assessment consists of three stages, namely economic analysis, industrial analysis and company analysis to calculate the value of the company's shares.

Investors' stock valuation analysis usually performs a fundamental analysis top-down to assess the company's prospects. Beginning with a macroeconomic analysis that affects the performance of the entire company, then by conducting an industry analysis, and finally conducting an analysis of the companies that issue the securities concerned to assess whether the securities issued are beneficial or detrimental to investors.

Signaling theory suggests how companies provide signals to users of financial statements. This signal is in the form of information about what has been done by management to realize the wishes of the owner. Signal theory explains that companies have the incentive to provide financial report information to external parties because of information asymmetry between the company and external parties. External parties then assess the company as a function of different signaling mechanisms. The manager provides information on financial statements that the company implements conservatism accounting policies that produce higher quality profits because this principle prevents companies from exaggerating profits and helping users of financial statements by presenting profits and assets that are not overstated.

The rate of return (return) of shares is the level of profit that will be obtained by investors because they have invested their shares. According Jogiyanto (2010) returns can be interpreted as the results obtained from investments. The results that will be obtained by investors are not only profits but also can suffer losses if investors are unable to understand the condition of the company properly. One way investors understand the condition of a company is a fundamental assessment where investors can see the financial condition whether the company is developing or not.

Returns can be realized returns (realized returns) or expected returns. Realization return is the return that has occurred which is calculated using historical data. Return can be measured by total return, relative return, cumulative return, and adjusted return. Realization of returns is very important because it is used as a measure of company performance and as a basis for calculating expected returns and risks in the future. While expectation returns is the return that is expected to be obtained by investors in the future. This return can be measured by the expected future value, the value of historical return, and the model of expected return.

According to Brigham and Houston (2013: 103) companies with low debt to equity will have a small risk of loss when the economic situation deteriorates, but when economic
conditions improve, opportunities in earning a profit are also low. Conversely, companies with high leverage ratios do bear the risk of large losses when the economy is declining, but in good condition, the company has the opportunity to get big profits. Companies with high profits will be able to pay a higher dividend, so that in relation to the profit of one share that will rise due to higher debt levels, leverage can increase stock prices (Brigham and Houston, 2013: 24).

The higher the Price to Book Value (PBV) ratio of a company indicates the higher the investor's assessment of the company concerned, relative to the funds invested. With this PBV ratio, investors can find out how many times the market value of a stock has been valued from its book value and can give a picture of the potential price movements of a stock so that from this picture, indirectly the PBV ratio also affects stock prices. The high ratio of Price to Book Value (PBV) of a company shows that the higher the company is valued by investors. If a company is rated higher by the investor, the company's stock price will increase in the market, resulting in an increase in the company's stock return. This is what will further lead to positive sentiment among investors.

Net Profit Margin with this high ratio indicates the ability of a company to generate high profits at a certain level of sales, on the contrary if the ratio is low indicating sales that are too low for a certain level of costs, or costs that are too high for a certain level of sales, or a combination of both. A low ratio can indicate management inefficiencies. The greater the Net Profit Margin will give a positive signal to investors to invest their capital in the company in hopes of obtaining high returns, so that when NPM increases, it is offset by the increase in the company's stock returns. The greater the value of Net Profit Margin (NPM), the better the company's ability to obtain high profits.

The most widely used measure of inflation is Consumer Price Index. CPI changes from time to time show the price movements of the package of goods and services consumed by the public. The determination of goods and services is carried out on the basis of the Cost of Living Survey (SBH) carried out by the Central Statistics Agency (BPS). Inflation is a macroeconomic factor that is able to benefit and harm the company. Basically high inflation is not favored by capital market players because it will increase production costs and operational costs of the company. But on the other hands inflation will also increase the selling price of the company's products. (Andes et. Al, 2017).

Interest rate is the amount of interest paid per unit of time. In other words, people must pay for opportunities to borrow money. Indonesian interest rates are securities in recognition of short-term debt issued by Bank Indonesia with a discount system. The cost of borrowing money measured in Rupiah or Dollar per year for every Rupiah or Dollar borrowed is the Interest Rate. An increase in unreasonable interest rates will make it difficult for businesses to pay interest and liabilities, because high interest rates will add to the burden on the company so that it will directly reduce the company's profit.

Hypothesis:
H1: debt to equity ratio has a negative and significant effect on stock returns;
H2: price to book value has a positive and significant effect on stock returns;
H3: net profit margin has a positive and significant effect on stock returns;
H4: inflation has a negative and significant effect on stock returns;
H5: the interest rate has a negative and significant effect on stock returns.

METHODS OF RESEARCH

This study uses a quantitative approach and is designed to examine the causal relationship or influence between Debt to Equity Ratio (DER), Price to Book Value (PBV), Net Profit Margin (NPM), Inflation and Interest Rates on Stock Returns in Property Sector companies and Real Estate. The population of this study is all Property and Real Estate Sector companies listed on the Indonesia Stock Exchange in the 2014-2017 period totaling 44 companies. The sample in this study was taken by purposive sampling method, namely sampling based on subjective considerations of research tailored to the research objectives. The data analysis technique used in this study is to use Multiple Linear Regression and use
combined data between cross section and time series (data panel). Multiple Linear Regression is a technique in determining the relationship between two or more independent variables with the dependent variable. Data processing will use Statistical Packages for the Social Sciences (SPSS) Version 22.

RESULTS OF STUDY

Multiple linear regression analysis in this study was used to determine whether there was influence of Debt to Equity Ratio (DER), Price to Book Value (PBV), Net Profit Margin (NPM), Inflation and Interest Rate on Stock Returns as stated below:

\[ Y = -0.170 + 0.011x1 + 0.012x2 + 0.023x3 + 0.012x4 + 0.023x5 + e \]

Table 1 – Multiple Linear Regressions Testing Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-0.170</td>
<td>0.045</td>
<td>-3.770</td>
<td>.000</td>
</tr>
<tr>
<td>Debt to Equity Ratio</td>
<td>0.011</td>
<td>0.021</td>
<td>0.029</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.528</td>
<td>.598</td>
</tr>
<tr>
<td>Price to Book Value</td>
<td>0.012</td>
<td>0.005</td>
<td>0.122</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.414</td>
<td>.016</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>0.023</td>
<td>0.030</td>
<td>0.041</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.783</td>
<td>.434</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.012</td>
<td>0.015</td>
<td>0.039</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.785</td>
<td>.433</td>
</tr>
<tr>
<td>Tk. Suku Bunga</td>
<td>0.023</td>
<td>0.007</td>
<td>0.171</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.465</td>
<td>.001</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018.

Based on table 1 shows the X1 variable has a coefficient of 0.011 and a significance value of 0.598. The variable X1 has a significance value greater than the confidence level of 0.05 (5%), so it shows that the Debt to Equity Ratio (DER) does not have a significant effect on the Property and Real Estate Sector Stock Returns, thus accepting Ho and rejecting H1. The results of this study support previous research conducted by Asmi (2014), Kamar (2017), and Sari (2012) which shows that Debt to Equity Ratio (DER) has no significant effect on stock returns.

Based on table 1 shows the variable X2 has a coefficient value of 0.012 and a significance value of 0.016. The variable X2 has a significance value smaller than the confidence level of 0.05 (5%), so it shows that Price to Book Value (PBV) has a significant effect on the Property and Real Estate Sector Stock Returns. Coefficient value (+) indicates that PBV has a positive and significant effect on Property and Real Estate Sector Stock Returns, thus rejecting Ho and receiving H2. The results of this study support the previous research conducted by Arista and Astohar (2012), Asmi (2014), and Karlina and Widanaputra (2016) which show that Price to Book Value (PBV) has a positive and significant effect on stock returns.

Based on table 1 shows the variable X3 has a coefficient of 0.023 and a significance value of 0.434. The variable X3 has a significance value greater than the confidence level of 0.05 (5%), so it shows that the Net Profit Margin (NPM) does not have a significant effect on the Property and Real Estate Stock Returns, thus accepting Ho and rejecting H3. The results of this study support previous research conducted by Hermawan (2012), and Ginting and Erward (2013) which show that Net Profit Margin (NPM) has no significant effect on stock returns.

Based on table 1 shows the variable X4 has a coefficient of 0.012 and a significance value of 0.433. The variable X4 has a significance value greater than the confidence level of 0.05 (5%), so it shows that Inflation has no significant influence on the Property and Real Estate Sector Stock Returns, thus accepting Ho and rejecting H4. The results of this study support previous research conducted by Andes, et.al (2017) and Kirui, et al. (2014), which shows that inflation has no significant effect on stock returns.

Based on table 1 shows the variable X5 has a coefficient value of 0.023 and a significance value of 0.001. The variable X1 has a significance value smaller than the
confidence level of 0.05 (5%), so it shows that the interest rate has a significant influence on the stock returns of the Property and Real Estate sectors. Coefficient value (+) indicates that the Interest Rate has a positive and significant influence on the Property and Real Estate Sector Stock Returns, thus accepting Ho and rejecting H5. The results of this study support previous research conducted by Khan and Yousuf (2013) and Karim (2015) which show that the interest rate has a positive and significant effect on stock returns.

The coefficient of determination is the ability of independent variables to contribute to the dependent variable in percentage units.

Table 2 – Adjusted (R²)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1</td>
</tr>
<tr>
<td>1</td>
<td>0.239</td>
<td>0.057</td>
<td>0.046</td>
<td>0.174775</td>
<td>0.057</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.964</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

Based on Table 2, the test results of the coefficient of determination (adjusted R²) were obtained at 0.057 or 5.7%. These results indicate that the Stock Return is influenced by Debt to Equity Ratio (DER), Price to Book Value (PBV), Net Profit Margin (NPM), Inflation, and Interest Rate of only 5.7% while the remaining 94.3% is influenced by factors others that were not examined in this study.

DISCUSSION OF RESULTS

Factors of the company's financial performance Debt to Equity Ratio (DER) have a positive and insignificant effect on stock returns in the property and real estate sector companies listed on the Indonesia Stock Exchange. This shows that DER does not affect investor decisions in investing. This is based on the idea that there are other factors that can be taken into consideration in addition to the DER factor in making investment decisions.

The company's financial performance factor Price to Book Value (PBV) has a positive and significant effect on stock returns on property and real estate sector companies listed on the Indonesia Stock Exchange. This shows that the higher the value of Price to Book Value (PBV) will have an impact on the greater the level of return (return) of shares that will be received by investors.

Factors of financial performance of Net Profit Margin (NPM) companies have a positive and insignificant effect on stock returns on property and real estate sector companies listed on the Indonesia Stock Exchange. This shows that investors do not pay too much attention to NPM when investing in this sector, because there are other factors such as tax burden that investors need to pay attention to.

Macroeconomic variables Inflation has a positive and insignificant effect on stock returns in the property and real estate sector companies listed on the Indonesia Stock Exchange. This shows that investors believe that the company has a special strategy in dealing with inflation in Indonesia, so that the size of inflation does not affect the return obtained by the company.

Macroeconomic variables on interest rates have a positive and significant effect on stock returns on property and real estate sector companies listed on the Indonesia Stock Exchange. This shows that with the greater SBI interest rate, it will affect the higher stock returns of the property and real estate sectors that investors will get.

CONCLUSION

This research shows that investors and prospective investors can get the expected stock returns, investors must be able to pay attention to and consider PBV factors and macroeconomic interest rates when making decisions in investing. Further research is expected to add other factors that can affect stock returns such as the Market Value Added.
(MVA), Economic Value Added, and other macroeconomic factors. Research is also expected to extend the research period so that the results obtained are increasingly presenting the real conditions so that information users get more accurate information.

REFERENCES

THE INFLUENCE OF LEADERSHIP AND MOTIVATION OF EMPLOYEE PERFORMANCE
IN UPTD BPKB OF MALUKU PROVINCE, INDONESIA

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ABSTRACT
This research is a research on the scope of human resource management about leadership and motivation on the employees performance of the Learning Activity Development Center/ Balai Pengembangan Kegiatan Belajar (BPKB) of Maluku Province. This study aims to explain the influence of leadership variables (X1) and Motivation variables (X2) on Employee Performance Variables (Y). This type of research is Exploratory Research with a quantitative approach. This study was conducted on 60 employees, with the sampling technique used was the census. Data collected through questionnaires. Data analysis using multiple linear regression approach with the help of SPSS program for Windows 22. The analysis results show that simultaneously the leadership and motivation variables have an influence on the employees’ performance of the BPKB in Maluku Province, and based on the partial test results found leadership variable has a dominant influence on employee performance equal to 6.292. This study recommends the importance of the leader’s role in improving the employees’ performance of BPKB of Maluku Province, which is one of the keys to success for organizational progress.

KEY WORDS
Leadership, work, motivation, employee, performance.

The human factor is a major problem in any activities of the organization. Organization defined as the cooperation process of group of people toward achieving a specific goal (Biggio & Cortese, 2013). In the process of cooperation, the members interact and influence each other. All actions taken in each activity initiated and determined by humans who are members of the organization. A good organization is an organization that seeks to improve the ability of its human resources, because it is a key factor to improve employee performance (Ramadhani, 2016). Therefore, organizations need potential human resources both leaders and employees in the pattern of tasks and supervision that are determinants of achieving the organizational goals. Human performance in organizations reflects on knowledge, skills, behavior, and values. Because abilities and skills will help the organization through better performance and productivity (Rafiei & Davari, 2015).

Human resources are determinants for the effectiveness and progress of the organization. In order for the effectiveness and progress of the organization could run well, it requires employees who have high knowledge and skills. Instead, the company must be managed optimally so that employee performance increases (Rasul, 2017). Employee performance related to the quality and quantity of a job performed by an employee or subordinate and that relates to the condition of a subordinate or employee in a particular organization. Good performance is an optimal performance that meets organizational standards and supports the achievement of organizational goals (Simatupang, 2012).

The organization certainly wants its employees to have good performance so that the process of achieving the goals goes smoothly. In realizing the desired employee performance, there are many factors that influence employees, among others leadership in the organization, organizational culture, compensation, motivation, work climate and so on. Related to this, in this study will discuss two factors that are identified influencing employee performance, namely, leadership and motivation (Ramadhani, 2016).

The first factor identified as influencing employee performance is leadership. Leadership is the ability to influence the group towards the achievement of a predetermined
goal. Leadership has a strong influence on the progress of the organization. Leader quality is often regarded as the most important factor that determines the success of an organization. Effective leaders are able to influence their followers to have greater optimism, confidence, and commitment to the goals of the organization that has been determined. This has the consequence that every leader is obliged to give serious attention in fostering, mobilizing, and directing all potential employees in its environment in order to realize organizational stability and improve employee performance which oriented to organizational goals. The second factor that is identified as influencing employee performance is motivation. Motivation is a conscious effort to influence a person’s behavior so that it leads to the achievement of a predetermined organizational goal. Motivation becomes very important in the achievement of employee performance. Motivation affects a person or individual to engage in activities and work which leads to goals as satisfaction. Employees have strong desires arising from internal encouragement to engage and participate in the organization by doing all the tasks and jobs that are charged and continuously the employees will continue to dedicate themselves through all tasks and voluntary work because of the comfort and pleasure which based on strong motivation (Ramadhani, 2016).

Learning Activity Development Center/ Balai Pengembangan Kegiatan Belajar (BPKB) is a Regional Technical Implementation Unit/ Unit Pelaksanaan Teknis Daerah (UPTD) at the Education, Youth, Sports Service / Dinas Pendidikan, Pemuda, Olahraga of Maluku Province whose has the task of carrying out assessment, model development, technical programs, education and training of educators and education personnel in the field of early childhood education, non-formal, and informal. In its duties, BPKB coordinates with the department of Non-Formal and Informal Education/ Pendidikan Non Formal dan Informal (PNFI) of the Education, Youth, Sports Service in Maluku Province and horizontally in collaboration with the Regency/City Education Service and Regency/City SKB and related agencies.

Based on the observations, there are still some BPKB employees who have low performance. This can be seen from the lack of mastery of competencies in completing tasks in accordance with their respective fields of work. The Administration Section of the archives arrangement work field/department is still found the archivists who lack competence in archival matters, so that they are often assisted by other work fields/ department. The results of these observations are supported by the results of interviews with the Head of Administration Section of BPKB which said “there are still employees who have low quality work, lack of independence in completing tasks, and lack of discipline in work”. Factors that influence employee performance in addition to low skills and abilities in completing tasks are supervision and motivation from the leaders. Supervision by leaders is very important as a process to ensure that employees carry out tasks according to organizational goals and predetermined performance standards. Head of BPKB has not routinely supervised each field/ department. So, it has an impact on the lack of knowledge of the leadership regarding employee performance issues at BPKB. The low supervision of BPKB leaders on employees has an impact on work morale and the performance of BPKB employees.

Supervision carried out by BPKB leaders is one way to motivate employees to improve employee performance. In addition to supervision, the implementation of the morning roll is also a means to motivate 5 employee, however, in BPKB does not work. In accordance with the Regulation of the Minister of Home Affairs number 59 Year 2008 Article 3 section 2 “each component is obliged to carry out the morning roll/ session which is followed by all civil servants, with the following conditions: (a) Monday to Thursday at 07.30 WIB and, (b) Friday at 07.30 WIB and continued with morning gymnastics/ sports activities”. Morning roll should go according to the ministerial regulation which is used as a means of motivation and information sharing between fields that aim to advance BPKB. The absence of morning roll at the BPKB is one sign of the discipline lack of employee work at BPKB. Based on the above description, this research is entitled “The Influence of Leadership and Motivation on Employee Performance in the BPKB of Maluku Province”

Hypothesis. Based on the theory that connects the three variables, the hypothesis in this study are:
• Leadership and motivation simultaneously have a significant influence on the employees performance of the BPKB of Maluku Province;
• Leadership has dominant influence on the employees performance of the BPKB of Maluku Province.

METHODS OF RESEARCH

This research is a type of explanatory research with analytical survey method, this type of research aims to analyze the relationship of influence between leadership and motivation variables on the employees performance of the BPKB of Maluku Province. In this study researchers used the independent variable (X) includes $X_1 =$ Leadership, $X_2 =$ Motivation, and the dependent variable (Y) namely Work Performance. Leadership variable (X1) the indicator among others: Capacity ($X_{1,1}$), Achievement ($X_{1,2}$), Responsible ($X_{1,3}$), Participation ($X_{1,4}$). Motivation Variable Indicator (X2), namely Existence Needs ($X_{2,1}$), Attachment Needs ($X_{2,2}$) and Growth Needs ($X_{2,3}$). Performance Variable (Y) the indicator namely work quantity ($Y_{1,1}$), Work quality ($Y_{1,2}$), Timeliness of Work ($Y_{1,3}$) and Cooperation ($Y_{1,4}$).

Based on the characteristics as the conditions determined by the researcher to be used as a reference as a respondent, then after obtaining information in the form of the number of employees, then the population is all the Civil Servants (PNS) of the BPKB of Maluku Province, as many as 60 people as a population, because the target population is relatively small, so that in this study conducted the census research and did not use sampling techniques. Data analysis in this study using multiple linear regression analysis approach describes the form of linear relationship between independent variables and dependent variables. The multiple regression analysis model:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Where:
- $Y =$ Employee Performance
- $a =$ Constants
- $b_1, b_2 =$ Regression coefficient of leadership and motivation
- $e =$ Error

RESULTS AND DISCUSSION

This regression analysis is used to Statistic the amount of influence between independent variables, namely leadership ($X_1$) and Motivation ($X_2$) on the dependent variable namely Performance ($Y$).

**Simultaneous Hypothesis Test.** Simultaneous test or also called F test in multiple linear regression analysis aims to determine whether the independent variable (X) together or simultaneously influence the dependent variable (Y), kriteria pengujian hipotesis sebagai berikut:
- $H_0$ rejected if F Statistic > F table or significance value <0.05;
- $H_0$ accepted if F Statistic < F table or significance value >0.05.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1583.053</td>
<td>2</td>
<td>791.527</td>
<td>52.772</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>854.947</td>
<td>57</td>
<td>14.999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2438.000</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), Motivation, Leadership.

b. Dependent Variable: Performance.

Source: Primary data processed, 2018.
Based on Table 4.14 the value of F Statistic equal to 52.77. Meanwhile F table \((\alpha = 0.05; \text{db regression} = 2; \text{db residual} = 57)\) is amounted to 3.16. As F Statistic > F table namely 52.77>3.16 or sig F value \((0,000) > \alpha = 0.05\) then \(H_0\) rejected and \(H_1\) accepted so that it can be concluded that simultaneously leadership and motivation influence the employees performance of the BPKB of Maluku Province.

**Hypothesis Testing in Partial (t test).** Partial test with t test used to determine whether each independent variable partially has a significant effect on the dependent variable. If t Statistic > t table or \(-t \text{Statistic} < -t\) table at a significance level \(\alpha = 0.05\) then \(H_0\) rejected and \(H_1\) accepted. Meanwhile if t Statistic < t table or \(-t \text{Statistic} < -t\) table then \(H_0\) accepted and \(H_1\) rejected. The results of the t test can be shown in Table 2.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>9.875</td>
<td>3.747</td>
<td></td>
</tr>
<tr>
<td>Kepemimpinan</td>
<td>453</td>
<td>.073</td>
<td>.572</td>
</tr>
<tr>
<td>Motivasi</td>
<td>383</td>
<td>.103</td>
<td>.343</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2018.*

Based on Table 2, the regression equation obtained as follows:

\[ Y = 9.875 + 0.453X_1 + 0.383X_2 + e \]

Table 2 obtained the value of t Statistic from Leadership variables equal to 6.22. Whereas t table amounted to 1.67. As t Statistic > t table namely 6.22 > 1.67 or significance value \((0.00<0.05)\) then \(H_0\) rejected and \(H_1\) accepted so that it can be concluded that partially leadership had influences on the employees performance of the BPKB of Maluku Province. The positive value of regression coefficient indicating that the relation direction is parallel / in the same direction between leadership and employee performance. This means that the better the leadership, the better the employees performance of the BPKB of Maluku Province will be.

Hypothesis testing for motivation variables in Table 2, obtained t Statistic value equal to 6.22. Whereas t table amounted to 1.67. As t Statistic > t table namely 3.73> 1.67 or significance value \((0.00<0.05)\) then \(H_0\) rejected and \(H_1\) accepted so it can be concluded that partially the motivation has an effect on the employees performance of the BPKB of Maluku Province. The positive value of regression coefficient indicating that the relation direction is parallel / in the same direction between motivation and employee performance. This means that the higher motivation of employees then will improve the employees' performance of BPKB of Maluku Province. To find out the variables that have the most dominant influence can be seen from the value of the regression coefficient on each independent variable. The analysis results show that the leadership variable has a dominant influence compared to the motivation variable. This can be known because the leadership variable has the highest regression coefficient of 0.453.

**Determinant Coefficient \((R^2)\).** To find out the magnitude of the contribution of the independent variable to the dependent variable used the R2 value presented in Table 3.

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.806</td>
<td>0.649</td>
<td>0.637</td>
</tr>
</tbody>
</table>

*Source: Primary data processed, 2018.*
The determination coefficient is used to Statistic the influence or contribution of the independent variable to the dependent variable. Table 3, correlation coefficient is 0.649, shows that performance is influenced equal to 64.90% by leadership and motivation variables and the remaining 35.1% is influenced by other factors outside this research. This result concludes that the ability or the magnitude of leadership diversity and motivation in explaining performance is 64.90%.

DISCUSSION OF RESULTS

The influence of leadership on the employee of UPTD BPKB of Maluku Province. The results of hypothesis testing show that the relationship direction between leadership and employee performance is positive, it can be concluded that the relationship between the two is in the same direction and strong. This means that the higher leadership which is supported by high motivation will have an effect on the improvement of employee performance, while the dominant variable influencing on the employee performance is the leadership variable. The results of this study are supported by Prussia et al., (1998), McColl-Kennedy, & Anderson (2002), Aragón et al., (2007), García et al., (2008), Schaubroek & Cha (2007), Walumbwa et al., (2011), Garcia et al., (2012), Sami'an and Aprilian (2012), Inaray (2016) and Shamir & Howell (2018) expressed that leadership influence performance, this is due to the function of the leader is not just guiding and directing subordinates, but the most important thing is how the leader is able to provide a clear vision and mission or direction where the organization will be brought so that the results achieved in accordance with the initial objectives of the establishment of the company. In addition, the leader is able to influence others to be willing to work together in related tasks to achieve the desired goals (Putra, 2011).

Lor and Hassan (2017) and Basit's research, et al (2017) also mentioned that leadership significantly and positively can affect employee performance, this is because leadership shows the ability of leaders in encouraging followers with their vision, enhancing followers' skills and abilities, paying attention to their interests by fostering, training as needed. Leadership has also been linked to results such as innovation, quality improvement and performance. Leadership is the process of influencing the activities of individuals or groups to achieve goals in certain situations (Indriyati and Sutomo, 2017).

Good leadership will encourage or motivate the organization to live more in work and be able to reward subordinates, so they feel useful, so that they will work with high loyalty. Leadership has a huge influence in improving employee performance, because leaders are role models and an example for subordinates. Thus, if in an organization wants to have high performance, it requires leadership that can move subordinates, so that they will be encouraged to do work with high direction and performance (Utomo, 2014).

Garcia et al., (2008) stated that in order to achieve an performance enhancement in the organization, new leaders needed to have knowledge that was supported by the innovation they had so as to achieve organizational goals. This is in line with Siagian's (2011) opinion that leadership is all the resources and tools available to an organization, both human resources and other resources, so that it can be said that the success or failure of an organization achieving its intended goals depends heavily on leaders and its members mobilize the resources of the organization.

The Influence of Motivation on the Employee of UPTD BPKB of Maluku Province. The results of hypothesis testing indicate that the direction of the relationship between motivation and employee performance is positive and significant, it can be concluded that the relationship between the two is in the same direction and strong. Means that, the more motivation increases the employee's performance will also increase. The results of this study are supported by Johan (2017), Shahzadi ET AL., (2014), IbrahiM & Brobbey (2015), Ackah (2014), Setiadi et al., (2016), Kasyoki &George (2013) which states that motivation has a positive and significant effect on employee performance, this is because low motivation can affect employee performance that is not optimal, so that with low work motivation, employees will not be enthusiastic about working and have difficulty completing their work, and vice
versa high motivation can have a maximum effect, so that with high work motivation will cause employees to be enthusiastic in working and easy to complete their work.

In line with Hanafi and Yohana’s research (2017), Albeit (2015) and Omolo (2015) also stated that motivation has a positive and significant effect on employee performance. Mugoho (2013) stated that motivation can also improve employee performance and employee commitment. Motivation is finding employee needs and helping to achieve it in a smooth process. Motivating employees aims to broaden their skills in meeting organizational demands. It can be concluded that the higher the motivation of employees, it will directly improve the performance of these employees. The existence of good motivation in work will obtain optimal employee performance while with less motivation will result in low employee performance. This is consistent with the theory Robins (2010) in Helmida and irianto (2018) which states that “the factors used to improve employee performance include motivation and satisfaction”. Based on this opinion shows that motivation is one of the factors that can influence employee performance.

CONCLUSION

Based on the results of this study it can be concluded that simultaneously and partially found leadership and motivation variables have a significant influence on employee performance. This shows that leadership and motivation variables are important variables in measuring the employee performance of BPKB of Maluku Province, the better leadership supported by high motivation can improve employee performance. The findings obtained the variable leadership is the dominant variable that influence the employee performance of BPKB of Maluku Province. This study recommends the importance of the role of leaders in improving employee performance is one of the keys to success for the success of the entire organization. In improving employee performance it is crucial in directing one's personal attitudes and behavior to be able to have an attitude and behave in accordance with the rules at the BPKB of Maluku Province.

REFERENCES


SEM ANALYSIS OF INNOVATIVE BEHAVIOR INFLUENCE TOWARDS HUMAN RESOURCE PERFORMANCE

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ABSTRACT
Objective of the study is to analyze how much influence entrepreneurial orientation has towards corporate performance on which organizational learning becomes the moderating variable. This verificative descriptive study conducted surveys in the national state-owned enterprises. The data analysis method was Structural Equation Model/SEM. In general, the indicators of entrepreneurial orientation were commitment to novelty, risk-taking and being proactive. The indicators of organizational learning was learning process in individual, group or organizational level, while those of corporate performance were customer satisfaction, financial condition, internal business process, learning/improvement. The finding showed that entrepreneurial orientation had significant influence towards corporate performance.

KEY WORDS
Entrepreneurial orientation, corporate performance, organizational learning, business.

Effective Human Resource (HR) management strategy is one vital requirement amidst increasingly complex, dynamic and global-oriented business. Many predicted that HR strategy that emphasizes on creativity and innovation is the most effective one to anticipate fierce business. Davila, Epstein & Shelton (2015) argued that creativity and innovation-oriented strategy encourages company to create new products and eventually becomes a market leader. Selecting business strategy should ideally be followed with HR strategy and corporate culture that stimulate creativity and innovation. Professional human resources, ones that are skillful, committed, innovative, open-minded and flexible, are the key to successful implementation of business strategy. Synergy between business and HR strategy as well as corporate culture is really important for business performance. This study discusses relationship between creative thinking and innovative behavior towards HR performance in achieving corporate goals.

In order to survive and grow, a company depends upon profit instead of mere luck. Other factors are hard-work, problem-solving ability and ability to take advantage of business opportunity. Problem-solving ability and ability to take advantage of business opportunity are derived from creativity of human resources, which is ability to come up with new ideas and methods to solve issues and seize business opportunity. Innovation refers to an ability to apply new ideas or solutions. In short, it can be said that creativity = thinking new things, while innovations = doing new things.

Innovation and creativity are two pivotal traits an individual should have. Creativity, where an idea is derived from, plays an important strategic role in this discussion. It is expected that high creativity results in more innovation. However, very few people are exploring their their creative potentials.

Many believe that process and innovation begins with creativity. Innovative employees help companies developing their competitive advantage. Well-organized business model alone does not guarantee successful business; indicator of successful a company is careful implementation of the business plan.

Very few companies encourage their staffs to be creative and innovative. The significant role of creative and innovative human resource towards business performance encouraged the researchers analyze influence of creative-thinking and innovative behavior towards performance of non-financial staffs.
THEORETICAL FRAMEWORK AND HYPOTHESIS

Conceptual Definition of Creativity and Innovation. Neither public or business sector in Indonesia paid attention towards creativity. Many people associated creativity with children. Very few associated it with adult. As a matter of fact, creativity is one of the keys to face increasingly competitive business and industrial sectors.

Discussing the definition of creativity, literatures mentioned several aspects of creativity, such as creating new products, generating new ideas, combination and association between various disciplines, shifting from conventional perspective to modern one, making breakthrough, generating a lot of ideas, and using different perspectives. The definitions of creativity are as follows:

- Capability to develop new concepts and relationship, analyze subject from new perspectives and develop new combinations from two or more existing concepts (Mc. Coy, 2012);

- Creativity refers to combining theoretical concepts (knowledge) from different fields of study or discipline in order to generate new and more improved concepts (M.A. West, 1997: 1).

West (1997: 2) defined innovation as intentional introduction and implementation of a task, team or organization, from new ideas, processes, products, or procedures for the task, team, or organization to benefit the aforementioned task, team, or organization.

Therefore, innovation starts from an idea, from either internal or outside a company to create and apply new concepts and eventually influence or benefit the company. The most important elements of innovation are ideas, implementation and utilization. An individual should draw a line between innovation and invention or creativity. Discovery is a creative process that includes knowledge and information to create new products. On the other hand, innovation is a longer process as it begins with discovering an idea, and then is followed by introduction of the idea and transforming it into applicable and profitable methods or product.

West (1997: 31) stated that behavioral component and attitude are closely related to individual tendency to select particular set of action. In conclusion, this behavioral component is an action component of attitude. An individual may be friendly, warm, aggressive, hostile or apathetic towards another individual or use various methods to interact with other individuals.

Innovative Behavior. In terms of anatomy and psychology, human being is pretty similar between each other. These anatomical and psychological similarities lead to similar behavior between individuals. Innovative individual will maintain his or her individual compensation and learn to combine his or her knowledge to that of company where he or she works.

In addition, innovative behavior increases intellectual capacity of an individual from “know what” to “care why.” When all individuals in an organization has reached this “care why” stage, the organization becomes intelligent corporation. Tunngal (2012) defined intelligent corporation as company that is able to develop its competitive advantage in sustainable manner from its knowledge and service-based activities while relying on its intellectual assets. Innovative behavior of an individual is represented by his or her participation in all activities related to innovation. This innovative behavior is pivotal as innovative work has more risks than routines. Successful innovation is a simple and focused innovation. It is specific, clear, well-organized and applicable. In the long run, successful innovation creates new customers and market.

Combining various definitions of creative and innovative behavior, the authors defined creative and innovative behavior as “related attitude and behavior that creates innovative employees”.

West (1997)’s Concept for Developing Creativity in Organization. Developing creativity and innovation in organizations mean applying a proactive and well-organized strategy to generate creative and innovative processes. It means attracting, developing and supporting creativity of individuals in an organization. It means to induce constructive conflict and various perspectives in modern and heterogenous organizations to produce creative and innovative ideas.
In general, leaders of organization do not pay close attention to customer strategy (who the targets are; what value works in an organization?) or realize and understand how much important HR development strategy or Human Capital is. In the current organizational and economic development like today, more particularly in value creation, human capital and other intangible capital become dominant commodity.

**Framework of Thinking and Hypothesis.** Recently, a lot of companies can afford expensive, modern engine and equipment but they do not hire skillful employees to run those machinery. It is difficult for company who lost its competent employees to recover and therefore, companies should pay close attention to HR strategy. HR strategy supports implementation of corporate strategy which later is translated into HR activities, policies and programs that help achieving corporate strategy.

HR plays strategic role in a company and HR strategy is manifested into HR activities that develop value creation without putting aside cost efficiency (Becker, Huselid & Ulrich, 2011: 59; Dharma & Sunatrio, 2011). HR policy, process and practice company carries out should represent high performance work system, which means HR activity is conducted based on CEO policy and existing system and is expected to influence other HR programs.

Identifying creative thinking and innovative behavior is one of the strategic roles of HR because it focuses on HR productivity. Strategic behavior of employee refers to innovative or productive behavior of employees and this has direct influence towards implementation of corporate strategy (Becker, Huselid & Ulrich, 2011:20; Peniwiati, 2011).

Priority of strategic HR development program is developing creative thinking and innovative behavior of employees without putting aside efficiency (Becker, Huselid & Ulrich, 2011:61; Dharma & Satrio, 2011).

Based on the elaboration, combination of effective management system and appropriate HR strategy can foster intrapreneur skills of employees. It is expected that development of intrapreneurial environment encourage creativity and innovation and improve HR performance.
Hypotheses. Based on the framework, the hypotheses are as follows:

- Creative thinking has influence towards innovative behavior;
- Innovative behavior has direct influence towards HR performance.

Subject of the Study. The subject of this study is PT XYZ (which later was referred to as the company) located in Jakarta. The company focuses on Engineering Procurement Construction (EPC).

The respondents were 3 employees of Engineering, Procurement and Construction division. The respondents filled out questionnaire discussing management practices in the company. As an addition, the respondents described their job satisfaction, retention (loyalty, leave intention and attendance) and productive behavior (development of moral capacity, creativity and innovation).

Self appraisal performance was the indicator to observe and measure productive behavior of the respondents. Even though the self appraisal performance has been used widely, it may reduce accuracy of the result. In order to obtain additional information and cross-check the data from the questionnaire, the authors interviewed several Heads of EPC divisions where the respondents worked.

Objects of the study were creative thinking and innovative behavior of the EPC employees as well as performance of non-financial HR. These objects became variables of the study and were analyzed using SEM (Structural Equation Model).

METHODS OF RESEARCH

Objective of the study is to analyze influence of creative-thinking and innovative behavior towards performance of EPC employees using HR Scorecard approach. It means this study was a descriptive study. In addition, the study aimed to provide justification on the influence of creative-thinking and innovative behavior towards performance of EPC employees. Therefore, this study was also categorized as verificative research or explanation research. Based on its types, this study used Explanatory Survey Method, a survey of which objective is to elaborate relationship between variables (Sugiyono: 2014). The type of investigation was causal relationship, or to find out how much influence (degree) independent variable has towards dependent variable.

The analysis unit was performance of Engineering Procurement and Construction division of the company.

Population and Sampling Method. The population was 500 employees of EPC division of the company.
To determine the number of samples, the authors used Slovin’s formula (as cited in Yamane, 1967:99) as follows:

\[ n = \frac{N}{N(d)^2 + 1} \]

Where: \( N \) = population or EPC division employees in the company; \( n \) = sample or the EPC division employees selected as samples; \( d \) = level of confidence.

Based on the formula, the total samples were at least 223 employees. Sampling technique the authors used was Probability Sampling.

The data analysis method was SEM (Structural Equation Model), or a method to analyze multivariate, dependence data by combining factorial analysis and path analysis in order to justify particular theories or model. Based on the limitation, three major characteristics of SEM are as follows:

1. SEM is compact combination of two multivariate data analysis, namely factorial and path analysis;
2. Instead of developing a model, SEM provides empirical justification or confirmation towards certain model or theoretical analysis;
3. SEM develops simultaneous confirmation of two major components, namely measurement or structural model.

Figure 4 showed a model with 3 (three) latent variables, namely 2 (two) exogenous variables (\( \xi_1, \xi_2 \)) and 1 (one) endogenous variable (\( \eta_1 \)). \( \xi_1 \) was manifested or measured based on three manifests or variables (\( X_1, X_2, \) and \( X_3 \)), while \( \xi_2 \) was manifested based on two manifests or variables (\( X_4 \) and \( X_5 \)).

The endogenous variable (\( \eta_1 \)) was manifested based on three manifests or variables (\( Y_1, Y_2 \) and \( Y_3 \)).

Having developed a complete path diagram, the authors converted the diagram into equations, namely equations for exogenous latent variables, endogenous latent variable and structural equation.
Figure 4 – Basic Model (Complete Path Diagram) of SEM

Equation to measure the exogenous latent variable ($\xi_1$):

\[
\begin{align*}
X_{1.1} &= \lambda^{(x)}_{11} \xi_1 + \delta_1 \\
X_{2.1} &= \lambda^{(x)}_{21} \xi_1 + \delta_2 \\
X_{3.1} &= \lambda^{(x)}_{31} \xi_1 + \delta_3 
\end{align*}
\]

Equation to measure the exogenous latent variable ($\xi_2$):

\[
\begin{align*}
X_{1.2} &= \lambda^{(x)}_{12} \xi_2 + \delta_4 \\
X_{2.2} &= \lambda^{(x)}_{22} \xi_2 + \delta_5 
\end{align*}
\]

Equation to measure the endogenous latent variable ($\eta$):

\[
\begin{align*}
Y_1 &= \lambda^{(y)}_1 \eta + \epsilon_1 \\
Y_2 &= \lambda^{(y)}_2 \eta + \epsilon_2 \\
Y_3 &= \lambda^{(y)}_3 \eta + \epsilon_3
\end{align*}
\]

Structural model between the latent variables:

\[
\begin{align*}
\xi_2 &= \gamma_1 \xi_1 + \zeta_1 \\
\eta &= \gamma_2 \xi_2 + \zeta_2
\end{align*}
\]

*Model Evaluation.* In this stage, the model was evaluated based on several goodness of fit. Kusnendi (2005: 26) postulated some elements describing why these goodness of fit indexes can be used to analyze a model:
• $\chi^2$ (statistical Chi-square). A model is fit when $\chi^2$ is low. In this study, low $\chi^2$ resulted in level of confidence higher than 95%.
• NFI (Normed Fit Index). A model is fit when NFI $\geq 0.90$.
• RMSEA (The Root Mean Square Error of Approximation). A model is fit when RMSEA $\leq 0.08$.

<table>
<thead>
<tr>
<th>$\chi^2$ Fit Index</th>
<th>Recommended Score (lower estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance Probability</td>
<td>$\geq 0.05$</td>
</tr>
<tr>
<td>NFI</td>
<td>$\geq 0.90$</td>
</tr>
<tr>
<td>RMSEA</td>
<td>$\leq 0.08$</td>
</tr>
</tbody>
</table>

Having finished the goodness of fit analysis, the following procedures were unidimensional analysis and reliability testing. Unidimensionality refers to an assumption used to analyze reliability of a model by showing that the model is in one dimension and indicators used have good fit. On the other hand, reliability refers to internal consistency of a construct showing to which degree each indicator indicates general latent construct/factor. There are two types of reliability testing Construct Reliability and Variance Extracted. The minimum acceptable requirement for reliability testing is C-R $\geq 0.7$.

The second type of reliability testing is Variance Extracted (V-E) which shows variance of indicators extracted from latent variable. High Variance Extracted (V-E) shows that indicators have been able to represent latent variable well. The minimum acceptable V-E score for reliability testing is V-E $\geq 0.5$.

RESULTS AND DISCUSSION

**Influence of Creative Thinking and Innovative Behavior towards Non-Financial HR Performance.** This section discussed result of SEM analysis on influence of creative thinking ($z_1$) and innovative behavior ($z_2$) towards non-financial HR performance ($\eta$).

There are two requirements to run an analysis using Structural Equation Modeling (SEM), namely (1) data should have at least interval scale of measurement and (2) data obtained from questionnaire should have ordinal scale and later be transformed into interval scale using Method of Successive Interval (MSI) after scoring. The authors used Method of Successive Interval (MSI) to transform the information on creative thinking ($z_1$), innovative behavior ($z_2$) and non-financial HR performance ($\eta$) into interval (see Appendix for complete information about the three variables). The following procedure was estimation of total score for each sub-variable using Structural Equation Modeling (SEM) and Lisrel 8.3 software.

In SEM analysis, data normality test was conducted using Test of Multivariate Normality, of which objective is to describe whether or not the data have met multivariate normal distribution. It was conducted using Lisrel-Prelis 2.30 software in which based on the statistical analysis was 270.247 and p-value was 0.000. Since p-value was lower than 0.05, Ho was rejected (data with normal distribution and it can be concluded that the data did not have multivariate normal distribution. In this study, SEM and matrix of correlation were used to describe influence of the independent variables towards the dependent one (coefficient).

Based on SEM analysis towards the data obtained from 321 samples, the authors were able to obtain estimated coefficient showing influence between the variables. Figure 5 showed path diagram of the structural model.

In the SEM analysis, several criteria were used to analyze whether or not the model have met goodness of fit measures (Hair, 2008: 659). Table 2 showed comparison between the data and those criteria.
Table 2 – Comparison based on criteria of Goodness of fit measures

<table>
<thead>
<tr>
<th>USN National Model</th>
<th>Goodness of Fit Criteria</th>
<th>Result of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>test is not significant (p-value &gt; 0.05)</td>
<td>NFI is lower than 0.90</td>
<td>test was significant (p-value = 0.000)</td>
</tr>
<tr>
<td>RMSEA was low (RMSEA between 0.05 and 0.08 can be accepted)</td>
<td>RMSEA = 0.194</td>
<td>NFI = 0.7997</td>
</tr>
</tbody>
</table>


These scores showed that testing was significant, (p-value < 0.05). Based on the second criteria, NFI (Normed Fit Index) of the model was 0.7997 or below the maximum acceptable score of NFI (0.90). Furthermore, RMSEA of the model was 0.194.

Based on the three Goodness of Fit Criteria, the model describing influence of creative thinking and innovative behavior towards HR performance did not meet the Goodness of fit measures. However both validity and reliability testing showed that all items in the questionnaire were valid and reliable. It is predicted that the model cannot meet the Goodness of Fit criteria due to the following factors, namely:

- The study used only one instrument that did not represent the supervisor and employees separately;
Based on the data analysis, the coefficient describing influence of creative thinking towards innovative behavior was 0.6612 and thus, influence of creative thinking towards innovative behavior was $0.6612^2 = 0.4371$. In conclusion, creative thinking influenced 43.71% of the innovative behavior while the remaining 56.29% was influenced by other factors. In the model, these other factors were classified as errors. These errors had higher contribution but unfortunately were not involved as indicators of the variables.

Figure 6 showed path diagram of the structural model and estimated coefficient showing influence between the variables based on SEM analysis. Based on Figure 6, it can be seen that coefficient showing the influence of creative thinking towards innovative behavior was 0.6612 and t-value was 8.4652.

### Table 3 – Hypothesis Testing on Partial Influence of Creative Thinking towards Innovative Behavior

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t value</th>
<th>T table</th>
<th>Sig Test</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative thinking has influence towards innovative behavior</td>
<td>0.6612</td>
<td>8.4652</td>
<td>1.965</td>
<td></td>
<td>$H_0$ was rejected; creative thinking influences innovative behavior</td>
</tr>
</tbody>
</table>

Source: Primary Data.

The table showed analysis towards the first hypothesis, the influence of creative thinking towards innovative behavior. Based on significant testing, t-value was higher than t-table (1.965). When level of confidence was 95%, it can be concluded that creative thinking has significant influence towards innovative behavior.

Figure 7 showed path diagram of the structural model and estimated coefficient showing influence between the variables based on SEM analysis.

![Figure 7 – Path Diagram of the Structural Model on “the Influence of Innovative Behavior ($z_2$) towards Non-Financial HR Performance ($\eta$)”](image)

Figure 7 showed that coefficient showing influence of innovative behavior towards non-financial HR performance was 0.7753 and t-value was 6.6788.

### Table 4 – Hypothesis Testing on Partial Influence of Innovative Behavior towards Non-Financial HR Performance

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t value</th>
<th>T table</th>
<th>Decision</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative behavior influences non-financial HR performance</td>
<td>0.7753</td>
<td>6.6788</td>
<td>1.965</td>
<td>Sig Test</td>
<td>$H_0$ was rejected; innovative behavior has influence towards non-financial HR performance</td>
</tr>
</tbody>
</table>

Source: Primary Data.

The analysis showed that innovative behavior had influence towards non-financial HR performance since t-value was higher than t-table (1.965). When level of confidence was 95%, it can be concluded that innovative behavior has significant influence towards non-financial HR performance.
DISCUSSION OF RESULTS

HR Performance (\(\eta\)). HR performance (\(\eta\)) was measured based on 3 sub-variables, namely job satisfaction (\(Y_1\)), job productivity (\(Y_2\)) and job retention (\(Y_3\)). Table 5 showed loading factors of each sub-variable.

Table 5 – Loading Factor of HR Performance (Latent Variable)

<table>
<thead>
<tr>
<th>HR Performance Sub-variables</th>
<th>Notation</th>
<th>Loading Factor</th>
<th>t-value</th>
<th>(R^2)</th>
<th>Error Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction ((Y_1))</td>
<td>(\lambda_{Y1})</td>
<td>0.7742</td>
<td>8.6586</td>
<td>0.5994</td>
<td>0.4006</td>
</tr>
<tr>
<td>Job Productivity ((Y_2))</td>
<td>(\lambda_{Y2})</td>
<td>0.6962</td>
<td>8.6725</td>
<td>0.4847</td>
<td>0.5153</td>
</tr>
<tr>
<td>Job Retention ((Y_3))</td>
<td>(\lambda_{Y3})</td>
<td>0.3890</td>
<td>5.6496</td>
<td>0.1513</td>
<td>0.8487</td>
</tr>
<tr>
<td>Construct Reliability</td>
<td>=</td>
<td>=</td>
<td>0.6621</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variance extracted</td>
<td>=</td>
<td>=</td>
<td>0.4118</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data.

Based on Table 5, Construct Reliability of HR performance is 0.6621 or lower than the lowest requirement of 0.70. It means the sub-variables of HR performance do not have Good Fit.

Based on the questionnaire, job retention has high score (85.1%) but the observation and survey shows that there is no correlation between length of work and job satisfaction. Chi-square statistical analysis reported that there is no correlation between the respondents’ length of work and their job satisfaction.

Therefore, it can be concluded that there is no difference in the respondents’ job satisfaction towards the length of work-related aspects in PT. XYZ.

Variance Extracted of non-financial HR performance was 0.4118 or lower than the minimum standardized requirement of 0.50. It means only 41.18% of the sub-variables were involved in the construct (HR performance).

Based on Table 5, job satisfaction (\(Y_1\)) has higher loading factor compared to the other sub-variables.

Creative Thinking (\(\xi\)). Creative thinking (\(\xi\)) consists of 3 sub-variables, namely individual quality (\(X_{1,1}\)), organizational performance (\(X_{1,2}\)) and cognitive flexibility (\(X_{1,3}\)). Table 6 shows loading factors of these sub-variables.

Table 6 – Loading Factor of Creative Thinking (Latent Variable)

<table>
<thead>
<tr>
<th>Creative Thinking Sub-variables</th>
<th>Notation</th>
<th>Loading Factor</th>
<th>t-value</th>
<th>(R^2)</th>
<th>Error Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Quality ((X_{1,1}))</td>
<td>(\lambda_{X1,1})</td>
<td>0.8252</td>
<td>16.5374</td>
<td>0.6807</td>
<td>0.3193</td>
</tr>
<tr>
<td>Organizational Performance ((X_{1,2}))</td>
<td>(\lambda_{X1,2})</td>
<td>0.6537</td>
<td>12.2489</td>
<td>0.4274</td>
<td>0.5726</td>
</tr>
<tr>
<td>Cognitive Flexibility ((X_{1,3}))</td>
<td>(\lambda_{X1,3})</td>
<td>0.8929</td>
<td>18.4204</td>
<td>0.7972</td>
<td>0.2028</td>
</tr>
<tr>
<td>Construct Reliability</td>
<td>=</td>
<td>=</td>
<td>0.8371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variance extracted</td>
<td>=</td>
<td>=</td>
<td>0.6352</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Analysis.

Based on Table 6, t-value of each sub-variable of creative thinking was higher than 1.965. It shows that these sub-variables are significant indicators of creative thinking.

Table 6 showed that Construct Reliability of creative thinking is 0.8371 or higher than the minimum requirement of 0.70. Variance Extracted of creative thinking was 0.6352 (higher than the minimum requirement of 0.50). It means 63.52% variance of the sub-variables was involved in the construct (creative thinking).

Table 6 indicated that cognitive flexibility (\(X_{1,3}\)) has higher loading factor compared to others sub-variable. In other words, cognitive flexibility is dominant factor of creative thinking.

The finding is in line with Michael A. West (1997:17) that a creative employee has always used different perspectives/paradigms for solving problems at work.
Innovative Behavior ($\xi_2$). Innovative behavior consists of 2 sub-variables, entrepreneurial policies ($X_{2.1}$) and entrepreneurial practices ($X_{2.2}$). Table 7 showed loading factors of these sub-variables.

<table>
<thead>
<tr>
<th>Innovative Behavior Sub-variables</th>
<th>Notation</th>
<th>Loading Factor</th>
<th>t-value</th>
<th>R²</th>
<th>Error Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial policies ($X_{2.1}$)</td>
<td>$\lambda_{X2.1}$</td>
<td>0.7071</td>
<td>11.8464</td>
<td>0.5000</td>
<td>0.5000</td>
</tr>
<tr>
<td>Entrepreneurial practices ($X_{2.2}$)</td>
<td>$\lambda_{X2.2}$</td>
<td>0.8530</td>
<td>8.6586</td>
<td>0.7276</td>
<td>0.2724</td>
</tr>
<tr>
<td>Variance extracted</td>
<td>=</td>
<td>0.7591</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>=</td>
<td>=</td>
<td>0.6138</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Analysis.

Based on Table 7, t-value of innovative behavior is higher than 1.965 which shows that all of the sub-variables are significant to develop innovative behavior.

Table 7 shows that Cunstruct Reliability of innovative behavior is 0.7591 or higher than the minimum requirement if 0.70. This score means that the construct is accepted and the sub-variables of innovative behavior have Goodness Fit.

Variance Extracted of innovative behavior is 0.6138. It means the construct (innovative behavior) has involved 61.38% of the sub-variables.

Furthermore, entrepreneurial practices ($X_{2.2}$) has higher loading factor compared to the other sub-variable. It means entrepreneurial practices is a dominant factor of innovative behavior.

Influence of Creative Thinking towards Innovative Behavior. Based on the Structural Equation Modeling, creative thinking has significant influence towards innovative behavior. Coefficient showing the significant influence of creative thinking towards innovative behavior is 0.6612 and thus, degree of influence is 0.6612² = 0.4371. In other words, creative thinking influences 43.71% of innovative behavior while other factors outside this study influences the remaining 56.29%.

Percentages of individual quality and cognitive flexibility are 77.4% and 76.6% respectively. These show that the employees are creative. In conclusion, the company hires employees with high creative and innovative potentials.

<table>
<thead>
<tr>
<th>Entrepreneurial Practices</th>
<th>No. Item</th>
<th>f</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan for making innovation</td>
<td>41</td>
<td>58</td>
<td>18.6</td>
<td>185</td>
<td>59.3</td>
<td>61</td>
<td>19.6</td>
</tr>
<tr>
<td>Managerial vision focused on opportunity</td>
<td>42</td>
<td>56</td>
<td>17.9</td>
<td>215</td>
<td>68.9</td>
<td>39</td>
<td>12.5</td>
</tr>
<tr>
<td>Developing entrepreneurship skills of the employees</td>
<td>43</td>
<td>49</td>
<td>15.7</td>
<td>234</td>
<td>75.0</td>
<td>25</td>
<td>8.0</td>
</tr>
<tr>
<td>Management willingness to listen to employees' aspiration</td>
<td>44</td>
<td>49</td>
<td>15.7</td>
<td>234</td>
<td>75.0</td>
<td>25</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Source: Primary Data.

Influence of Innovative Behavior towards Non-Financial HR Performance. The Structural Equation Modeling shows that innovative behavior has significant influence towards non-financial HR performance. Coefficient of innovative behavior towards HR performance was 0.7753 and thus, degree of influence was ($P^2_{x2}$) 0.7753² = 0.6011. In other words, innovative behavior influences 60.11% of HR performance while other factors outside this study influences the remaining 39.89%.

Based on Table 8, showing the indicators of innovative behavior, percentage of developing entrepreneurial skills of the employees is 61.9% or low; as the result, the
company should conduct more programs of which objective is to develop entrepreneurial skills of the employees. As an addition, percentage of manager’s willingness to listen to employee’s aspiration is also low (60.0%). It is predicted that management has pivotal role in developing creativity and innovative behavior of the employees. These percentages contribute to total average percentage of Entrepreneurial Practices, which is 68.9%.

The average percentage of Entrepreneurial Practices (68.9%) is lower than average percentage of Entrepreneurial Policies (75.3%). Innovative employees have positive impact towards corporate performance and therefore, management should provide wider opportunity for the employees to get involved in decision-making process.

CONCLUSION

Based on the questionnaire, observation and interview, the company has not been able to foster creativity or innovative behavior of its employees. It does not encourage the employees to come up with new ideas or conduct programs that help the employees improving their entrepreneurial skills. At last, the management provides very little time to listen to the employees’ aspiration.

Creative thinking has influence towards innovative behavior. Creative thinking consists of three sub-variables, namely individual quality, organizational performance, and cognitive flexibility. Among these three sub-variables, cognitive flexibility has the largest contribution towards innovative behavior of the employees. Furthermore, innovative behavior consists of 2 sub-variables, Entrepreneurial Policies and Entrepreneurial Practices. Based on the analysis, Entrepreneurial Policies has higher score compared to Entrepreneurial Practices. It means Entrepreneurial Practices is a dominant factor that influences development of innovative behavior.

RECOMMENDATIONS

Management should consider employees as strategic assets and therefore, start developing and apply programs derived from entrepreneurial policy consistently in order to improve cognitive flexibility, creative thinking and innovative behavior of their employees;

Management should provide opportunity for employees to realize their ideas. This opportunity creates balance between entrepreneurial policies and entrepreneurial practices and eventually improve job performance;

Since the model (the influence of creative thinking and innovative behavior towards HR non-financial performance) has yet to meet the Goodness of fit measures, future researchers should modify the variables, develop questionnaire for both supervisors and employees or develop correlation model between the variables.

REFERENCES

THE EFFECT OF INFLATION, RUPIAH EXCHANGE RATE, BANK INDONESIA SHARIA CERTIFICATE, WORLD OIL PRICES, AND WORLD GOLD PRICES AGAINST THE PRICES DEVELOPMENT OF SHARES IN JAKARTA ISLAMIC INDEX

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ABSTRACT
The purpose of this study is to determine the effect of inflation, rupiah exchange rate, Bank Indonesia Sharia certificate, world oil prices, and world gold prices against the prices development of shares in Jakarta Islamic Index. In this study concluded that the inflation effect is negative and not significant to the development of stock price Jakarta Islamic Index. The value of the rupiah and Bank Indonesia Sharia certificate has a negative and significant impact on the development the price shares of Jakarta Islamic Index, while the world oil price and world gold price have a positive but not significant impact on development of the stock Jakarta Islamic Index.

KEY WORDS
Inflation, rupiah exchange rate, Bank Indonesia Sharia certificate, world oil prices, world gold prices, Jakarta Islamic Index.

The capital market is one of the instruments of today’s economy has growth very rapidly. The capital market is an indicator of the economic progress of a country as well as support the economy of the century concerned. The capital market has an important role for the economy of a country because the capital markets perform two functions. The function of capital market the first is as a means for funding a business or as a means for companies to obtain funds from public investors. The function of capital market the second is a means for people to invest in financial instruments such as stock , bonds, mutual funds, and others (Rusbariand et al., 2012).

In Indonesia began to develop financial instruments based on Sharia such as Islamic bank, Islamic capital market, and commodity market Sharia. The initial step the development of the stock transactions in the Islamic capital market Indonesia is recorded by the presence of the Sharia of the Jakarta Islamic Index in July 2000. The Jakarta Islamic Index is a group of stocks that meet the instruments criteria of Islamic Sharia in the Indonesia capital market. Sharia stocks that become the constituents of the Jakarta Islamic Index consists of 30 stocks that are the most liquid Sharia shares and has a market capitalization of large. Business development is supported with a set of fatwa DSN MUI related to the industry of the Islamic capital market, namely the fatwa No. 05 of 2000 about buying and selling shares as well as in strengthen again in 2003 with issued his fatwa no 40 of the year 2003 regarding capital market and general guidelines for the implementation of Sharia principles in the capital market (Otoritas Jasa Keuangan, 2016).

The development of stock prices in capital market industry should respond seriously by investors, in practice in the field the investor should pay attention to all situation that will occur well it’s definite situation and the situation uncertain special in a state of uncertain, an investor should be more carefull (Rusbariand et al., 2012).

A state that does not definitely indicate the presence of risks, in general the risks and grouped into two types, namely systematic risks and unsystematic risks. With respect to the importance of attention to macro-economic conditions with become part of the systematic risks, the market capital Sharia Indonesia that the performance of her reflected in the concept Jakarta Islamic Index was not able to avoid the presence of the risks. As known the development of oil prices of the world, the prices of gold in the world and variables indicator economic macro like the pace of the inflation up in the exchanges rate rupiah against the
dollar at union. As well as the certificate bank Indonesia Sharia always fluctuates in every period so indicated influential on the investing in the market capital is one of the indicator economic growth of country (Padli, 2016).

Certainly also oil prices of the world, price of the gold and variables macro economy it would be reject progression for the investors to also took the decision important to instill capital in the market capital. The problem of being a discussion of this article are the influence of between the inflation, the exchange rate, the certificate bank Indonesia Sharia, the oil price of the world, and the price of gold against the development of stock price Jakarta Islamic Index.

METHODS OF RESEARCH

Used data in this study has a range of the time of January 2015 until December 2017. Data collected through the study namely the data collection directed to the research data and information through the good documents written and electronic paperwork can support writing process. The data collected from some of the website is www.idx.co.id, www.bi.go.id, and www.investing.com. This study applies double linear regression method with the form of the function as follows:

$$\ln Y = \alpha + \beta_1 \ln x_1 + \beta_2 \ln x_2 + \beta_3 \ln x_3 + \beta_4 \ln x_4 + \beta_5 \ln x_5 + e$$

Where:
- $Y$ = The development of stock price Jakarta Islamic Index;
- $\ln$ = Natural Logarithm;
- $x_1$ = Inflation;
- $x_2$ = The exchange rate rupiah;
- $x_3$ = The certificate bank Indonesia Sharia;
- $x_4$ = Oil price of the world;
- $x_5$ = The price gold of the world;
- $\alpha$ = Constanta;
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = The coefficient of regressing;
- $e$ = Error Term.

Data is transformed into the form of the natural logarithm ($\ln$) aims to data variation from the average of the mean thus obtained variants which a small in addition, the transformation is done so that the model generated is good and not having problems multicollinearity, autocorrelation, heteroscedasticity, and normality (Purwanto, 2012).

The results of linear regression double in the can are as follow:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG(INFLASI)</td>
<td>-0.004213</td>
<td>0.027150</td>
<td>-0.155182</td>
<td>0.8777</td>
</tr>
<tr>
<td>LOG(NILAI_TUKAR)</td>
<td>-1.533195</td>
<td>0.291600</td>
<td>-5.257869</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(SBIS)</td>
<td>-0.462900</td>
<td>0.107335</td>
<td>-4.312666</td>
<td>0.0002</td>
</tr>
<tr>
<td>LOG(HARGA_MINYAK_DUNIA)</td>
<td>0.016054</td>
<td>0.053989</td>
<td>0.297382</td>
<td>0.7682</td>
</tr>
<tr>
<td>LOG(HARGA_EMAS_DUNIA)</td>
<td>0.280937</td>
<td>0.149318</td>
<td>1.881470</td>
<td>0.0696</td>
</tr>
<tr>
<td>C</td>
<td>19.90135</td>
<td>3.686281</td>
<td>5.398760</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared: 0.861566
Adjusted R-squared: 0.838494
S.E. of regression: Mean dependent var: 6.529035
S.E. of regression: S.D. dependent var: 0.084350
Sum squared resid: Akaike info criterion: -3.779879
Log likelihood: Schwarz criterion: -3.515959
Log likelihood: Hannan-Quinn criter.: -3.687764
F-statistic: Durbin-Watson stat: 1.653294
Prob(F-statistic): 0.000000

Table 1 – The results of the regressions
Test Statistics. The calculations carried out to measure to proportion or percentage of variation total dependent variable that is able to explained by the regression model. $R^2$ in the regression of 0.861566. This means that the variable price development the shares of Jakarta Islamic Index ($Y$) can be explained by the variables of inflation ($x_1$), rupiah exchange rate ($x_2$), Bank Indonesia Sharia certificate ($x_3$), world oil prices ($x_4$), and the world price of gold ($x_5$) amounting 86.15 percent of the rest is explained by other variables outside of the function regression.

The t test was conducted to determine the influence of determine the influence of independent variables on the dependent variable in the partial T-Statistic variable inflation of 0.8777 because the probability of T-Statistics is greater than 0.05 then the hypothesis (Ho) is rejected means the partial inflation and no significant negative effect on the development of stock prices in Jakarta Islamic Index. The coefficient of regressing inflation of 0.004213 showed that every rising inflation amounting 1 percent it will lose of stock price Jakarta Islamic Index of 0.004213 percent.

Based on the results of reckoning on the table 1 in get results t-statistic variable exchange rate rupiah 0.0000 because the probability of t-statistics smaller than 0.05 then hypothesis (Ho) accepted means in partial exchange rate rupiah influential negative and significant against the development of stock price Jakarta Islamic Index. The coefficient of regressing exchange rate rupiah of -1.533195 showed that every rise in the exchange rate rupiah amounting to 1 percent then will lose of stock price Jakarta Islamic Index of 1.533195 percent.

The table 1 showed that the value of t-statistic variable certificate bank Indonesia concept of 0.0002 because the probability of t-statistics smaller than 0.05 then hypothesis (Ho) in received means in partial certificates bank Indonesia Sharia influential negative and significant against the development of stock price Jakarta Islamic Index. The regression coefficient of bank Indonesia Sharia influential negative and significant against the development of stock price Jakarta Islamic Index. The regression coefficient of bank Indonesia Sharia certificate of -0.462900 shows that any increase in bank Indonesia Sharia certificate amounting 1 percent then it will lower the price of shares in Jakarta Islamic Index amounting 0.462900 percent.

The results of t- statistics variables world oil price amounted to 0.7682, this can be seen in table 1 because the probability of t-statistics is greater than 0.05 then the hypothesis (Ho) rejected means in a partial world oil prices have a positive but not significant impact on the development of stock price in Jakarta Islamic Index. Regression of world oil prices amounting 0.016054 shows that every increase in world oil price amounting 1 percent then it will increase the price of the shares of Jakarta Islamic Index. Amounting 0.002740 percent.

Based on the table 1 obtained results of t- statistics variable price gold world of 0.0696. Because the probability of t-statistics is greater than 0.05 then the hypothesis (Ho) is rejected means the partial world gold prices have a positive but not significant impact on the development of stock prices in Jakarta Islamic Index. The regression coefficient of the world price gold amounted to 0.280937 show that any increase in world gold price amounting 1 percent would raise the price the shares of Jakarta Islamic Index.

Statistical Test F. This test aims to determine whether the independent variables simultaneously or together effect the dependent variable significantly. In table 1, it is seen that the probability of F statistics of 0.0000 with 95% confidence level ($\alpha = 0.05$) then the null hypothesis of research is rejected because the value of the probability of F statistics is smaller than $\alpha$, which means the independent variable (inflation, exchange rate rupiah, bank Indonesia Sharia certificate, world oil prices, and the world price of gold) together have a significant effect on the development of stock prices in Jakarta Islamic Index.

Multicollinearity Test. Test multicollinearity it can be seen from the value of tolerance and variance inflation factor. Tolerance measure variable free elected that cannot in explain by variable free. So, the value of tolerance low the same with the value of variance inflation factor high (because variance inflation factor = 1/ tolerance) and show the colinearity high. The value of cut off the common in life is the value of tolerance 0.10 or value variance inflation factor that was under this 10.
Table 2 – Test results multicollinearity test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Variance</th>
<th>Uncentered VIF</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG(INFLASI)</td>
<td>0.000737</td>
<td>52.37008</td>
<td>2.077058</td>
</tr>
<tr>
<td>LOG(NILAI_TUKAR)</td>
<td>0.085031</td>
<td>240787.3</td>
<td>1.812303</td>
</tr>
<tr>
<td>LOG(SBIS)</td>
<td>0.011521</td>
<td>1216.074</td>
<td>2.996153</td>
</tr>
<tr>
<td>LOG(HARGA_MINYAK_DUNIA)</td>
<td>0.002915</td>
<td>1371.406</td>
<td>1.819315</td>
</tr>
<tr>
<td>LOG(HARGA_EMAS_DUNIA)</td>
<td>0.022296</td>
<td>35293.47</td>
<td>2.813403</td>
</tr>
<tr>
<td>C</td>
<td>13.58867</td>
<td>425713.9</td>
<td>NA</td>
</tr>
</tbody>
</table>

The results of the test of multicollinearity, can be seen in table 2 column centered VIF. The value of the variance inflation, exchange rate rupiah, Bank Indonesia Sharia certificate, world oil prices and the world price of gold each is 2.077058, 1.812303, 2.996153, 1.819315 and 2.813403. Because the VIF value of the fifth variable does not exist which is greater than 10 then it can be said did not happen multicollinearity on the five independent variables.

Autocorrelation Test. Autocorrelation test is very useful to identify the problem of autocorrelation not only on the degree of the first (first order) but also used on the level of degree. Autocorrelation test can be seen from the probability of chi-square. If the probability of chi-square is > 5 % then Ho failed to be rejected and can be concluded the data there is no autocorrelation and it is better if probability of chi-square is < 5% then the Ha fails is rejected or there is autocorrelation.

Table 3 – The results autocorrelation test

Breusch-Godfrey Serial Correlation LM Test:

<table>
<thead>
<tr>
<th></th>
<th>F-statistic</th>
<th>Prob. F(2,28)</th>
<th>Obs*R-squared</th>
<th>Prob. Chi-Square(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.519830</td>
<td>0.6002</td>
<td>1.288849</td>
<td>0.5250</td>
</tr>
</tbody>
</table>

From the table above it is known that the value of obs*R-square of 1.288849 and a probability value of chi-square 0.5250 greater than the value of 0.05. Because the probability value of chi-square > α = 5%, Then the model id freed from the problem of autocorrelation then Ho is accepted it can be concluded that the data there is no problem of autocorrelation. With the passing of the autocorrelation test then there is no relationship between members of series of observations sorted according to time and space.

Heteroscedasticity Test. Heteroscedasticity test aims to test whether in the regression model occurs the dissimilarity variants from one observation to the other observations. A good regression model is if it does not happen heteroscedasticity. To detect the data have problems of heteroscedasticity or not, namely if the probability of obs*R-squared > 0.05 then the data is no there heteroscedasticity. So, on the other hand, if the probability of obs*R-Square < 0.05 then the data are heteroscedasticity.

Table 4 – The test results Heteroscedasticity

Heteroscedasticity Test: Breusch-Pagan-Godfrey

<table>
<thead>
<tr>
<th></th>
<th>F-statistic</th>
<th>Prob. F(5,30)</th>
<th>Obs*R-squared</th>
<th>Prob. Chi-Square(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.688481</td>
<td>0.6359</td>
<td>3.705671</td>
<td>0.5925</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>2.095750</td>
<td>0.8357</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table above it is known that the value of obs*R-Square is 3.705671 and the probability of the chi-square of 0.5925 greater than a value of 0.05 because the probability value of chi-square is > 5 % then in this case Ho is accepted so, it can be concluded that the data are homoscedasticity after the tests are performed the Breusch-Pagan-Godfrey. With the passing of the test of heteroscedasticity then the regression model can be said
homoscedasticity namely variance from residual of one observation to the observation of others remain.

**Normality Test.** To be able to know the normal presence or absence of the factor of destruction is done with the J-B test (Jarque-Bera Test). This test using the results of estimation residual and chi-square probability distribution.

![Table 5 – The results normality test](image)

<table>
<thead>
<tr>
<th>Series: Residuals</th>
<th>Sample 2015M01 2017M12</th>
<th>Observations 36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.98e-15</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>-0.000541</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>0.067489</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>-4.58877</td>
<td></td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.031384</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>0.277602</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.628790</td>
<td></td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>0.669074</td>
<td></td>
</tr>
<tr>
<td>Probability</td>
<td>0.715669</td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis decision making:
- **Ho:** If the value of probability JB > 0.05 it can be said that the residual distribution is normal;
- **H1:** If the value of probability JB < 0.05 it can be said that the residual distribution is not normal.

From the table 5 it can be seen that the value of the probability of 0.715660 this means the value of probability is > 0.05 it can be said that data distribution is normal.

The results of the estimation and classical assumption test that have been done it turns out that the results of the estimation of the development of stock price Jakarta Islamic Index there is no multicollinearity, heteroscedasticity, autocorrelation, and normal distribution so that the results of such testing can be apply more.

**CONCLUSION**

Inflation, exchange rate rupiah, Bank Indonesia Sharia, certificate world oil prices, and world gold prices together have a significant effect on development of the stock price Jakarta Islamic Index. The test results individually show that the variable of inflation has a negative and significant impact on the development of the stock price Jakarta Islamic Index. Variable the value of the rupiah and bank Indonesia Sharia certificate negative and significantly to the development of the stock price Jakarta Islamic Index. The variable world oil prices and the world price gold negatively and not significant to the development of the stock price Jakarta Islamic Index. The value of the coefficient of determination ($R^2$) of 0.861566 shows that the variation of the inflation, exchange rate rupiah, bank Indonesia Sharia certificate, world oil price, and gold price as a whole is able to explain 86.15 percent of the variation in the development of the stock price Jakarta Islamic Index.

From the fifth independent variables used in this study, the variables that have the most impact on the development of the stock price Jakarta Islamic Index is a variable the value of the rupiah and bank Indonesia Sharia certificate. This can be seen from the coefficient of the variable exchange rate of the rupiah and the coefficient of bank Indonesia Sharia certificate on the results of the regression that has the most value compared to other variables. This means that any change in the rupiah exchange rate will affect the development of the stock price Jakarta Islamic Index. From this research it can be concluded that the certificate of bank Indonesia Sharia be an alternative of investment based on Sharia
in addition to the stock of Jakarta Islamic Index. This can be seen from the results of the regression show that the development of the stock price Jakarta Islamic Index is influenced by a certificate of bank Indonesia Sharia and any change in the price of united state dollar will have an impact on stock price in Indonesia.

REFERENCES

THE EFFECT OF BUDGETING PARTICIPATION ON MANAGERIAL PERFORMANCE THROUGH JOB SATISFACTION, JOB RELEVANT INFORMATION, AND BUDGET GOAL COMMITMENT AS MEDIATING VARIABLES

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ABSTRACT
Managerial performance is one of the factors that can be used to improve organizational effectiveness. Performance is effective if budget goals are achieved and subordinates have the opportunity to engage or participate in the budgeting process. Previous research on the effect of budgeting participation on managerial performance finds inconsistent results. The inconsistency of this result is due to other variables that influence the relationship of budgeting participation and managerial performance. The purpose of this study is to obtain empirical evidence of budgeting participation affecting managerial performance as well as job satisfaction variables, job relevant information, and budget goal commitment are able to mediate the relationship between budgeting participation and managerial performance. Data collection method uses questionnaire. The sample in this study was selected by using purposive sampling method with a total of 89 respondents as managers in government hospitals in Bali Province. The results of this study indicate that the higher level of budgeting participation, the higher level of managerial performance will be achieved. The results of this study also show that the higher level of manager participation in the budgeting process will result in increased job relevant information obtained and increased goal budget commitment, which in turn will lead to an increase in managerial performance. This study is unable to prove that job satisfaction is able to mediate the effect of budgeting participation on managerial performance.

KEY WORDS
Budgeting participation, job satisfaction, job relevant information, budget goal commitment, managerial performance.

The hospital as a non-profit organization has a role in providing professional and quality health services and is affordable for all levels of society. The existence of a hospital is important in the development of public health. Nowadays, people are increasingly aware of choosing a good health service. As the example, nowadays people do not hesitate to ask the treatment they will receive according to their current financial conditions. If there any service that they feel unsatisfactory with, the people is not afraid anymore to reprimand the medical staff. The point is the society wants the best for themselves according to their current conditions. To deal with the dynamics of society in such a way that the government through the Ministry of Health of the Republic of Indonesia requires the implementation of hospital accreditation with the aim of improving the quality of hospital services in Indonesia (Rahma, 2012). Hospital accreditation is a process whereby an independent institution both from within and outside the country, usually non-governmental, conducts an assessment of the hospital based on the applicable accreditation standards. The Ministry of Health of the Republic of Indonesia, especially the Directorate General of Health Efforts chooses and establishes a hospital accreditation system that refers to JCI or Joint Commission International. Hospitals that have been accredited will get recognition from the government because they have fulfilled the established service and management standards.

Based on regulation (UU Kesehatan No. 44 Tahun 2009 pasal 40 ayat 1) stated that in an effort to improve the quality of hospital services, accreditation is required to be carried out
periodically at least once every 3 years. Further explained in the Regulation of the Minister of Health No. 147 /MENKES/ PER/I/ 2010 Article 10 concerning hospital licensing which confirms that accreditation is one of the conditions for granting operational permits for hospitals. This indicates the importance of a hospital to maintain or improve the accreditation status that has been received previously. Success in obtaining and maintaining accreditation can be obtained if all elements from leaders to hospital staff are equally committed to realizing a better clinical and managerial governance system. Accreditation has various benefits for many parties, ranging from recipients of health services to the managers of the hospital itself. For the hospital, accreditation will help their work process because it is in accordance with applicable standards. In addition, after the implementation of accreditation, the accreditation that has been obtained by the hospital can be used as a tool to measure the performance of the hospital manager. Accredited hospitals will be declared to have fulfilled four groups of service standards namely patient-focused service standards groups, hospital management standards groups, hospital patient safety goals and goals of the millennium development goals. In the implementation of hospital accreditation, the surveyor will look for evidence of an improvement in the quality of services at the hospital. If no evidence is found, the assessment process will not proceed to other components. All officers in the hospital must be included in the implementation of the standards in the accreditation (Rahma, 2012). Hospital accreditation requires managers to fully carry out their managerial functions such as better budget planning and resource use, coordinating with all staff in the hospital, evaluating and monitoring, and selecting appropriate and dedicated staff to do jobs related to community service. Thus, improving managerial performance is one way that can be done to maintain accreditation that has been obtained previously by the hospital.

Performance is effective if budget objectives are achieved and subordinates get the opportunity to be involved or participate in the budget preparation process (Indriantoro and Supomo, 1998). Participation from subordinates in budgeting can provide an opportunity to enter local information. Subordinates can communicate or disclose some personal information that can be included in the budget that is used as a basis for performance appraisal if subordinates participate in the budgeting process. Budgeting participation is a process that describes individuals involved in preparing the budget and having an influence on budget targets. Budgeting participation is an approach that can generally improve performance which in turn can increase organizational effectiveness (Nor, 2007). Participatory budgeting is expected to improve the manager's performance, ie when a goal is designed and participation is agreed upon, employees will internalize the stated goals and have a sense of personal responsibility to achieve them, because they are involved in preparing the budget (Milani, 1975).

Research on the effect of budgeting participation and managerial performance has conducted by many researchers. But the results of these studies have a different results. Research conducted by Brownell and Mcc Innes (1986), Frucot and Shearon (1991), Yusfaningrum and Ghozali (2005) found that budgetary participation and performance have a positive relationship. Different results were found in the study conducted by Milani (1975) and Kenis (1979). Their study concludes that budgetary participation has an insignificant influence on managerial performance. The existence of inconsistencies in the results of these studies should be suspected due to the existence of other factors that are contingency (Govindarajan, 1986). Contingency approach confirms that there are possible other variables that can act as moderating or mediating factors that influence the relationship between the independent variable and the dependent variable (Nor, 2007). Therefore, in this study the variables of job satisfaction, job relevant information and budget goal commitment will be used as mediating variables. The use of these variables is influenced by opinions in research in the field of budgeting.

Based on the theory of goal setting, it is stated that objectives are specific and difficult, with feedback will result in high performance (Robbins and Judge, 2008). Budgeting participation allows managers (as subordinates) to negotiate with their leaders about possible budget targets that can be achieved (Brownell and McNees, 1986). Leaders who allow their subordinates to be involved in making decisions regarding their work will generally
increase the job satisfaction of their subordinates. Job satisfaction is a person’s attitude towards his work. When someone has felt job satisfaction, it will affect their performance.

Kren (1992) in his research on job relevant information (JRI) define JRI as information that facilitates decision-making related to tasks. JRI is information that helps managers to improve the selection of actions through better informed efforts. This condition provides a better understanding of subordinates regarding alternative decisions and actions that need to be done in achieving the goals. Theory of goal setting emphasizes the importance of the relationship between the goals set and the performance produced. The budget that is set by participation uses the information function so that subordinates can collect, exchange and disseminate relevant information. Furthermore, JRI can improve performance because it provides a more accurate prediction of environmental conditions that allows the selection of a series of more effective actions (Campbell and Gingrich, 1986).

The budget goal commitment variable is chosen in the budget preparation process with the assumption that the leader will try to achieve the existing budget target. Budget goal commitment is a number of commitments to achieve a goal, which means managers who have a high level of commitment to achieve the budget targets will have a positive outlook and will try to do their best to achieve these budget goals (Kreitner and Kinicki, 2000). The theory of goal setting implies that an individual is committed to the goal (Robbins and Judge, 2008). So, that if an individual is given the opportunity to participate in the process of determining goals then the individual will have a commitment to achieve his goals. Furthermore, these commitments will influence their actions and influence the consequences of their work.

This research was conducted at government hospitals in Bali province. The high awareness of the society to choose good health services is the basis for the selection of hospitals as the object of research. It is very important for the government hospital to maintain the trust that has been given by the society, one of them is by maintaining and improving the quality of service. High commitment from government hospitals in Bali Province to improve their services can be seen from the accreditation they have received. As previously explained, accreditation of the hospital will be carried out again in a minimum period of 3 years. During this period, there will be dynamics within the organization that cause changes in government hospitals in the Bali province. Failure to maintain the accreditation that is owned can result in the extension of hospital operational permits, as well as weak institutional legitimacy in the term of law. To maintain the accreditation that has been owned, the management of government hospitals in the Bali province must improve managerial performance in order to overcome all the dynamics that occur in hospitals. In addition, it can be maintained that the accreditation status obtained by the hospital can be used as evidence to the public that the services they receive are the best services that are in accordance with applicable standards.

METHODS OF RESEARCH

The population in this study is all government hospitals in Bali Province. The sample was chosen based on purposive sampling method. So that the sample in this study amounted to 4 government hospitals in Bali Province with a total of 89 managers as respondents. The independent variable in this study is budgeting participation. Meditation variables in this study are job satisfaction, job relevant information, and budget goal commitment. The dependent variable in this study is managerial performance. Data collection in this study uses questionnaires adopted by Miliyi (1975), Spector (1997), Kren (1992), Wentzel (2002), and Mahoney, et al (1963). Data analysis on data that has been collected includes descriptive statistics and inferential statistical analysis using partial least square (PLS). Testing steps using PLS starting from the measurement model (outer model), structural model (inner model) and hypothesis testing (Ghozali, 2014). The hypothesis in this study is formulated as follows:

H1: Budgeting participation affects managerial performance;
H2: Job satisfaction mediates the effect of budgeting participation on managerial performance;
H3: Job relevant information mediates the effect of budgeting participation on managerial performance;
H4: Budget goal commitment mediates the effect of budgeting participation on managerial performance.

RESULTS AND DISCUSSION

Based on the result of instrument test, consisting of validity and reliability test, it is obtained that all statements have coefficient more than 0.3 so that all instruments are valid. As for reliability test, all research instruments are declared reliable because each statement item has a reliability coefficient greater than the value of Cronbach alpha 0.6. This suggests that such measurements can provide consistent results when re-measurement of the same subject matter. The distributed questionnaires are 89 questionnaires. The return questionnaires are 85 questionnaires, and questionnaires that can be used in data analysis as many as 84 questionnaires or 94.4%.

Descriptive Statistic. Budgeting participation (X1) is represented by 5 statements and each statement is measured from a scale of 1-5. The results of descriptive statistics in Table 1 show that the value of the respondents' assessment of budgeting participation (X1) is high which can be seen from the total average score of the budgeting participation indicator of 3.8.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeting Participation (X1)</td>
<td>a. Participation in budget preparation (X1.1)</td>
<td>4.14</td>
</tr>
<tr>
<td></td>
<td>b. Request about the budget to the leader (X1.2)</td>
<td>3.79</td>
</tr>
<tr>
<td></td>
<td>c. Opinions when the budget is being drafted (X1.3)</td>
<td>3.55</td>
</tr>
<tr>
<td></td>
<td>d. Making plans in the final budget (X1.4)</td>
<td>3.68</td>
</tr>
<tr>
<td></td>
<td>e. Contribution to the budget (X1.5)</td>
<td>3.85</td>
</tr>
<tr>
<td></td>
<td>Mean Budgeting participation (X1)</td>
<td>3.8</td>
</tr>
<tr>
<td>Job Satisfaction (X2)</td>
<td>a. Salary (X2.1)</td>
<td>4.19</td>
</tr>
<tr>
<td></td>
<td>b. Communication (X2.2)</td>
<td>3.98</td>
</tr>
<tr>
<td></td>
<td>c. Co-workers (X2.3)</td>
<td>3.90</td>
</tr>
<tr>
<td></td>
<td>d. Nature of work (X2.4)</td>
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</tr>
<tr>
<td></td>
<td>e. Supervision (X2.5)</td>
<td>3.68</td>
</tr>
<tr>
<td></td>
<td>f. Contingent reward (X2.6)</td>
<td>3.57</td>
</tr>
<tr>
<td></td>
<td>g. Operating Procedure (X2.7)</td>
<td>3.29</td>
</tr>
<tr>
<td></td>
<td>h. Benefit (X2.8)</td>
<td>3.08</td>
</tr>
<tr>
<td></td>
<td>i. Promotion (X2.9)</td>
<td>2.90</td>
</tr>
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<td></td>
<td>Mean Job Satisfaction (X2)</td>
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<tr>
<td>Job relevant information (X3)</td>
<td>a. Get clear information (X3.1)</td>
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<td></td>
<td>b. Have adequate information (X3.2)</td>
<td>4.05</td>
</tr>
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<td></td>
<td>c. Get a strategic information (X3.3)</td>
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<tr>
<td></td>
<td>d. Find the right information (X3.4)</td>
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</tr>
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<td>Mean Job Relevant Information (X3)</td>
<td>4.03</td>
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<tr>
<td>Budget Goal Commitment (X4)</td>
<td>a. Commitment to achieving the budget (X4.1)</td>
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</tr>
<tr>
<td></td>
<td>b. The importance of achieving the budget (X4.2)</td>
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</tr>
<tr>
<td></td>
<td>c. Effort to achieve the budget (X4.3)</td>
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<td>Mean Budget Goal Commitment (X4)</td>
<td>4.31</td>
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<tr>
<td>Managerial Performance (Y)</td>
<td>a. Planning (Y1)</td>
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<td></td>
<td>b. Investigation (Y2)</td>
<td>4.4</td>
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<tr>
<td></td>
<td>c. Coordinating (Y3)</td>
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</tr>
<tr>
<td></td>
<td>d. Controlling (Y4)</td>
<td>4.18</td>
</tr>
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<td></td>
<td>e. Staff Arrangement (Y5)</td>
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<td></td>
<td>f. Negotiation (Y6)</td>
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<td></td>
<td>g. Delegation (Y7)</td>
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<td></td>
<td>h. Overall Performance (Y8)</td>
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<td></td>
<td>i. Evaluation (Y9)</td>
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<td></td>
<td>Mean Managerial performance (Y)</td>
<td>3.82</td>
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</table>
Job satisfaction (X2) is represented by 9 statements and each statement is measured from a scale of 1-5. The results of descriptive statistics in Table 1 show that the value of respondents' assessment of job satisfaction (X2) is high which can be seen from the total average score of the budgeting participation indicator of 3.59.

Job relevant information (X3) is represented by 10 statements and each statement is measured from a scale of 1-5. The results of descriptive statistics in Table 1 show that the value of the respondents' assessment of job relevant information (X3) is high which can be seen from the total average score of the budgeting participation indicator of 4.03.

Budget goal commitment (X4) is represented by 3 statements and each statement is measured on a scale of 1-5. The results of descriptive statistics in Table 1 show that the value of the respondents' assessment of the budget goal commitment (X4) is high which can be seen from the total average score of the budgeting participation indicator of 4.31.

Managerial performance (Y) is represented by 10 statements and each statement is measured from a scale of 1-5. The results of descriptive statistics in Table 1 show that the value of respondents' assessment of managerial performance (Y) is high which can be seen from the total average score of the budgeting participation indicator of 3.82.

_Inferential Statistical Analysis using PLS._ Convergent validity test results can be seen in Table 2 which shows that all indicators of latent variables used in this study have a value of loading factor more than 0.6. This result indicates that all indicators in this study are valid.

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>Y</th>
</tr>
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<tbody>
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<td>X1.1</td>
<td>0.912</td>
<td></td>
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<td>X1.2</td>
<td>0.869</td>
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<tr>
<td>X1.3</td>
<td>0.856</td>
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<td>X1.4</td>
<td>0.868</td>
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<tr>
<td>X1.5</td>
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<td>X2.2</td>
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<td>0.767</td>
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<td>X2.3</td>
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<td>X2.4</td>
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<td>0.885</td>
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<td>0.888</td>
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<td>X2.6</td>
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<td>X2.8</td>
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<td>X2.9</td>
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<td>0.751</td>
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<tr>
<td>X3.2</td>
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<td>X3.3</td>
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<td>0.910</td>
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<td>X4.3</td>
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<td>0.801</td>
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<td>Y.1</td>
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<td>0.786</td>
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<td>Y.2</td>
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<td></td>
<td>0.651</td>
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<td>Y.3</td>
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<td>0.806</td>
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<td>0.901</td>
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<td>Y.6</td>
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<td>0.695</td>
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<td>Y.7</td>
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<td>0.779</td>
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<td>0.659</td>
</tr>
<tr>
<td>Y.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.648</td>
</tr>
</tbody>
</table>

AVE test results can be seen in Table 3 which shows that all variables in this study have AVE values more than 0.5. This indicates that all variables in this study are valid.

The discriminant validity test results can be seen in Table 4 which shows that cross loading all indicators used in forming latent variables is greater than the correlation to other latent variables. So that all indicators used in this study are valid.
The reliability test results can be seen in Table 5 which shows that all variables have a composite reliability value greater than 0.6 and the composite reliability value is greater than Cronbach’s alpha. This indicates that the data used in this study is reliable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget Participation (X1)</td>
<td>0.919</td>
<td>0.939</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Job Satisfaction (X2)</td>
<td>0.927</td>
<td>0.937</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Job Relevant Information (X3)</td>
<td>0.880</td>
<td>0.918</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Budget Goal Commitment (X4)</td>
<td>0.875</td>
<td>0.924</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Managerial Performance(Y)</td>
<td>0.894</td>
<td>0.915</td>
<td>Reliabel</td>
</tr>
</tbody>
</table>

In assessing the structural model or inner model with PLS structural can be seen from the value of R-Squares (R2) for each endogenous latent variable as the predictive power of the structural model. The R² value can be seen in Table 6 which shows the value of R² managerial performance (Y) is 0.792. This indicates that managerial performance is able to
be explained by the variables of budgeting participation, job satisfaction, job relevant information, and budget goal commitment of 79.2% while the remaining 20.8% is explained by other factors not examined in the model. Job satisfaction is able to be explained by budgeting participation of 1.6%, while the rest is explained by other factors not examined in the model. Job relevant information can be explained by budgeting participation of 31.1%, while the rest is explained by other factors not examined in the model. Budget goal commitment can be explained by budgeting participation of 42.2%, while the rest is explained by other factors not examined in this study.

Table 6 – Coefficient Determination (R²)

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction (X2)</td>
<td>0.016</td>
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<tr>
<td>Job Relevant Information (X3)</td>
<td>0.311</td>
</tr>
<tr>
<td>Budget Goal Commitment (X4)</td>
<td>0.422</td>
</tr>
<tr>
<td>Managerial Performance (Y)</td>
<td>0.792</td>
</tr>
</tbody>
</table>

The results of the hypothesis testing can be seen in Table 6 and Table 7 which shows the results of the test of direct influence and the indirect effect of latent variables.

Table 6 – Direct Effect of Latent Variables

<table>
<thead>
<tr>
<th>Variable Relation</th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation</th>
<th>t-statistics</th>
<th>P Values</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1→X2</td>
<td>0.126</td>
<td>0.074</td>
<td>0.243</td>
<td>0.519</td>
<td>0.604</td>
<td>Not Significant</td>
</tr>
<tr>
<td>X1→X3</td>
<td>0.557</td>
<td>0.564</td>
<td>0.080</td>
<td>6.957</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>X1→X4</td>
<td>0.649</td>
<td>0.665</td>
<td>0.072</td>
<td>8.933</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>X1→Y</td>
<td>0.423</td>
<td>0.413</td>
<td>0.111</td>
<td>3.819</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>X2→Y</td>
<td>-0.237</td>
<td>-0.222</td>
<td>0.084</td>
<td>2.829</td>
<td>0.005</td>
<td>Significant</td>
</tr>
<tr>
<td>X3→Y</td>
<td>0.406</td>
<td>0.405</td>
<td>0.071</td>
<td>5.708</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>X4→Y</td>
<td>0.230</td>
<td>0.224</td>
<td>0.092</td>
<td>2.509</td>
<td>0.012</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 6 shows that the relationship between budgeting participation (X1) on job satisfaction (X2) has a path coefficient value of positive 0.126, with a t-statistic value of 0.519 and p-value of 0.604. This shows that budgetary participation has no effect on job satisfaction.

The relationship between budgeting participation (X1) on job relevant information (X3) has a path coefficient value of positive 0.557, with a t-statistic value of 6.957 and p-values of 0.000. This indicates that budgetary participation affects job relevant information. The higher the level of budgeting participation, the higher the level of relevant information that will be obtained by the manager.

The relationship between budgeting participation (X1) on budget goal commitment (X4) has a path coefficient value of positive 0.649, with a t-statistic value of 8.933, and a p-value of 0.000. This means that budgeting participation affects the budget goal commitment. The higher the level of budgeting participation, the higher the level of commitment of the manager’s to achieve budget goals.

The relationship between budgeting participation (X1) on managerial performance (Y) has a path coefficient value of positive 0.423, with a t-statistic value of 3.819 and a p-value of 0.000. This indicates that budgeting participation affects managerial performance. The higher the level of budgeting participation, the higher managerial performance achieved.

The relationship between job satisfactions (X2) on managerial performance (Y) has a path coefficient value of negative 0, 237, with a t-statistic value of 2.829, and a p-value of 0.005. This indicates that job satisfaction affects managerial performance. The higher the level of job satisfaction, the higher managerial performance achieved.

The relationship between job relevant information (X3) on managerial performance (Y) has a path coefficient of positive 0.406, with a t-statistic value of 5.708, and a p-value of 0.000. This indicates that job relevant information affects managerial performance. The higher the job relevant information obtained, the higher managerial performance achieved.
The relationship between budget goal commitments (X4) on managerial performance (Y) has a path coefficient value of positive 0.230, with a t-statistic value of 2.509, and a p-value of 0.012. This indicates that commitment to budget objectives influences managerial performance. The higher the commitment of manager to achieve budget goal, the higher managerial performance achieved.

Table 7 – Direct and Indirect effect of variable

<table>
<thead>
<tr>
<th>Variable Relation</th>
<th>Direct effect (Before the mediator is added)</th>
<th>Indirect effect (After mediator added)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>p-value</td>
</tr>
<tr>
<td>X1→Y</td>
<td>0.423</td>
<td>0.000</td>
</tr>
<tr>
<td>X1→X2→Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1→X3→Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1→X4→Y</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7 is used to evaluate the direct and indirect effects in accordance with the mediation test procedure, as follows:

The direct effect of the independent variable on the dependent variable must be significant. In Table 7 it can be seen that budgeting participation (X1) has a direct effect on managerial performance (Y), this can be seen from the p-value of 0.000. Because the direct effect of the independent variable (budgeting participation) on the dependent variable (managerial performance) in this study is significant, then the next stage of the mediation effect test can be continued.

The second requirement of the mediation test is that the indirect effect must be significant, each path, namely the independent variable on the mediating variable and the mediating variable on the dependent variable must be significant to meet this condition. Based on Table 7 budgeting participation (X1) does not have an indirect effect on managerial performance (Y) through job satisfaction (X2), this can be seen from the p-value of 0.558 (not significant). Furthermore, budgeting participation (X1) indirectly influences managerial performance (Y) through job relevant information (X3) with significance of 0.000, as well as the path through the influence of budgetary participation (X1) on significant job relevant information (X3) of 0.000 and the influence of job relevant information (X3) on managerial performance (Y) is also significant at 0.000. The indirect effect of budgeting participation (X1) on managerial performance (Y) through the budget goal commitment (X4) is significant at 0.016, as well as the path through which the influence of budgetary participation on budget goal commitment (X4) is significant at 0.000 and the influence of budget goal commitment (X4) on managerial performance (Y) is also significant at 0.012. Therefore, the effect of budgetary participation (X1) on managerial performance (Y) through job satisfaction (X2) cannot be included in subsequent mediation tests.

The third procedure is to calculate the VAF value. VAF values for the effect of budgeting participation on managerial performance through job relevant information and budget goal commitment are as follows:

\[
\text{VAF } X_1 \text{ to } Y \text{ (through } X_3 \text{)} = \frac{0.226}{0.226 + 0.423} = 35\%
\]
\[
\text{VAF } X_1 \text{ to } Y \text{ (through } X_4 \text{)} = \frac{0.149}{0.149 + 0.423} = 26\%
\]

**Hypothesis 1.** Based on Table 7 it can be seen that the direct effect of budgeting participation variable (X1) on managerial performance (Y) has a p-value of 0.000 less than 0.05. These results are consistent with the first hypothesis (H1) which states that budgeting participation affects managerial performance. This means that the higher level of participation of managers in the budgeting process, the higher level of managerial performance achieved. The results of this study are in line with research conducted by Farahmita (2016) which states that budgetary participation has a positive effect on managerial performance. The results of this study are also in line with the research
conducted by Djalil et al. (2017) which states that the higher level of budgetary participation, the better managerial performance will achieved.

The results of this study were able to provide support the theory of goal setting. The theory of goal setting emphasizes the importance of the relationship between the goals set and the performance produced. Organizational goals or objectives that have been formulated into the budget plan are easier to achieve their performance targets in accordance with the vision and mission of the organization itself. The goals set in a participatory manner produce superior performance, meaning that individuals will have the best performance when given the target task by their superiors (Robbins, 2003). A positive relationship between budgeting participation and managerial performance can also be seen from the average respondent's answer. The average score of respondents' answers to budgeting participation and managerial performance is high. So that the higher the level of budgeting participation, the better the managerial performance will occur.

**Hypothesis 2.** Based on the test of indirect effects, the effect of budgeting participation on managerial performance through job satisfaction has a p-value 0.558 (not significant). This indicates that budgeting participation does not affect managerial performance through job satisfaction, hence job satisfaction does not mediate the relationship between budgeting participation and managerial performance. The results of this study are in line with the research conducted by Lina and Stella (2013) and Fitrianti and Marbawi (2014). The results of this study are not able to provide support to the theory of goal setting which states that specific goals with feedback will produce high performance. Thus, the second hypothesis in this study which reads job satisfaction mediates the effect of budgeting participation on managerial performance is rejected.

The reason for the hypothesis was rejected because in this study budgetary participation was not able to directly affect job satisfaction (0.604 p-values were not significant). As'ad (2003) in Rahayu (2013) states that there are four factors that influence an individual's / employee's job satisfaction, namely physiological factors, psychological factors, social factors, and financial factors. Based on the average respondent's answers regarding job satisfaction, there are 3 indicators that are answered at moderate scores, including operating procedures (psychological factors) and benefits and promotions (financial factors). Based on this, there are two factors that which has not been maximally achieved, ie psychological factors and financial factors. This is indicated as the cause of the inability of job satisfaction to mediate the effect of budgeting participation on managerial performance.

**Hypothesis 3.** Based on the results of statistical tests, budgeting participation has an indirect effect on managerial performance through JRI. In addition, based on the results of the mediation effect test, JRI served as a mediating variable between budgeting participation and managerial performance with a VAF value of 35%. These results are in accordance with the third hypothesis (H3) which states that JRI mediates the effect of budgeting participation on managerial performance. This result means that the higher the level of participation of managers in budgeting, will result in increased job relevant information obtained, so that in the end it will lead to an increase in managerial performance. The results of this study are in accordance with research conducted by Indarto and Ayu (2011) which states that JRI is able to act as a mediator in the relationship between budgetary participation and managerial performance. The results of this study are also consistent with research conducted by Tarigan and Devi (2015) which states that job relevant information is able to mediate the relationship between budgetary participation and managerial performance.

The results of this study are in accordance with the theory of goal setting which emphasizes the importance of the relationship between the objectives set with the performance produced. Setting goals that are carried out in a participatory manner will have an impact on superior performance. Every organization that has set goals that are formulated into the budget plan is easier to achieve its performance targets in accordance with the vision and mission of the organization itself. When someone is involved in the budgeting process, there will be a sense of belonging to the organization, so that the person will provide relevant information and efforts for the success of the organization. Relevant information is very
important in relation to appropriate decision making. The right decision will ultimately affect managerial performance.

Hypothesis 4. Based on the results of statistical tests, budgeting participation has an indirect effect on managerial performance through budget goal commitment. In addition, based on the results of the mediation effect test, budget goal commitment acts as a mediating variable between budgeting participation and managerial performance with a VAF value of 26%. These results are consistent with the fourth hypothesis (H4) which states that the budget goal commitment mediates the effect of budgeting participation and managerial performance. This result means that the higher the level of participation of managers in budgeting, will lead to an increase in commitment to budget goals, so that in the end will lead to an increase in managerial performance. The results of this study are in accordance with the results of previous studies conducted by Baskara (2014), who stated that budget goal commitment was able to mediate the relationship between budgeting participation and managerial performance. The results of this study are also in line with the research conducted by Deliana (2015) and research conducted by Jannah and Rahayu (2015).

The results of this study are in line with the theory of goal setting. The theory of goal setting implies that an individual is committed to the goal (Robbins and Judge, 2008). If an individual is committed to achieving his goals, then that commitment will influence his actions and affect the consequences of his performance. Manager participation in the budgeting process will increase their trust, control, and involvement with the organization, so that they can accept and have a commitment to the budget prepared (Shield and Shield, 1998). The high commitment to this budget goal will facilitate the acceptance of the budget even though it is difficult to achieve, thus the level of performance will increase (Indarto and Ayu, 2011).

CONCLUSION

Based on the results and discussion of data analysis, the conclusions are budgeting participation affects managerial performance. This result means that the higher level of participation of managers in the budgeting process, the higher level of managerial performance achieved. Job satisfaction does not mediate the effect between budgeting participation and managerial performance. This result means that budgeting participation does not have an indirect effect on managerial performance through job satisfaction. Job relevant information mediates the effect between budgeting participation and managerial performance. This result means that the higher the level of participation of managers in budgeting will result in increased job relevant information obtained, so that in the end it will lead to an increase in managerial performance. Budget goal commitment mediates the effect of budgeting participation and managerial performance. This result means that the higher level of participation of managers in budgeting will lead to an increase in commitment to achieve the budget goals, so in the end will lead to an increase in managerial performance.

In order to maintain the accreditation that has been owned by the hospital and improve the quality of service and improve managerial performance as a whole, managers should always be given the opportunity to participate in each budgeting process, because based on the results of this study, budgetary participation is proven to increase job relevant information and budget goal commitment. So that it will ultimately affect managerial performance.

REFERENCES


THE INFLUENCE OF CORPORATE SOCIAL RESPONSIBILITY AND AUDIT COMMITTEE ON COMPANY'S VALUE

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ABSTRACT
The aim of this research was to find out to what extent the influence of disclosure of Corporate Social Responsibility and the number of audit committees on the corporate value of the companies listed on the Indonesia Stock Exchange during 2016 period. The data analysis method used was multiple linear regressions. This method was chosen since the reference showed that there was a match between the analysis tool and the variables under the research. The data sampling of the research applied random sampling using solvin formula with the significance level of 5 percent so that the number of samples was 191 companies which were then taken randomly. The random sampling method was chosen because it was in accordance with the method of multiple regression analysis. Corporate Social Responsibility variable had a significant influence on the Corporate Value of the companies listed on the Indonesia Stock Exchange. The variable of Audit Committee had an insignificant influence on the Corporate Value of the companies listed on the Indonesia Stock Exchange. The variable of Market Capitalization did not moderate the relationship of Corporate Social Responsibility to Corporate Value. The variable of Market Capitalization did not moderate the relationship of audit committee to Corporate Value.

KEY WORDS
Corporate social responsibility, auditory committee, company's value.

The current accountancy development has found many social theories in which a company do not more just graded based on its assets but also how its social responsibility programs. As matter of fact, the company development should be in line with the level of either natural resource exploitation or human resource employing, dealing with this, there are many company take path development on what is known as corporate social responsibility (Bayu et al., 2015).

Every company precisely competes to get high value because it shows the high prosperity of its shareholders. Thus, they will invest their financial capital in the company (Cretu and Brodie, 2007). The increasing of company value is a periodical purpose which will higher its market stock price to persuade investors (Anggraeni, 2013).

The global competition which continuously increases causes companies to improve their value in many sectors to meet inventors' interest. Hence, company’s value becomes very important to reflect its performance affecting investors’ perception toward a company. The increasing of company’s value gives the positive sign for investors to invest more in a company. It also will pull out investors’ perspective concerning company’s performance and its prospect in the future (Goold et al., 1994).

Every company does not only aim to maximize its profit but also to perform social responsibility and prosperity. Thus, the company will not only have a responsibility to its shareholders but also stakeholders (Freeman, 2004). The better a company develops its value, the higher natural source exploitation and social society. This causes the existence of positive awareness to cover the negative impacts. Hence, the most company applies Corporate Social Responsibility (Bayu et al., 2015).

Corporate Social Responsibility (CSR) influences the increasing company’s value because it has the moral responsibility of a company regarding the strategic stakeholders (Mc Williams and Siegel, 2000). Expressing of Corporate social responsibility is a
communication process of social and environment from economic activity toward specific community and general society (Matten and Moon, 2004). It extends company’s responsibility to provide a report concerning the financial to the shareholders. This extends is created through company’s responsibility which is more than only collecting profits (Putri et.al, 2016).

Commonly, a company implemented CSR will disclose its implementation. CSR expressing is conducted through social reporting disclosure in the financial report. This disclosure is important for finance reporter to analyze the company’s attention and social responsibility in performing their business (Gey et.al, 1995). CSR expressing is hoped to give positive influences toward the investors to take more attention in the social aspect. Applying CSR gives many benefits, such pulling out costumers’ and investors’ interest (Tai and Chuang, 2014).

The auditory committee has an important rule to keep company’s accountability. It supervises the financial report system and internal-external auditory to avoid asymmetry information (Klein, 2002). The increasing of auditory committee members will influence its independence which will affect the quality of company’s financial report (Carcello et.al, 2000). Thus, the auditory committee is hoped to improve company’s value and to help the implementation of Good Corporate Government (Anggraini, 2013).

Bigger company will have more public demand rather than the smaller company. Further, a bigger company will inform widely about their product to decrease the outcome. This action is done due to the market and shareholdings’ demand. The development of a company will definitely increase the influence of auditory committee toward the company’s value.

The research problem offered in this study is that how expression of corporate social responsibility and auditory committee on company’s value in The Indonesia Stock Exchange (IDX) along 2016.

**METHODS OF RESEARCH**

This study applies double linear regression method. This method is applied because the references show the existence of appropriateness between the analytical tool and research variables. In addition, the data are analyzed and tested using SPPS, including residual, classical assumption testing, and hypothesis testing. The participant of this study is the whole companies listed in the IDX. The characteristics of the participant are: (1) the company listed in the IDX in 2016, (2) The company which already published the annual report of 2016, and (3) The company who has positive Price Earnings Ratio (PER).

<table>
<thead>
<tr>
<th>Table 1 – The categorization of research participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note</td>
</tr>
<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>The total of companies registered until 2016</td>
</tr>
<tr>
<td>The companies that have not publish the annual report of 2016</td>
</tr>
<tr>
<td>The companies that have negative Perusahaan $EPS$</td>
</tr>
<tr>
<td>Total of participant</td>
</tr>
</tbody>
</table>

From the total amount of the participant, the sample selection applies random sampling. From the random sampling, the participants chosen are 191 companies.

**RESULTS OF STUDY**

The hypothesis testing is done after statistical analysis toward the data obtained previously. The following point is the equality of regression.

\[ Y = a + b_1 \text{CSR} + b_2 \text{AC} + \varepsilon_1 \]
The hypothesis result on equality of regression 1 has been tested through SPSS program. The test provided such below.

**F-Test.** This test have been conducted to observe the how the expression of corporate social responsibility and auditory committee simultaneously influence company's value (PER) registered in Indonesia Stock Exchange. The result of the test is seen in Table 2.

**Table 2 – F-Test Result**

<table>
<thead>
<tr>
<th>ANOVA(^b)</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5.958</td>
<td>2</td>
<td>2.979</td>
<td>32.242</td>
<td>.000(^a)</td>
</tr>
<tr>
<td>Residual</td>
<td>17.370</td>
<td>188</td>
<td>.092</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23.328</strong></td>
<td>190</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Auditory Committee, Corporate Social Responsibility
b. Dependent Variable: Company’s value

From the table above, it is seen that F\(_{\text{count}}\) is 32.242 with 0.000 Sig. The hypothesis test in this study is comparing F\(_{\text{account}}\) score and F\(_{\text{table}}\). F\(_{\text{table}}\) is based on df1 = numerator’s degree is 2, df2 = denominator’s degree is 191 and the significant degree is 5%. Thus, the score of F\(_{\text{table}}\) is 3.043. Hence, F\(_{\text{count}}\) is 32.242 higher than F\(_{\text{table}}\) which is 3.043. This means the independent variables – corporate social responsibility and auditory committee influence simultaneously to dependent variable – company’s value in Indonesia Stock Exchange.

**T-Test.** This test have been conducted to observe the influence of CSR and auditory committee partially to company’s value (PER) registered in the IDX. The result of the test is seen in Table 3.

**Table 3 – T-Test Result**

<table>
<thead>
<tr>
<th>Coefficients(^a)</th>
<th>Model</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Constant)</td>
<td>8.007</td>
<td>.000</td>
</tr>
<tr>
<td>Corporate Social Responsibility</td>
<td>8.012</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Auditory Committee</td>
<td>-1.173</td>
<td>.242</td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Company’s value

The hypothesis testing of this study is by comparing the score of T\(_{\text{count}}\) and T\(_{\text{table}}\). T\(_{\text{table}}\) score is based on (df = n-2) df = 191-2 = 189 with significant degree 5% so that the score of T\(_{\text{table}}\) is 1.973. In table 3 above, the score T\(_{\text{count}}\) from each variable in regression 1 equality can be explained that CSR significantly influences to company’s value shown by the score of T\(_{\text{count}}\) which is 8.012 higher that T\(_{\text{table}}\) which is 1.972. Meanwhile, the auditory committee does not significantly influence company’s value shown by the score of T\(_{\text{count}}\) is lower than T\(_{\text{table}}\).

**Regression 2 Equality.** The equality of regression 2 is tested through the residual result of hypothesis as seen in Table 4.

**Table 4 – The hypothesis result by Residual Test**

<table>
<thead>
<tr>
<th>Coefficients(^a)</th>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Constant)</td>
<td>.427</td>
<td>.105</td>
<td>4.068</td>
<td>.000</td>
</tr>
<tr>
<td>Company’s value</td>
<td>.129</td>
<td>.084</td>
<td>.111</td>
<td>1.536</td>
<td>.126</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Res CSR_MV

In the residual test, if the value of coefficient b\(_1\) is significant and negative, the capitalism market variable can be concluded as moderator variable that influences CSR and
company’s value. Based on the table 4, the value of b₁ is positive and not significant so the regression 2 with the residual test can be concluded that market capitalism is not moderator variable between CSR and company’s value.

Regression 3 equality. In the equality of regression 3, the hypothesis is tested with residual test a seen in Table 5.

Table 5 – The hypothesis result by Residual Test

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  (Constant)</td>
<td>.647</td>
<td>.121</td>
<td>5.348</td>
<td>.000</td>
</tr>
<tr>
<td>Company’s value</td>
<td>-.004</td>
<td>.097</td>
<td>-.003</td>
<td>-.042 .966</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Res AC_MV

In the residual test, if the value of coefficient b₁ is significant and negative, the capitalism market variable can be concluded as moderator variable that links auditory committee and company’s value. Based on table 5, the value of b₁ is negative but not significant so the regression 3 with the residual test can be concluded that market capitalism is not moderator variable between auditory committee and company’s value.

DISCUSSION OF RESULTS

The expression of CSR and AC on company’s value. The disclosure of (CSR) is at the recognition root of business as a part of society which is potential to make a positive contribution to achieve social goals and aspirations (Jones and Comfort, 2005). Based on the hypothesis result testing, CSR and the auditory committee have positive and significant which simultaneously influence the company’s value. Some other studies have investigated audit committee relations and financial reporting quality. Some others tend to support the existence of audit committees as the improvement of financial reporting quality (Client, 2001; De Fond and Jiambalvo, 1991). The tests use the FSCM and CRSM methods which show similar results that the profit of company applied audit committee is statistically greater than those that do not form an audit committee.

The expression of CSR on company’s value. Based the result of T-test, CSR partially influences company’s value. It is shown with 8.012 count which is higher than ttable, 1.973. In fact, investors view a company in Indonesia by considering corporate social responsibility implementation. In 2016, this fact interests other organizations because the report displays various items including future company performance and company’s care to the social environment. Latupono and Andayani’s (2016) observed on 30 companies’ report in 2009 to 2011 using CSR. Their study creates conclusions, such as (1) CSR significantly influence company’s value positively. It shows that the higher CSR disclosure, the more positive the stakeholders participate in sharing their composite, and (2) good corporate governance can influence the relation between CSR and company’s value. This means the higher good corporate governance, the higher potential chance to improve the company’s value.

The Expression of AC on company’s value. Based on the result of T-test, the auditory committee does not influence company’s value shown by the value of tcount = -1.173 which is lower than ttable - 1.972. Based on the agency, the existence of auditory committee can solve investors’ conflict with the management. On the contrary, the result of this study test shows that auditory committee has no influence company’s value significantly. That case is caused by the auditory committee in Indonesia does not pull out investor’s interest. It is because the amount of auditory committee in Indonesia has been well-regulated by The Indonesian Regulatory Authority for the Indonesian Capital Market No. Kep- 643/BL/2012 about implementation guide of the auditory committee so that investors consider that a company will the rules.
The moderation of company size toward CSR on company’s value. Based on the residual test results on both company size equality cannot moderate the influence of CSR with corporate value. Although the agency and legitimacy theory based that larger companies will have greater CSR disclosure, the research results show insignificant value, instead. This is because the measurement indicators through GRI 4 do not limit the enforcement between large and small companies. In fact, companies with large market capitalization have a good image so that CSR disclosure does not become the main focus of investors’ valuation of company value, while for small companies despite wider disclosure of CSR to attract investors, business risks will have higher consideration for investors. This result is inconsistent with the research of Muliani et.al (2014) that shows that CSR is able to moderate the financial performance of the company’s value positively. It means the more CSR disclosure, the higher the financial performance and the impact on company’s high value.

The moderation of company size on the AC on company’s value. Based on the Residual Test, three companies size equality cannot moderate the influence of auditory committee on the company’s value. This is because the number of the auditory committees has been regulated in The Indonesian Regulatory Authority for the Indonesian Capital Market No. Kep- 643/BL/2012 dated December 7, 2012. This causes the size of large and small companies generally only follow the standard rules based on observations from the existing data on the company report. The average company only has 3 auditory committee members based on the minimum amount regulated by The Indonesian Regulatory Authority for the Indonesian Capital Market No. Kep- 643/BL/2012. It is different from Rahayu et.al (2010) who indicates that the quality of auditory committee affects the quality of financial report. The expertise of audit committees in finance significantly increases the persistence and predictability of profits. The amount of the auditory committee is significantly positive for persistence and negatively affects the profit and conservatism predictability. The number of auditory committee members’ in meetings also significantly and positively affects persistence, predictability and conservatism.

CONCLUSION

The expression of Corporate social responsibility (CSR) significantly influence toward company’s value in Indonesia Stock Exchange (IDX)

The Wexpression of auditory committee does not give significant influence toward company’s value in Indonesia Stock exchange.

Market capitalization does not moderate corporate social responsibility and auditory committee relation to company’s value.

REFERENCES

INTERFERENCE OF ORGANIZATIONAL COMMUNICATION IN THE RELATIONSHIP BETWEEN ENTREPRENEURIAL ORIENTATION AND CORPORATE PERFORMANCE

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ABSTRACT
This research aimed to determine the relationship between entrepreneurial orientation and corporate performance in State Owned Corporations (SOEs) through Organizational Communication as the moderating variable. This research was a verificative descriptive research. Data were collected through a survey on SOEs in Indonesia. The results showed that in the SOE management structure, communication processes is based on efforts to develop capacity continuously and the ideas freely direct the achievement of organizational performance, formulated according to multidisciplinary assumptions. Communication management in SOEs based on adult and independent communication assumptions with information technology support directs the capacity of employees to produce an optimal organizational performance.

KEY WORDS
Entrepreneurial orientation, performance, organizational communication, management.

The measurement of the success of companies is increasingly growing in this competitive era. The financial dimension is considered no longer relevant to competitiveness. Fox (2005) proposed financial and non-financial indicators. Meanwhile, Kaplan & Northon (1996) and Kaplan (2001) showed that perspectives to measure the success of companies including non-profit institutions are finance, customer, internal business process, and growth and communication. The concept of organizational achievement is a challenge for researchers. Vanderstraeten et al. (2014) suggested that innovation, communication, internal business process, customer, and finance are the dimensions used to assess organizational success. Moreover, Maltz et al. (2003) explained that to measure organizational success is a challenge for managers and researchers.

From the entrepreneurial point of view, finance and non-finance dimensions are not enough to direct organizations to achieve optimal performance. The results of Sedyowidodo et al. (2017) revealed that it is not easy for organizations, such as SOEs, to achieve optimal performance. As one of the economic pillars owned by the state, the entrepreneurial instinct of SOEs is still considered less sharp than private companies. The entrepreneurial instinct referred to here is to see and take the opportunities to build a business. Therefore, the competitiveness of SOEs is very far lower than that of private companies and, on the average, new SOEs will start being competitive when private companies have succeeded. The success of achieving optimal performance is influenced by the courage to take risks and innovation based on the results of a constructive communication process of each member of the organization.

LITERATURE REVIEW
Entrepreneurial Orientation. Entrepreneurial orientation is defined as a process of making business strategies and behaviors that can be identified through the characteristics of innovativeness, proactiveness, risk-taking, competitive aggressiveness and autonomy, facilitation to pursuit opportunities (Lumpkin and Dess, 1996; Lumpkin et al., 2009). Avlonitis and Salavou (2007) said that entrepreneurial orientation consists of organizational phenomena reflecting the managerial capacity to act proactively and aggressively to win the
competition. Moreover, Zhou and Wu (2010) explained that proactiveness and decision making have a positive effect on the number of innovations produced in a business, but both dimensions do not affect the adoption of innovation. Meanwhile, according to Ma’toufi (2015), entrepreneurial orientation affects open-mindedness and the number of innovations produced by a business. In linear, Mandhousi et al. (2011) stated that entrepreneurial orientation has an effect on innovation performance, directly or indirectly through knowledge management.

According to Miller (1983), entrepreneurial orientation includes three dimensions, namely innovativeness, proactiveness and risk-taking. Innovativeness is the ability and willingness of companies to support creativity, new ideas, and experimentation (Lumpkin and Dess, 1996). Proactiveness (being proactive) is to pursue competitive opportunities and competition in anticipating future needs and forming a business environment (Lumpkin and Dess, 2001). Risk taking is an effort to devote resources to business with opportunities to not only gain profits but also to take into account the possibility of failure (Miller and Friesen, 1982; Lumpkin and Dess, 1996). The courage to take risks is also associated with entrepreneurial behavior because successful entrepreneurs are usually people who dare to take risks (Kuratko and Hodgetts, 2001). The questionnaire developed by Covin and Slevin (1989) is used to measure the entrepreneurial orientation of companies. Covin and Slevin (1989) also developed three dimensions, namely Innovativeness, Proactiveness, and Risk-Taking, measured at a five-point Likert scale based on the study of Miller and Friesen (1982). Furthermore, Lumpkin and Dess (1996) proposed two additional dimensions in the construct of entrepreneurial orientation, namely competitive aggressiveness and autonomy. Competitive aggressiveness is the intensity of effort to defeat competitors and characterized by a strong attacking attitude to threats of competition. Autonomy refers to independent actions taken by individuals or teams to ensure that ideas and concepts are properly resolved. Autonomy provides employees with opportunities to perform effectively through independent, self-directed and creative actions (Lumpkin and Dess, 1996).

In summary, the most studied dimensions are respectively Proactiveness, Risk Taking and Innovativeness. That is, the most used dimensions to measure Entrepreneurial Orientation are Proactiveness, Risk Taking, and Innovativeness.

Corporate Performance. The use of performance measurement systems is often recommended to facilitate strategy implementation and improve performance (Davis & Albright, 2004). Companies are not only required to give values to shareholders but also stakeholders and it is proved that performance measurement systems can facilitate it (Ittner and Larcker, 2003). Some models and frameworks identified are Strategic Measurement and Reporting Technique (SMART) (Cross & Lynch, 1989), the Performance Measurement Matrix (Keegan et al., 1989), Results and Determinants Framework (Fitzgerald, Johnston, Brignall, Silvestro & Voss, 1991), Balanced Scorecard (BSC) (Bhagwat & Sharma, 2007; Kaplan & Norton, 2001), Cambridge Performance Measurement Systems (CPMS) Design Process (Neely et al., 1996), Integrated Performance Measurement Systems (IPMS) (Bititci & Carrie, 1998), Performance Prism (Neely & Adams, 2001), FFQM Business Excellence Model (EFQM, 1999).

Currently, performance measurement systems consisting of the use of financial and non-financial indicators are associated with business strategies, such as balanced scorecards (BSC) (Kaplan and Norton, 2001) and multi-criteria key performance indicators (KPI) and usually called as Contemporary Performance Measurement (CPM) (Cheng et al., 2007; Hall, 2008). A survey conducted by Van der Stede, Chow, and Lin (2006) concluded that organizations with extensive performance measurement systems, including non-financial subjective and objective measurement, can achieve better performance. According to Franco-Santos, Lucianetti & Bourne (2012), a performance measurement system is a measurement used to operate corporate strategies, including financial and non-financial indicators. A performance measurement system is a system adopting BSC (Kaplan and Norton, 1992, 1996, 2001), performance prism (Neely et al., 2002), levers of control framework (Simons, 1995) and KPI because it is connected with business strategies. In this
increasingly competitive era, performance measurement is a strategic activity that will determine company sustainability.

**Organizational Communication.** Since 1990, communication has constituted a critical differentiator between organizations and has become a phenomenal topic attracting many researchers (Jyothibabu, Farooq, and Bhusan Pradhan, 2010). Organization communication is being widely discussed by a lot of literature in various fields of research ranging from health, work safety to information systems and the world of education (Atwood, Mora, and Kaplan, 2010). Through communication, organizations can adapt to the environment, prevent repeat errors, and preserve knowledge which is potentially lost (Dixon, 1993). Its multidisciplinary nature enables researchers to see it from various perspectives, including psychology, sociology, and organizational theories (Tohidi et al., 2012).

Organizational communication occurs when all people in the organization can together develop their capacity to achieve results as expected, where all new thoughts are fostered, and the people can aspire ideas freely so that they can learn to work together continuously (Senge and Sterman, 1992). Meanwhile, according to Fang, Chang, and Chen (2011), organizational communication capacity is a factor facilitating organizational communication processes or a factor encouraging organizations to learn. This research used the definition of organizational communication from DiBella et al. (1996) and Tjakraatmadja & Lantu (2006) stating that organizational communication is a process to help organizations create, move, and integrate knowledge and skills as well as learn to improve their knowledge continuously. Organizational communication involves the cognitive aspect and behavioral changes (Argyris & Schön, 1996; Senge & Sterman, 1992).

There are various communication models that can be used as concepts for managing organizational communication. The communication model developed by Knowles (1981) with an adult approach consisting of five stages of activity, namely a) problem definition, b) information collection, c) identification of alternative problem solving, d) decision making, and e) action implementation can be an option. Skerritt (1995) revealed that educational management for organizational communication is by communication action. Information processing models are based on the assumption that communication processes are the formation of the association between response stimuli. The main focus of information processing models are the internal conditions constituting barriers between stimuli and responses. Participants learn to be active and process information obtained about an object. Another assumption is that humans receive information, store and take it when needed while processing information is the cognitive activity. Hase and Kenyon (2001) proposed heutagogy as the natural development of the previous educational methodology and the optimal communication approach in the 21st century. Heutagogy is a holistic framework for creating independent learners. Msila & Sethako (2013) stated that heutagogy underlines the idea of learning how to learn. Moreover, according to Arnett & Ecclesfield (2015), heutagogy is independent communication. Meanwhile, Salim (2015) defined Self-Directed Communication (SDL) as a relatively new concept for adult education.

Schung (2013) suggested that a personal model is one’s self-regulation model. A person learns to organize himself based on his comparison of other behaviors which are choices to be realized in the form of behaviors. The actors in this model regulate which behaviors will be shown. The actors learn to build differentiating stimuli when their behaviors appear, provide their own teaching when needed, and conduct self-assessment of behavioral performance to determine whether the desired behavior occurs. Besides, self-monitoring, self-teaching, and implementation are the key to the personal communication model.

The third communication model is the social model. In this model, one learns based on his interaction with the social situation. The assumption in social communication is that social behavior and environment influence each other. Communication is an act of processing information. The information referred to here is about behavior structures and environmental events transformed into symbolic representations forming the basis for behavioral demands. This model was developed based on the perspectives proposed by Walters (1981) on self-efficacy. Lyons & Bandura (2017) suggested that CBM (Case-Based Modelling) relates to individual and group communication, reflective practices, and growth of mindset. The whole
instructional approach is explained in detail along with its consequences and benefits. CBM is based on Experiential Communication Theory (ELT) and Self-Regulation of Communication (SRL) theory.

**Hypothesis.** Performance is related to entrepreneurial orientation. Being proactive and courageous in taking risks can increase organizational growth and communication. Besides, proactive behavior can optimize market opportunities so as to impact market share. Companies that have the ability and willingness to support creativity, new ideas, and experimentation can expand market share and increase customer satisfaction. Proactive behavior is to pursue competitive opportunities and competition in anticipating future needs and forming a business environment (Lumpkin and Dess, 2001). Meanwhile, the courage to take risks is a condition that will direct how internal business processes take place.

Miller (1983) asserted that EO (Entrepreneurial Orientation) is a strategic construction that reflects the extent to which a company is innovative, proactive, and courageous in taking risks in a strategic posture. Lumpkin and Dess (1996) described the relationship between EO and Performance moderated by environmental and organizational factors. According to Zhao et al. (2011), Organizational Communication (OC) with Experimental Communication design was the intervening variable of the relationship between Entrepreneurial Orientation (EO) and Corporate Performance (CP). Experimental communication design has increased the performance of companies in China. Previously, Li et al. (2009) obtained that the process of knowledge creation moderates the relationship between EO and performance. Moreover, Su et al. (2011) found the direct relationship between EO and Corporate Performance while Jantunen et al. (2005) found dynamic capabilities as the intervening variable of the relationship between EO and Performance. Lee & Lim (2009) and Kraus et al. (2012) also stated that EO and Performance have a direct relationship. Based on the research context and literature review, the researchers formulated these following hypotheses:

- Ha1: EO has a positive effect on OC;
- Ha2: OC has a positive effect on CP;
- Ha3: EO has a direct positive effect on CP.

**METHODS OF RESEARCH**

Based on the purpose and statement of the problem, this research belonged to a verificative descriptive research in which the data were collected through a survey on SOEs in Indonesia. The sampling of SOEs was done using a probabilistic sampling design or called a random sampling technique. The primary data were sourced from the observation unit, referring to the sampled SOE managers. The respondents’ answers to the questionnaires, consisting of SOE Entrepreneurial Orientation, Organizational Communication, and Performance variables, were the primary data. Entrepreneurial Orientation was measured based on the dimensions of Innovativeness, Risk Taking, and Proactiveness. Corporate Performance was measured based on Customer Satisfaction, Finance, Internal Business Process, and Communication/ Growth. Meanwhile, Organizational Communication was measured based on Continuous Communication, Discussion and Request for Information, Groups, Employee Empowerment, Connection Systems, Applied Systems, and Leadership. The data were then analyzed using SEM-PLS method.

**RESULTS AND DISCUSSION**

The research results showed that the Entrepreneurial Orientation was quite diverse yet tended to be good in general. Based on the results depicted in the diagram, Innovativeness, Proactiveness and Risk-Taking were in the category of “Quite Good”. 60% respondents stated that the Entrepreneurial Orientation of SOEs in Indonesia was “Quite Good”, “Good”, and “Very Good” while the other 19% decided to be neutral. The rest 21% respondents argued that the Entrepreneurial Orientation of SOEs in Indonesia was “Quite Bad”, "Bad" and "Very Bad". From the measurement model, it was obtained that the dimensions of
Entrepreneurial Orientation that have the biggest contribution were Innovativeness, Proactiveness, and Risk Taking.

From the Customer Satisfaction dimension, the condition of SOE performance was perceived heading to the "good" category. The dimension of Communication and Growth ranked the highest with an average index of 4.2 (Good), followed by Customer Satisfaction of 4.13 (Moderate), Finance of 4.01 (Moderate) and Internal Business Process of 3.98 (Moderate). Meanwhile, the intrapreneurship was perceived high with an average index of 4.4. A self-determined goal setter is someone who initiates to do a particular task demanded by his own interest. The most contributing indicators on the SOE Performance variable were Internal Business Process, Finance, Customer Satisfaction, and Communication and Growth.

The criteria used for internal consistency reliability were Cronbach’s alpha, Composite Reliability (CR) and rho A. The measurement model would be said to meet the criteria if the value of each reached > 0.7. The greater value indicated a higher reliability

<table>
<thead>
<tr>
<th>n/n</th>
<th>Cronbach's Alpha</th>
<th>rho A</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Orientation</td>
<td>0.781</td>
<td>0.813</td>
<td>0.873</td>
</tr>
<tr>
<td>Organizational Communication</td>
<td>0.896</td>
<td>0.902</td>
<td>0.918</td>
</tr>
<tr>
<td>SOE Performance</td>
<td>0.853</td>
<td>0.903</td>
<td>0.898</td>
</tr>
</tbody>
</table>

Source: Processed Research Results (2017).

The effect of Entrepreneurial Orientation in SOE Performance through Organizational Communication in the structural model was analyzed through two paths. The first path was the effect of Entrepreneurial Orientation on Organizational Communication with a path coefficient ($\gamma_{11}$) of 0.605 and $t_{\text{count}}$ of 8.824. The second path was the effect of Organizational Communication on SOE Performance with a path coefficient ($\beta_3$) of 0.14 and $t_{\text{count}}$ of 0.814. If calculated, the effect of Entrepreneurial Orientation on SOE Performance through Organizational Communication was 0.605 * 0.140 * 100% = 8.47%. That is, 8.47% of the SOE Performance was influenced by Entrepreneurial Orientation through Organizational Communication while the 91.53% was influenced by other factors. Furthermore, according to the calculation, it was obtained that the VAF was 27%, indicating that Organizational Communication partially provided a mediating effect on SOE Performance. The indirect effect of EO on SOE Performance through Organizational Communication was bigger than the direct effect which was actually negative. Organizational communication is a process requiring structural support and ultimately becoming a culture within an organization.

Managing communication is the conceptual framework to increase the function of organizational communication as a moderation between EO and Performance. Organizations are the entity of individuals that have the ability to learn. According to Argyris & Schön (1996) and Senge & Sterman (1992), organizational communication involves the cognitive aspect and behavioral changes. On the other side, Senge (1990) and Slater & Naver (1995) divided communication into two, namely generative and adaptive communication. That is, the management of organizational communication is based on the assumption that the process (generative communication) is a cognitive and mental process to generate radical changes while adaptive communication produces changes gradually in organizations.

The approach to managing Organizational Communication cannot be separated from the assumption about cognitive learning processes, which then expand to other processes, including social role learning. The model of social learning shows a direct relationship between self-efficacy perceived by a person and behavioral changes (Walter, 1978). In linear, Lyons & Bandura (2017) suggested that communication produces a performance script (behavior) that can be forged with the aim to increase communication and performance. Communication occurs by way of practices through actual actions or by way of experiencing it through other people, that is by observing the models who do it. There are four factors that can encourage the imitation of individuals, namely individual permanent characteristics, circumstances, goals and stimuli. Communication is associated with adults as expressed by Knowles (1984) or Freire (1978) in their studies on reflection and liberation.
Generating effective communication with adults requires collaboration and regularity in managing every aspect related to communication. It is in accordance with the assumption of adults.

The concept of information processing in this technological era is translated into heutagogy learning activities as expressed (related to information technology) along with the development of communication functions. Similarly, Hanse & Kenyon (2001) and Blaschke & Hase (2016), communication processes in SOEs can expand the role of individuals to optimize performance through ideas and knowledge that can generate values. Virtual collaboration extends access to knowledge and innovation simultaneously, and technological convergence facilitates the increase of learning activities with technology. With global connectivity, the whole world is connected. Online communities get involved in meaningful conversations and non-participant social activism which is oriented to problem-solving. Digital creativity builds employees’ creative ability and power to create values. That is, the existing conditions can function as an independent learning space for employees in SOEs.

The conceptual framework for managing organizations to learn sustainably not only uses a one-disciplinary approach. Instead, a multidisciplinary approach will provide a better basic construction to understand how organizational communication processes are oriented towards organizational performance. Besides, a multidisciplinary approach is based on the assumption that individuals in organizations are learners and adults in the era of information and technology. Management of organizational communication models focuses on the explanation of the relationship between variables in the communication process (input, process, output) as an open arrangement because there is an exchange process between the communicating system and the environment as well as a paradigm shift as a result of self-organizing carried out continuously. In addition, the high level of intrapreneurship that hampers organizational performance encourages the need for a personal model as a communication model applied in SOEs. This model is related to individual self-regulation. The model selection in organizational communication itself is based on various considerations such as behavioral control, value proximity, usefulness. The development of organizational communication models is defined as a conceptual design engineering process in an effort to improve the model function through the addition of communication components. Moreover, the development of organizational communication models can also be interpreted as an effort to expand or realize organizational potentials.

Research Limitations and Implications. This research only involved SOEs in developing countries with the assumptions that individual intrapreneurship of the organizational members was still strong and the autonomy in the management of SOEs by policymakers was weak. Furthermore, the communication model managed were limited to personal and social information processing models.

CONCLUSION

The effect of EO on organizational performance is moderated by organizational communication. The models developed in communication include information processing model, personal model, and cognitive model with various assumptions to obtain a more constructive understanding of communication. Managing communication with multidisciplinary assumptions in SOEs is an effort to optimize the effect of EO on institutional/organizational performance on an ongoing basis.

REFERENCES


THE EFFECT OF CREDIT AND LIQUIDITY RISK ON BANK PROFITABILITY AND CAPITAL ADEQUACY RATIO AS MEDIATION VARIABLES IN INDONESIA

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ABSTRACT
This study aims to determine the relationship between credit and liquidity risk to profitability through the capital adequacy ratio as a mediating variable. The population in this study was 43 Indonesian banks listed on the Indonesia Stock Exchange. The method in determining the sample uses purposive sampling and obtained 26 banking companies that meet the sample criteria. Data in the study are secondary data. The data analysis technique used is Path Analysis. The results of this study found that credit risk has a negative and significant effect on profitability, liquidity has a positive and significant effect on profitability, credit risk has a negative and significant effect on the capital adequacy ratio, liquidity has a positive and insignificant effect on the capital adequacy ratio, capital adequacy ratio has a positive and not significant to profitability. As well as the capital adequacy ratio is not able to mediate the effect of credit and liquidity risk on profitability. This research can provide information to be considered by banks in Indonesia to maintain the standard provisions for financial ratios that have been implied by Bank Indonesia.

KEY WORDS
Credit risk, liquidity, capital adequacy ratio, profitability.

Banks in carrying out their operational activities have the main objective, namely to achieve maximum profitability. Profitability is the ability of banks to generate profits effectively and efficiently. Sartono (2014: 123) states that profitability is the company's ability to make a profit in relation to sales, total assets and own capital. High bank profitability reflects that banks have a good system in risk management, credit checks, and risk monitoring which is expected to reduce bank risks (Chatarine, 2016). Return on Assets (ROA) is a ratio in measuring profitability. Although there are various profitability assessment indicators that are often used by banks, ROA is a ratio that shows the return (return) of the amount of assets used in the company (Kasmir, 2016: 115).

The phenomenon of an increase in the ratio of Non-Performing Loans which is a proxy of credit risk indicates the cause of a decline in Indonesia's banking profitability. Increasing Loan to Deposit Ratio, which is a proxy of liquidity, explains that the higher the loan, the higher the funds disbursed. With the large distribution of funds back to the community, income has increased.

One of the bank's main activities to increase profitability is by providing credit. Credit disbursement is one of the highest profits obtained by the bank, if it is estimated that it can reach 90 percent of bank profits obtained from credit (Fahmi, 2014: 57). But in addition to being a good source of income, this lending activity is vulnerable to risks that can be one of the main causes of banks facing problems and leading to bankruptcy. Banks must be careful in determining the feasibility of who is entitled to receive credit so that they can anticipate bad loans. Credit risk has an important role in profitability because a decrease in bank income arises from the interest on loans obtained.

Credit Risk which is proxied by NPL (Non-Performing Loan) serves to measure the bank's ability to cover the risk of failure of credit repayment by the debtor. The amount of the NPL percentage must be the concern of the management because of the increasing problem loans that could endanger the health of the bank. Loans channeled by banks have a risk of default by the debtor. The amount of NPL allowed by Bank Indonesia is currently a maximum...
of 5%. The greater the level of NPL indicates that the bank is not professional in managing its credit which will have an impact on the bank's losses (Septiani and Lestari, 2016).

The bank's ability to manage its liquidity will have an impact on the public's trust in the bank so that it will help the operational continuity and the existence of the bank. Technically, liquidity can be interpreted as a company's continuous ability to meet short-term debt (Uramedu et al, 2012). To measure bank liquidity, proxied by the Loan to Deposit Ratio (LDR). The LDR ratio is the composition of the ratio between the amount of credit disbursed and the amount of funds used, the bank's own capital and the public funds collected (Kasmir, 2011: 25). The LDR also shows the ability of a bank to repay customers' obligations by channeling funds or providing credit to customers. If there is an increase in the LDR percentage, this is because the volume of bank lending increases and the automatic interest payments obtained by banks also increase, (Septiani and Lestari, 2016).

Capital in banks has a very important role. Capital adequacy can be measured using the Capital Adequacy Ratio (CAR). It is important for the management to pay attention to the amount of CAR that is owned so that the bank is not short of funds and also does not have excess funds. Capital is the main source of financing for bank operations and also acts as a buffer against possible risk of loss. The greater the capital owned, the stronger the bank will be in dealing with unexpected risks so that banks can increase public trust, (Anjani and Purnawati, 2014 in Septiani and Lestari, 2016). However, banks that have a CAR that is too high can result in idle funds, namely there are many idle funds that cannot be utilized by the bank's management. Bank capital consists of core capital and supplementary capital (Idroes, 2011: 68).

Banks that have large capital can get even greater profits. Research conducted by (Agustiningrum, 2013) explains that CAR has a positive effect on profitability. This means that the smaller the risk that the bank will provide a large profit for the bank. Research conducted by (Al-Qudah and Mahmoud, 2013) also found the positive between capital adequacy ratio and profitability. Banks that have high capital will achieve high profits because the bank is more careful in choosing financing sources. This is contrary to the results of the study (Poposka et al., 2013) and (Jha and Hui, 2012) states that CAR has a negative effect on ROA. Banks that have high capital and face quite tight competition will focus more on increasing assets owned along with the bank's increasing capital. To achieve the desired growth with intense competition, the bank will reduce the spread or the difference from the interest on loans with the interest collected, so that it can reduce profitability (Maheswari and Surya, 2014). Based on previous research, there is still a gap in the difference between the relationship between CAR and ROA.

**LITERATURE REVIEW**

The financial performance of a bank is considered healthy and can be seen from the level of profitability. The main indicator used as a basis for evaluating a bank's financial performance is financial statements. Based on financial statements, banks can calculate a number of financial ratios that are commonly used as a basis for evaluating company performance. Financial ratio analysis is one tool for estimating or knowing the performance of a bank. If financial performance increases, the value of the company will be even higher. The Bank provides financial statements to show information and financial positions presented to interested parties such as creditors, investors, customers and Bank Indonesia as the bank supervisory authority to evaluate bank performance (Puspitasari, 2009).

According to Rax (1996: 24) Asset and Liability Management is a process of planning and monitoring banking operations that are coordinated and consequently carried out by always paying attention to the development of factors that affect banking operations, whether from outside or structural originating from within.According to Riyadi (2006: 21) Asset and Liability Management is a process of planning, organizing, actuating, and controlling to get policy decisions in the field of management: Capital (equity); Funding; Use of funds (assets).

Each other is interrelated in achieving optimal profit levels with calculated risk levels.
The discussion of GAP is one of the important discussions in ALMA. According to Riyadi (2006: 133) GAP is the difference between Assets that are sensitive to changes in interest rates (Rate Sensitive Assets) and liabilities that are sensitive to changes in interest rates (Rate Sensitive Liability). For banks today, GAP management is important. This is due to the level of interest rate volatility which is very sensitive to changes. With the condition of the level of interest rate changes, the banking world, especially in managing resources and the use of funds or assets and liability management, is in dire need of a system that can function and play a role in monitoring and controlling the sensitive interest rate movements.

According to Riyadi (2006: 155) states that the profitability of a bank shows a comparison of profit after tax with core capital or profit before tax with total assets owned by the bank in a certain period. Profitability is an assessment that reflects the ability of each company to generate profits and determine the credibility of a bank and the effectiveness of the bank concerned. Managerial performance of each banking system can be said to be good if the level of profitability of banking companies that are managed is high or maximal (Elviani, 2010).

According to Taswan (2010: 214), bank capital is a fund invested by the owner in the framework of establishing a business entity that is intended to finance the bank's business activities in addition to fulfilling the regulations set by the monetary authority. According to Idroes (2011: 73), the capital adequacy ratio is a ratio that aims to ensure that banks can absorb losses arising from their activities. In measuring capital adequacy, an indicator of Capital Adequacy Ratio (CAR) can be used, which is a ratio to measure the ability of capital from a bank and bank management to reduce risks or losses resulting from credit activities and securities trading. CAR is a comparison of assets that contain risks so it is necessary to first know the size of the estimation of the risks that occur in granting credit.

According to Bank Indonesia regulation No. 5 of 2013, risk is the potential for events (events) that can cause losses, one of the bank's business risks is credit risk. Credit risk is a risk arising from counterparty failure (other parties) fulfilling obligations. In the banking Act No. 10 of 1998 Article 21 Paragraph 11, the definition of credit is the provision of money or equivalent claims, based on an interbank loan agreement or agreement with another party that requires the borrower to repay the debt after a certain period of time with the provision of credit. Credit, besides creating risk, also creates income. Credit income can be in the form of interest or revenue sharing (Taswan, 2010: 309).

![Conceptual Framework](image)

Figure 1 – Conceptual Framework

The liquidity ratio can be measured using the loan to deposit ratio (LDR). LDR is a comparison between the total credit that has been given by the bank and the total third part funds that can be collected by banks (Riyadi, 2006: 165). LDR states the ability of a bank to pay back customer-owned funds embedded in the bank by relying on credit channeled as a source of liquidity (Pauzi, 2010). The higher the LDR gives an indication of the lower liquidity capacity of the bank, because the amount of funds needed to finance credit is greater. According to Bank Indonesia, banks are considered healthy if the amount of the LDR is
between 85% and 110%. If it is above 110%, the bank will experience liquidity difficulties and have an impact on the bank's profitability and performance.

**Hypotheses:**
- H1: Credit risk has a negative and significant effect on profitability;
- H2: Liquidity has a positive and significant effect on profitability;
- H3: Credit risk has a negative and significant effect on capital adequacy;
- H4: Liquidity has a positive and significant effect on capital adequacy;
- H5: Capital adequacy has a positive and significant effect on profitability;
- H6: Capital adequacy is able to mediate the effect of credit risk on profitability;
- H7: Capital adequacy can mediate the effect of liquidity on profitability.

**METHODS OF RESEARCH**

The research design used in this study is causality research. Causality research in this study is about the effect of credit risk and liquidity on profitability with capital adequacy as a mediating variable. This research was conducted by accessing the official website of the Indonesia Stock Exchange (IDX) at www.idx.co.id. The site provides financial report information. Data collection methods used in this study are nonparticipant observation methods, namely data collection methods with observations where researchers are not directly involved and only as independent observers (Sugiyono, 2011: 204). The analysis technique used in this research is path analysis technique. Path analysis is a statistical analysis developed from multiple regressions. Path analysis model is used to analyze the pattern of relationships between variables in order to determine the direct or indirect effects of a set of independent (exogenous) variables on the dependent variable (endogenous).

**RESULTS AND DISCUSSION**

Data analysis uses path analysis model with the help of Multiple Linear Regression and the software used is SPSS 22.0 for available data with ROA endogenous variables through CAR mediation variables and exogenous variables namely NPL and LDR.

**Table 1 – Path Coefficient Equation to Capital Adequacy Ratio**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>17.445</td>
<td>2.033</td>
<td>8.582</td>
</tr>
<tr>
<td>NPL</td>
<td>-548</td>
<td>.187</td>
<td>-253</td>
<td>-2.927</td>
</tr>
<tr>
<td>LDR</td>
<td>.017</td>
<td>.023</td>
<td>.061</td>
<td>.704</td>
</tr>
</tbody>
</table>

**Source:** Primary data, 2017.

The equation can be written as follows:

\[
Y_1 = -0.253X_1 + 0.061X_2
\]

The NPL variable coefficient is obtained at -0.253, meaning that if the NPL experiences an increase, the CAR tends to decrease. The coefficient of the LDR variable is obtained at 0.061 which means that if the LDR increases then CAR tends to decrease.

**Table 2 – Path Coefficient Equation to ROA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.702</td>
<td>.011</td>
<td>.866</td>
</tr>
<tr>
<td>NPL</td>
<td>-269</td>
<td>.061</td>
<td>-368</td>
<td>-4.392</td>
</tr>
<tr>
<td>LDR</td>
<td>.015</td>
<td>.007</td>
<td>.165</td>
<td>2.035</td>
</tr>
<tr>
<td>CAR</td>
<td>.037</td>
<td>.028</td>
<td>.109</td>
<td>1.309</td>
</tr>
</tbody>
</table>

**Source:** Primary Data, 2018.
The equation can be written as follows:

\[ Y_2 = -0.368X_1 + 0.165X_2 + 0.109Y_1 \]

The NPL variable coefficient is obtained at -0.38, meaning that if the NPL experiences an increase, ROA tends to decrease. The coefficient of the LDR variable is obtained at 0.165, meaning that if the LDR increases, ROA tends to increase. The CAR variable coefficient is obtained at 0.109, meaning that if CAR has increased, ROA tends to increase.

Table 3 – Indirect Effect and Total Effect of NPL, LDR to CAR and ROA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>X_1→Y_2</td>
<td>-0.368</td>
<td>-0.027</td>
<td>-0.395</td>
</tr>
<tr>
<td>X_2→Y_2</td>
<td>0.165</td>
<td>0.006</td>
<td>0.171</td>
</tr>
<tr>
<td>X_1→Y_1</td>
<td>-0.253</td>
<td>-</td>
<td>-0.253</td>
</tr>
<tr>
<td>X_2→Y_1</td>
<td>0.061</td>
<td>-</td>
<td>0.061</td>
</tr>
<tr>
<td>Y_1→Y_2</td>
<td>0.109</td>
<td>-</td>
<td>0.109</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

Calculation of variant variables that are not examined in the model can be shown by the following equation:

\[
e_1 = \sqrt{1 - R^2_1}, \quad e_2 = \sqrt{1 - R^2_2}, \quad e_1 = \sqrt{1 - 0.050}, \quad e_2 = \sqrt{1 - 0.163}, \quad e_1 = 0.974, \quad e_2 = 0.914
\]

Based on the results of the calculation above, e1 is obtained at 0.974 and e2 at 0.914. Evaluation of the validity of the model in the path analysis can be seen from the total determination coefficient of the structural equation from the following research model:

Table 4 – Capital Adequacy Ratio Determination Coefficient Testing Result

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.253^a</td>
<td>0.064</td>
<td>0.050</td>
<td>2.740238</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

Table 5 – ROA Determination Coefficient Testing Result

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.427^a</td>
<td>0.182</td>
<td>0.163</td>
<td>0.869213</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

\[
R^2_1 = 0.050, \quad R^2_2 = 0.163, \quad Pe = \sqrt{1 - R^2}
\]

Obtained:

\[
Pe_1 = \sqrt{1 - 0.050} = \sqrt{0.95} = 0.974, \quad Pe_2 = \sqrt{1 - 0.163} = \sqrt{0.837} = 0.914
\]

Determination Coefficient Total (R^2m):

\[
R^2m = 1 - (Pe_1^2 \times Pe_2^2) = 1 - (0.974^2 \times 0.914^2) = 0.207
\]

The total determination coefficient of the structural equation of the research model in accordance with the calculations obtained R2m value of 0.207 means that by 20.7 percent
the information contained can be explained by the model formed, while the remaining 79.3 percent is explained by variables outside the model formed.

The results of testing the effect of the NPL variable on ROA shows the path coefficient of -0.336 with a significance value of 0.000 < 0.05. Significant value less than 0.05 indicates that NPL has a negative and significant effect on ROA. This means that: H1 is accepted.

The results of testing the effect of the LDR variable on ROA shows the path coefficient of 0.165 with a significance value of 0.044 < 0.05. Significant value less than 0.05 indicates that LDR has a positive and significant effect on ROA. This means that: H2 is accepted.

The results of testing the effect of the NPL variable on CAR shows the path coefficient of -0.253 with a significance value of 0.004 < 0.05. Significant value less than 0.05 indicates that NPL has a negative and significant effect on CAR. This means that: H3 is accepted.

The results of testing the effect of the LDR variable on the CAR shows the path coefficient of 0.061 with a significance value of 0.483 > 0.05. Significance values greater than 0.05 indicate that the LDR has a positive and insignificant effect on CAR. This means that: H4 is rejected.

The results of testing the effect of the variable CAR on ROA shows the path coefficient of 0.109 with a significance value of 0.193 > 0.05. A significance value greater than 0.05 indicates that CAR has a positive and insignificant influence on ROA. This means that: H5 is rejected.

The result of testing the CAR variable as a mediating effect of NPL on ROA shows the path coefficient of -0.027, while the direct effect between NPL and ROA is -0.336. The magnitude of the path coefficient the direct effect of NPL on ROA compared to the indirect effect of NPL on ROA through CAR shows that CAR is not able to act as a mediating variable. This means that: H6 is rejected.

The test results of the CAR variable as a mediating effect of LDR on ROA shows the path coefficient of 0.006, while the direct effect between LDR on ROA is 0.165. The magnitude of the path coefficient of the direct influence of LDR on ROA compared to the indirect effect of LDR on ROA through CAR shows that CAR is not able to act as a mediating variable. This means that: H7 is rejected.

**CONCLUSION**

Credit risk has a negative and significant effect on profitability. This shows that the higher the credit risk, the lower the chances of the bank in making funds turnover in obtaining profits which causes a decrease in profitability.

Liquidity has a positive and significant effect on profitability. This shows that the increased volume of loans disbursed will provide greater interest income, thereby increasing profitability.

Credit risk has a negative and significant effect on the capital adequacy ratio. This shows the high number of non-performing loans will increase the Allowance for Earning Assets (PPAP) from the equity held, thus reducing the share of equity which is a component of capital adequacy.

Liquidity has a positive and insignificant effect on the capital adequacy ratio. This shows that credit increases in the volume of loans disbursed causes banks to have a greater ability to repay funds collected from the community, so that banks do not need to use their capital as a source of financing.

The effect of the capital adequacy ratio on positive and insignificant influence. This shows that high capital will protect banks from the risks that will be faced, so that banks can improve their performance which results in increased profitability.

The capital adequacy ratio is unable to mediate the effect of credit risk on profitability. This is because to increase profitability it is better to do it directly with low credit risk. This means that capital reserves are not necessarily needed to cover losses due to the high level of credit risk, because of the efforts in credit restructuring one of which is done by taking over collateral.
The capital adequacy ratio is not able to mediate the effect of liquidity on profitability. This shows that increasing profitability is better done directly by increasing liquidity. This means that in increasing the profitability of interest income on lending, banks do not need capital reserves because a high liquidity ratio indicates that more and more third part funds are channeled into loans.

REFERENCES

EFFECTS OF INTENSIVE DISTRIBUTION AND SALES PROMOTION ON CORPORATE IMAGE AND CONSUMER-BASED BRAND EQUITY: A STUDY ON SUZUKI CAR CONSUMERS OF PT. SURYA BATARA MAHKOTA, EAST NUSA TENGGARA, INDONESIA

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ABSTRACT
This research aimed to analyze the effect of Intensive Distribution and Sales Promotion on Corporate Image and Consumer-Based Brand Equity. The sampling was done using a multi-stage sampling technique, that was by selecting four regions (a city and three regencies) in East Nusa Tenggara, namely Kupang City, South Central Timor Regency, Belu Regency and Ende Regency with the total consumers of 1,402 people. The research results showed that intensive distribution had a significant effect on the corporate image and consumer-based brand equity; sales promotion had a significant effect on the corporate image but had no significant effect on the consumer-based brand equity, and; the corporate image had significant effect on the consumer-based brand equity. Future research is suggested to add other variables not included in this research model so as to create a more comprehensive model. Furthermore, we expect that future research can involve a larger size of samples, use other companies, and apply a comparative study model between several industrial companies.

KEY WORDS
Intensive distribution, sales promotion, corporate image, consumer-brand equity.

The phenomenon of competition in the current globalization era is increasingly directing the economic system of any country including Indonesia to the market mechanism which in turn positions marketers to always develop and capture market share. In this regard, product brands play a role as the biggest asset source for companies. Competitive market conditions, customer preferences and loyalty are the keys to the company’s success (Durianto et al., 2014: 1). This marketing is a consumer perception, no longer a product battle. Consumer perception can be built by understanding the concepts of marketing, intensive distribution, sales promotion, corporate image, and consumer-based equity brand.

The problem examined in this research was related to the assumption that intensive distribution and sales promotion had not been effectively done, particularly in the marketing of four-wheeled motor vehicles, compared to the product and price elements. Therefore, intensive distribution and sales promotion became the variables studied in this research. Evans and Berman (1997: 422-423) stated that in intensive distribution, there is a large number of resellers from all types of companies (outlets). Intensive distribution objectives include broad markets, high channel revenues, sales volume and profits. This strategy is aimed at end consumers who are large in number and comfort-oriented, while organizational consumers focus on all types of service accounts expected from intermediaries. The marketing focus on end consumers can be in the form of mass advertising, nearest (strategic) locations, and items in inventory, while that on organizational consumer is related to product
availability, usual communication, and superior services. The main weakness of intensive distribution is the limited control channel.

According to Angipora (2002), by using intensive distribution, companies expect to gain more sales and make consumers/customers more familiar with their products. Manufacturers are constantly tempted to switch from exclusive or selective distribution to more intensive distribution with the aim to enlarge their market reach and sales. The intensive distribution strategy may help in the short term but often damage long-term performance. The distribution of products will be intensive if the products are placed in many stores and outlets to meet market needs. Differently, Yoo et al. (2000) suggested that to lift their product image and obtain assistance from retailers, companies tend to distribute their products exclusively and selectively rather than intensively.

PT. SBM NTT is one of the holder agents of Suzuki brand (APM) in Nusa Tenggara area which has received a license from PT. Suzuki Indomobil Sales (PT. SIS) by establishing a Branch Office in Kupang in 2010 covering the area of NTT. NTT is a potential market for Suzuki cars because the archipelago territory covers the large islands of Flores, Sumba and western Timor; the small islands of Rote, Sabu, Alor, Solor, Adonara, Lembata and Komodo, and other smallest islands. NTT is one of the provinces in Eastern Indonesia directly adjacent to the Democratic Republic of Timor Leste, which can potentially market Suzuki cars to the country.

Suzuki cars are much in demand by the people of NTT with an increasing annual sales trend and the highest market share control compared to Toyota, Daihatsu, Honda, and Isuzu in which each automotive company as the sole brand holder agent (APM) is very competitive in capturing NTT market share. PT. SBM has expanded its marketing network in NTT by opening Suzuki car outlets spreading across 14 regencies/cities with the aim to bring Suzuki closer in meeting consumer’s vehicle needs.

This research aimed to test and explain: 1) the effect of intensive distribution on corporate image; 2) the effect of intensive distribution on consumer-based brand equity; 3) the effect of sales promotion on corporate image; 4) the effect of sales promotion on consumer-based brand equity; and 5) the effect of corporate image on consumer-based brand equity.

**REVIEW LITERATURE**

Every company is not separable from marketing activities to market its products. The essence of marketing activities relates to the identification and fulfilment of human and social needs so that the company’s goal to meet human needs in a profitable way can be achieved well. According to American Marketing Association (AMA) in Kotler and Keller (2009), marketing is an organizational function and a series of processes to create, communicate, and deliver values to customers and to manage customer relationships in a way that benefits the organization and stakeholders. The marketing concept assumes that the key to achieving organizational goals more effectively than competitors is by creating, delivering, and communicating better customer values on the chosen target market.

The concept of holistic marketing is based on the purpose of design development and the implementation of marketing programs, processes, and activities realizing the broad and interdependent marketing nature. Holistic marketing assumes that everything is meaningful, valuable, and important in marketing, and often needed in a broad perspective and integrated unity. The four broad components characterizing holistic marketing include relationship marketing, integrated marketing, internal marketing, and performance marketing or marketing with social responsibility (Kotler and Keller, 2009).

Here is the concept of four holistic marketing components: (1) Relationship marketing aims to build long-term relationships that are mutually satisfying with key people or organizations to obtain and retain business and customers. The key people or organizations for relationship marketing include: customers, employees, and marketing partners covering channels, suppliers, distributors, dealers, agents, and members of financial community such as shareholders, investors, and analysis; (2) Integrated marketing is to mix and adjust
marketing activities to maximize individual and collective effects. The key theme of integrated marketing is a large number of different marketing activities that communicate or deliver values, and when coordinated, marketing activities can maximize the combined effect; and (3) Internal marketing aims to recruit, train, and motivate competent employees, so they are willing to serve customers well.

Based on the two opinions above, philosophically, marketing aims to create exchange relationships which are mutually beneficial for all parties involved in the exchange. Value exchange is not only madewith consumers but all parties involved in marketing activities. Thus, marketing activities are part of a growing society because value exchange between various members of society is very important for their survival.

Meanwhile, a marketing mix is part of integrated marketing, but the concept has inseparable relation to relationship marketing, internal marketing, and performance marketing. In integrated marketing, marketing activities emerge in all forms. McCarthy (1981) classified marketing activities as a means of the marketing mix of four broad types called “4P”, covering product, price, place and promotion. According to Kotler and Keller (2009a), 4P symbolizes the view of manufacturers (producers) in which available marketing tools are to influence consumers, while in consumers’ view, each marketing tool is designed to provide benefits to customers.

Kotler (2006) defined marketing mix as a set of marketing tools that companies use continuously to achieve marketing goals in the target markets. Moreover, according to Lamb et al. (2004), marketing mix is a unique combination of product, promotion, place and price strategies designed to produce mutually satisfying exchanges with the intended market. Differently, Lupioyadi (2001) stated that marketing mix (4P) describes the meaning of tangible products. As for the marketing mix of intangible products (services), marketing experts add three elements (3P), namely people, process, and customer service. These three elements are related to the nature of services starting from production to consumption as an inseparable series and involving consumers by providing services directly. Booms and Bitmer in Kotler (2006) proposed additional 3P for service marketing, namely: people, physical evidence, and process because most of the provided services and employee selection, training, and motivation can make a huge difference in customer satisfaction.

The theoretical review related to the distribution channel, sales promotion, corporate image, and consumer-based brand equity variables is explained further below.

**Intensive Distribution.** A place is a combination of location and decision on distribution channels. The importance of location for services depends on the type and level of interaction that occurs. Interactions between service providers and customers have various types as follows: customers coming to service providers; service providers coming to customers; or distance business transaction between service providers and customers. Kotler and Armstrong (1998) explained that a place (distribution) includes company activities to make the products available to target consumers. The place used to supply services to target consumers is the key in the decision field. The consideration of decisions of places and channels is regarding how to deliver products/services to customers, in which the products/services must be placed.

Intensive distribution is when a company uses a large number of resellers. Intensive distribution is aimed to have a broad market coverage, high channel revenues, total sales, and profits, but the profit per unit is relatively low. This strategy is aimed at most consumers. The intensity of the distribution channel coverage has various attributes (Evan and Berman, 1997).

Similarly, Angipora (2002) argued that to determine the number of intermediaries used at each level of distribution channels including wholesalers and retailers, companies have three options of alternative strategies. The first strategy is intensive distribution, in which manufacturers place or distribute their products/services in as many outlets as possible. This strategy is generally used for types of goods, such as tobacco products, soaps, snacks, and chewing gum because consumers need a lot of location convenience for these products. These second strategy is selective distribution, involving the use of more than a few intermediaries, but not all intermediaries are willing to sell certain products. The selective
distribution strategy is commonly used by established companies and those which are just looking for distributors. This strategy is exclusive distribution, greatly limiting the number of intermediaries. This strategy can be used if the manufacturer wants to remain in control of the level and output of services offered by the intermediary. Moreover, this strategy involves an exclusive agreement plan.

Places or distributions include company activities to make products available for target consumers (Zeithaml and Bitner, 1996; and Payne, 2001). The selection of distribution location is influenced by cost, time speed, and the ease of the facilities needed (Zeithaml and Bitner, 1996). Differently, according to Payne (2001), the place of distribution in service marketing is influenced by the type of channels, intermediaries, outlet locations, transportations, storage, and channel management. Furthermore, Kotler (2006) stated that distribution or marketing channels are a set of institutions that perform all activities or functions used to distribute their products and ownership status from manufacturers (producers) to consumers.

Sales Promotion. According to Kotler (2006), promotion consists of four main tools or so-called a promotion mix, covering (1) advertising, referring to all forms of non-personal presentations and promotions of ideas, products or services through certain media paid by certain sponsors; (2) sales promotion, consisting of a set of different incentive tips, mostly short-term and designed to encourage customer or seller purchases faster and more largely than a certain product/service; (3) public relations, requiring companies to not only have to deal constructively with customers, suppliers, and distributors but also a large group of public interests; and (4) personal selling, referring to the most effective tips for simplifying work operations, especially in shaping buyer preferences, beliefs, and actions.

Sales promotion is done by marketers by utilizing various ways to increase the attractiveness of the offered products and the product sales. Consumers who are uncertain about their choice of available alternatives tend to avoid products that offer invaluable perceived promotions (Simonsen, et al., 1994). Lupioadi (2001) defined sales promotion as all activities intended to increase the flow of goods or services from manufacturers to final sales. Points of sales promotion consist of brochures, information sheets, and others. Sales promotion is addressed to 1) Customer; in the form of free offers, samples, demonstrations, coupons, cash refunds, prizes, contests, and warranties; 2) Intermediaries, in the form of free goods, discounts, advertising allowances, cooperative advertising, distribution contest, awards; 3) Salesforce, in the form of bonuses, awards, contests and prizes for the best sellers (best performers).

Corporate Image. In general, customers intend to buy products/services from companies with a superior image to reduce risk. Mofokeng (2001) defined a corporate image as a valuable asset that must be managed well by the company. A good corporate image can help develop product/service sales through increased customer satisfaction and loyalty and attract both investors and employees in the future. However, a good corporate image can also weaken the negative effect of competitors and allow the company to achieve a higher level of profit (Kim et al., 2011 and Amini et al., 2012).

According to Keller (1993), the term ‘corporate image’ refers to a specific association stored in customer memories of a certain company. The corporate image in customer memories covers institutional image, functional image, and commodity image (Lin and Lu, 2010). Corporate image is considered as one of the most important strategy providing a basis for companies to build a strong and long-term competitive advantage compared to competitors in a market (Boyd et al., 2010). Corporate image is a valuable asset that must be managed well by companies with certain types/images to get feedback from all parties in the certain market regarding the corporate identity credibility created by the organization (Abratt and Mofokeng, 2001; Cretu and Brodie, 2007).

Customer-Based Brand Equity. Corporate brands act as the strongest navigation tool for stakeholders including investors, employees, and consumers (Bridson and Mavondo, 2011). In the condition of intense competition, many companies project strong and positive reputations to stakeholders, covering employees, consumers, investors, and the society. Companies must strive to project images that are stable, attractive, aggressive, and variously
public-oriented yet focused on a number of specific areas, and smart employees in investing. The ability to meet various needs of stakeholders can help gain positive feelings for companies.

American Marketing Associations (AMA) defined a brand as a name, term, sign, symbol, design, or combination thereof, which is intended to identify goods/services from a seller or group of sellers and differentiate them from competitors (Kotler and Keller, 2006, 2009). Furthermore, Kotler and Keller identified brand as a product/service that adds dimensions that can differentiate it in several ways from other products/services designed to meet the same needs.

Customer-based brand equity is a study of brand equity measurement in customer/consumer-based contexts, where consumer responses on a brand name are evaluated (Keller, 1993, Shocker et al., 1994) and the effect on brand options and purchase interests are expanded (Cobb-Walgren et al., 1995), so are the intention of repeat purchase (Huang et al., 2014, Kazemi et al., 2013, Bojei and Hoo, 2012), and brand alliances (Rao and Manroe, 1989).

Kotler and Keller (2009) stated that to create strong brand equity, a certain product often makes the brand itself have a successful market share. Strong brand equity will have an impact on other brands of similar products. Therefore, the highly competitive automotive industries and retailers in which many businesses are trying to acquire customers must be accompanied by a marketing strategy that creates their equity. Senthilnathan and Tharmi (2012) suggested that a positive and memorable corporate brand image will provide competitive business capabilities. Thus, customer-based brand equity is an asset of brand dimensions.

Aaker (1991, 1996a, 1996b) divided brand equity into four main dimensions, namely brand awareness, brand associations, perceived quality, and brand loyalty. Furthermore, Keller (2003) classified brand awareness and brand image into brand knowledge. Yoo et al.'s (2000) study adopted the model of brand equity from Aaker (1991). Brand equity is a value where if consumers associate with a brand, their perceptions will be directed to all the product advantages of the name, which is higher than other brands (Aaker, 1991).

METHODS OF RESEARCH

This research is an exploratory research, which explains the effect of one or several variables on another or several other variables using primary data. The research model developed is expected to describe more clearly the relationship between variables being analyzed, give research implications that are useful for the development of science, and serve as a method to solve problems in the field. This research was conducted in East Nusa Tenggara (NTT), in which the object used as the unit of analysis was the consumers of Suzuki cars sold by PT. Surya Batara Mahkota (PT. SBM), NTT.

The population of this research was all Suzuki car consumers of PT. SBM NTT in 15 regencies/cities of NTT Province in 2015, amounted to 1,782 people. The sampling was done using a multi-stage sampling technique, that was by selecting four regions in East Nusa Tenggara, namely Kupang City, South Timor Tengah Regency, Belu Regency and Ende Regency with the total population of 1,402 people. Of the population, 144 consumers were taken as the research sample by using Slovin formula with a 9% precision level. In each region, the samples were taken proportionally while the respondents were taken accidentally.

The primary data collection in this research was done using questionnaires and interviews while the secondary data were obtained from the company through a document study. The instruments used to collect primary data directly from consumers (respondents) were questionnaires. Since the sampling was done accidentally, the researchers assisted by enumerators and students regularly visiting each of the main Suzuki car dealers of PT. SBM NTT in the four sample regions. The prospective respondents who were in accordance with the target population criteria were given questionnaires to be filled out.

Data that had been collected were then examined, tabulated and analyzed. The data analysis was conducted using descriptive statistical analysis and Generalized Structure
Component Analysis (GSCA) techniques. A descriptive statistical analysis is to describe or interpret tabulated data as they are without intending to draw general conclusions or generalizations. Meanwhile, descriptive analysis is the transformation of raw data into a form that is easily understood or interpreted. Furthermore, Simamora (2004: 231) stated that descriptive analysis aims to describe the characteristics of each variable in samples.

Hypothesis:
Based on the objectives, review literature and empirical studies, the variables of this research (intensive distribution, sales promotion, corporate image, and consumer-based brand equity) served as temporary answers to testing and analyzing the effect of exogenous variables on endogenous variables. Furthermore, to achieve the research objectives, the researchers proposed the following five hypotheses according to the theoretical reviews and the results of previous research:
- H1: Intensive distribution has a significant effect on corporate image;
- H2: Intensive distribution has a significant effect on consumer-based brand equity;
- H3: Sales promotion has a significant effect on corporate image;
- H4: Sales promotion has a significant effect on consumer-based brand equity;
- H5: Corporate image has a significant effect on consumer-based brand equity.

The model of the research hypotheses is visualized in Figure 1.

![Research Hypothesis Model](image)

**Figure 1 – Research Hypothesis Model**

**RESULTS AND DISCUSSION**

Convergent Validity Test. The outer loading results of 30 items and 15 indicators of the 4 latent variables measured were obtained through GSCA Bootstrap calculation, generating a factor loading or critical ratio (CR) value equal to the T statistical value. If the factor loading value was positive and greater than 0.6, the weight value was above 0.4, and the CR value was greater than the $T_{table}(1.96)$, the effect was said to be significant.

The convergent validity test results of the research variables (Intensive Distribution, Corporate Image, and Consumer-Based Brand Equity) showed that all the items forming the indicators of the four variables had a factor loading value greater than 0.5.

The Intensive Distribution (ID) variable was measured using four indicators and eight statement items as the parameters. The indicators were: Product Availability (ID2), Product Variety (ID2), Delivery Period (ID3), and Distribution Channel Effectiveness (ID4). The loading factor values of the 8 statement items ranged from the lowest of 0.867 (ID2.1) to the highest of 0.957 (ID1.2). That is, that all the items of the Intensive Distribution variable used in this research met the requirement of convergent validity.

The Sales Promotion (SP) variable was measured using four indicators and eight statement items as the parameters. The indicators were: Lottery (SP1), Contest (SP2), Price Promotion (SP3), and Bonus (SP4). The factor loading values of the 8 statement items ranged from the lowest of 0.864 (SP4.2) to the highest of 0.904 (SP1.1). That is, all the items of the Sales Promotion variable used in this research met the requirement of convergent validity.

The Corporate Image (CI) variable was measured using three indicators and six statement items as the parameters. The indicators were: Institutional Image (CI1), Functional Image (CI2), and Commodity Image (CI3). The factor loading values of the six statement
items ranged from the lowest of 0.876 (CPI3.2) to the highest of 0.893 (CPI.1). In other words, all the items of the Corporate Image variable used in this research met the requirement of convergent validity.

The Consumer-Based Brand Equity (CBE) variable was measured using four indicators and eight statement items as the parameters. The indicators included: Brand Awareness (CBE1), Brand Association (CBE2), Perceived Quality (CBE3), and Brand Loyalty (CBE4). The factor loading values of the eight statement items ranged from the lowest of 0.874 (CBE4.1) to the highest of 0.893 (CBE1.2). That is, all the items of the Consumer-Based Brand Equity variable used in this research met the requirement of convergent validity.

Overall, the convergent analysis results of the 15 indicators showed that all the items measuring the indicators, covering: (a) product availability, product variety, delivery period, and distribution channel effectiveness; (b) lottery, exhibition contest, price promotion and bonus; (c) institutional image, functional image, and commodity image; (d) brand awareness, brand association, perceived quality, and brand loyalty, resulted in a factor loading value> 0.5 with a CR value >1.96. Thus, all the items were declared valid or able to measure the variables.

**Discriminant Validity Test.** Discriminant validity test, which is used to determine the discriminant validity of each indicator in measuring latent variables, can be done by comparing the value of Average Variance Extracted (AVE) with the correlation between indicators. An indicator is said to have a good discriminant validity if the AVE value is > 0.50 (Ghozali, 2008).

The results of discriminant validity analysis showed that the lowest AVE value of the 15 indicators was 0.739 on the indicators of exhibition contest (SP2) and price promotion (SP3), while the highest AVE value was 0.877 on the product availability indicator (ID1). That is, the AVE values of all the indicators were greater than the standard 0.50. Thus, all the indicators measuring the latent variables (intensive distribution, sales promotion, corporate image, and consumer-based brand equity) had good discriminant validity. Since the results of discriminant validity test showed that all the indicators were good, it was concluded that all the indicators measuring each latent variable were fulfilled.

**Consistency Reliability Test.** Consistency reliability is the extent to which an instrument is able to consistently measure phenomena that have been designed to be studied. The reliability test of latent variables in GSCA is through internal consistency reliability, which is to measure the reliability of indicator groups on latent variables formed using Cronbach’s alpha values. If the Cronbach’s alpha value ≥ 0.6, the variable can be declared reliable (Ghozali, 2008).

The consistency reliability analysis results showed that the lowest Cronbach’s Alpha value of the 15 indicators was 0.662 on the Bonus indicator (SP4) and the highest Cronbach’s Alpha value was 0.858 on the Product Availability indicator (ID1). That is, the Cronbach’s Alpha values of all indicators were greater than the standard (> 0.60). Thus, all the indicators measuring the latent variables (intensive distribution, sales promotion, corporate image, and consumer-based brand equity) were declared reliable or met the requirement of consistency reliability, so that the indicators could be used to measure or explain the latent variables.

**Inner Model Test Results (Research Hypothesis).** Based on the theories, empirical studies, and the research hypothesis model, the researchers developed an inner model explaining the correlation between exogenous latent variables and endogenous latent variables based on the substantive theory. The path coefficient value of the effects of exogenous latent variables on endogenous latent variables was obtained through GSCA calculation and significance test with bootstrapping, generating a critical ratio (CR) equal to the T-value.

In the hypothesis testing, the direct effect of exogenous variables on endogenous variables can be seen from the critical ratio (CR) values. As seen in Table 1 below, the significant effects of exogenous variables on endogenous variables are characterized by a starred critical ratio (CR) value of ≥ t-table (t=1.96, alpha=5%).
Table 1 – Structural Model Test Results (Inner Model)

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Path Coefficients</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimate  SE</td>
<td>CR</td>
</tr>
<tr>
<td>H1</td>
<td>ID ⇒ CI</td>
<td>0.208  0.033</td>
<td>6.30</td>
</tr>
<tr>
<td>H2</td>
<td>ID ⇒ CBE</td>
<td>0.110  0.039</td>
<td>2.82</td>
</tr>
<tr>
<td>H3</td>
<td>SP ⇒ CI</td>
<td>0.117  0.032</td>
<td>3.66</td>
</tr>
<tr>
<td>H4</td>
<td>SP ⇒ CBE</td>
<td>0.049  0.029</td>
<td>1.69</td>
</tr>
<tr>
<td>H5</td>
<td>Ci ⇒ CBE</td>
<td>0.410  0.032</td>
<td>12.81</td>
</tr>
</tbody>
</table>

CR* = Significant at 0.05 level

Source: Processed GSCA Analysis Results, 2017. Notes: ID = Intensive Distribution; SP = Sales Promotion; CI = Corporate Image; CBE = Consumer-Based Brand Equity.

The hypotheses with a starred CR value of >the t-table (1.96) were accepted, indicating that there was a significant effect of exogenous variables on endogenous variables. The accepted hypotheses were H1, H2, H3, and H5. In contrast, the fourth hypothesis (H4) was rejected because the effect of the exogenous variable on the endogenous variable was not significant, indicated by a CR value not starred and less than the t-table (<1.96).

The Effect of Intensive Distribution on Corporate Image. Based on the research results, Intensive Distribution had a positive and significant effect on the Corporate Image with a path coefficient value of 0.208, CR value of 6.30* (>1.96) at the P level of 0.05. The test results supported Hypothesis 1, so H1 was accepted. The statistical evidence indicates that the path coefficient was positive and significant. The positive path coefficient means that if the intensive distribution increased, the corporate image would get improved. The theoretical implication of this empirical research states that any increase or improvement in intensive distribution will lead to a better corporate image.

This research provides empirical evidence or support the theory of intensive distribution (Evan and Berman, 1997) suggesting that resellers are large in quantity, used by all types of companies (outlets), have broad markets, high channel revenues, sales volume and profits, great number of end consumers, nearest (strategic) location, product availability, and comfort-oriented (Angipora, 2002).

Companies can choose alternative distribution channels to be used, covering intermediaries, exclusive distribution, selective distribution and intensive distribution (Evans and Berman, 1997; Kotler, 2006). Places or distributions include company activities to make products available for target consumers (Zeithaml and Bitner, 1996; and Payne, 2001). The selection of distribution location is influenced by cost, time speed, and the ease of the facilities needed (Zeithaml and Bitner, 1996). Differently, according to Payne (2001), the place of distribution in service marketing is influenced by the type of channel, intermediary, outlet location, transportation, storage, and channel management. Furthermore, Kotler (2006) stated that distribution or marketing channels are a set of institutions that perform all activities or functions used to distribute their products and ownership status from manufacturers (producers) to consumers.

This research supports the theory of corporate image by Lin and Lu (2010) stating that corporate image in consumer or customer memories covers institutional image, functional image, and commodity image. Boyd et al. (2010) asserted that corporate image is one of the most important strategies that provide a basis for companies to build a strong and long-term competitive advantage compared to competitors in a market. Corporate image is a valuable asset that must be managed well by companies with certain types/identities to get feedback from all parties in certain markets regarding the corporate identity credibility created by the organization (Abratt and Mofokeng, 2001; Cretu and Brodie, 2007). The term ‘corporate image’ refers to special associations stored in the memories of certain companies’ customers (Keller, 1993).

This research supports Kim and Hyun (2011) and Amini et al. (2012) finding that performance of distribution channels as an attempt of marketing mix has a positive and significant effect on the corporate image. Based on the concept of corporate image (Lin and
Lu, 2010), the Corporate Image variable measured using three indicators (institutional image, functional image, and commodity image) has various levels influenced by intensive distribution. Linear with this, the good corporate image of Suzuki is caused by the increased intensive distribution of Suzuki cars. On another side, Yoo et al. (2000) revealed that to lift their product image and obtain assistance from retails, companies tend to distribute their products exclusively and selectively rather than intensively.

**The Effect of Intensive Distribution on Consumer-Based Brand Equity.** The results of this research showed that Intensive Distribution had a positive and significant effect on the Consumer-Based Brand Equity with a path coefficient value of 0.110, CR value of 2.82* (>1.96) at the P level of 0.05. The test results supported Hypothesis 2, meaning that H2 was accepted. The statistical evidence indicates a positive and significant path coefficient value. That is, if the intensive distribution increased, the consumer-based brand equity would also get higher. This empirical research theoretically implies that any increased intensive distribution will lead to increased consumer-based brand equity.

This research is consistent with Aaker’s theory (1991) stating that brand equity is a set of assets and liabilities associated with a brand, name and symbol that can increase or decrease the value of a product or service, both for the company and consumer (Aaker, 1996a; Durianto et al., 2001; Keller et al., 2012). Brand equity is the added value given to products and services, which can be reflected in the way consumers think, feel, and act in relation to the brand, price, market share, and the profitability resulted from the brand (Kotler and Keller, 2009; Durianto et al., 2001).

This research strengthens previous studies of Amini et al. (2012) and Al-Dmour et al. (2013) finding that a distribution channel is a marketing mix element that positively and significantly influences consumer-based brand equity consisting of brand awareness, brand association, brand image, perceived quality and consumer-brand loyalty. Meanwhile, Kim and Hyun (2011) found that the performance of distribution channels had a positive and significant effect on brand awareness, brand association, and brand loyalty, excluding perceived quality. Differently, Kazemi et al. (2013a) found that the element of distribution arrangement had a significant effect on brand loyalty, but did not have a significant effect on brand awareness and perceived quality.

**The Effect of Sales Promotion on Corporate Image.** In this research, Sales Promotion had a significant effect on the corporate image, indicated by the path coefficient value of 0.161, CR value of 4.60* (>1.96) at the P level of 0.05. These results highly supported Hypothesis 3, so H3 was accepted. The statistical evidence shows a positive and significant path coefficient value. The positive path coefficient indicates that if the sales promotion increased, the corporate image would also be better. The theoretical implication of this empirical research is that any increase or improvement in sales promotion will generate an increase in corporate image.

This research supports the theory of sales promotion (Lupioadi, 2001: 109) stating that sales promotion includes all activities intended to increase the flow of goods or services from manufacturers (producers) to final sales. Points of sales promotion consist of brochures, information sheets, price promotion, price lists, and others. Sales promotion can be given to Customer, in the form of free offers, samples, demonstrations, coupons, cash refunds, prizes, contests, and warranties.

Based on the opinion of Lupioadi (2001) regarding various sales promotion activities, the effect of the Sales Promotion variable on the corporate image in this research was measured using four indicators (lottery, exhibition contest, price promotion, and bonus). This research supports the finding of Kim and Hyun (2011) and Amini et al. (2012) that promotional performance has a positive and significant effect on the corporate image.

**The Effect of Sales Promotion on Consumer-Based Brand Equity.** The results of this research suggested that there was no significant effect of Sales Promotion on the Consumer-Based Brand Equity. It was shown by the path coefficient value of 0.049 and CR value of 1.69 (less than 1.96) at the P level of 0.05. The test results did not support Hypothesis 4, so H4 was not accepted. The statistical evidence suggests that the path coefficient was positive yet insignificant. It may happen to brands that have been well-known, accepted, trusted and
liked by people because these brands no longer need high sales promotion. That is, the
companies with well-known branded products can reduce sales promotions, automatically
lowering sales promotion costs.

This research supports Kim and Hyun (2011) finding that promotional efforts do not
significantly affect the three dimensions of brand equity, covering brand loyalty, brand
awareness, and brand association. Meanwhile, Hajipour et al. (2013) found that the
promotion factor had no significant effect on perceived quality.

The Effect of Corporate Image on Consumer-Based Brand Equity. Based on the results
of this research, the Corporate Image of Suzuki had a positive and significant effect on the
Consumer-Based Brand Equity with a path coefficient value of 0.410, CR value of 12.81* (> 1.96) at the P level of 0.05. The test results supported Hypothesis 5, meaning that H₅ was
accepted. The statistical evidence shows a positive and significant path coefficient value,
meaning that an increase in the corporate image would lead to an increase in the consumer-
based brand equity as well. This empirical research theoretically implies that any increase or
improvement in a corporate image will generate an increase in the consumer-based brand
equity.

This research supports the theory of Lin and Lu (2010) stating that a company's image
consists of three indicators, namely institutional image, functional image, and commodity
image. Furthermore, the corporate image variable measured using the three indicators has
various levels of influence on consumer-based brand equity so as to improve the corporate
image continuously in the long run.

CONCLUSION

Intensive distribution has a significant effect on corporate image. The positive path
coefficient of the effect indicates that an increased intensive distribution of PT. SBM will
improve the corporate image. This empirical research theoretically implies that if intensive
distribution increases, the corporate image will also be better (H₁ is accepted).

Intensive distribution has a significant effect on consumer-based brand equity. The
positive path coefficient of the effect means that an increased intensive distribution of PT.
SBM will improve the consumer-based brand equity. This empirical research theoretically
implies that if intensive distribution increases, the consumer-based brand equity will also get
strenthened(H₂ is accepted).

Sales promotion has a significant effect on corporate image. The positive path
coefficient of the effect signifies that an increase in PT. SBM's sales promotion will improve
the corporate image. This empirical research theoretically implies that if sales promotion
increases, the corporate image will also be better (H₃ is accepted).

Sales promotion has no significant effect on consumer-based brand equity. The
statistical evidence shows a positive yet insignificant path coefficient value, meaning that the
increase in PT. SBM's sales promotion does not significantly increase the consumer-based
brand equity. The theoretical implication of this empirical research is that an increase in sales
promotion does not always improve the consumer-based brand equity. It does not support
H₄ ((H₄ is rejected).

Corporate image has a significant effect on consumer-based brand equity. The positive
path coefficient of the effect indicates that any increase in the corporate image of PT. SBM
will improve the consumer-based brand equity. This empirical research theoretically implies
that if corporate image increases, the consumer-based brand equity will also get
improved(H₅ is accepted).

SUGGESTIONS

We propose that further research should be undertaken by considering as follows:

- Adding variables that have not been included in this research model to obtain a more
comprehensive research model;
• Using a larger size of samples, focusing on another companies than automotive companies and taking other places for a longer period of time;
• Making a comparative study between industrial companies;
• Examining consumer attitudes towards the marketing strategy of WOM (Word of Mouth) through social network sites (Facebook, WhatsApp, Twitter, Youtube, and Instagram).

We believe that the strong points of this research can give the following contributions:

• As information materials for the company of Suzuki Indonesia, especially the Suzuki car dealers of PT. SBM NTT as the brand holder agent in increasing the effectiveness of intensive distribution, sales promotion, corporate image, and consumer-based brand equity;
• As a reference for the Regional Government in making government policies in the form of regulations, permits, guidance and socialization so that the Suzuki company of PT. SBM NTT can extend the marketing network of Suzuki cars in all regencies/cities;
• As a consideration for investors in supporting the government policy regarding the conversion of oil fuel (BBM) to gas fuel (BBG) for some vehicles that the condition that gas refuelling stations (SPBG) are provided or available.

LIMITATION OF THE STUDY

Inevitably, a number of limitations could have influenced the results obtained in this research. As this research was conducted in East Nusa Tenggara Province which is geographically an archipelago, the sample of areas was limited to two islands and four regions (a city and three regencies). Furthermore, this research only involved Suzuki car consumers of PT. SBM NTT with a self-owned status and the use only for household purposes, so the generalization of this research was also limited. Besides, the marketing strategy of WOM from the consumers to others was still conventional and ineffective. The last, there are still other exogenous variables that actually can explain the endogenous variables but were not included in this research model.

REFERENCES

THE EFFECT OF SUSTAINABILITY REPORT DISCLOSURE ON FINANCIAL AND MARKET PERFORMANCE IN INDONESIAN COMPANIES

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ABSTRACT
This study purpose to provide empirical evidence about the effect of sustainability report disclosures on financial and market performance. The object of research is a company that publishes sustainability reports that join the Indonesia Stock Exchange in the period 2014-2016. The sampling technique uses purposive sampling method. The dependent variable used in this study is financial performance as measured by return on assets, return on equity and current ratio, and market performance as measured by Tobin's Q, while the independent variable is SRDI. The hypothesis was tested using manova. The results of this study, the first hypothesis which states that sustainability report disclosure does not have a positive effect on financial performance, and the second hypothesis states that sustainability report disclosure does not affect market performance. This is because the company that publishes sustainability report in Indonesia is still relatively small, due to the inconsistency of the company in issuing sustainability reports every year, therefore, it is necessary for the government to urge and mobilize so that more companies consistently publish sustainability reports every year.

KEY WORDS
Sustainability report, finance, performance, market.

Sustainability report has experienced an increase in business and academia (Hahn and Kühnen, 2013). Especially for large companies in Indonesia that have begun to be proactive in disclosing their company's sustainability information. Sustainability reports have the potential to improve the quality of information from doubts so that company information can produce reliable information, comparability and materiality. The Global Reporting Initiative (GRI), introduces a guideline for sustainability disclosure (GRI, 2006) so that it can encourage companies to provide more transparent, complete and balanced reports (Hahn and Kühnen, 2013).

Changes in views and paradigms in the business environment require companies that want to compete must be more transparent in disclosing information so that it can support the decision making process. Stakeholders needs will be information on company performance from year to year increasing. This information does not only include quantitative information, but also qualitative information. In Indonesia sustainability report is still voluntary, which means that there are no specific rules that require, but only voluntary and not obligatory, even though this disclosure is not required, but one side there is a demand for companies to provide more transparent and accountable information.

Sustainability report is a report containing information on the company's performance in the economic, social and environmental fields. Sustainability report is a moral agent for the company by conducting "activities" and "interaction" with the community, so that it can foster a sense of responsibility towards the environment. Sustainability reports are prepared based on the standards of GRI reporting, GRI reporting standards are a standard that can be used as a reference and intended as a general acceptable framework in reporting the economic, environmental and social performance of a company (GRI, 2006).

Research in Indonesia regarding sustainability report has inconsistent results. Dewi's research (2015) also shows that there is a positive influence on sustainability report as measured by the sustainability report disclosure index (SRDI) on return on assets, but not in
accordance with the results of research by Susanto and Tarigan (2013) & Lesmana and Tarigan (2014) states that the disclosure of sustainability performance has a negative effect on return on assets due to expenditure for sustainability activities, thereby reducing the company's profit. Natalia (2014) in her research divides the dimensions of sustainability report into three main parts, namely economic, environmental, and social, it also shows that the economic dimension of the sustainability report does not affect financial performance, but the environmental and social dimensions have an effect even though the influence is negative.

Researchers want to focus more on conducting research on testing the impact of sustainability reporting on the company's financial and market performance. Researchers used a sample of publicly listed companies listed on the IDX, which published Sustainability Report in the period 2014 to 2016. Susanto and Tangan (2013) research, with ROA as the dependent variable. Ramadhani (2016), with the dependent variable ROA, Current Ratio and DPR. So from the two studies I decided to choose (ROA, ROE, Profit Margin, DER and Current Ratio) as a measure of financial performance, while to measure market performance using Tobin's Q.

Researchers chose financial performance as the dependent variable because prospective investors are not only see the social performance listed in the sustainability report only, but also very focused on financial performance, not only that, with the financial performance of investors can know the development of the company's financial performance from time to time, in addition investors can find out whether there is an increase or decrease in solvency, liquidity and stability profitability for companies that publish the sustainability report. In this study the researcher chose 4 variables that represent each of these ratios which are used to measure the level of company performance, namely ROA, ROE, and Current Ratio. While in terms of market performance researchers chose to measure market performance using Tobin's Q, because according to Safitri & Fidiana (2014) one of the best information that can be used to measure market performance is Tobin's Q. The purpose of this study is to find out whether Sustainability report disclosures affect the company's financial performance, as well as to find out whether sustainability report disclosures affect market performance.

THEORY AND DEVELOPMENT OF HYPOTHESIS

Legitimacy theory is a theory that focuses on the interaction between a company, community and social environment (Ghozali and Chariri, 2007). Supported by the opinion of Safitri & Fidiana (2014) who said that legitimacy theory is a theory that provides an explanation that every company operates in an external environment that changes constantly and they try to ensure that their behavior is in accordance with the limits and norms of society. Another opinion also states that legitimacy theory is social media between companies and communities that operate in economic activities. Ghozali and Chariri (2007) the concept of social contact is that all organizations operate in the midst of society through social contracts - both explicit and implicit based on two things, namely: 1) the end result to a broad community; 2) benefits from economic, social or political aspects to groups according to the power they have.

Stakeholder theory is a theory that can give an insight to whichever side of the company responsible for the operations of his company (Freeman, 2010). The company must maintain its relationship with stakeholders by accommodating the wants and needs of stakeholders, especially stakeholders who have power over the availability of resources used for the company's operational activities, such as labor, markets, etc. (Chariri and Ghozali, 2007).

Stakeholders’ interests are considered very important for the company, therefore various efforts to provide satisfaction to stakeholders are carried out by the company, this is due to: 1) environmental issues that can interfere with the quality of life of the community, 2) the era of globalization that encourages trade in products that are environmentally friendly, 3) investors tend to choose companies that care about social environmental policies around
the company, and 4) a lot of criticism of companies that are less concerned about the environment by the community and NGOs and environmentalists (Dewi, 2015).

**Hypothesis Development:**

Information contained in sustainable economic dimension reports can ensure the potential of competitive capital resources with a low level of risk to stakeholders. Cahyandito (2010) in his research he found a result that reporting economic performance in sustainable reports has the potential to increase corporate transparency which will have an impact on increasing investor confidence and financial performance. This is confirmed by the results of Safitri & Fidiana's (2014) study showing a positive effect on financial performance. Based on the study above, the first hypothesis can be formulated as follows.

H1: Sustainability report disclosure has a positive effect on financial performance.

To be able to find out how the market value of the company, in this study the market performance in this study was measured using the Tobin ’s Q, ratio this ratio can be used to see a reflection of the company's market conditions in the future. In a condition when the company has a value greater than the previous base value, the company can have a fee to increase the company's financial condition again, and profit is also likely to be obtained. Based on Tobin's thinking that the inventor of the formula called Tobin'Sq, said that the incentive to make new investment capital is high when securities (stocks) that provide future benefits can be sold at prices higher than the investment costs Safitri & Fidiana (2014). In research, especially in the economic field, most research uses Tobin's Q as a value-added measure of "Marginal Q" to explain a company's investment decision, which is based on profit margins. Companies with high disclosure values sustainability report will have a more positive market reaction compared to companies with low disclosure quality. This is supported by the research of Safitri & Fidiana (2014) which shows that sustainability reporting has a positive effect on financial performance. Based on the study above, the first hypothesis can be formulated as follows.

H2: Sustainability report disclosure has a positive effect on market performance.

**METHODS OF RESEARCH**

This research is quantitative research, with a population of companies listed on the IDX (Indonesia Stock Exchange) which publishes sustainability reports in 2014-2016. Researchers use the data obtained through www.idx.co.id and on the web of each company. Researchers used purposive sampling method in the selection of samples, with the following criteria: 1.) Publish annual reports completeduring 2014-2016; 2.) Publish sustainability reports or disclose other social responsibility information in 2014-2016; 2.) Having complete data related to the variables used in the study; 3.) Companies that publish financial statements for seven consecutive years 2014-2016.

The dependent variable is financial and market performance. Financial performance is measured using ROA proxy, ROE, Current Ratio, and market performance measured by Tobin's Q.. The following is the formula used to measure ROA.

\[
\text{Return On Assets} = \frac{\text{After - Tax Net Income}}{\text{Total Asset}}
\]

In this study the liquidity ratio used is the current ratio (CR) is a ratio that measures a company's ability to meet its short-term obligations to short-term creditors. Use of the current ratio in this study because if the company has current ratio a high, then it can be said that the company is also able to meet its short-term debt which indirectly indicates that the company also has good financial performance. Current ratio is calculated by dividing assets current with current liabilities. The current ratio can be formulated as follows (Safitri & Fidiana, 2014).

\[
\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}
\]
Return on Equity (ROE) is one of the proxies of financial ratios of profitability from the shareholders' point of view, this ratio is a ratio that shows the company's ability to generate profits with its own capital, so that there is ROE which refers to the profitability of its own capital. Return on Equity is a financial analysis tool to measure profitability. The greater ROE reflects the company's ability to generate high profits for shareholders. Then the formula for calculating ROE is:

\[
\text{ROE} = \frac{\text{Net Profit}}{\text{Total Own Capital}} \times 100\%
\]

In this study the market performance ratio with Tobin's Q. Tobin's Q is the ratio used to find out how much the performance measurement by the company. Tobin's Q is the ratio used to assess the extent to which the market assesses a company from aspects seen by outsiders including investors. The following is the formula for measuring Tobin's Q (Safitri & Fidiana, 2014).

\[
\text{Tobin's Q} = \frac{(\text{MVS} + D)}{\text{TA}}
\]

Where: MVS = Market Value of all outstanding shares; D = Debt; TA = Total Assets.
Debt is the amount of the market obligation value, where this value can be calculated using the following equation:

\[
D = (\text{AVCL} - \text{AVCA}) + \text{AVLD}
\]

Where: AVCL = Accounting Value of the firm's Current Liabilities (Short Term Debt + Taxes Payable); AVCA = Accounting value of the firm's Current Assets (Cash + Account Receivable + Inventories); AVLTD = Accounting Value of the firm's Long Term Debt (Long Term Debt).

In this study the independent variables used are sustainability report. This variable is measured through the Sustainability report Disclosure Index (SRDI). Sustainability report is a report disclosed by the company relating to social activities carried out by the company covering several themes: Economic, Environmental, Human Rights, Labor Practices & Decent Work, Society and Product Responsibility (GRI-G4 Guidelines). After being measured using SRDI calculations, then give a score of 1 if the item is disclosed and 0 if not disclosed as an assessment. After being scored on all items, the score is then added to get the overall score for each company. RSDI calculation formula is as follows (Safitri & Fidiana, 2014)

\[
\text{SRDI} = \frac{V}{M}
\]

Where: SRDI = Sustainability report Disclosure Index Company; V = Number of Items Disclosed by the Company; M = Number of Items Expected.

SRDI that has been calculated is then grouped based on the extent of its disclosure that is by dividing the company based on the level of disclosure into 3 levels. The three groups are the level of disclosure level: low is 1, is rated 2 and high with value 3. The technique used in testing hypotheses is the Manova test. Manova is a technique for measuring differences between two or more dependent metric variables based on a categorical (nonmetric) variable that acts as an independent variable. According to Ghozali (2007), manova is a statistical technique used to calculate the significance of differences between groups for two or more dependent variables. This technique is useful for analyzing variables depending on more than two intervals or ratios. By using the sig level (\(\alpha = 5\%\)), if the results obtained are less than the specified significance (\(\alpha = 5\%\)) then the independent variable has a significant effect on the dependent variable.
RESULTS AND DISCUSSION

Researchers tested the hypothesis using the Between-Subjects Effect manova test. Independent variables can be said to affect the dependent variable, if the results of the Between-Subject Effect test is obtained with a significant value < 0.05, and vice versa if the results of the Between-Subject Effect test is obtained with a significant value > 0.05, then the independent variable has no effect on dependent variable. Following are the results of hypothesis testing:

Table 1 – Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th></th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
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<tbody>
<tr>
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<td>.022</td>
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<td>.454</td>
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<td>5.409</td>
<td>.005</td>
<td>.051</td>
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<td>0.258</td>
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<td>.987</td>
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<td>96.235</td>
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<td>.000</td>
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<td>.991</td>
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<tr>
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<td>Tobin'sQ</td>
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<td>.374</td>
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<tr>
<td>Current</td>
<td>41.035</td>
<td>2</td>
<td>20.518</td>
<td>11.138</td>
<td>.000</td>
<td>.099</td>
<td>22.277</td>
<td>.991</td>
</tr>
<tr>
<td>Ratio</td>
<td>2680.540</td>
<td>2</td>
<td>1340.270</td>
<td>5.409</td>
<td>.005</td>
<td>.051</td>
<td>10.818</td>
<td>.841</td>
</tr>
<tr>
<td>SRDI</td>
<td>5030.430</td>
<td>203</td>
<td>.015</td>
<td>247.785</td>
<td>.160</td>
<td>.135</td>
<td></td>
<td>.143</td>
</tr>
<tr>
<td>ROE</td>
<td>52980.971</td>
<td>205</td>
<td>.006</td>
<td>32,696</td>
<td>.006</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobin'sQ</td>
<td>32,696</td>
<td>205</td>
<td>.006</td>
<td>32,696</td>
<td>.006</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .022 (Adjusted R Squared = .012)

In table 3, the results of the Between-Subjects Effect test show that the significance value of return on assets (ROA) is 0.109. And the significance value of the current ratio is 0.000. As well as return on equity (ROE) of 0.005. While the significance value of Tobin's Q is 0.568. Based on the significance value of the Between-Subjects Effect test results it can be seen that the dependent variable has a significance value <0.05 is ROE and Current Ratio.

This shows that financial performance is influenced by good sustainability report disclosure measured by return on equity (ROE) and current ratio (CR). However, in terms of market performance shows that market performance as measured by Tobin's Q does not affect the sustainability report disclosure.

To be able to see the direction of the influence of sustainability report disclosures on financial performance and market performance, it can be seen from the results of the post hoc test. Post hoc test is also used to determine the significant differences between the dependent variables in each category of independent variables. In this Post hoc test using the Turkey HSD model, the following:
Table 2 – Multiple Comparisons

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval Lower Bound</th>
<th>95% Confidence Interval Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>Tukey HSD</td>
<td>Level 1</td>
<td>Level 2</td>
<td>-1.0907</td>
<td>.80929</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 3</td>
<td>Level 1</td>
<td>-0.0107</td>
<td>.79100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 1</td>
<td>Level 3</td>
<td>1.0907</td>
<td>.80929</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 2</td>
<td>Level 1</td>
<td>1.0800*</td>
<td>.22933</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 2</td>
<td>Level 3</td>
<td>1.0107</td>
<td>.79100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 3</td>
<td>Level 1</td>
<td>1.0800*</td>
<td>.22933</td>
</tr>
<tr>
<td>ROE</td>
<td>Tukey HSD</td>
<td>Level 1</td>
<td>Level 2</td>
<td>1.5422</td>
<td>9.38624</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 3</td>
<td>Level 1</td>
<td>-7.0764</td>
<td>9.17406</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 1</td>
<td>Level 3</td>
<td>-1.5422</td>
<td>9.38624</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 2</td>
<td>Level 3</td>
<td>-8.6186</td>
<td>2.65981</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 3</td>
<td>Level 1</td>
<td>7.0764</td>
<td>9.17406</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level 2</td>
<td>Level 2</td>
<td>8.6186</td>
<td>2.65981</td>
</tr>
</tbody>
</table>

Source: SPSS data processed.

Post hoc test, sustainability report disclosures have been made based on ranks from 1 to 3. The higher the ranking shows the higher sustainability report disclosure in a company. Post hoc test results in table 4 above show financial performance on the proxy return on equity (ROE) & current ratio (CR) of each SRDI category. In terms of financial performance on the proxy current ratio (CR) of each SRDI category. This significant difference can be seen in level 2 SRDI disclosure with level 3 which shows a significance value of 0.000. Judging from the difference in average current ratio (CR) of each ranking shows that in categories 2 and 3 shows the difference of 1.0800 which means the current ratio (CR) in rank 2 is higher than 3, so it can be concluded that the sustainability report disclosure negative effect on the company's financial performance measured by the current ratio (CR).

On the ROE side, this significant difference can also be seen in level 2 SRDI disclosures with level 3 which shows a significance value of 0.004. Judging from the difference in average return on equity (ROE) from each ranking shows that in categories 2 and 3 shows a positive result of 8.6186, which means that return on equity (ROE) in rank 3 is higher than 2. Judging from the proxy current ratio (CR), the significance difference can be seen in Level 1 and level 2 SRDI disclosures that show a significance value of 0.000. Judging from the difference in average current ratio (CR) shows

DISCUSSION OF RESULTS

The results of the data processing as listed in table 3 in the Between-Subject Effect test, shows that financial performance is influenced by sustainability report disclosure both measured by ROE and CR. In this study shows that the significance level of ROE is 0.005, while for CR is 0.000. The significance level used in this study is <0.05. Because the significance value of ROE and CR in this study <0.05 so that the sustainability report disclosure means that it affects the financial performance. But on the other hand these results also show that the financial performance of the ROA proxy is not affected by the sustainability report disclosure. So it can be concluded that the sustainability report disclosure does not affect financial performance.

The results of the Past Hoc Test on the ROE proxy generate a difference in the level of significance, the value of the significance difference can be seen in the level 2 SRDI disclosure with level 3 which shows a significance value of 0.004. Judging from the average difference in return on equity (ROE) shows a positive result of 8.6186, which means that return on equity (ROE) in rank 3 is higher than 2. Judging from the proxy current ratio (CR), the significance difference can be seen in Level 1 and level 2 SRDI disclosures that show a significance value of 0.000. Judging from the difference in average current ratio (CR) shows
the difference of 1.0800 which means the current ratio (CR) in rank 1 is higher than 2, so that means that sustainability report disclosure has a positive effect on the company's financial performance as measured by ROE, and negative effect on the company's financial performance measured by the current ratio (CR).

The results of this study are reinforced by the research of Sejati & Pratiwi (2015) which states that there is a significant positive relationship between social performance and company performance. Burhan & Rahmanti (2012) also stated that liquidity (current ratio) does not have a positive relationship with the quality of disclosure of voluntary interest in public companies in Indonesia. Disclosure of sukuk is a form of additional reporting carried out by the company for the formation of corporate image as well as the disclosure of social and environmental information through the sustainability report. The same thing was also obtained by Burhan & Rahmanti (2012) that the liquidity variable does not affect the completeness of both mandatory and voluntary reporting reported by the company, reinforced by the research of Ramadhani (2016) which states that sustainability performance does not affect the profitability of the company.

The results of the data processing in the Between-Subject Effect test, shows that market performance is not influenced by sustainability report disclosures either measured by Tobin's Q. In this study shows that the level of significance of Tobin's Q is 0.568. The significance level used in this study is <0.05. Because the value of Tobin's significance in this study> 0.05 so that means that it can be concluded that sustainability report disclosure does not affect the market performance.

This is probably due to the fact that the company that publishes sustainability report is not consistent every year, besides that not all companies listed on the BEI issue sustainability reports so that the company that publishes sustainability reports consistently every year is still relatively small. Besides that because of the unavailability of data that is on the company's web, sometimes the company's web cannot be accessed, sometimes the company's web is also an error. In this case there are also several companies that publish sustainable reports but not based on the GR4 index. Based on this, there are several reasons why there is no significance to the results of the research.

The results of this study are supported by the research of Gordon, Lockwood, Schirmer, Vanclay, & Hanson (2013) which examined in two countries, namely in Australia and New Zealand, the results of their study stated that sustainability reporting disclosures carried out by companies in Australia affect abnormal returns, but when in the same case this research was carried out with a sample of companies in New Zealand, the results had no effect.

CONCLUSION

Conclusion of this study as follows, sustainability report disclosure has a significant positive effect on financial performance on ROE and Current Ratio proxies, while the ROA proxy shows the results of no significant influence. So that the first hypothesis proposed in this study is not proven. The results in the Between-Subject Effect test show that ROE and current ratio get significant results. In the post hoc test, ROE shows that ROE has a positive effect while the current ratio has a negative effect. that means that sustainability report disclosure does not have a significant positive effect on the company's financial performance. These results are also supported and reinforced by research Susanto and Tarigan (2013) stated that environmental performance is positively related but not significant to financial performance in terms of profitability ratio.

The second hypothesis shows the results that sustainability reporting has no significant positive effect on market performance. This is probably due to the fact that the company that publishes sustainability report is not consistent every year, besides that not all companies listed on the BEI issue sustainability reports so that the company that publishes sustainability reports consistently every year is still relatively small. Besides that because of the unavailability of data that is on the company's web, sometimes the company's web cannot be accessed, sometimes the company's web is also an error. In this case there are also several
companies that publish sustainable reports but not based on the GR4 index. Based on this, there are several reasons why there is no significance to the results of the research, and reinforced by research Ramadhani (2016) which states that sustainability performance does not affect the profitability of the company.

REFERENCES

THE INFLUENCE OF PSYCHOLOGICAL EMPOWERMENT ON THE WORK EXHAUSTION AND EMOTIONAL INTELLIGENCE

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ABSTRACT
This research aims to determine the effect of psychological empowerment on the work exhaustion and emotional intelligence on the tour guide in Nusa Tenggara Barat Province, one of the provinces with the highest tourism income in Indonesia. The type of this research is explanatory research with a sample of 150 tour guides, taken from 653 people using stratified proportionate random sampling technique. The data analysis uses two analyses, namely descriptive with the help of SPSS version 20.0 and inferential analysis with Generalized Structured Component Analysis (GSCA). The result of this research shows that there is a negative significant influence between psychological empowerment on the work exhaustion. There is a positive significant influence between psychological empowerment on the emotional intelligence, and there is no significant and negative influence between work exhaustion on the emotional intelligence.

KEY WORDS
Psychological empowerment, work, exhaustion, emotional intelligence; tour guides.

Nusa Tenggara Barat (NTB) Province of Indonesia is one of the strategic tourism destinations. It is usually called as golden triangle of tourist destination in which Bali represents the West region, Sulawesi with Tanah Toraja represents the North region and Komodo Island represents the East region. NTB province has its own advantage, seeing the NTB’s position which is adjacent to Bali because it is considered as the tourism paradise for foreign or domestic visitors. This, in turn, will be very beneficial to the NTB. The provincial government of NTB places tourism as the second priority after agricultural sector in a broad sense and establishes 15 potential areas that can be developed as the tourism area, nine in the Lombok Island, and six in the NTB province. The natural beauty and charm of the tourism in NTB will be more interesting by enhancing the soul of tourism because the hospitality played by the tour guides becomes one of the strong reason for the tourist to visit NTB.

The tourist guide is a profession that is closely related to tourism, it has an important role in realizing the success of the regional tourism program. The reason is that tour guide becomes the spread head that is directly opposite with the tourist or guest. The passion for tourist guide phenomenon in NTB in the training of tourist guide competence and to obtain the license since 2012 is higher compared to the previous year. The tourist guide in 2011 amounted to 220 people and almost 50% have not attended the standard training of the tour guide and most of them have not obtained the official permit as tour guide from the authorized agency (“Hampir 50 Persen”, 2012). In 2014, there are many tour guides who have attended the standard training of tourist guide and there were about 563 people who have obtained a license to be a tourist guide. This shows that his or her work as tourist guide is intrinsic motivational that can reduce the sense of incompetence and strong self-control that allow the tourist guide to be able to survive and behave in line with their profession. Spreitzer (1995) refers to it as the psychological empowerment. The survey study related to psychological empowerment has also been conducted by Kong, Cheung & Baum (2009) where the result published by Journal of China Tourism Research. The research identifies the profile of tourist guide’s skills in order to face the rapid development of tourism in China. This result of the research concludes that education and standard training factors need to improve as these two factors give the contribution to enriching the knowledge and skills of the tourist guide to serve the guest with a high quality of service.
The Head of Regional Representative Council (DPD) of the Indonesian Tour Guide Association (HPI) of NTB province and Association of Indonesian Tours and Travel Agencies (ASITA) of NTB province conclude that although there is a significant improvement in the tour guide’s awareness to attend standard training of tourist guide competence and licence ownership, but the comparison between the tourists visit and the existence of tour guide is not equal. On the one hand, this is caused by the number of tourists visiting the NTB province which keeps increasing every year. On the other hand, the number of tourist guides who serve the tourist is not increased. The number of foreign tourists who visit NTB province in 2014 amounted to 69,881 people (BPS, 2015). But the number of tourist guides who serve these foreign tourists in NTB province was only 653 people (BPD HPI NTB, 2014). The gap will be more visible during high season. This can trigger low-quality service given by the tourist guides due to lack of human resources, affecting the occurrence of overwork and ultimately can trigger the occurrence of work exhaustion (Perewe, et al. 2002).

In addition, it can also affect the emotional intelligence of the tour guide. Considering that the tour guide is required to be able to master and manage himself in carrying out the tour as well as possessing the ability to build a good relationship with other people (Meyer, et al. 2004). Daniel Goleman called this ability as emotional intelligence. Goleman (2000) through his research state that emotional intelligence accounts for 80% of the determining factor for someone’s successful life, meanwhile the other 20% is determined by IQ (Intelligence Quotient).

Spreitzer (1995) states that the psychological empowerment is the way people look at themselves in the working environment and the degree to which they feel capable of forming the job role. Conger & Kaungo (1988); Thomas & Velthouse (1990); and Spreitzer (1995) state that psychological empowerment can be understood as the multi-construction consisting of: (1) Significance (the compatibility between the demand of a work role and someone belief, value, and behavior), (2) Competence (someone’s belief of her or his own ability to do something specific in the work or the belief of his or her own ability to do the work creatively), (3) Self-determination (the belief that she or he has the chance to choose in order to start and manage the action), and (4) Impact (the extent to which a person can affect the outcome generated from his or her work). Meanwhile, Schaufeli, Maslach & Marek (1993) argue that empowerment is related to the workload, the excessive workload can be one of the factors from a work which in the end affect the occurrence of work exhaustion. In addition, Jenskins (1996) argues that the importance of empowerment enables people to do things they previously could not do, including the ability in recognizing self-emotion, managing self-emotion, motivating oneself, recognizing the emotion of other people, and the ability to be able to foster the influence with others. Goleman (2000) calls it as emotional intelligence.

Several studies have been conducted on the psychological empowerment, especially in developed countries in America and Asia (Chow, et al. 2005; Tutar, Altinoz & Altinoz, 2010; Sarwar & Khalid, 2011; dan Meyerson & Dewettinck 2012). The construct that has been developed by the researchers show the improvement and strengthen the theoretical concept from Thomas & Velthouse (1990); and Spreitzer (1995). Survey research on the effect of empowerment and work exhaustion previously done by some researchers such as Yagil (2006) who found that the overall empowerment construct has significant negative impact on the work exhaustion including emotional exhaustion, depersonalization, and the declining of personal performance. On the other hand, Greco, et al. (2006) show that the overall construct in the empowerment has significant positive effect on the work exhaustion. Alam (2010) has conducted a hypothesis test in which the result shows that construct in the empowerment has no significant influence on the work exhaustion. However, Alam (2010) has conducted preposition test of the effect of psychological empowerment on the emotional intelligence, where it is successfully proven that psychological empowerment has significant positive influence on the emotional intelligence. Thomas, et al. (2012) proposes a positive and significant influence between emotional exhaustion and emotional intelligence. Furthermore, there is also significant positive influence between depersonalization and emotional intelligence. There is also a significant positive influence on the personal
achievement and emotional intelligence. Based on that, Thomas, et al. (2012) concludes that work exhaustion has significant positive influence on the emotional intelligence.

It is important to conduct this research because the competitiveness of human resources will be able to affect the quality of the service and the main component of tourism lies in the quality of service. This has been proven by Vucetic (2012) in a field research by using 30 travel agents as samples taken from 54 population of travel agents in Montenegro, concluding that the quality of a service given by the human resources determines by the competitive advantage present within the human resources itself. The competitive advantage of tour guide can be determined from their belief to carry out a guiding task reflected from the psychological empowerment which is a reflection of the empowerment where the perception focus lies within oneself and most felt by the tour guides. On the other hand, the level of work exhaustion and emotional intelligence are important matter closely related to the implementation of qualified hospitality activity.

Based on the narration, this research intends to investigate whether (1) psychological empowerment significantly affects work exhaustion, (2) psychological empowerment has a significant effect on the emotional intelligence, and (3) work exhaustion has a significant effect on the emotional intelligence.

LITERATURE REVIEW

Psychological Empowerment. Theories that have been stated become the reference of this study because of its proximity to the fact and reality in the tour guide environment. Thomas & Velthouse (1990) and Spreitzer (1995) report that psychological empowerment is understood as multi-dimensional construct consisting of four indicators: meaning, competence, self-determination, and impact. If all four indicators are incorporated, they will form the overall construct of psychological empowerment, or in other words, if one of the indicators does not exist, the psychological empowerment will not reach its maximum capacity. Furthermore, Spreitzer (1996) describes empowerment as a way of looking at themselves in the work environment and the extent to which someone is able to form his or her work role. Jenskins (1996) argues that the importance of empowerment enables people to do things they previously could not do, including the ability to overcome work exhaustion. Empowerment enables tour guides to grow their confidence to be able to handle problems, either issue relating to the patient or relating to the organization or surrounding community. Brancato (2003) argues that the improvement on the empowerment can decrease the work exhaustion experienced in the workplace. The reason is that empowerment enables people to actively utilize their skills, knowledge, and capability.

Empowerment is also understood as a multidimensional construct consisting of four cognitions in which these cognitions reflect how the individual’s orientation on his or her work. These four cognitions are meaning, competence, self-determination, and impact. Meaning is a value of an object for the individual, competence means the individual belief on his ability to fulfil the work demand, self-determination means autonomy or control over the behavioural processes in his or work, impact means the degree to which an individual able to influence the result created by his work (Spreitzer, 1996). In summary, empowerment is the degree to which an individual can actively influence the work role and work context (Daniels and Guppy 1994).

Work Exhaustion. Bhanugopan & Alan (2006) said that workers who have experienced work exhaustion would also experience mental exhaustion, loss of commitment, emotional exhaustion, and also decreased motivation over time. Baron & Greenberg (2008) state that work exhaustion has four indicators consisting of physical exhaustion, emotional exhaustion, and mental exhaustion as well as lack of self-appreciation. Physical exhaustion is lack of energy in a person by feeling exhausted in a long period of time and show physical complaints such as a headache, nausea, insomnia, and changes in appetite expressed with less passionate in his or her work, more mistakes are made, feel the pain even when there is no physical abnormality (Baron & Greenberg 2008). Emotional exhaustion is an indicator of the condition of work exhaustion in the form of emotion as a result of excessive
psychoemotional demands marked by loss of feeling and attention, trust, interest, and enthusiasm (Pines & Aronson, 1989). Someone who experiences certain mental exhaustion will feel empty, tired and can no longer overcome the demands of his or her job. The lack of self-esteem is an indicator of the lack of self-actualization, lack of work motivation and the decreased of self-confidence. This condition is often seen in a tendency of low achievement of the worker (Cordes & Dougherty, 1993; dan Maslach, 2001).

Maslach (1982) implicitly acknowledges the existence of factors supporting the creation of work exhaustion in the workplace where interaction between the provider and recipient of the service are causing the physical exhaustion. In addition, the analysis is required in order to assess individual factors in the service provider who has contributed to the occurrence of work exhaustion. Thus, the occurrence of work exhaustion is not solely due to stress but also by the presence of individual characteristics, work environment, and emotional involvement with the recipient of service.

*Emotional Intelligence.* After being published by Goleman back in 1995, emotional intelligence became one of popular topic conversation in the American companies. Goleman (2003) states that emotional intelligence is a capacity in recognizing the emotions of oneself and others, in motivating oneself and managing our own emotion well or in the relationship with the environment. Goleman (2003) states more explicitly that emotional intelligence is additional ability owned by someone in self-motivation, resilience in facing the failure, controlling the emotion and delaying the satisfaction as well as managing the soul. Someone will be able to locate his or her own emotion in appropriate portion, having self-satisfaction and managing her or his own mood through emotional intelligence. Cooper & Sawaf (2002) define emotional intelligence as the ability to feel, understand, and selectively apply the emotional power and sensitivity as the source of the human energy and influence. Emotional intelligence demands the owner of the feeling to learn how to recognize and appreciate emotion of oneself and others as well as respond appropriately, applying the emotion selectively in the everyday life. Emotional intelligence is not enough by having only the emotion. Sala (2005) states that there are two sides of emotional intelligence namely the intelligence of understanding the emotion and adding the creativity and intuition in the logical mind.

According to Goleman (2003), emotional intelligence can be defined as self-awareness, self-confidence, self-mastery, commitment, and integrity of a person, and one's ability to communicate, influence, initiate change and accept it. On other words, Goleman (2000) explains that emotional intelligence is divided into five main areas, namely the ability to recognize self-emotion, manage the self-emotion, motivate oneself, recognize other people emotion, and the ability to build a relationship with other people. Mayer and Salovey (2004), state that emotional intelligence is the individual ability in using his or her emotion effectively to manage and influence the relationship with other people.

**Hypotheses:**
- \( H_1 \): Psychological empowerment has a significant effect on the work exhaustion;
- \( H_2 \): Psychological empowerment has a significant effect on the emotional intelligence;
- \( H_3 \): Work exhaustion has a significant effect on the emotional intelligence.

**METHODS OF RESEARCH**

The type of this research is explanatory research which explains the reciprocal relationship between independent variable and dependent variable through hypothesis testing that has been formulated previously. Nusa Tenggara Barat (NTB) Province is chosen as a research location because it is one of promising tourism destinations in Indonesia.

The population in this research are 563 tour guides in NTB province who have attended the standard competence of tourist guide with a license. The sample in this research is 150 tour guides determined using Stratified Proportionate random sampling, considering that the members of the population in this research are stratified.

The questionnaire is used as a data gathering tool, and its measurement scale uses the Likert scale because it can be used to measure attitude, opinion, and perception of
RESULTS AND DISCUSSION

Descriptive Analysis. Description of respondents in this study is grouped by gender, age, education level, marital status, license qualification level, work option status, and work period. The results of the description can be seen in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Respondents Description</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender - male</td>
<td>144</td>
<td>95.30</td>
</tr>
<tr>
<td>2</td>
<td>Age -- &gt;43-47 years old</td>
<td>144</td>
<td>95.30</td>
</tr>
<tr>
<td>3</td>
<td>Education level -- Senior High School</td>
<td>106</td>
<td>70.70</td>
</tr>
<tr>
<td>4</td>
<td>Marital Status -- Married</td>
<td>103</td>
<td>68.70</td>
</tr>
<tr>
<td>5</td>
<td>License qualification level -- Young</td>
<td>98</td>
<td>65.30</td>
</tr>
<tr>
<td>6</td>
<td>Preferred work status -- freelance</td>
<td>137</td>
<td>91.30</td>
</tr>
<tr>
<td>7</td>
<td>Work period -- &gt;15 years</td>
<td>53</td>
<td>35.33</td>
</tr>
</tbody>
</table>

There are four indicators used in forming the psychological empowerment variables in this study, among other: meaning, competence, self-determination, and impact. Meaning indicator ranks first in obtaining the average value, namely 4.53 because most of the respondents are strongly agree in responding the indicator. The respondents believe that what they feel is very appropriate for the real situation. The competency indicator ranks on the second place because it only has the average value of 4.50, this happens because respondents also strongly agree in responding the indicator. The impact indicator ranks on the third place because the respondents perceive it with an average value of 4.47. In the last sequence is the self-determination indicator responded by the respondents with an average value of 4.38. The average score of the four indicators in this psychological empowerment variable is based on the interpretation of values in a very high category. However, in order to obtain overall psychological empowerment, it is expected to increase self-determination.

Four indicators are used to form the work exhaustion variable. These four indicators are physical exhaustion, emotional exhaustion, depersonalization, and decreased personal achievement. The highest average value of depersonalization indicator is 4.05 because most of the respondents state that they strongly disagree. Decreased personal achievement indicator is in the second place because it is perceived not in accordance with the circumstance experienced by the respondents. Thus, it is perceived by the respondents with the average value of 4.02. Emotional exhaustion indicator ranks in the third place because it is perceived lower comparing to other indicators with the average value of 3.85. Physical exhaustion ranks in the fourth place because it is perceived lower comparing to other indicators with the average value of 3.79. This indicates that the last two indicators are perceived by the respondents in which as many as 14.00% respondents are hesitant, as many as 19.33% respondents agree, as many as 0.67% strongly agree. However, the average value of these two indicators is in the higher category if being interpreted. In order to reduce the work exhaustion, it is better to pay more attention to the circumstance of physical exhaustion and emotional exhaustion.
Five indicators used in order to form emotional intelligence variable, among others: self-awareness, self-regulation, self-motivation, empathy, and social skills. Self-motivation indicator is an indicator responded by the respondents with the highest average value of 4.42 because the respondents strongly agree that this indicator is similar to the condition they have experienced. The second order is occupied by self-regulatory indicator and social skills indicator that have the same average value of 4.39 because most respondents stated that they strongly agree, because the self-regulation and social skills are similar to the condition they have experienced. Self-awareness ranks in the third order because this indicator is responded by the respondents with an average value of 4.38. Furthermore, the last order is empathy indicator which is perceived lower than the four indicators used to form emotional intelligence variable with an average value of 4.34, because as much as 16.67% gave the choice of answers with hesitation. Thus, in order to obtain a complete emotional intelligence, it is expected that they have to increase the empathy.

Inferential Analysis. Before testing the influence between exogenous variables with endogenous variables using GSCA, it is necessary to do linearity assumption test. The linearity assumption test aims to know whether two variables have the linear relationship or not. If the result of assumption test is linear, it can be said that the testing using GSCA can be continued. Linearity relationship has a meaning that there is a direct relationship between exogenous variable and endogenous variable. It can be proven by comparing the significance level with 0.05. If the value of significance level <0.05, then the relationship is linear, but if the value of significant level> 0.05, then it is not linear. Based on the linearity test result conducted in this study on the existing variables, the researcher obtained a significant level of relationship between psychological empowerment variable and work exhaustion in the testing result. The significant linear model is 0.000 <0.05 and the value of significant level of the relationship between psychological empowerment variable and emotional intelligence variable from the test result is a significant linear model of 0.000 <0.0 and the value of significant level of relationship between work exhaustion variable and emotional intelligence variable is significant linear model of 0.000 <0.05.

Assessment of the latent variable measurement model in this study is conducted with GSCA with three criteria namely Convergent Validity, Discriminant Validity, and Composite Reliability. Based on the three criteria of measurement model assessment from the bootstrapping result using GSCA method, and the result of measurement model test against each item of a statement contained in each indicator reflects the latent variable. Assessment of psychological empowerment variable measurement model consists of four indicators with two items statement in each indicator. The meaning indicator consists of statement items, employment significance, and commitment to the profession. Competence indicator consists of statement items, capability in guiding and creating the profession quality. The self-determination indicator consists of statement items, problem-solving and the determining the ultimate compensation. The last one is impact indicator consists of statement items that affect the organization development and organization regulation. The root value of Average Variance Extracted (AVE) in the psychological empowerment variable is 0.513. The value of AVE= 0.513 > 0.50 which means that the instrument used in order to measure the latent variable regarding the psychological empowerment has good discriminant validity. Similarly, the value of Critical Ratio (CR)> 1.96 results indicates that the instruments used to measure psychological empowerment variable has appropriate composite reliability. In addition, the amount of value of estimate in weight obtained for each item. The point of the meaning of work is the item that can describe the psychological empowerment because the weight estimate value in the item is the largest among the eight existing items, which is equal to 0.238. Based on the critical point value obtained, the meaning of the work gives a significant influence on psychological empowerment variable because the critical point value obtained is 10.17 * at 95% confidence level. The alpha value generated on the psychological empowerment variable is equal to 0.861. If the value of Alpha = 0.861> 0.60 then all of the items contained in the psychological empowerment has met the criteria Composite reliability because it has a high compatibility, and reliability.
Based on the measurement scale used to measure the overall item in the psychological empowerment variable, which is the range of the scale starts from one to five which means very bad to very good. The average score of the overall items in the psychological empowerment variable is obtained based on this measurement scale. Observing the actual condition based on the questionnaire result, the average score on each item above is 4.20 including the highest category compliance with the circumstance experienced by the respondents. The overall existing indicators should be maintained because all of them are very good to be used to measure the psychological empowerment variable. Furthermore, for the assessment of structural model and hypothesis testing, from the eight items on the psychological empowerment variable, the researcher chose few items that will represent the indicators. The items are chosen based on the largest weight estimate value owned. In this case, there are four items used to assess the structural model and hypothesis testing namely the item about the meaning of work, capability in guiding, problem-solving, and influencing the development of the organization.

Assessment of work exhaustion variable measurement model consists of four indicators with two items statement in each indicator. The indicator of physical exhaustion consists of the statement of physically helpless, and the decreased of work enthusiasm. The emotional exhaustion consists of the psychologically helpless statement and the boredom of working. The depersonalization indicator consists of the ignorant statement, and not caring about the interest of others. The indicator of the personal achievement decline consists of the statement of inability to solve the problem and to be awarded. The Average Variance Extracted (AVE) root value of 0.618. The AVE value \( = 0.618 >0.50 \) means that the instrument used to measure the latent variable regarding work exhaustion has good discriminant validity. Similarly, the result of Critical Ratio (CR) value \( >1.96 \) this shows that the instrument used in order to measure the work exhaustion variable has appropriate composite reliability. Furthermore, the amount of the estimated value of the weight is obtained for each item of the statement. The responded statement item least appropriate with the respondents' circumstance is not caring about the interest of other. Thus, this item can describe work exhaustion better because the value of weight estimate in the item is the largest compared to the other eight existing items amounted to 0.231. Similarly, the value of critical point obtained, not caring on the interest of others gives the significant influence on the work exhaustion variable because the value of critical point obtained amounted to 13.33* is significant at the 95% confidence level. Alpha values generated on work exhaustion variable on work exhaustion variable has met the Composite reliability criteria, due to their high compatibility and reliability.

The measurement used to measure the overall items in the emotional intelligence variable which is the range of the scale starts from one to five which means very bad to very good. It is found that the average score of the overall indicator is above 4.20 in the very high category for the incompatibility with the situation experienced by the respondents. The overall existing indicators should be maintained because all of them are very good to be used to measure the emotional intelligence variable. Furthermore, for the assessment of structural model and hypothesis testing, from the tenth items on the emotional intelligence variable, the researcher chose few items that will represent the indicators. The items are chosen based on the largest weight estimate value owned. In this case, there are four items used to assess the structural model and hypothesis testing namely the item about deciding what to do, express the emotion appropriately, enthusiasm to achieve better, understand other people in facing the issue and communicate well with a related institution.

The overall model testing in this research uses goodness-of-fit criteria from GSCA, resulting in the value of fit mode: structural and overall model seen from the value of FIT, AFIT, GFI, and SRMR. Based on the data processing using GSCA the result can be seen in Table 2.

Based on the data in Table 2 about the Evaluation of Goodness-of-fit Model: Structural and Overall Model, it can be explained that FIT is a total variant of the overall analyzed variables. The value of FIT in the data processing has the value amounted to 0.562 which means that the model formed in this research can describe all of the analyzed variables as
many as 56.20%. The diversity of the psychological empowerment, work exhaustion, emotional intelligence can be explained by the model as many as 56.20% while the remaining 43.80% is explained by another variable outside the model of this research. Considering that the value of FIT amounted to 56.20% it can be concluded that the model in this study has a fairly good model accuracy.

Table 2 – Evaluation of Goodness-of-fit Model: Structural and Overall Model

<table>
<thead>
<tr>
<th>No</th>
<th>Fit Model</th>
<th>Fit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FIT</td>
<td>0.562</td>
</tr>
<tr>
<td>2</td>
<td>AFIT</td>
<td>0.554</td>
</tr>
<tr>
<td>3</td>
<td>GFI</td>
<td>0.990</td>
</tr>
<tr>
<td>4</td>
<td>SRMR</td>
<td>0.090</td>
</tr>
</tbody>
</table>

Furthermore, AFIT (Adjusted FIT) is similar to $R^2$ adjusted in the regression analysis. The value of AFIT amounted to 0.554 is the adjusted of FIT similar to the value of FIT. The value of AFIT amounted to 0.554 is means that the model formed in this research can be explained by all of the analyzed variables as many as 55.40%. The diversity of the psychological empowerment, work exhaustion, emotional intelligence can be explained by the model as many as 55.40% while the remaining 44.60% is explained by another variable outside the model of this research. Considering that the value of AFIT is larger than 50% it can be concluded that the model in this study has a fairly good model accuracy. Both GFI and SRMR are proportional to the difference between the sample covariance produced by the GSCA parameter estimation. The value of GFI amounted to 0.990 > cut-off point 0.90 which means that model formed in this research is said to be appropriate or good because the value of SRMR is smaller than 0.1 or 0.090 <0.1.

Based on the above description, it can be concluded that the complexity of the model contained in this study is able to explain 56.40% variance data that has been corrected, and it also shows appropriate or good fit model indicated by GFI = 0.990 and SRMR = 0.090 which is close to the value of 0.

Based on testing of structural model and hypothesis on the basis of the estimated value of path coefficient regarding the direct influence between the variable of psychological empowerment to work exhaustion variable. 2) Testing of structural model and hypothesis on the basis of estimation of path coefficient about direct influence of the psychological empowerment variable to emotional intelligence variable, and 3) Testing of structural model and hypothesis based on estimation value of path coefficient about direct influence of work exhaustion variable to emotional intelligence variable. Test results can be seen in Table 3.

Table 3 – Path Coefficient of Direct Effect and Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationships Between Variables</th>
<th>Path Coefficients</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁</td>
<td>Psychological Empowerment → Work Exhaustion</td>
<td>-0.270 0.087 3.10</td>
<td>Significant</td>
</tr>
<tr>
<td>H₂</td>
<td>Psychological Empowerment → Emotional Intelligence</td>
<td>0.460 0.068 6.73*</td>
<td>Significant</td>
</tr>
<tr>
<td>H₃</td>
<td>Work Exhaustion → Emotional Intelligence</td>
<td>-0.030 0.072 0.41*</td>
<td>Non-significant</td>
</tr>
</tbody>
</table>

Table 3 provides an overview of the direct path coefficient estimation value of each research variable, such as the relationship of psychological empowerment with work exhaustion, and the relationship of psychological empowerment with emotional intelligence, as well as the relationship of work exhaustion with the emotional intelligence. For the purpose of testing the research hypothesis, we use the value of Critical Ratio (CR) in which the results obtained by processing through GSCA.

The discussion regarding the influence of psychological empowerment on the work exhaustion is the answer of the problem formulation and hypothesis of the second research (H₁) which states that the psychological empowerment has a significant influence on the work exhaustion. The result of analysis on structural model with GSCA method shows that
psychological empowerment has significant and negative effect on work exhaustion, based on the result of data in Table 2, the estimated value of the path coefficient of -0.270 with negative direction, and critical point value (CR) equal to 3.10* at the confidence level of 95%. This means that the higher the level of psychological empowerment experienced by the respondents, the lower the work exhaustion will be experienced by the respondents.

The finding from the empirical study shows that the perception of the respondents on the psychological empowerment variable, mainly the meaning indicator, and the competence indicator have a very high value because the scores of the two indicators are mostly rated with the score 4, and score 5 so that the value of average score of meaning indicator amounted to 4.53 and competence indicator amounted to 4.47 which is above or equal to the average value of the score from the overall indicators in the psychological empowerment variable amounted to 4.37. This indicates that the respondents realistically feel the value of meaning of the tour guide profession in his or her life, and they also feel that the competence owned greatly support the activity of serving the guests.

This study found that the influence of psychological empowerment inversely proportional to work exhaustion, namely the higher the level of psychological empowerment felt by the respondents, the lower the level of work exhaustion they have experienced. This can happen because the results of a descriptive study in this research show that most of the people who have decided to do this tour guide profession are mostly male amounted to 95.30% and the remaining percentage is women amounted to 4.70%. It is known that the tour guide profession has a specific characteristic such as unique, dynamic, and challenging. Thus, it requires physical endurance and mental strength. Men usually have a stronger physical endurance than women. On the other hand, men prefer to use logical thinking rather than emotion. This indicates that men will able to control work exhaustion he has to experience.

The second reason can be explained by the result of a descriptive study in this research. The age of the respondents are mostly above 43-47 years old amounted to 23.33%. The age of development is called as middle age by Santrock (2003) because at this age phase people will have mental, emotional, social and very productive maturity. It means that people at the age above 43-47 years old will be able to manage the job he is pursuing seriously with a strategic method in order to decrease the work exhaustion he has to experience. The third reason is based on the result of a descriptive study in this research, regarding the work period of the respondents, respondents who have worked for 15 years amounted to 28.70%, and generally, the respondents with this work period have broad insight, skillful and experienced in providing the service. This shows that a tour guide with rich experience, adequate skills, and broad insight will certainly know how to overcome the level of work exhaustion he or she has to experience. The fourth reason, when observing from the marriage status of respondents most of them are married which amounted to 68.70%. People who have been married are generally not too concerned about the work exhaustion he has to experience because psychologically speaking he has a family that becomes his responsibility. Thus, he will be more focused and serious in carrying out the work in order to obtain adequate income and to support his children and wife.

Based on the description, the result of this research is different than the theory conveyed by Schaufeli, Maslach & Marek (1993) concerning the excessive workload that can be one of the factors for work exhaustion. The result of this research is also different with the Santrock (2003) theory, he states that if someone is assigned to excessive work continuously, it will cause a burnout for the assigned person due to the overload emotion of the physical and mental exhaustion which is also the accumulation of stress in a long period of time. However, the research result confirms and expands the research result conducted by Yagil (2006) concerning “The relationship of service provider power motivation, empowerment, and burnout to customer satisfaction”. The research result conducted by Yagil shows that empowerment is negatively correlated with burnout, including emotional exhaustion, depersonalization, and decreased personal achievement, meaning that the higher the perceived empowerment, the lower the burnout will be.
This research result also confirms and expands the finding of research conducted by Alam (2010), in which Alam finds that the empowerment has no significant influence on the work exhaustion. It means that even if the respondents in the research feel empowered, but she or he cannot increase or decrease the exhaustion directly. However, this research result can be different comparing to the research result conducted by Greco, et al. (2006) on Leader empowerment behaviors, staff nurse empowerment and work engagement/burnout in Ontario Canada. The finding of the Greco, et al. (2006) research shows that empowerment has a positive influence on the involvement, and it has a significant positive effect on work exhaustion.

The discussion regarding the influence of psychological empowerment on the emotional intelligence is the answer of the problem formulation and hypothesis of the third research (H2) which states that the psychological empowerment has a significant influence on the emotional intelligence. The result of analysis on structural model with GSCA method shows that psychological empowerment has significant and positive effect on emotional intelligence, based on the result of data in Table 3, the estimated value of the path coefficient of 0.460 with positive direction, and critical point value (CR) equal to 6.73* at the confidence level of 95%. This means that the higher the level of psychological empowerment experienced by the respondents, the higher the emotional intelligence that will be experienced by the respondents or tour guides in NTB province.

This study shows that psychological empowerment can run optimally according to the expectations of the tour guides in NTB province, because the overall indicators from the description of the psychological empowerment variables based on the statement points in the overall existed indicators are perceived with strongly agree (score 5) by the respondents, especially on the meaning and competence indicator that have the value of average score of 4.53 and 4.50 respectively. The average score value above the overall average score value in the psychological empowerment variable is 4.47, and for the emotional intelligence variable based on the existing variable, are perceived very high by the respondents, especially in the self-motivation indicator with the average score value of 4.42 which is above the overall average score value of 4.37. This indicates that the higher the meaning in the work or profession perceived by respondents or tour guides in NTB province, the higher the self-motivation to do the guiding task well. Similarly, the higher the competence level of a tour guide in NTB province, the higher the achievement level they will achieve, and the higher the creativity in creating a pleasant atmosphere to provide quality services.

Based on this, this research result confirms and expands the theory stated by Goleman (2003), on emotional intelligence as the additional ability owned by someone in self-motivation, resilience in facing the failure, controlling the emotion and delaying the satisfaction as well as managing the soul. Thus, the results of this study accept the theory of Jenskins (1996) which says that the importance of empowerment enables people to do things they previously could not do, including the ability in recognizing self-emotion, managing self-emotion, motivating oneself, recognizing the emotion of other, and the ability to be able to foster the influence with others which is called as emotional intelligence. The results of this study confirm and broaden the findings of Alam (2010) which examines preposition test of the effect of psychological empowerment on the emotional intelligence. Alam (2010) has successfully proved that psychological empowerment has significant positive influence on the emotional intelligence.

The discussion on the influence of work exhaustion on the emotional intelligence is the answer of the problem formulation and hypothesis of the tenth research (H10) which states that the work exhaustion has a significant influence on the emotional intelligence. The result of analysis on structural model with GSCA method shows that work exhaustion does not have significant and negative effect on the emotional intelligence, based on the result of data in Table 3, the estimated value of the path coefficient of -0.030 with negative direction, and critical point value (CR) equal to 0.41 at the confidence level of 95%. This indicates that a negative and insignificant effect. This means that there is an inverse effect between work exhaustion and emotional intelligence, if the higher the level of work exhaustion felt by respondents or tour guides in NTB province, the lower the level of emotional intelligence they
have. But this effect is not significant because it is not supported by the reality that occurs in this research object.

Work exhaustion variable is not significant and negative to the emotional intelligence and it can be explained as follows. First, based on the data in the field of work fatigue experienced by the respondents or guides in the province of NTB is generally categorized as low, because the majority of items contained in work exhaustion are responded with strongly disagree, because it is not in accordance with the conditions experienced by the respondents, except in physical fatigue indicator, and emotional exhaustion, some of the respondents perceive it as high because they feel the compatibility with the condition they are experiencing. This can happen because tour guide is non-scheduled work and it is different than full-time work started at 7 and finish at 5 pm. Tour guides working hour may be longer and it can be extended more than 24 hours a day. Sometimes, they have to serve guests at 3 AM, and they are also often required to respond immediately. They are demanded to solve or find a solution for an issue. Things like this can trigger work exhaustion of a tourist guide, primarily in exhaustion of energy. Babakus et al. (1999) state that work exhaustion can be defined as running out of energy. Bhanugopan, et al. (2006) suggest that work exhaustion in which its occurrence is responded very well because it happens when a person tries to achieve an unrealistic goal, eventually he runs out of energy and loses the feeling about himself, and against others.

The results of the test in this study found that the high or low work exhaustion experienced by the tour guides in the province of NTB, the influence cannot increase or reduce the high or low of the emotional intelligence. It can happen because the respondents' adaptation to their current work has been going on for a very long time, the majority of respondents have worked as a tour guide for more than 15 years. It means that the respondents have understood very well the characteristics of their work in which they have to interact with a lot of people. And that this work requires him to have easy going personality, no matter how complicated and talkative the guest they have to serve. An individual with a passionate soul, positive thinking, energetic, open, attractive, has a sense of purposeful humour, cheerful, and also has good communication skills, as well can entertain others, is a person who has emotional maturity. According to Walgito (2002), people who have emotional maturity can place himself in tune with the realities he has to face the environment. Furthermore, Patton (1998) argues that emotional maturity is the ability to control emotions effectively to achieve goals and build a productive influence in order to achieve success.

Second, the test results in this study found that the high or low of work exhaustion experienced by the tour guides in the province of NTB, its influence cannot increase or reduce the high or low of the emotional intelligence. This happens, because the tour guides in NTB province are aware of the heavy demands and challenges in carrying out their work as tour guides. However, most of them have done this work more than 15 years, it means that they are very experienced in fulfilling the demands and solving the problems. Robbins (2006) argues that someone’s working experience in the work he has manifested in the number of work period can improve the ability, and work skills of that person which will generate the improved work. Work experience is not only about the number of work period, but more than taking into account the type of work that he has done or often faced (Asri, 1986).

Based on the interview with one of tour guides in NTB province, a tour guide named Mr. Mulyadi, on March 23, 2014, revealed that he can act decisively, quickly and appropriately in solving an issue, able to control his emotion when facing the issue, and being careful or cautious all the time, as well as anticipating every issue that has not arrived yet due to his experience as tour guide and his natural instinct. Such professional and ethical attitude and behavior can cultivate a reliable work culture because it is instilled continuously on himself and other people in order to produce an identity and a good image for tour guides in the province of NTB.

This kind of work culture serves as guidance in carrying out duty to serve the guest. Ndahra (2003) states that the culture is a social behavior and phenomenon that can give the picture of the identity and image of individual or group because everyone’s culture is different.
from others, and an sich culture cannot be defined as good or bad because everyone and every group has their own culture. Luthan (2006) states that work culture can be defined as the knowledge obtained to integrate the experience and create social behavior. If the work culture can be implemented appropriately and properly, then the behavior of human resources in achieving the work productivity will be higher (Djajendra, 2013).

This research result is different from Bhanugopan & Alan’s Theory (2006) regarding the workers who are experiencing burnout will also experience mental exhaustion, loss of commitment, emotional exhaustion, and decreased self-motivation over time. Goleman (2000) states that self-motivation is also part of emotional intelligence. Similarly, the research result is not in line with the research result conducted by Thomas, et al. (2012). Their research result found a significant positive effect between emotional exhaustion and emotional exhaustion. Furthermore, there is also significant positive effect between depersonalization and emotional intelligence. There is also a positive significant influence between personal achievement and emotional intelligence. Based on that, Thomas, et al. (2012) give a conclusion that work exhaustion has a positive significant effect on emotional intelligence.

CONCLUSION

Based on the problem formulation, research result, and discussion, it can be concluded that psychological empowerment has a direct negative significant influence on the work exhaustion. Psychological empowerment has a significant positive effect on emotional intelligence, and work exhaustion has no significant negative effect on the emotional intelligence.

Basically, every research always has a limitation, not to mention this research. The reason is that this research is part of explanatory research using cross-sectional study approach in which the researcher cannot follow the behaviour of the subject or respondent from time to time in gathering the data of the research. It greatly affects the result of the analysis.

REFERENCES

THE EFFECT OF HUMAN RESOURCES ABILITY, LEADERSHIP AND WORK DISCIPLINE ON PERFORMANCE: STUDY IN PRINGGASELA DISTRICT, INDONESIA

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ABSTRACT
Research on HRM practice in this study aims to analyze the effect partially and simultaneously between Human Resource ability, Leadership and Work Discipline on the Performance of Village Apparatus in Pringgasela district. Respondents in this study consisted of 194 employees consisting of 10 villages in the Pringgasela district. The research data was obtained from the results of questionnaires which were then analyzed using multiple linear regression analysis of SPSS 20.0. The results showed that the HR ability, leadership and work discipline had a positive and significant effect on employee performance after being tested partially and simultaneously. Of the three independent variables tested, there is a dominant variable, namely the work discipline that has the strongest influence on the performance of the village apparatus.

KEY WORDS
Leadership, work discipline, performance, Pringgasela District.

Numerous study had been conducted to determine the correlation between human resource management ability and employee performance in both develop and developing country as well as in Indonesia. Human Resources is a critical and strategic component of an organization in order to achieve organizational goals. Thus, a well managed human resources is needed (Sulistiyani & Rosidah, 2003). Several studies (eg Chuang & Liao, 2010; Syafii et al., 2015; Beltrán-Martín & Bou-Llusar, 2018) adopt employee performance as a dependent variable because performance is a key that reflects the behavior of employees and helps achieve organizational goals.

In the field, human resource capability are designed and implemented in such a way that human capital plays an important role in achieving organizational goals. Humans always play an active and dominant role in every organizational activity because of its functions as planners, actors, and determinants of the realization of organizational goals. Individual performance of its employees might indicate whether or not an organization is a success. In addition, proper implementation positively influences the level of commitment of leaders and employees (Purcell, 2003). The organization will strive to improve the performance of its employees so the company’s objectives could be achieved. Performance is basically what employees do or don't do. Employee performance is what affects how much they contribute to the organization such as output quantity, output quality, output period, workplace presence and cooperative attitude (Mathis and Jackson, 2002). Performance is the work of a person as a whole (quality and quantity) during a certain period in carrying out their duties, according to standards, targets or criteria that are determined and mutually agreed upon (Rivai, 2005). Thus, performance is important for the organization or company as well as the employees themselves. Therefore, employee performance will run effectively if supported by motivation and work discipline.

Employee performance can be measured by evaluating performance appraisals. A series of evaluation processes are carried out systematically by the leader in accordance
with the tasks that have been given. Employees are important and needed to achieve goals and improve organizational performance. A research on the performance of the village apparatus, the main task of the apparatus as public servants has been explained in the opening of the fourth paragraph of the 1945 Constitution, which covers 4 aspects of basic services, which are protecting the entire nation of Indonesia, advancing public welfare, educating and carry out world order based on independence, eternal peace and social justice. In realizing the above objectives, of course, Human Resources must have intellectual and physical abilities (Robbins, 2006). In work related to administrative activities in an organization, intellectual ability is certainly more dominant. A person's intellectual ability in completing a particular job might be influenced by his educational background and experience.

In a government, success or failure in the implementation of tasks and governance is influenced by leadership and supported by the capacity of government organization, thus the implementation of good governance could be optimized. In contrast, if the leadership is failed to do the function properly it will alter the performance of the bureaucracy in Indonesia (Istianto, 2009). Leadership is a way of a leader in directing, encouraging and managing all elements in a group or organization to achieve a desired organizational goals as well as improving employee’s working performance.

From the initial observations made, there were problems that occurred at the Village Office in Pringgasela district which was also a problem in almost all institutions or public agencies, namely the high number of complaints and dissatisfaction of public services, such as the poor performance of Civil Servants (PNS). Undiscipline working hours also commonly found among the civil servants and the implementation of tasks that are not in accordance with standards. This was alleged because the Village Head’s office was the lowest government organization, so service to the community could be done outside working hours. This shows that there is a lack of good discipline. According to Guntur (1996), there are several disciplinary attitude indicators that need to be managed at work time, rules, and responsibility. Assessment of work discipline for employees in government agencies still refers to the Government Regulation of the Republic of Indonesia No. 53 of 2010 concerning the Discipline of Civil Servants, which are regulating obligations, prohibitions, and sanctions if obligations are not adhered to or prohibitions are violated by civil servants, whether done within or outside working hours. To overcome this problem, a great leader figure is needed that could influence the behavior of subordinates to cooperate and work effectively and efficiently.

In addition to the problems that occur, in terms of the research gap from previous study, there are still contradicting research results such as those conducted by Marpaung & Agustin (2013), explained that work discipline does not significantly influence on performance. With high work discipline, it will be able to achieve maximum performance, those apply for time discipline, rules or regulations that are that are set by the organization. This contrasts with research conducted by Rinoldy (2013) and Tindow et al., (2014) found that there is a relation between work discipline on performance. The research conducted by Dokko et al., (2009) states that previous work experience has a negative influence on performance through tasks, knowledge, and skills. However, according to Kotur & Anbazhagan (2014), states that there is no significant difference between work experience in terms of performance, because employee performance depends on their work experience, on the other hand, Sa'diyah & Endratno (2013), stated that work experience partial effect on employee performance.

However, research on employee performance is important to do because people as customers have not felt satisfied with the services that have been given. For this reason, the research was conducted to determine the effect of human resource ability, leadership and work discipline on employee performance simultaneously and partially at the village office in the Pringgasela district, East Lombok Regency, as well as the most dominant factors affecting Employee Performance.
LITERATURE REVIEW

The Relation of Human Resource Ability on Employee Performance. The concept of "ability" was developed from the psychology of Olander & Thogersen (1995) in the form of AMO framework (Ability, Motivation, and Opportunity). Skills and capabilities in the form of capabilities are needed to explain the relationship between HR practices and performance. According to Bello-Pintado (2015), the ability in human resource management practice is referred to as a practice that enhances the ability of workers to achieve organizational goals through new employees and investment in training. Furthermore, the ability is a practice that influences workers' competences through recruitment and selection, training and development (Guerci et al., 2013; Gardner, Wright & Moynihan, 2011; Jiang et al., 2012). In other words, human resource management practices that enhance capability are practices that enhance the ability and competence of employees to achieve organizational goals. The ability of individuals is formed by traits, intelligence, manual skills that become a potential strength of someone to do and are stable (As'ad, 2000). The ability in individuals is determined by three aspects of basic conditions, namely: sensory and cognitive conditions, knowledge of the correct response method, and the ability to carry out the response. In organizations, HR competencies are the main factor in the performance that determines organizational success. Characteristics of effective behavior and behavior that will determine superior performance at work. Competence will encourage someone to have the best performance so that they can succeed in the organization (Sudarmanto, 2009).

One important aspect of the growth and maintenance of a positive image of the bureaucracy is systematic, programmatic, and continuous efforts to improve the workability of the bureaucracy including the ability of human resources. Therefore, as a bureaucracy, there is a demand for capable personnel, namely human resources who work efficiently, effectively and productively (Siagian, 2003). Based on previous study, there is a positive influence between HR ability on performance, as shown by the meta-analysis by Jiang et al., (2012) and also the results of research by Beltrán-Martín & Bou-Llusar (2018) which show that there is a relationship between components AMO, especially HR ability towards performance in the company. Following this research hypothesis:

H₁: Human resource ability affect the performance of the village apparatus.

The Relation of Leadership on Employee Performance. In a government, success or failure in the implementation of tasks and governance is influenced by leadership and supported by the capacity of government organization, thus the implementation of good governance could be optimized. In contrast, if the leadership is failed to do the function properly it will alter the performance of the bureaucracy in Indonesia (Istianto, 2009). Leadership plays an important role because the leader is someone who will carry and direct the organization in achieving its goals and a leader must have the ability to motivate employees on improving their performance (Sutrisno, 2011). Leadership effectiveness depends on the leader's relationship with subordinates, and various leadership styles are used in certain situations and conditions (Timpe, 2000). Leadership is an effort to influence many people through communication and direction (instruction) to achieve goals (Dubrin et al., 2006).

The leadership behavior in this study is the leadership of a village head who is shown through the ways he leads in a group. This behavior, in the form of compiling data on employment relationships, giving praise, or criticism of group members and seeking the welfare and satisfaction of the group they lead. The assessment of the village apparatus on the leadership behavior of the village head can be based on several indicators: making decisions, creating jobs, directing, evaluating the results of work, giving encouragement, providing welfare. Following this research hypothesis:

H₂: Leadership affects the performance of the Village Apparatus.

The Relation of Work Discipline on Employee Performance. Work discipline is a form of management action to uphold organizational standards (Davis & Newstrom, 1985). Work discipline regulates an employee to obey all norms, rules, and regulations that apply to the organization. The purpose of this work discipline is in order to expedite an employee in
carrying out his work so that the achievement of organizational goals is timely, on target and effective and efficient. Work discipline is a person’s awareness and willingness to obey all company rules and prevailing social norms (Hasibuan, 2003).

Discipline is a mental attitude that is reflected in personal or group behavior in the form of obedience, adherence to applicable laws and norms and carried out consciously and sincerely inwardly. Bureaucrats at the village level as technical employees must have high discipline because it will determine the success of an activity. Rules of discipline must be known, understood, remembered and obeyed by each member of the organization, to succeed in the activities that must be carried out by each organization (Widjaja, 1990). Variable work discipline is a major problem in organizational operations because it is related to achieving goals. Furthermore, the level of employee discipline through compliance with norms in organizations can affect organizational effectiveness and productivity (Siwantara, 2009). Commitment to disciplining behavior and individual awareness of the organization can affect organizational outcomes as indicated by employee performance in the completion of tasks. Following this research hypothesis:

$H_3$: Work Discipline affects the performance of the Village Apparatus.

METHODS OF RESEARCH

This study adopts a quantitative research methodology that allows a large number of data collections obtained as a representative to the entire population. The type of research is associative research which aims to determine the relationship between two or more variables (Siregar, 2013).

This study involve approximately 194 village apparatus as the sample, which consists of 10 villages in the Pringgasela District, East Lombok. The questionnaire is used as a research instrument to collect data because it allows researchers to collect data from a large number of targeted respondents. According to Sekaran and Bougie (2013), questionnaires have been widely used in social science research to collect data from a large number of respondents. Meanwhile, for data analysis using SPSS 20.0. The following is the framework of the research hypothesis:

![Figure 1 – Hypothesis framework](image)

RESULTS AND DISCUSSION

Criteria for respondents in this study are more dominant men as many as 186 people and women only 8 people. When viewed from education, as many as 134 respondents were high school graduates and the rest were junior high school, diploma and bachelor graduates. For the work period, the most dominant working period <10 years is 188 respondents. Based
on Multiple Linear Analysis used to measure the effect of Human Resource Ability, Leadership and Work Discipline on the performance of the Village Apparatus in Pringgasela District, after processing the data using the SPSS 20.0 program the following results are obtained:

Table 1 – Partially Sig. Test Result (t-test) Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>6.351</td>
<td>5.576</td>
<td>1.139</td>
<td>.256</td>
</tr>
<tr>
<td>HR Ability (X₁)</td>
<td>.158</td>
<td>.076</td>
<td>.131</td>
<td>2.088</td>
</tr>
<tr>
<td>Leadership (X₂)</td>
<td>.224</td>
<td>.096</td>
<td>.149</td>
<td>2.336</td>
</tr>
<tr>
<td>Work Discipline (X₃)</td>
<td>.426</td>
<td>.063</td>
<td>.448</td>
<td>6.715</td>
</tr>
</tbody>
</table>

Dependent Variable: Employee Performance (Y)
Source: SPSS 20.0.

The purpose of partial significance testing using a t-test is to identify the partial effect of the independent variable on the dependent variable. The significance level is 5% or 0.05. Table 1 above discusses the results of partial significance testing. From the above equation, it is known that the direction and influence of each independent variable on the dependent variable mean that it has a positive direction of influence (giving effect).

Furthermore, the simultaneous significance test using the F-test is to identify the simultaneous signing of the independent variables on the dependent variable. The significance level is 5% or 0.05. Table 2 describe the results of simultaneous significance testing (F-test) from the study.

Table 2 – Simultaneous Sig. Test Result (F-test) ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>1198.485</td>
<td>3</td>
<td>399.495</td>
<td>30.483</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>2490.057</td>
<td>190</td>
<td>13.106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3688.541</td>
<td>193</td>
<td></td>
<td>3.620</td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Employee Performance (Y)
b. Predictors: (Constant), Work Discipline (X₃), Leadership (X₂), HR Ability (X₁)
Source: SPSS 20.0.

Based on table 2, F-test with ANOVA showed that F value was 30.483, with significance (probability) was 0.000 or lower than alpha 0.05 (5%). In conclusion that all variable independent (HR ability, leadership and work discipline) simultaneously affect to employee performance.

Furthermore, the determinant coefficient which aims to find out how much the independent variable contributes in explaining the dependent variable (employee performance) can be seen in table 3:

Table 3 – Coefficient of determination results (R-Square)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.570</td>
<td>.325</td>
<td>.314</td>
<td>3.620</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Work Discipline (X₃), Leadership (X₂), HR Ability (X₁)
b. Dependent Variable: Employee Performance (Y)
Source: SPSS 20.0.

From table 3 is known, R² value (0.325) or equal to 32.5% it means that HR ability, leadership and work discipline can explain the employee performance of State Civil
Apparatus at Pringgasela District and the remaining 67.5% are explained by other variables not included in the research model.

### Table 4 – Results of Hypothesis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standardized Coefficients (B)</th>
<th>t-value</th>
<th>F-test</th>
<th>Sig.</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR ability (X₁) → Employee Performance (Y)</td>
<td>0.131</td>
<td>2.088</td>
<td>-</td>
<td>0.038</td>
<td>Significant</td>
</tr>
<tr>
<td>Leadership (X₂) → Employee Performance (Y)</td>
<td>0.149</td>
<td>2.336</td>
<td>-</td>
<td>0.021</td>
<td>Significant</td>
</tr>
<tr>
<td>Work Discipline (X₃) → Employee Performance (Y)</td>
<td>0.445</td>
<td>6.715</td>
<td>-</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>HR ability (X₁), Leadership (X₂), Work Discipline (X₃) → Brand Loyalty (Y₃)</td>
<td>-</td>
<td>-</td>
<td>30.483</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: SPSS 20.0.

From the results of data processing with SPSS 20, the research hypothesis was obtained as follows: The human resources ability has a significant influence on employee performance, supporting the hypothesis 1. They reveal that their work is not a heavy job and they should work even though they are faced with various kinds of work and service to the community with different character and will, but not a matter that can cause a decline in performance. The above is in accordance with Sofo statement (2000) which says that a skill, knowledge and attitude that can be referred to as the ability to be able to respond to change so that it affects performance. Furthermore, it reinforces opinion from Sedarmayanti (2009) that HR competency is an effective attitude and behavior characteristic that will determine superior performance in work. Competence will encourage someone to have the best performance so that they can succeed in the organization. This is also reinforced by the results of research conducted by Beltrán-Martín & Bou-Llusar (2018) which states that the ability of employees (including practical HRM) has a positive relationship to performance.

Leadership has a significant effect on performance, then hypothesis 2 is accepted. The success of achieving the goals of an organization is always associated with the ability of leaders in carrying out tasks. Leadership is a very important factor in influencing organizational performance, even leadership is the main activity in order to achieve organizational goals. The results of this study support the previous research conducted by Aisiyah & Susanto (2010), Pawirosumarto et al., (2017) which states that leadership has a positive and significant effect on employee performance.

Next, hypothesis 3 is accepted. Work discipline has an influence on the performance of employees in Pringgasela District, as evidenced by the amount of employee responsibility for the assignment given. This encourages work passion, work spirit, and the realization of organizational goals. The results of this study are in line with the theory of Rivai & Sagala (2013) stating that the better the discipline done by employees, the greater the work performance that can be achieved. Conversely, without good discipline, it is difficult for companies to achieve optimal results. Thus, better employee discipline, employee performance will increase. This study supports the results of previous studies conducted by Setyaningdyah et al., (2013) and Jeffrey & Rulianto (2017).

Based on the results of simultaneous analysis shows that Work Discipline has the most dominant influence on the performance of employees in Pringgasela district. Through apparatus / employees who are qualified and have high discipline, and capabilities relevant to the organization can be realized through continuous improvements in terms of service to the community, providing a quick response to the complaints of the community.

### CONCLUSION

This study gives results that the human resource ability, leadership and work discipline has a positive and significant effect partially and simultaneously on employee performance. This research provides theoretical implications that support existing theories and support previous research. For organizations or institutions, it is expected to always try to improve employee performance by creating a good and conducive work atmosphere so that the tasks can be completed properly. An organization needs humans as the main supporting resources
to achieve the stated goals. Quality human resources will contribute to advancing the organization as a place to improve performance. Strategic position to increase organizational productivity is employees who are able to work in an organization.

The research suggestion is that employees are expected to carry out work evaluations as a control of performance. Participate in training related to excellent service to the community and create a good work environment and good working relationships between leaders and subordinates.

REFERENCES

23. (CIPD).
THE EFFECTS OF BRAND EQUITY ON FIRM VALUE AND PROFITABILITY IN INDONESIA

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ABSTRACT
The purpose of this study is to analyze the effect brand equity to firm value and profitability. Regression analysis in this research was done by using GSCA. The research sample in this research were enterprises in consumption sector listed in Indonesia Stock Exchanges 2012-2016 and meet the requirements of Hirose method of brand value calculation. As conclusion, brand equity is significantly affecting profitability, but insignificant to firm value.

KEY WORDS
Brand equity, profitability, firm value, business.

As the discussion of merger and acquisition of brand equity has grew popular, it has become an important concept in the study and practice of business. In around 1980, brand equity had become an intriguing topic and research study to business community (Huang, 2015; Hasan, Ullah & Bhattacharjee, 2015). In the theory and practice of contemporary marketing (Davcik, 2013), brand equity was eventually be strategic business asset for a company. The most significant effect of brand equity is its ability to increase firm value (Lindemann, 2003: 29, Wang et al., 2015, as well as Arora and Chaudhary, 2016). The relation between brand equity and firm value is important as part of long-term strategy and company sustainable growth (Ukiwe, 2009).

A company with better brand equity will be easier to persuade costumer to use their products and services, resulting in the increase of profitability and firm value (Kotler and Keller, 2012: 242-243, as well as Lindemann, 2003: 28).

A research studying the effects of brand equity to the company financial condition is rare, especially in Indonesia. This research studying brand equity was performed to consumption sector listed in Indonesia Stock Exchange during 2012 - 2016 period. This research was analyzed with regression analysis GSCA. Therefore, this study aims to comprehend the effect of brand equity to a company financial performance measured by profitability and firm value.

LITERATURE REVIEW

Brand is the identity of a product used to distinguish products and services from competitors (Aaker, 1991; Hirose et al., 2002). A brand is of the essence or the promise of a product sent to or experienced by the customers (Lee, 2012). Brand is a marketing asset stimulating present and future profit for the company (Keller, 1998).

Brand equity is identified as an ability of a brand to yield a future value, both its ability to have a premium price from consumer and attract investment, or facilitate the relation between interested parties (Arvidsson, 2006). Brand equity is also an additional value that the product achieves past investment of marketing activity of the brand (Keller, 2003).

Brand equity concept can be comprehended from four main perspectives namely investor (or brand owner), producer, reseller and consumer or customer (Ukiwe, 2009), in this case, the brand gives additional value to each respective party. Investors are also

DOI https://doi.org/10.18551/rjoas.2018-09.24
motivated by finance problem to take the brand and asset value from other companies (Cobb-Walgren, Ruble, & Donthu, 1996). On the other hand, consumer and reseller are more motivated by the implication strategic brand equity (Keller, 1993). As for producer, the advantage of brand equity are the increase of product soles and better profit margin.

Brand equity serves a strong platform to producer to introduce new products and secure the brand from competitors. While reseller, brand equity gives contribution to their retail outlet and help product circulation in the outlet, sustains the availability of products and reduce the risk of having unsold products (Cobb-Walgren, Ruble, & Donthu, 1996).

Developing and managing brand has been a priority for companies to maximize this asset value significantly (Lehmann et al., 2008). A company with a good branding has competitive advantages in the market, since a good branding is built from a good quality product or good supportive aspects such as different brand image and personality (Keller, 1998).

Companies with good brand equity will get market competitive advantages. This is also in line with RBV concept by Penrose (1959) and Wernerfelt (1984). Wernerfelt (1984) explains that based on RBV concept, a sustainable competitive advantage is derived from various resources optimization of a company. Good brand equity is also identified by a good reputation (Eng & Keh, 2007). A high brand value or reputation is able to improve customers' perceived value (Hodović, Mehić and Arslanagić, 2011), yielding a higher stock price (Barney, 1986) as proxy for firm value.

The present of asymmetric information causes brand equity to be considered as a signal from the company, as in the signal theory, because the management comprehend the potential of the company more than investor does (Bhattacharyya, 1979). This signal is identified as "attribute or activity which gives information and can be manipulated" (Spence, 1994).

Brand signal comprised of strategy and mixed marketing from past and present experience related to branding, and incomplete asymmetric information serves as a credible market signal (Erdem and Swait, 1998). Signaling theory shows that a credible signal describes as to whether marketing signal is giving information effectively (Tirole, 1990). A company with credible brand is a signal of quality level for customer satisfaction, helping them to distinguish and choose products (Kotler and Keller, 2012: 242).

According to this assumption, good brand equity can be treated as a signal that the company is in a good condition. Company condition based on the signal of good brand equity is welcomed by the consumer and investor which will eventually increase firm value.

Good brand equity is proven empirically to significantly affect profitability (Ukiwe, 2009; Wang et al, 2015; as well as Arora and Chaundhary, 2016). Good brand equity is proven empirically to significantly affect firm value (Wang et al., 2015, as well as Arora and Chaundhary, 2016). While the research by Ukiwe (2009) shows the opposite effect that brand equity insignificantly affects firm value.

Based on this review, this research studies the effect of brand equity to profitability and firm value in consumption sector in Indonesia.

**METHODS OF RESEARCH**

Brand equity in this research was treated as exogenous variable. Brand equity in this research was measured by brand value. Brand value served as a proxy for the reputation and the goodwill of the company (Eng & Keh, 2007). Brand value, as in Hirose theory, et al. (2002), was a conception of competitive advantages via branding to increase present and future profit by utilizing competitive price, high customer loyalty and the power of brand expansion. Hirose, et al. (2002) assumed that brand value served as a proxy of three main factors, namely:

\[
BV = f \left( \frac{PD}{r}, LD, ED, r \right) = \frac{PD}{r} + LD + ED
\]

*Source: Hirose, et al. (2002)*
Where: BV = brand value; PD = prestige driver; LD = loyalty drive; ED = extension driver; 
r = risk-free interest (discount) rate.

PD was a cash flow arose from price profit or brand value. PD was calculated in more 
detail by the following formula:

\[
PD = \frac{1}{5} \sum_{i=-4}^{0} \left( \frac{S_i}{C_i} - \frac{S'_i}{C'_i} \right) \cdot \frac{A_{D_i}}{O_{i}} \cdot C_0
\]


Where: S = sales of firms; PD = prestige driver; C = cost of sales of firms; S' = sales of a 
benchmark company; C' = cost of sales a benchmark company; AD = advertising expense 
and promotion cost; OE = total operation expenses.

Benchmark Company, in this formula, was a company treated as a standard 
comparison to assess brand equity. The sales rate of Benchmark Company was defined in 
two ways namely average sales and the lowest sales of competitors (Hirose et al., 2002).

LD referred to the ability of a brand to sustain long-term sales in stable condition as the 
consequence of customer loyalty to buy the same product with the same brand. LD was the 
cost of sales stability. LD was calculated with the following formula:

\[
LD = \frac{\mu_c - \sigma_c}{\mu_c}
\]


Where: LD = loyalty driver; \( \mu_c \) = five-year average of firms' cost of sales; \( \sigma_c \) = five-year 
standard deviation of firms' cost of sales.

ED determined the brand expansion, which reflects the ability of well-known brand to 
expand their business network to all different industries in different region. In order to 
quantify ED the following formula was used:

\[
ED = \frac{1}{2} \sum_{i=-1}^{0} \left( \frac{SX_i - SX_{i-1}}{SX_{i-1}} + 1 \right)
\]


Where: ED = extension driver; SX = sales from non-core and oversea business.

Endogenous variable in this research was profitability and firm value. Profitability was 
measured with return on assets (ROA) and return on equity (ROE). Firm value is measured 
with market to book ratio (MBR) and Tobin's Q.

RESULTS AND DISCUSSION

This research investigated the effect of brand equity to profitability and firm value in 
consumption sector in Indonesia. The sample of this research were companies in 
consumption sector in Indonesia fulfilling certain requirements such as frequently publish 
their finance report during 2012 to 2016 period and their brand value could be calculated by 
using Hirose method. Based on these criteria, 22 companies were chosen as research 
sample. There were total of 110 analysis units (22 companies in 5 years). Regression 
analysis in this research was done by using GSCA software.

Based on table 1, FIT value is 0.364 which means that brand equity, profitability and 
firm value can be explained in this model by 36.4%, while the other 63.6% were explained by 
another variables outside the scope of this research. While AFIT value is 0.355 which means
that brand equity, profitability and firm value can be explained in this model by 35.5%, while the other 64.5% were explained by another variable outside the scope of this research.

Table 1 – Goodness of Fit

<table>
<thead>
<tr>
<th>Model Fit</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FIT</td>
<td>0.364</td>
</tr>
<tr>
<td>AFIT</td>
<td>0.355</td>
</tr>
<tr>
<td>NPAR</td>
<td>10</td>
</tr>
</tbody>
</table>

The result of table 2 indicates that brand equity has 3 indicators. From weight estimation value from each indicator, prestige driver (PD) is the best indicator to describe brand equity. This is because the estimation value of PD is the biggest among the 3, which is 1.019. According to acquired critical point, PD gives dominant and significant effect to brand equity since the acquired critical point value is 21.91* significant at 95% confidence level.

Profitability variable has 2 indicators. From loading estimation value from each indicator, return on equity (ROE) is the best indicator to describe Profitability. This is because the estimation value of ROE is bigger than return on assets (ROA) which is 1.472. According to acquired critical point, ROA gives significant effect to profitability since the acquired critical point value is 14.19* significant at 95% confidence level.

While firm value variable has 2 indicators. From weight estimation value from each indicator, market to book ratio (MBR) is the best indicator to describe firm value. This is because the estimation value of MBR is bigger than Tobin’s Q which is 1.403. According to acquired critical point, MBR gives significant effect to firm value since the acquired critical point value is 9.72* significant at 95% confidence level.

Table 2 – Measurement Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Loading</th>
<th>Weight</th>
<th>SMC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>SE</td>
<td>CR</td>
</tr>
<tr>
<td>LV_1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LnPD</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LD</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ED</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LV_2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ROE</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LV_3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBR</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TQ</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

CR* = significant at .05 level.

Brand equity has a positive relation and significant to profitability since acquired critical value is significant in 95% confident level and consequently brand equity affects profitability. This result is in line with Ukiwe (2009), Wang, et al. (2015), as well as Arora and Chaudhary (2016) wherein profitability is measured with EPS. However, the result is different with Arora and Chaudhary (2016) if profitability is measured by RAE and ROE, wherein brand equity has negative relation and significant to capital structure.

Brand equity has an insignificant relation to firm value since acquired critical value is significant in 95% confident level and consequently brand equity affects firm value. This result is in line with Ukiwe (2009) wherein brand equity is insignificant to firm value. This result is different with Wang, et al. (2015), Arora and Chaudhary (2016).

Profitability has a positive relation and significant to firm value since acquired critical value is significant in 95% confident level and consequently profitability affects firm value. This result is also align with Yu (2015), Siboni and Pourali (2015), Ansar, Butt and Shah.
(2015), Akit, Hamzah and Ahmad (2015), Majanga (2015). This result is different with Sharif, Ali and Jan (2015), Al Masum (2014) wherein profitability has a negative relation and significant to firm value.

Table 3 – Structural Model

<table>
<thead>
<tr>
<th>Path Coefficients</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Equity -&gt; Profitability</td>
<td>0.383</td>
<td>0.080</td>
<td>4.81*</td>
</tr>
<tr>
<td>Brand Equity -&gt; Firm Value</td>
<td>0.057</td>
<td>0.033</td>
<td>1.73</td>
</tr>
<tr>
<td>Profitability -&gt; Firm Value</td>
<td>0.949</td>
<td>0.017</td>
<td>56.68*</td>
</tr>
</tbody>
</table>

CR* = significant at .05 level.

Based on this research result, it is known that high brand equity is able to assure consumer of the product quality they bought. This can sustain the sales stability and eventually increase profitability. However, average brand equity is not interesting enough for stockholder or investor who are more interested in a high profitability. A high profitability causes cash flow to progress towards the owner and the operating result of the company will increase. The increment of cash flow will eventually increase the firm value.

CONCLUSION

A research correlating brand equity with profitability and firm value is infrequent, especially in Indonesia. Hence, this research aspires to study the consistency of the effect of brand value to financial performance, specifically in Indonesia.

The research result indicates that brand equity significantly affects profitability. This significant relation between brand equity and profitability supports RBV concept and signaling theory.

The future research should understand the relation between brand equity with financial policy such as capital structure and investment. It is also suggested to study the effect of capital structure and profitability to brand equity, since there is a probability that brand equity is also affected by capital structure and profitability. Lastly, similar researches should be performed in another industry to fully comprehend the implementation of brand equity in Indonesia.

REFERENCES


DOI https://doi.org/10.18551/rjoas.2018-09.25

EXPLORING FACTORS AFFECTING TRUST IN USE OF E-BANKING AMONG INDONESIAN GEN-Y

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ABSTRACT
In line with technological developments, the interest of the community and customers in carrying out their financial transactions also changed. Customers prefer banking services electronically or digitally. Generation Y is the highest internet user group in Indonesia. With the potential number of smartphone users and internet users in Indonesia, several companies have begun to expand their business operations in the form of mobile to facilitate and adjust the needs of consumers with mobility, including in the banking industry. This study aims to determine what are the determinants that affect the Trust in the use of e-banking among Generation Y in Indonesia. The analysis technique used is SEM-PLS. In processing the data of e-banking users with age criteria of 21-40 years, researchers using WarpPLS 6.0 software. Based on the data obtained and processed, there are several factors in this research that is risk perceive significantly negative influence while social influences, task characteristic, and personal innovativeness has a significant positive effect. Furthermore, characteristic task is the biggest factor affecting the trust in using e-banking. This study has several limitations that can encourage further study. First, this research is still lacking in terms of the number of respondents and the distribution of questionnaires that represent per region in Indonesia. Second, this study model only explains trusts for using e-banking by 26%.

KEY WORDS
Trust, e-banking, public service, industry.

The number of bank offices according to Indonesian banking statistics (SPI) in August 2017 recorded decreased. The number of offices of commercial banks decreased by 134 units compared to August 2016 which was 32,769 units. Along with technological developments, the public interest or for customers in conducting financial transactions have also changed. Customers prefer banking services electronically or digital. According to OJK (2017), the number of e-banking customers (SMS banking, phone banking, mobile banking and internet banking) increased by 270%, from 13.6 million customers in 2012 to 50.4 million customers by 2016. Meanwhile, e-banking user transaction exposure increased 169%, from 150.8 million transactions in 2012 to 405.4 million transactions in 2016.

Generation Y is the highest group of internet users in Indonesia. Based on research data from (DailySocial.id, 2016), internet users in Indonesia today are 28.3% of people categorized as late adopters (40-59 years) and 69.3% are categorized as digital native or Y generation (21-40 year). Generation Y is a social generation driven by society to appreciate individual voice (Nielsen, 2016). The use of mobile phones is becoming a new paradigm by improving its applications from simply connectivity to lifestyle devices (Thakur & Srivastava, 2013). Given the potential number of smartphone users and internet users in Indonesia, several companies have begun to expand their mobile business operations to facilitate and customize consumer needs with mobility, including among the banking industry.

Previous research related to the use of e-banking used as the reference journal in this research is owned by Malaquias and Hwang (2016): An empirical study on trust in mobile banking: Computers in Human Behavior, Q1, 2016. Not many studies have empirically tested the factors affecting trust in the use of e-banking, and specifically no research has targeted the Generation Y segment in Indonesia, so this study intends to fill in the existing gap literature.
LITERATURE REVIEW

This study is intended to explore the use of e-Banking with respondents in Indonesia, especially among Generation Y. The model used in the research is obtained by considering several relevant factors that have been studied in previous research, among others: risk perception, task characteristic, personal innovativeness, and social influence.

Exploration of the determinants of factors that affect the Trust is one of the important things in the use of e-Banking. This is because the Trust itself is a catalyst in the relationship between buyers and sellers (Pavlou, 2003; Wang, Ngamsiriudom, & Hsieh, 2015). E-commerce, including e-Banking, has high levels of uncertainty and perceived risk, which is why trust becomes an important factor for people to use (Li & Yeh, 2010; Pavlou, 2003). Major efforts are needed for e-Banking service providers to increase their client's trust. This is because trust has a big influence for a customer to perform banking transactions via e-Banking or not (Sugiantoro & Isharjadi, 2015). In the relationship between customer and e-Banking, if the trust does not exist, then there will be no adoption that leads to the absence of use of this technology (Zhou, 2012).

Development of Hypotheses. The main obstacles in the use of e-banking in Brazil are risk perception (Cruz, Barretto Filgueiras Neto, Munoz-Gallego, & Laukkanen, 2010). Risk perception is also the most important factor in China ( Laforet & Li, 2005) as well as that factor has a significant relationship with the intention to use e-banking in Iran (Mohammadi, 2015). The use of e-banking is also significantly influenced by this construction (Yiu, Grant, & Edgar, 2007). Risk perception is a significant factor affecting trust (Al-Gahtani, 2011) and influencing the adoption of mobile banking (Al-Jabri & Sohail, 2012; Ha et al., 2012; Mishra & Bisht, 2013). Because risk perception can have a negative effect on trust, the first variable we include in our model is risk. Risk perception involves concerns about: i) the use of personal information without the knowledge or permission of the owner (Akturan & Tezcan, 2012; Lee, 2009; Luarn & Lin, 2005); ii) money transference for third parties without the knowledge and permission (Act & Tezcan, 2012; Hanafizadeh, Behboudi, Koshksaray, & Tabar, 2014; Luarn & Lin, 2005); and iii) the vulnerability of mobile devices to hackers, Trojan horses and information interception (Zhou, 2011; 2012a; 2013). Banks need to guarantee high security transactions through MB, as well as they need to ensure reliability for their customers (Al-Jabri & Sohail, 2012; Ha et al., 2012).

Concerns about access to personal / financial information by unauthorized third parties lead customers to distrust online system security (Kim, Ferrin, & Rao, 2008). In the case of MB, a higher risk perception may lead people to avoid adoption, especially when we observe Sohail and Al-Jabri results (2014), suggesting that non-users perceive a higher risk level in MB compared to users of this technology. Al-Jabri and Sohail (2012) also found a negative effect of the perceived risk in mobile banking adoption. In addition, Al Gahtani (2011) and Liao et al. (2011) identifies that perceived risk has a negative effect on trust to conduct online transactions. In this way, we hypothesize that people who feel higher levels of risk in MB tend to feel less confident to adopt it.

H1. Risk Perception has a negative influence on Trust in the use of e-banking.

Formerly pointed out as a lost (or implicit) construction in the previous model (Goodhue & Thompson, 1995), fit task technology has gained popularity and acceptance among information systems research (Lee, Cheng, & Cheng, 2007). For example, Suh and Han (2002) and Hwang and Jeong (2014) suggest for future work to explore the impact of user task characteristics on user acceptance of technology. Recent papers have used this construction to understand MB adoption and user attitudes toward MB (Oliveira, Faria, Thomas, & Popović, 2014; Zhou et al., 2010).

An information technology will have a positive effect on individual performance when this technology is useful, and when it presents matches the task it supports (Goodhue & Thompson, 1995). This reason considers a perspective on how new technologies can contribute to optimizing specific jobs (Oliveira et al., 2014). In this way, the technology fit model of the task indicates that not only the characteristics embedded in the given system
will contribute to a higher evaluation by the user; the extent to which the system helps individuals in the needs of their duties also has a significant influence (Goodhue, 1995).

Characteristic of the task may affect the intention to use MB (Oliveira et al., 2014; Zhou et al., 2010) and trust. People who need to transfer money anytime and anywhere, who need to view their account balances and manage their accounts on time, tend to trust the technology to grow their activities. Somehow, they have to believe in technology to do their activities.

Oliveira et al. (2014) use characteristic tasks and characteristic technologies in their models, as antecedents of fit technology tasks. They observed that fit duty technology presented a positive effect on performance expectations on MB. Zhou et al. (2010) developed a study integrating model technology fit tasks with an integrated theory of acceptance and use of technology to explain MB adoption. Their results support the application of this approach to understanding MB adoption, once task characteristics have a positive effect on the dependent variable. In this study, we expect a positive relationship between task characteristics and trust in MB.

H2. Task Characteristic has a positive influence on trust in the use of e-banking.

Personal innovation in the domain of information technology represents individual characteristics that reflect a willingness to try new technologies (Agarwal & Karahanna, 2000). This build helps in the identification of individuals who may be adopting some new information technology earlier than others (Agarwal & Prasad, 1998). In the case of MB, personal innovation is a characteristic that contributes to the reduction of uncertainty (Montezemi & Saremi, 2015), and, thus, can show a positive effect on the perception of cellular technology as ease of use (Lu, Yao, & Yu, 2005) McKnight et al., 2002). In addition, personal innovation has a negative relationship with computer anxiety (Powell, 2013), a positive relationship with the implementation of information systems (Hwang, 2014) and a positive relationship with the adoption of internet banking (Yiu et al., 2007).

Although Zhou (2012b) did not find a positive relationship between trust and personal innovation, evidence from previous research indicates that personal innovation has a positive relationship with: disposition of trust (McKnight et al., 2002); intentions to adopt mobile credit cards (Tan, Ooi, Chong, & Hwe, 2014); and intentions to adopt MB (Chitungo & Munongo, 2013). Based on these arguments and evidence, we consider that in Brazil people who like to try new technology will be more willing to believe in MB than their peers.

H3. Personal innovativeness has a positive influence on trust in the use of e-banking.

Social influence represents the extent to which an individual feels that another important person, especially his or her friends and family, believes that he or she should use the new system (Baptista & Oliveira, 2015; Venkatesh et al., 2003). It is a relevant concept to explain the adoption of technology (Hwang, Al-Arabi, & Chin, 2015; Venkatesh & Morris, 2000) and has been used in the study of MB and online banking (Al-Somali, Gholami, & Clegg, 2009; Baptista & Oliveira, 2015; Chitungo & Munongo, 2013; Montezemi & Saremi, 2015; Oliveira et al., 2014; Shaikh & Karjaluoto, 2015; Zhou et al., 2010). Using the same arguments put forward by Venkatesh et al. (2003), we assume that people who use MB influence people around using MB as well, especially if they are the important reference for the latter.

Perhaps, there is some sort of transfer of confidence in this case, where people tend to believe in MB because other important people also believe in it. The same relevant way to explore social influences in e-commerce (Lu et al., 2005), is also relevant to explore these variables within the MB context. If someone is successful using MB, people who consider it important can try to use MB as well, and believe in this technology. In the same way as personal innovation, social influence contributes to the reduction of uncertainty (Montezemi & Saremi, 2015).

Goh and Sun (2014) observed that social norms had a significant effect on female users of Islamic MB, but did not have a significant effect for men. Tan et al. (2014) found a positive influence of social influence on the intention to adopt mobile credit cards. In contrast to Goh and Sun (2014), differences in pathway coefficients between men and women were not statistically significant in the study developed by Tan et al. (2014). The results of Yu
(2012) show that the main construct for explaining the intention to adopt MB in Taiwan is social influence (the relationship is positive). Thus, our fourth hypothesis is:

H4. **Social Influence** has a positive influence on trust in the use of **e-banking**.

**METHODS OF RESEARCH**

The research method using quantitative and data collection techniques is done by using online survey. The population target for this study is **e-banking** users. A total of 203 e-banking users domiciled in Indonesia participated in this study. But the respondents who meet the criteria in this study, namely the e-banking users with age between 21-40 years, were 173 respondents.

A total of 14 items of questionnaires were adopted from Malaquias and Hwang (2016). All items in table 1 have been modified and adapted to the conditions of users in Indonesia to facilitate the respondents in understanding the questions. Each item is measured using a Likert scale between 1 (strongly disagree) and 5 (agree). Age and gender are also included in the questionnaire as demographic questions.

All four determinants are **risk perception**, **task characteristic**, **personal innovativeness** and **social influence** acting as an independent variable. While **trust** acts as a dependent variable, the relationship of each variable is shown in the following research model:

![Research model diagram](image)

**Figure 1 – Research model**

**RESULTS AND DISCUSSION**

Evaluation of Measurement Model (Outer). In testing the measurement model, where the correlation between latent variables and indicators tested according to latent variables, then tested the convergent validity, discriminant validity test, and reliability test. The convergent validity test is used to see the indication of the extent to which the assessment steps correlate with other steps that must be related. The convergent validity test is assessed for the measurement model based on the following criteria: (a) outer loadings for all items must exceed 0.70; (b) Average Variance Extracted (AVE) value exceeds 0.50. The measurement results can be seen in table 2.

Table 2 above shows that outer loadings for all items > 0.70 as recommended by (Sholihin & Ratmono, 2013). The SI3 item from Social Influence (SI) has been removed from the data due to low loading (<0.70). Finally, AVE values for all constructs are greater than 0.50 as recommended by (Solimun et al., 2017). Thus, the convergent validity test is achieved. To test reliability, the items used as a benchmark for reliability test parameters are Cronbach’s alpha and composite reliability (Nugroho et al., 2017). The requirements for the reliability test are the composite reliability (CR)> 0.70 and Cronbach’s alpha> 0.60 (Solimun et al., 2017). As shown in table 3, then the reliability test is reached.

Discriminant validity tests, as defined by Thong (2001, p.152) are quoted from (Tan et al., 2017) is “the extent to which items distinguish between variables”. This can be assessed by “comparing the square root level of AVEs and the correlation between the two constructs” (Deng, Mo, & Liu, 2014). The results shown in Table 3, the discriminant validity
test have been achieved because the square root of AVEs exceeds the corresponding AVEs intercorrelation.

Table 1 – Demographic Profile of Respondents

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Amount</th>
<th>% Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>121</td>
<td>59.6%</td>
</tr>
<tr>
<td>Man</td>
<td>82</td>
<td>40.4%</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMA</td>
<td>6</td>
<td>3.0%</td>
</tr>
<tr>
<td>Diploma</td>
<td>10</td>
<td>4.9%</td>
</tr>
<tr>
<td>Bachelor</td>
<td>137</td>
<td>67.5%</td>
</tr>
<tr>
<td>Master</td>
<td>48</td>
<td>23.6%</td>
</tr>
<tr>
<td>Doctor / Ph.D.</td>
<td>2</td>
<td>1.0%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In bottom 20</td>
<td>1</td>
<td>0.5%</td>
</tr>
<tr>
<td>21-25 years old</td>
<td>32</td>
<td>15.8%</td>
</tr>
<tr>
<td>26-30 years old</td>
<td>38</td>
<td>18.7%</td>
</tr>
<tr>
<td>31-35 years old</td>
<td>91</td>
<td>44.8%</td>
</tr>
<tr>
<td>36-40 years old</td>
<td>12</td>
<td>5.9%</td>
</tr>
<tr>
<td>Above 40 years old</td>
<td>29</td>
<td>14.3%</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College student</td>
<td>31</td>
<td>15.3%</td>
</tr>
<tr>
<td>Work</td>
<td>156</td>
<td>76.8%</td>
</tr>
<tr>
<td>Housewife</td>
<td>13</td>
<td>6.4%</td>
</tr>
<tr>
<td>Pension</td>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td>Duration of e-banking Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 year</td>
<td>13</td>
<td>6.4%</td>
</tr>
<tr>
<td>1-3 years</td>
<td>60</td>
<td>29.6%</td>
</tr>
<tr>
<td>3-5 years</td>
<td>40</td>
<td>19.7%</td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>90</td>
<td>44.3%</td>
</tr>
</tbody>
</table>

Table 2 – Convergent Validity and Reliability Test

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Outer Loadings</th>
<th>AVE</th>
<th>Composite Reliability</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>TR1</td>
<td>0.852</td>
<td></td>
<td>0.794</td>
<td>0.670</td>
</tr>
<tr>
<td></td>
<td>TR2</td>
<td>0.927</td>
<td></td>
<td>0.920</td>
<td>0.870</td>
</tr>
<tr>
<td></td>
<td>TR3</td>
<td>0.893</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Perceived</td>
<td>RP1</td>
<td>0.961</td>
<td></td>
<td>0.924</td>
<td>0.918</td>
</tr>
<tr>
<td></td>
<td>RP2</td>
<td>0.961</td>
<td></td>
<td>0.960</td>
<td>0.918</td>
</tr>
<tr>
<td>Social Influence</td>
<td>SI1</td>
<td>0.911</td>
<td></td>
<td>0.831</td>
<td>0.796</td>
</tr>
<tr>
<td></td>
<td>SI2</td>
<td>0.911</td>
<td></td>
<td>0.907</td>
<td>0.796</td>
</tr>
<tr>
<td></td>
<td>TC1</td>
<td>0.883</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Characteristic</td>
<td>TC2</td>
<td>0.934</td>
<td></td>
<td>0.814</td>
<td>0.885</td>
</tr>
<tr>
<td></td>
<td>TC3</td>
<td>0.888</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Innovativeness</td>
<td>P2</td>
<td>0.871</td>
<td></td>
<td>0.713</td>
<td>0.779</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>0.898</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: SI3 has been removed due to low outer loadings (<0.70).

Table 3 – Discriminant Validity Test / Correlation Latent Variable

<table>
<thead>
<tr>
<th>TR</th>
<th>R</th>
<th>P</th>
<th>TC</th>
<th>SI</th>
<th>PI</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR</td>
<td>0.891</td>
<td>-0.192</td>
<td>0.333</td>
<td>0.214</td>
<td>0.263</td>
</tr>
<tr>
<td>RP</td>
<td>-0.192</td>
<td>0.961</td>
<td>0.143</td>
<td>0.080</td>
<td>-0.051</td>
</tr>
<tr>
<td>TC</td>
<td>0.333</td>
<td>0.143</td>
<td>0.902</td>
<td>0.076</td>
<td>0.247</td>
</tr>
<tr>
<td>SI</td>
<td>0.214</td>
<td>0.080</td>
<td>0.076</td>
<td>0.911</td>
<td>0.305</td>
</tr>
<tr>
<td>PI</td>
<td>0.263</td>
<td>-0.051</td>
<td>0.247</td>
<td>0.305</td>
<td>0.844</td>
</tr>
</tbody>
</table>

Notes: the diagonal element (bold) is the square root of AVE for each construct. The off-diagonal factor indicates inter-correlation.

Analysis Structural Model (Inner). Figure 2 shows the result of testing hypotheses is. Results show that 26% of the variations TRUST in using e-Banking is explained by Risk
Perceived (RP), Task Characteristic (TC), Social Influence (SI) and Personal Innovativeness (PI) constructs.

It has been shown that this model applies in the context of usage e-banking. Trust to use e-banking was significantly positively influenced by TC (β = 0.28, p <0.01); SI (β = 0.19, p <0.01); and PI (β = 0.14, p <0.05), where the strongest determinant factor is Task Characteristic (TC). Furthermore, Risk Perceived significantly negatively affects the Trust (β = - 0.23, p <0.01). Thus, H1, H2, H3 and H4 are supported.

![Diagram of hypothesis testing results using PLS-SEM](Image)

**Figure 2 – Results of PLS-SEM**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Path Coefficient</th>
<th>P-Values</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>RP → TR</td>
<td>-0.224</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>TC → TR</td>
<td>0.296</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>PI → TR</td>
<td>0.155</td>
<td>0.019</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>SI → TR</td>
<td>0.155</td>
<td>0.018</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Based on the application of the model, empirical evidence related to risk perception, task characteristic, personal innovativeness, all of which have an effect on trust in using e-banking among Generation Y in Indonesia. But the biggest factor is influenced by task characteristic and then followed by perceived risk.

**CONCLUSION**

Based on empirical results, TC is the most significant factor in influencing trust, followed by risk perceived, personal innovativeness and social influences. This study has some limitations that may encourage further study. First, this study is still lacking in terms of the number of respondents and distributing questionnaires representing per region in Indonesia. Further studies may consider a wider and more equitable distribution to the territory of Indonesia. Secondly, this study model only explains the trust to use e-banking by 26%. Thus, it is necessary to add other undetermined determinants such as attitudes toward advertising; image of related bank; domicile of respondents (rural / urban) and others. From a managerial point of view, this study provides practical guidance to increase the knowledge of the factors that make e-banking acceptable and used by the community. This study proves that task characteristic has the greatest influence to public trust in using e-banking. This can be a first step for banks to target customers with characteristics that require mobility in managing and using financial transactions. Thus, e-banking service providers are always able to provide the best and innovative services for consumers who have different values with competitors.

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Appendix 1 – Questionnaire

<table>
<thead>
<tr>
<th>Factor</th>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Innovativeness</td>
<td>If I hear about new technology, I will find a way to gain experience with it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Among my colleagues, I am usually the first to try new technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I love to experiment with new technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td>The person who influenced my behavior thought that I should use e-banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The people who matter to me think that I should use e-banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>People I know use e-banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Characteristic</td>
<td>I need to transfer money anytime anywhere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I need to manage my account anytime anywhere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I need to get account information in real time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Perception</td>
<td>I’m worried if the hacker invaded my mobile device</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am worried if my device connection is tapped during the financial transaction process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>I believe that e-banking can be trusted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I believe that the services provided by e-banking are in accordance with the promised ones</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I believe that e-banking keeps the interest of its users</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Malaquias & Hwang, 2016.

REFERENCES


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ROLE OF SOCIAL CAPITAL IN RESOURCE MANAGEMENT FOR INCREASING CIBULAO HAMLET COMMUNITY ECONOMY AT BOGOR, WEST JAVA PROVINCE OF INDONESIA

Guswandi
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ABSTRACT
The community welfare level in an area is not merely to be interpreted as the level of economic growth, productivity, material advancement. It ought to consider the socio-cultural performance, such as social interaction, access to income, education, health and the democratic process. Cibulao Hamlet, Tugu Utara Village, Cisarua district, Bogor Regency, Indonesia, are intriguing examples of efforts to develop community independence while paying attention to social capital development. This study endeavor to determine the role of social capital in Cibulao Hamlet in improving the community economy using explorative and descriptive methods. The research was conducted to determine the socio-economic condition of the community. Research result indicates that existing social capital in Cibulao Hamlet can gradually improve the community economy.

KEY WORDS
Social capital, resources, management, community, economy.

In an effort to improve socio-economic development, reducing regional disparities and maintaining environmental sustainability in a region requires a development strategy (Dody, 2003). One effort to equalize economic growth is to accelerate regional economic development, especially underdeveloped areas, by empowering actors and the regional economic potential which is in line with the implementation of regional autonomy. Efforts to accelerate rural economic development based on the utilization of natural resources should pay attention to the harmony between the development sector, the environment, and the settlements feasibility under regional infrastructure.

The village development program remains an important priority because villages are struggling with poverty, limited basic facilities and infrastructure, and the scarcity of economic and social institutions. This condition is inseparable from the various problems and constraints faced by rural communities, such as: the low education of rural communities, the difficulty of access to capital, the low added value of agricultural businesses, the low level of control of agricultural land by farm households, the high dependence on agricultural cultivation activities, and the weak economic linkages between the agricultural sector and the industrial and service sectors, etc.

Based on the concept of development (community-based) proposed by Hasbullah (2006), the success of community development are determined by community capitals: (a) Human capital in the form of personal abilities such as education, knowledge, health, expertise and other related conditions; (b) Natural Capital such as land resources; (c) Produced Economic Capital in the form of economic, financial assets, and other assets; and (d) Social Capital in the form of norms (values, trust, reciprocity, other social norms), participation in networks, pro-activity.

Regional development cannot be realized without changes in social organizations and value systems. The productivity of an economic system and resource management are conditioned by the culture and institutions that exist in society (Hayami, in Rustiadi, 2011). Therefore, the community welfare level in an area is not merely to be interpreted as the level of economic growth, productivity, and material advancement. It ought to consider the community socio-cultural performance such as social interaction, access to income, education, health and democratic processes (Rustiadi, 2011).
Several relevant works of literature suggest that human capital, natural resource capital, and productive economic capital have been widely worked on by the government. Nevertheless, social capital has been largely ignored (Cerne, 1988; Hasbullah, 2006; Jamasy, 2004; Rustiadi, 2011). The study of the correlation between social factors and regional development performance in a measured manner/quantitatively was introduced by Putman’s (1993) research on the role of social capital in the regional economy.

Cibulao Hamlet, Tugu Utara Village, Cisarua District, Bogor Regency, Indonesia, is an intriguing example of endeavor to develop community independence while paying attention to the development of social capital. Cibulao Hamlet is located in Cultivation Right (HGU) land owned by PT Sumber Sari Bumi Pakuan (SSBP). Hence, the effort to empower the community requires a unique approach. Cibulao Hamlet is located in Tugu Utara village, Cisarua district, Bogor regency. Geographically, Cibulao Hamlet is located in a tea plantation area and is surrounded by forest areas managed by Perhutani (state-owned forestry enterprise). Tea plantations have existed since the Dutch colonial era (1811) which is known as the Ciliwung tea plantation.

Part of the Cibulao Hamlet community earns low wages which value is under the Bogor Regency UMR (Minimum Wages). Wages obtained depend on the number of tea leaves collected, low human resource capacity (due to lack of basic service facilities such as education, hence most only graduated elementary school), minimal health facilities, companies do not provide health insurance to employees and do not pay attention to settlements. These factors eventually damage plantation area and caused the following issue: poverty, low welfare level, floods, illegal logging, and cultivating vegetable illegal in the Perhutani area.

This study endeavor to determine the role of social capital in Cibulao Hamlet in improving the community’s economy. This study used explorative and descriptive methods in order to determine the community socio-economic condition in Cibulao Hamlet.

Social Capital. Defining social capital that was presented by experts including Pretty and Ward (2001) identified four main aspects of social capital, namely: (a) the relationship of trust, (b) the reciprocity and exchanges, (c) common rules, norms and sanctions; and (d) connectedness, networks and groups. The key components of social capital identified by Putnam (1993), Fukuyama (1995), and by Knack and Keefer (1997) are (1) networks of civic engagement, (2) norms of generalized reciprocity and (3) social trust. Based on the game theory model used by researchers, the repeated interactions in the network container, especially the horizontal network, will gradually lead to an increase in equivalent status and power, norms are grown and maintained with various forms of modeling and socialization (including civic education), and with sanctions (Putnam, 1993).

By its nature social capital (1) does not run out when used, otherwise, it will run out if not used, (2) not easily observed and measured, and (3) difficult to be built with outside intervention. Therefore social development is a development process using a different approach to physical development and is unique to each characteristic of different communities and regions. However, understanding the aspects and elements of social capital will determine the pattern of social development approaches needed (Rustiadi, 2011).

The more social and cultural character of the community that leads to bridging social capital can be interpreted as the socio-cultural condition. It supports the success of a development and vice versa. In regional development implementation, typology of social capital indication is needed to monitor community-based development programs. The programs were conducted in an endeavor to form a participatory and independent community (Ponotho, 2010). The socio-cultural character that characterizes the social capital in the community is determined through an approach to internal and external factors that influence society culture (Jamasy, 2006 in Pontho, 2010). Internal factors include: (a) Patterns of social organization in a community that include local beliefs, patterns, production, and reproduction method, as well as local politics; and (b) the norms and values inherent in the community. The external factors are the influence of religion, education, system, and political relations with government outside the community.
Elements of social capital consist of (1) mutual trust, (2) Norm, and (3) Networking. The relationship of trust will nurture cooperation, which can then reduce transaction costs between people and ultimately will save the use of resources. As a result of mutual trust, there is a little need to monitor others. Thus the relationship of trust will save money and time. In fact, the trust will build a sense of responsibility and a sense of appreciation, which will then lead to trust. In turn, the other party would reciprocate the trust, hence forming a reciprocal trust. There are two types of trust: the relationship of mutual trust with known individuals (thick trust); and the relationship of trust with strangers. The trust is directed to known social structures (thin trusts) (Rustiadi, 2011). Building trust requires a very long time but is often easily destroyed (Fukuyama, 1995), and when a society experiences distrust, building cooperation and arrangements will be difficult to materialize (Baland and Platteau, 1998).

A norm is a form of reciprocal agreement that effectively regulates behavior in such a way that group interests are placed above personal interests. The existence of general rules, norms, and sanctions make individuals believe that investing in collective or group activities, and trusting others will do the same. Individuals will fulfill their responsibilities with the belief that their rights will not be marginalized because there is mutual agreement on imposed sanctions. Formal rules are made by authorities, such as legal and regulatory products, while informal rules are used by individuals for various individual activities in daily life (Rustiadi, 2011).

Based on networking elements, social capital is divided into three types: (1) social capital bonding; (2) bridging social capital and (3) linking social capital. Bonding social capital is characterized by strong ties (relationships) such as between family members or between members in certain ethnic groups. Some views equate this bond with thick trust, which is social capital that is built up due to trust between groups of people who know each other. The second type, bridging social capital, is characterized by the increasing number of ties between groups such as business associations, relatives, friends from various different ethnic groups. This second type of social capital is built from thin trust, trust in a group of strangers. Whereas linking social capital is characterized by the relationship between different levels of strength and social status, such as interrelationships between political elites or between individuals from different classes.

Warner, 2001 in Rustiadi, 2011 presents aspects of social capital in the following areas: (1) "form" (whether horizontal or hierarchical), (2) "level" (individual/family level or community level) and (3) "investment costs". The form of social capital can be horizontal or hierarchical. Horizontal forms of social capital can encourage the involvement of more individual bonds in the community, encourage equality (egalitarian relations), and develop a more robust democratic structure (Putnam, 1993a, 1993b). The form of hierarchical social capital results in patron-client relationships (and groups) which may weaken development (Duncan, 1992; Putnam, 1993a; Portes and Sensenbrenner, 1993 in Rustiadi, 2011).

The social capital can be divided into several levels: individuals, families, communities, local communities, communities in a region, national, and global level. Several studies on social capital focused at individuals or families level especially regarding the contribution of social capital to the individual economy and education development (Coleman, 1988; Bordieu, 1986 in Rustiadi, 2011). Putnam's research (1993a) explored social capital at the community level. Social capital at the community level cannot be measured only as a form of aggregation of individual networks. Particular attention needs to be given to inter-organizational networks and government institutions. Social capital at the community level is determined by existing community groups and networks (Woolcock, 1998). Strong community social capital will create a "civic infrastructure" that will support the processes of decision making and public involvement both formally and informally (Potapchuck et al., 1997) (Rustiadi, 2011).

Individual social capital Investment requires immediate returns. On the other hand, the community level investment expects generalized reciprocity and democratic responsiveness from the government. The balance between autonomy and strong horizontal linkages strengthens generalized reciprocity and democratic government. Thus, regions with higher
horizontal social capital will provide a good environment for increasing social capital investment.

Human activities in processing natural resources take place through individual or collective activities. Therefore, local institutions is always an effective element, because its existence allows resource utilization by minimizing repeated and negotiation processes and providing cheap prices (Bromley, 1993). Social capital will reduce the cost of cooperating and facilitating cooperation. People believe that investing in collective activities would encourage others to conduct in a similar manner and be motivated to abandon exclusive personal habits with negative influence, such as resource degradation. However, the effort provided to grow social and human capital is minimal.

Cibulao Hamlet Social Capital. The Cibulao community is formed from a group of families who work on tea plantations owned by PT. Sumber Sari Bumi Pakuan. For many years the mindset of the Cibulao community experienced no change. They prefer to work as plantation workers. These conditions resulted in lower living standards compared to the community’s expectation. This is reflected in children education, as very few obtained education level above elementary school. In addition, long distance and expensive living cost discourage efforts to obtain a higher level of education.

Nevertheless, the new generation comes with a new spirit. They believe that the lifestyle ought to be improved instead of relying on income as plantation workers. They also prepare the best for future generations. For this reason, generations (3rd generation) are just starting to improve in an endeavor to develop existing potential. These potentials may become alternative livelihoods to improve the community living standard. They understand that the environmental resources around Cibulao Hamlet are very rich. This awakening is due to strong social capital which had been nurtured for a long time in the community.

The majority of Cibulao people work as permanent employees such as foremen and factory security workers. They also work as daily laborers such as tea pickers, pest sprayers, cultivators in PT. Sumber Sari Bumi Pakuan tea plantation. The Cibulao community raises livestock and utilizing PT. Perhutani land through Community Forest Management (PHBM) activities, namely the cultivation of coffee plants managed by the Cibulao Forest Farmers Group (KTH).

In 2009 the Forest Farmers Group (KTH) of Cibulao Hijau was founded in collaboration with Perhutani through the Community-Based Forest Management (CBFM) program. This program carries out coffee planting among Perhutani’s forest stand (pine). Since PHBM program began in 2012, public interest in clearing the forest ceased. In 2015, through KTH and PHBM programs, more people were cultivating coffee among forest stand. In addition to economic added value, it could be used as an instrument to maintain forest sustainability.

KTH Cibulao Hijau was successful with the development of PHBM. This is reflected in the establishment of KTH Bike Park in 2013 by opening cycling paths that crossed production forests, tea gardens, and its surroundings. KTH Bikepark was considered successful. Cycling paths for AM class trail expert, XC and Enduro were developed a year after. In 2014 the inclusion of the IPB P4W consortium encourage changes in the community. P4W Consortium donated high-quality coffee cultivation and knowledge on cultivating coffee. In addition to increasing community income, this activity preserves the forest as well. P4W Consortium assistance is considered to be successful. It is reflected in high-quality coffee cultivation. Cibulao coffee won the first rank in national coffee competition for robusta types in 2016.

As Robusta Cibulao coffee was recognized at the national level in 2016 and successful KTH Bikepark development, Cibulao Hamlet was increasingly exposed. It began to be visited by many government agencies, both central and local governments, providing good contribution to Cibulao Hamlet. In 2016 -2017, Cibulao Hamlet received assistance in the form coffee seeds and sengon trees by the Livestock and Plantation Office and LIPI.

The development of the Forest Farmers Group (KTH) Cibulao encourages the development and formation of other community groups. The existence of these community groups can be seen in Figure 1.
Based on the level of social capital available in Cibulao Village, it exhibits that:

- At families and community level, it bridges institutions related to Perhutani and the local government, good relationships are social capital;
- At the National level of inter-sectoral relations, there’s existing sectoral ego and free riding;
- At Individual level, someone dares to take risks to bear their own costs for his or her respective investment.

Based on the elements of social capital (beliefs, norms, and networks), the social capital formed in Cibulao Hamlet is as follows:

a. **Trust:** Unity among fellow members and the community; Mutual trust; Protection of resources (eg trees); Shared rules obeyed by members; Existing initiator; Contributions; Mutual Cooperation.

b. **Norms:** Regular 2 weeks meeting; Forest monitoring patrol; Cycling Path Maintenance; Maintaining Coffee Plants.

c. **Networking:** Establish cooperation with the Village Government; Cooperating with PTPN 8 Gunung Mas; Cooperating with Bike Hobbyist Community; Cooperating with P4W IPB, PT SSBP, PT Perhutani, Agriculture Office, Penyelamatan Puncak Consortium, Bogor KPH, FV, ICCTF, Ranin Coffee House, Bogor Ciliwung Caring Community, INFIS, Ciliwung Institute, Kaoem Telapak, PT ANTAM, BP DAS.

**CONCLUSION**

Nature-based business development carried out by the Cibulao community, directly causes a socio-economic shift in society. The social economic shift is not visible and there is no supporting data. However, Cibulao Community attitudes and thought processes have begun to change. They sought alternative jobs. The socio-economic shift is reflected in the number of people who invest their business.

With the occurrence of socio-economic shifts, the community did not cause their culture and social capital to fade. There is no change to their lifestyle as the community still inhabit the plantation workers' residential areas. Therefore boasting wealth is an unusual conduct. The social capital formed in Cibulao Hamlet can gradually improve the community economy in. This is indicated by the increasing number of people who are interested in becoming members of Cibulao KTH and the growing businesses in Cibulao Hamlet.
REFERENCES

RELIGIOSITY INFLUENCES TOWARDS TAX COMPLIANCES IN SIDOARJO

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ABSTRACT
Tax and religion are two sensitive topics that are rarely discussed in general. This is because these two topics are considered as private by many people. However, religiosity is a non-economic factor that often neglected on previous researches. The role of religiosity towards tax compliance has been studied many times. The roles found to be significantly affecting tax evasion in some countries. Unfortunately, many researchers also found that religiosity does not affect tax compliance; it functions merely as fundamental of life for some people. On this paper, we want to find the role of religiosity towards tax compliance in Sidoarjo. Sidoarjo is one of the busiest city in East Java, Indonesia. The result of this study indicates that religiosity does not play significant roles towards tax evasion in Sidoarjo. The taxpayers tend to use moral and social reasons as the base for them to comply with tax regulations.

KEY WORDS
Tax, tax compliance, religiosity, tax morale.

Tax revenue is one of the important sources of income for the nation. It serves as one of the component that makes budgeting and public expenditure. Tax revenue can also be used to measure the strength of government policy towards its citizen. Hence, many tax authorities in every country try to improve tax revenue in every section. One of the improvements that they are trying to improve is the compliance section. Tax compliance is not a new subject. In fact, it has been reviewed and researched many times. Most of the research was based on the economy factors on why people not paying tax, where in fact, the numbers of non-payers are lower than the number of those who complied. Therefore, economy factors should not be used as the only variables to determine tax compliance. There were many evidence that non-economic factors such as culture, government rules and morale affected people behavior towards tax compliance.

One of the non-economic factors that are being researched is related to tax morale. Tax morale defined as intrinsic intentions of taxpayers to pay taxes (Torgler, 2005). One of the factors that shaped of individual’s morality is religiosity (Pope & Mohdali, 2010). Religiosity is a non-economic factor that often neglected on previous researches because it has negative relationship with the economic development in a country (Stark & Bainbridge, 1996).

Simply put, the term religiosity is defined as a condition in which humans believe in the great power that controls their lives so they have an obligation to obey, believe, and also worship this power. The concept of religiosity cannot be related to the concept of 1 (one) religion, but the meaning is broad and too complex. People who have religion and believe in God(s) can be said to have high moral values. But atheists or those who have no religion, may have higher morals. So, in the context of this tax compliance, researchers will only take the religiosity factors that are common in the understanding of the Indonesian.

Tax compliance can be defined as a taxpayers’ intention to report all income and deduction of their income as truest as possible in a timely manner and in accordance with applicable rules (Roth, Scholz, & Witte, 1989). Whereas in the neo-classical paradigm defines taxpayers as individuals who have a very good moral understanding, risk aversion, are able to choose alternatives to maximize income so it is obligatory to commit non-compliance in the form of tax evasion when it is felt that taxes are a burden that reduces their income (Milliron & Toy, 1988). Thus, according to the neo-classical paradigm, the way to
prevent the occurrence of tax evasion is to provide greater sanctions and fines and also tighten tax rules and frequent tax audits.

As we aware, Indonesia is one of the most populous countries with Moslem as one of the majority religion in the country. Unfortunately, the number of tax-related fraudulents and avoidance are very high. This resulted in lower public trust towards government official. Hence, our research is trying to find the significance of religiosity towards tax compliance in Indonesia.

This paper is organised as follows, part one is brief introduction to the research issue. Following that, chapter 2 will focus on the theoretical basis of religiosity and tax compliance according to the definition and results of previous studies. Chapter 3 will focus on the type of research, measurement and data processing. Chapter 4 will explain the results of the research obtained by the method in the previous chapter. Chapter 5 focuses on the conclusions of the research and the limitations of the study.

LITERATURE REVIEW

Tax and religion are two sensitive topics that are rarely discussed in general. This is because these two topics considered as private by many people. Discussing taxes will not escape the assumption that the questioner wants to know how much the individual's income is, whether the individual understands tax regulations and the most important thing is whether the individual has carried out his tax obligations properly. The same thing applies if we ask individuals about religion. Religion is private and has different sensitivity for each individual. A view of the same religion may have different meanings for each individual. This causes research related to religion to be difficult because of the limitations and reluctance of the resource person to answer the questions posed by the researcher.

Religion can be defined as a supernatural and spiritual system that governs the behavior, views and ethics associated with a text, holy place or religious affiliation (Morreall & Sonn, 2012). Meanwhile, religiosity is the level of obedience that is owned and held by each individual of the religion he holds. Johnson, Jang, Larson & De Li (2001) defines religious commitment or religiosity as "the extent to which an individual is committed to the religion he embraces and his teachings, so that individual attitudes and behavior reflect this commitment". In other words, it can be concluded that one's religion can be seen by others, but the level of religiosity can only be known by that person. As commensurate with habit, religiosity can be used as a control and regulator of how individuals act, thus making our social life more predictable and making individuals feel calmer and safer when facing uncertainty (Heiner, 1983).

Glock (1962) divided religiosity into 5 (five) dimensions. The first four dimensions are religious beliefs, practices, experiences and knowledge which then form the final dimension of behavior. However, it is still difficult to measure the religiosity of each individual because this religiosity has many variables, such as religion itself, culture, socioeconomic factors, etc. Peter (1999) wrote a book about how to measure religiosity with a focus on the perspective of western religion. In this book, he divides measurements into categories such as beliefs and practices, religious attitudes, religious orientation, religious development, religious commitment and involvement, religious experience, and moral values. There are many variations and variables to measure religiosity, so many researchers only use a few points such as church attendance, church participation, religious education, religious beliefs, importance of religion, religious guidance and trust in church - to represent religious obedience (Torgler, 2006).

Religiosity seems to be a complex concept that includes not only observable behaviors and attitudes but also unobservable beliefs, feelings, and experiences. So referring to previous research, religiosity can be seen from two main perspectives: religious affiliation and religious commitment.

Religious affiliation refers to certain religious groups held by individuals such as Islam, Christianity, Buddhism and Hinduism. Lenski (1961), "religion is the bearer of complex subcultures that are relevant to almost all phases of human existence and group social
heritage products”. Thus the historical values of different religious affiliations can affect individual behavior differently. Religious commitment is divided into two types, namely intrapersonal religiosity that comes from individual beliefs and attitudes and interpersonal religiosity that develops from individual involvement with religious communities or organizations (Pope & Mohdali, 2010).

Indonesia is a country that upholds religiosity as well as a multicultural country based on the principle of divinity. This principle is clearly illustrated from the first principle of Pancasila, as the basis of the moral and norms and ethics of the Indonesian people. This principle of divinity is realized in the form of religious recognition. Religion is one of the fundamental points in human life. In religion itself, not only regulates the relationship between humans and the Creator but also. The general concept of this practice is of course to create a peaceful, fair, prosperous and tolerant relationship between human beings. With religion, each individual may have control over the behavior used as a spiritual human being (Anderson & Tollison, 1992).

Tax compliance is not a hotcake issue for the economy throughout the world. This problem arises in both developed and developing countries. In general, the conflict between taxpayers and tax authorities is mostly the same in every country. Taxpayers and tax authorities always have differences of opinion regarding tax compliance. For taxpayers, they generally assess taxes as an expense that reduces their income without giving concrete contributions in the short term. On the other hand, tax authorities see tax as a source of income and contributions that can help the country's economic growth. Unfortunately, many tax frauds make taxpayers think otherwise and find it futile to obey the rules if the ends are used for certain groups.

Taxpayers tend to carry out their tax obligations only to a safe point where they are not fined from delaying their obligations. This situation will bring apathy from the taxpayer, because they do not care for what their money is used and the arbitrariness of certain parties who feel free to misuse tax money. To minimize the boomerang effect of this government power, the tax authorities must foster public trust in their performance. Some of the ways commonly used to improve tax compliance and also show the power of legislation are promoting tax audits for business entities or taxpayers who have above-average income values, giving higher penalty rate and severe penalties that could be an example for those non-payers.

This trust could grow along with the realization of government promises such as increasing public facilities, easy access to taxation services to a reduction in tax rates if possible. According to researchers, the tax authorities and the Indonesian government in general have succeeded in showing positive improvements in the management of tax funds. This is realized by increasing comfort in some public facilities. Concrete evidence of increased taxpayer trust is indicated by the increase in receipt and reporting of the 2017 SPT OP amounting to 10,589,648 or an increase of 14% compared to the 2016 OPT SPT revenue (Novalius, 2018). Alm and Torgler (2006) stated that the trust factor in the government system can help increase tax compliance since voluntary in a country.

Pope and Mohdali (2010), conducted a study of the effect of religiosity on tax morals and tax compliance. This research was conducted using data from the World Value Survey (WVS) involving 99 countries with different cultural, economic and religious backgrounds. Although it has a wide range of resources and topics, the use of data from WVS has its own constraints. It is difficult to determine the level of religiosity from the speakers because of differences in cultural background and also the teachings adopted. There are variations between different religions, even in same religion, different beliefs and practices are adopted. These differences are influenced by different cultures formed from the historical values of each individual in various countries. In addition, the probability of misunderstanding survey questions is also greater because these questions are universal.

Torgler (2006) used data from the World Value Survey as Pope did, but with different years ranging from 1995-1997. The use of data from WVS is considered to represent 70% of the world's population, so the reliability of the data from this survey can be justified. Torgler uses a sample of 40 countries in this study. The findings in the study support previous
studies by combining non-economic factors into tax compliance analysis. From the data obtained in almost all the major religions in 40 countries, it found that people's morale was influenced by the magnitude of the role of religion, such as religious perception and understanding, activity in places of worship and the principles of religious life.

In 2016, a research was conducted in Turkey with a sample of 408 individual taxpayers in Malatya, Turkey. According to his research, the entrepreneurs have higher flexibility because they can report their income according to their wishes, in contrast to private employees who report their taxes through their place of work. Benk also found data that interpersonal religiosity has a greater role in influencing human behavior and outlook compared to intrapersonal religiosity especially in Turkey (Benk, Budak, Yüzbaşi, & Mohdali, 2016).

As a respond for aforementioned research, another cross-country comparison research conducted between Malaysia and Turkey. In this study, Mohdali did not take new data from the country of Turkey, but used the same data as the data obtained by Benk. As a comparison of the data, Mohdali conducted data sampling in Malaysia which involved as many as 200 sources from 17 companies in Klang Valley and Putrajaya, all sources of Islam and Malay ethnicity. The results of this study found that voluntary tax compliance in both countries have higher mean which means that taxpayers from these two countries have high tendency to comply with tax laws without voluntary compliance. Research by Benk (2016) and Mohdali (2017) concludes that Muslims in Turkey and Malaysia have high levels of compliance, especially voluntary compliance due to strong interpersonal religiosity (Mohdali, Benk, Budak, Mohdlsa, & Yussof, 2017).

Another research was carried out by Eiya (2016). Eiya conducted a study in Nigeria involving 342 Muslim and Christian speakers. In this study found no significant differences in Christian and Muslim tax compliance behavior in Nigeria. This study concludes that religious values alone do not play an important role in making taxpayers responsible for tax compliance. However, Nigerian WPs are not affected by the threat of penalties imposed by the tax authorities but are more influential on social factors that encourage their willingness to voluntarily comply with tax laws (Eiya, Ilaboya, & Okoye, 2016).

In Indonesia, the influence of religiosity on tax compliance was studied in 2016. Utama (2016), conducted a study of the effect of religiosity on personal taxpayer compliance behavior involving 296 resource persons from WP OP in DKI Jakarta province. This study found that the components of interpersonal religiosity have a significant effect on voluntary tax compliance, while for the component of Intrapersonal Religiosity does not significantly influence voluntary tax compliance.

![Conceptual Framework](image)

**Figure 1 – Conceptual Framework**

Using several findings from previous studies, the author draws inspiration from Pope's research (2010) which was later specifically re-verified by Benk (2016) and Mohdali (2017) about the effect of religiosity on tax compliance. From these previous studies, the authors conclude that religiosity has a significant role in tax compliance. To find out the significant role of interpersonal and intrapersonal religiosity in Indonesia, the authors use the conceptual framework as follows to facilitate the research process so that it remains in the planned scope and objectives.
H1: Interpersonal Religiosity influences tax compliance significantly;  
H2: Intrapersonal Religiosity influences tax compliance significantly.

METHODS OF RESEARCH

This research is a quantitative research that uses the process of data in the form of numbers as a tool to analyze and conduct research studies (Kasiram, 2008). Data from this study are primary data using questionnaires distributed to resource persons both directly and online. In this study the author uses two variables, the dependent variable and the independent variable. Independent variables include two variables, interpersonal and religious religion. There are 5 questions in each of these variables. These variables are then measured by a 5-point Likert scale, namely 1 stating strongly disagree and 5 strongly agree. Next one is the dependent variables. The dependent variable is the variable that is directly affected by the independent variable. The results of this variable determine how the hypothesis of a study can be answered. In this study, the dependent variable is tax compliance. There are 5 questions in this variable which are rated with a 5-point Likert scale.

Data collection will be focused on Sidoarjo, East Java. The target data to be collected for this study is about 300 respondents. This study uses primary data as research material. This primary data is data collected or obtained directly by researchers. The main instrument in this study is a questionnaire that will be given to correspondent. This questionnaire will be made in the form of an online questionnaire and in manual form. For online questionnaires, links will be distributed through social media, email and whatsapp. For manual questionnaires, researchers will disseminate to several points in offices and public areas in Sidoarjo. The sampling method will be carried out using convenience sampling. Convenience sampling is most commonly used during the research phase due to the collection of information from members of the population who are voluntarily giving their answers and opinions so that the basic information obtained is faster and more efficient (Sekaran, 2016).

RESULTS OF STUDY

Table 1 – Demographic Details

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
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<th>%</th>
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<tbody>
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<td>Female</td>
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<tr>
<td>35-44</td>
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<td>55-65</td>
<td>9</td>
<td>2.6</td>
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</tr>
</tbody>
</table>

The table shows majority of responded are male which cover 60% of total respondents of 341 people. In addition to that, most of the respondents are in productive age between 25-34 years old.

The correlation test on interpersonal religiosity shows that majority of respondents believes that God is always with them and religion is the foundation of their life. Unfortunately, it didn’t reflect well on their intrapersonal religiosity in which they don’t really like to spend their money on donation, although most of the respondents are keen to socialize with their fellows colleagues in religious events. Our assumption from the lack of donation willingness is because they want to keep the charitable activity private as if they
show their action to others it may be rejected by God. At least, that is the perspective in Islam, which is the major religion in Sidoarjo.

Table 2 – Correlation

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Tax Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Religiosity</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-0.032</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.559</td>
</tr>
<tr>
<td>N</td>
<td>341</td>
</tr>
<tr>
<td>Intrapersonal Religiosity</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.170**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.002</td>
</tr>
<tr>
<td>N</td>
<td>341</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis between dependent and independent variables shows no significance relationship between religiosity and tax compliance. This result is in line with the research from Cahyonowati (2011). Other than religion, individual intrinsic motivation in the form of tax morality is a positive determinant of tax compliance behavior. The responsibility as a citizen as well as positive improvements towards public facilities is playing important roles in determining tax compliance Sidoarjo. People tend to differentiate between the duty of citizen and the duty to God. Hence, religiosity doesn’t really affect tax compliance in Sidoarjo but more as a fundamental basis in to do better in life.

The result are also supported by the research of Feld & Frey (2007). Tax compliance arises from interactions between government and taxpayers. This interaction is built on the basis of trust and requires a short amount of time, so that it implements a psychological contract between the taxpayer and the government. Tax authorities treat taxpayers well so that the taxpayer's voluntary nature to pay taxes (Feld & Frey, 2007).

CONCLUSION

This research concludes that there is no significance relationship between religiosity and tax compliance. People tend to use religion as the foundation of their life, but it is not the solely factor. The intrapersonal religiosity shows higher correlation value compare to interpersonal religiosity. It proves that individual in Sidoarjo are more concern about the social and cultural value. People are complying with the tax authorities and rules due to their beliefs as a citizen and positive treatment from the government.

Future research could look more into the specific demographic factors and religion. From there, they may find significance between religion and tax compliance. Also, it is not impossible to add more cultural and social variables such as the satisfaction towards government or whether political situation affects tax compliance.

REFERENCES

REVITALIZATION AND RITUAL IN CIHIDEUNG (DISTRICT OF WEST BANDUNG, WEST JAVA, INDONESIA)

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ABSTRACT
Currently, there is a rise of collective action revitalizing long-extinct ritual rites. The activity involved various actors from various professions (choreographers, dancers, state civil apparatus, agribusiness farmers, village officials). The question arises whether the results of the revitalization using the art of incident approach can be classified as ritual rites? Researchers used qualitative research methods with primary and secondary data types to answer the research question. The hypothesis stated that ritual resulting from revitalization using incident art approach is not a ritual rite. The research result indicated that ritual rites resulting from revitalization are spectacle attractions for the benefit of tourism and the development of contemporary art.

KEY WORDS
Ritual revitalization, happening art approach, rite, tourism.

This research concerns the revitalization of conservation of the springs ritual (ngalokat jeung ngaruat sirah cai or numbal sirah cai) utilizing happening art as an effort to revive local wisdom that has long been neglected while at the same time promoting Cihideung agrotourism (Parongpong, West Bandung, West Java, Indonesia). Collective action emerged at the initiative of choreographers, leaders of Padepokan Kalang Kemuning, Head of Culture Development Section of West Bandung Regency Culture and Tourism Office, Head of Culture Section of West Java Province Tourism and Culture Office, Pikiran Rakyat newspaper reporter in West Java, the Giri Mekar Farmer Group, and the village apparatus.

Researchers refer to previous revitalization studies that differ from the locus of this research, such as Reza 2009, Hudayana et. al. 2012, Indiyanto et. al. 2012, Sutiyono and Seriati 2013, and Rinaldi 2014. Similarly, other studies with a locus (Cihideung) similar to this research, such as Rusnanto 2010, Insantika 2011, and Herlinawati 2011. The previous studies were merely descriptions of ritual aspects, ritual symbol meanings, and traditions.

Researchers reviewed previous studies without critical review of the phenomenon and have not traced what approach was taken to revitalize it. They ignored the critical question of the revitalization phenomenon being studied as a ritual or not. The researchers used one assumption without questioning whether the critical assumptions were correct or false. They assume the phenomenon that is examined is rituals of traditional society. In fact, the variety of activities to revitalize ritual traditions was not necessarily rituals.

Research question concerns whether Upacara Irung-irung (Irung-Irung Ritual) which revitalizes ngalokat jeung ngaruat sirah cai ritual (spring) through happening art approach is truly a traditional ritual? Such research questions have never been the subject of prior research.

LITERATURE REVIEW
Tradition is a special social inheritance that prevails with its strong ties to present life. The parameter is the closeness between the past and present, that the continuity of the past
in the present is not just a present fact originating from the past (Sztompka 2010: 70). A tradition exists because humans need to be able to survive (Shils 1981: 322) and are closely related to its function (Sztompka 2010: 74-77).

Revitalization is a collective action that seeks to revive and revitalize traditions existed in the past by exploring and developing tradition, economy, social life, culture, and the natural environment potential. Revitalization aims to improve village or city environment quality in an endeavor to increase the quality of life of its inhabitants (Sutiyono and Seriati 2013). Giddens (2001: 37) states that the tradition was initially intentionally created which at times can be repeated later. Collective actions to revitalize arise from conditions that are considered a threat to the existence of a society (Hobsbawn and Ranger 1983). The goal, a set of practices that are arranged by a set of open or hidden rules, both in the form of ritual and symbolic, an upgrade of values and norms (Hobsbawm and Ranger 1983: 1). Sztompka elaborated further, that it was done as a basis for the legitimacy of actual political actions, efforts to mobilize support (participation) of the ongoing program, enhance the image of leaders, or strengthen the spirit of nationalism (2010: 68). Ancient materials were used for modern purposes (Giddens 2003: 70).

Revitalization requires a certain approach. In this case, the approach uses the happening art. The essence of the happening theory according to Hansen (1965: 85) is the idea that there is a fusion of art and life. Akin to life, happening art is an art form of probability and opportunity. It is an art form that is made from all actions, products, materials, objects, sounds, sounds. Its form is integrated through the events that are the result of life as everyone should take and practice every day. Hansen calls it a collage. Artists feel challenged by the need for the demands of their work, therefore, they become more involved with the environment. It involved where they are located, housing, city, village environment, etc. Sugiharto (2013: 20) stated that ‘in a work of art, the most important thing is not what it means, but what it does’: what art did to its beholder, what beholder felt from the art, then the beholder find its meaning. This meaning is relative because it is very subjective (2013: 29). Thus, the happening art is similar to framing public and everyday space with art (Haedicke 2013: 1).

According to Turner (1974: 6), ritual ceremonies are forms of rite acting as an entrance to understanding the main essence of the formation of a society. There are four roles of rites in society: conflicts deterrence, elimination of divisions and fostering a bond of solidarity, uniting contradictions and differences, and generating new strengths and motivations to ensure the community survival as well as strengthen its ties. However, the rites in the community differ in categories depending on the level and type of society.

In pre-industrial tribal communities which did not recognize the strict separation between work and game space, or not separated between work and leisure time, it is related to liminality. In industrial postal communities which had recognized the separation between work and leisure time and the distinction between when to work and when to play, it is connected with a liminoid (Turner 1974: 131-132; 1982: 55-60).

Free time or leisure reflects radical freedom. According to Turner (1982: 36-37), free time is connected with two kinds of freedom, namely freedom from and freedom for. Free time represents freedom from work routine obligations. Thus, there is freedom to use the symbolic world such as sports, lifestyle, games, watching spectacles (drama, dance, literature), watching movies, reading novels, and so on. On the contrary, there is intentional liminality to clarify and reinforce the limitations and rules.

Researchers put forward a hypothesis stating that Upacara Irung-Irung offers invented tradition attraction based on rite revitalization of buhun (ancient) numboal sirah cai through happening art approach.

**METHODS OF RESEARCH**

Researchers conducted a study in Cihideung Village (Parongpong Subdistrict, West Bandung Regency) which is located north of Bandung City which is about 16 kilometers long and travels overland in normal conditions about 53 minutes. In 2016, the population reached
16,820 people. This area no longer possesses irrigated wet paddy and dry paddy fields. The characteristics of the community based on livelihoods are as follows: the agricultural sector is 1,061 people and outside the agricultural sector is 1,833 people (63%). The developing agricultural sector is floriculture agribusiness (Ayesha 2016: 135).

*Upacara Irung-irung* activity located in a spring found in a former tea plantation owned by PTPN VIII. Irung-irung springs are located within *Kampung Kancah* area, RW (Community Association) 14. Activities took place in several stages. The first phase was conducted on Wednesday, September 20, 2017. It was conducted in the form of *bebersih solokan* (trench cleaning) involving a number of heads of RW 11, 12 and 13 with a total population of around 30 people. The second stage was conducted on Saturday, September 23, 2017, in the form of *Upacara Irung-irung*. The third stage is on Sunday, September 24, 2017, in the form of *Cihideung Festival (Cifes)* which presented flower carnival by dancers under *Padepokan Kalang Kemuning*.

Researchers used qualitative research methods to obtain two types of data, namely primary and secondary data. The researcher obtained primary data through interviews and direct observation. Researchers obtained secondary data sourced from the Central Statistics Agency, scientific journals, printed material, and online newspapers and magazines, and other social media (blogs, websites, youtube) that met the need to answer their research questions.

The actors as the core team (main) consist of several people as presented in Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Actors</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yanto Susanto (Abah Yanto)</td>
<td>dancer and trainer of Jaipongan and Sunda Dance, founder and manager of Padepokan Kalang Kemuning in Cihideung, rental of Sundanese traditional wedding clothes, wedding decorations, a farmer in possession of the land, traders of ornamental and fruit crops, shop owners of agricultural products, members of KTGM, migrants who became residents of Cihideung</td>
</tr>
<tr>
<td>2</td>
<td>Mas Nanu Munajat (Abah Nanu)</td>
<td>Civil servant dance lecturer, dance stylist (choreographer), founder of Padepokan Kalang Kemuning, concepter and designer of Ceremonies at the Cihideung Parongpong and Nagruat Bumi Districts (Hajat Buruun and Rempurg Tarung) in Cikareumbi Village Cikidang Village Lembang District, not Cihideung residents</td>
</tr>
<tr>
<td>3</td>
<td>Yudi Setiadi (Yudi Arab)</td>
<td>freelance composer, <em>pengrawit</em> (gamelan performer), Padepokan Kalang Kemuning, not a Cihideung resident</td>
</tr>
<tr>
<td>4</td>
<td>Retno Heriyanto (Kang Adi)</td>
<td>Journalist of the Pikiran Rakyat Daily News Art and Culture Rubric, not a Cihideung resident</td>
</tr>
<tr>
<td>5</td>
<td>Drs. Hernandi Tismara</td>
<td>Head of Section (Kasi) Bina Budaya Disbudpar BB Regency, not a Cihideung resident</td>
</tr>
<tr>
<td>6</td>
<td>Drs. Wahyu Iskandar, M.MPd.</td>
<td>Head of Disparbud Culture Division of West Java Province, not a Cihideung resident</td>
</tr>
<tr>
<td>7</td>
<td>Adil Hendra</td>
<td>Management of the Giri Mekar Farmers Group (KTGM) which is a farmer and trader organization of ornamental and cut flowers, a member of the Cihideung BPD, farmer, trader of ornamental plants and fruit, cut flowers, a Cihideung resident</td>
</tr>
<tr>
<td>8</td>
<td>Ayi Kosasih</td>
<td>Cihideung Village Chief and landowner cultivating ornamental plants and cut flowers, the person in charge of activities, Cihideung residents</td>
</tr>
<tr>
<td>9</td>
<td>Dede Koswara</td>
<td>Chairman of RW (Community Association) 14 Kampung Kancah. Chairman of the Cihideung Festival Committee and Ceremony of Irung-irung, owners of cultivated landscapes and cut flowers, residents of Cihideung</td>
</tr>
<tr>
<td>10</td>
<td>Aep Saefudin</td>
<td>Chairman of RW 13 Kampung Panyairan, farmers cultivating ornamental and fruit plants as well as traders, residents of Cihideung</td>
</tr>
<tr>
<td>11</td>
<td>Asep Adang</td>
<td>Chairman of RW 12 Kampung Panyairan, farmers cultivating ornamental plants and cut flowers as well as traders, residents of Cihideung</td>
</tr>
<tr>
<td>12</td>
<td>Isur</td>
<td>Chairman of RW 11, Panyairan Village, farmers of ornamental plants and traders, residents of Cihideung</td>
</tr>
<tr>
<td>13</td>
<td>Totok</td>
<td>Chairman of RW 10 Panyairan Village, farmers cultivating ornamental plants as well as traders, residents of Cihideung</td>
</tr>
<tr>
<td>14</td>
<td>Haji Alex Sutisna (Abah Encu)</td>
<td>a former security guard at a hotel in Cihideung, a farmer who rents the cultivation land of ornamental plants, a key interpreter for Irung-irung spring, from Purwakarta (a migrant) who became Cihideung resident</td>
</tr>
</tbody>
</table>
DISCUSSION OF RESULTS

The Regional Government of West Java Province and West Bandung Regency has established Cihideung Village as an agrotourism destination. One of the eleven directions of development policy and the economy of West Java is the development of ecotourism, agrotourism, cultural tourism, and pilgrimage. The Cihideung agrotourism area is included in 60 tourist attraction of West Java Province document, and one of three main tourist attraction of West Bandung Regency.

Since 2002, newly established Culture and Tourism Office (Disbudpar)\(^1\) West Java Province pursues the direction of tourism development policy which refers to the West Java Province Regional Spatial Plan (RTRW) 2002. Tourism activities must not disturb and interfere with cultural sustainability, natural beauty, and the environment (West Java Regional Development Planning Agency 2016: 5).

Table 2 – Comparison of Procession Sequence

<table>
<thead>
<tr>
<th>No</th>
<th>Stage</th>
<th>Numbal Sirah Cai</th>
<th>Upacara Irung-Irung</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-Ceremony</td>
<td>Ngamunikeun lembur included bebersih sirah cai and solokan (cleaning the waterways)</td>
<td>Bebersih sirah cai dan solokan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prepare offerings and cone. A keymaster (custodian of the graveyard) and a number of shamans fasted the day before.</td>
<td>Gather in Padepokan Kalang Kemuning</td>
</tr>
<tr>
<td>2</td>
<td>Ceremony</td>
<td>Burn incense, ignite cigars and cigarettes, and while reading spells</td>
<td>The procession goes to the spring</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ijab kabul directed to karuhun</td>
<td>Prayer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The official cut the tumpeng rice</td>
<td>Message from the Disparbud Culture Office of West Java Province and the handover of sacrificial sheep</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slaughtering a goat which is then buried near the spring</td>
<td>Garut sheep slaughter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin the goat, then cook the goat into the curry and satay (skewer)</td>
<td>Sasapian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ketuk Tilu by the Taman Sari Zoo Farmers group Bandung</td>
<td>Sasapian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nasi tumpeng feast and congcot in one of elders house featuring goat curry and skewers</td>
<td>Chiudeung Festival in the form of miniature garden decoration competition and flower carnival</td>
</tr>
<tr>
<td>3</td>
<td>Post-Ceremony</td>
<td>Residents of all villages perform social dances Ketuk Tilu buhun</td>
<td>Residents of RW 10, 11, 12, 13 still keep throwing non-organic garbage into the ditch where the spring water irung-irung flows</td>
</tr>
</tbody>
</table>

\(^1\) The establishment of the Department of Culture and Tourism (Disbudpar) of West Java Province based on the West Java Governor's Regulation Number 15 of 2000 refers to Government Regulation (PP) Number 25 of 2000. West Java Disbudpar is a merger of four institutions, namely the West Java Provincial Tourism Office, West Java Provincial Education Office Culture, Regional Office of the Department of Tourism, Post and Telecommunications of West Java Province, and Regional Office of the Ministry of Education in the Field of Culture. The replacement of the name of the Department of Culture and Tourism of West Java Province became the West Java Province Disparbud based on PP No. 38/2007 concerning the distribution of governmental affairs between the provincial and district governments.
empowerment programs. The tourist village emphasizes the appeal of beautiful, natural, and authentic rural atmosphere such as social life, economy, local customs, building architecture, and unique village spaces.

The development refers to sustainable tourism. The development result is a form of tourism products in the village that can be developed as a variety of tour packages and village tourist attractions. The aim is to increase the number of tourist visits, length of stay, shopping for local products, and investment growth in tourism and culture.

The occurring issue is how to revitalize local wisdom that has been a vacuum for a long time and can be seen as an appearance capable to attract the audience due to existing elements containing attractions and aesthetics. Cihideung village as an agrotourism area possesses a number of plants and ornamental flowers cultivation as well as local traditions and wisdom. Several actors were determined to improve Cihideung area. It was to develop the village not to be merely agrotourism, but also possess tradition and local wisdom attraction capable to strengthen local cultural identity.

Comparison between procession sequences of ngalokat jeung ngaruat sirah cai or numbal sirah cai (water spring sacrifice) and Upacara Irung-irung is defined in Table 2.

Comparison of ritual processions of numbal sirah cai and Upacara Irung-irung exhibits several differences. The differences in numbal sirah cai and Upacara Irung-irung answers the research question.

<table>
<thead>
<tr>
<th>CONCLUSION</th>
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</table>

Research result concluded that Upacara Irung-irung in an endeavor to revitalize numbal sirah cai through happening art approach is not the ritual ceremony. Moreover, Upacara Irung-irung not connected with tribal communities in pre-industrial communities, but post-industry communities. The support community is not homogeneous, but heterogeneous which is bound on the basis of certain interests. The purpose of activities for the benefit of tourism and the development of contemporary art is based on local wisdom. Upacara Irung-irung becomes a spectacle of contemporary art that teaches how important it is to preserve the sustainability of springs.

Research result found several activities during Upacara Irung-irung which violates taboos in numbal sirah cai. For instance, performers danced in the spring. People plunged themselves into the spring. Garut sacrificial sheep's blood flowed into the spring. The aforementioned activities conducted during Upacara Irung-irung were taboo or prohibition in the norms of preserving water sources.

<table>
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<th>REFERENCES</th>
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COMPARATIVE EFFECTS OF MERGERS AND ACQUISITIONS ON THE COMPANIES’ FINANCIAL PERFORMANCE

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ABSTRACT
This study aims to determine the comparative financial performance of companies before and after mergers and acquisitions. Company performance is measured by using financial ratios, namely: current ratio, total asset turnover, debt to equity ratio and net profit margin. While the object of this study include eleven manufacturing companies listed on the Indonesia Stock Exchange (BEI) in the period of 2009-2013 that once conducted mergers and acquisitions. Data analysis method used is quantitative method, using SPSS 21 with the Kolmogorov-Smirnov normality test, Wilcoxon signed rank test and paired sample t-test. Paired sample t-test on CR and DER ratios differ two years and three years before and after merger acquisition and three years before and three years after mergers and acquisitions, while TATO is different two years before and three years after mergers and acquisitions. However, NPM did not differ in all observation periods.

KEY WORDS
Acquisitions, financial performance, mergers, public service.

In the era of globalization and free trade like now, every company is required to continue to develop. This is done so that the company can survive and have competitiveness in carrying out its business objectives. This moment opens a company opportunity to develop itself by taking over or merging a company, or better known as a merger or acquisition (Nugroho, 2010).

According to Gumilarsjah (2016: 4), a merger occurred when two companies agreed to form a joint company, which combined the assets and obligations of the two companies. In the merger, the synergy of the company becomes a benchmark. Synergy generated through a combination of simultaneous activities from strengths or more elements of a company that joins so that the combined activity produce a greater effect than the sum of company activities if they work alone (Brigham and Houston, 2010: 468). While Hindryanto and Retnani (2017) stated that acquisition is the takeover of part or all of the company’s assets and shares so that the acquiring company has the power and control rights of the company taken over. The difference is that the acquired company is still standing and not disappearing like a merged company.

On the other hand, one of the factors seen by prospective investors to determine stock investment is by assessing financial performance (Mahendra and Alfredo: 2012). Maintaining and improving financial performance is highly recommended so that stocks continue to always exist and remain attractive to investors. Financial ratios that can be used as a reference to determine whether mergers and acquisitions are feasible are the current ratio (CR), total asset turnover (TATO), debt to equity ratio (DER) and net profit margin (NPM).

Wibowo (2012) analyzes the comparison of the company's financial performance before and after mergers and acquisitions. The results showed that CR, TATO and NPM had no significant effect a year before and three years after mergers and acquisitions were made. While DER did not experience significant changes.

Then Kharisma (2014) analyzed the comparison of the company's financial performance before and after the mergers and acquisitions of acquiring companies listed on the Indonesia Stock Exchange. The results show that NPM, DER and CR have a significant effect for three years before and two years after mergers and acquisitions.
In addition, Aprilia and Oetomo (2015) examined the comparison of financial performance before and after the acquisition of manufacturing companies. Their research concluded that CR, TATO and NPM had a significant effect after the acquisition, so the company did the right thing. However, DER shows no effect after the acquisition.

Based on data from www.sahamok.com as of January 3, 2015, the number of publicly listed companies listed on the IDX was 507 companies with nine core businesses. Among these companies, manufacturing companies’ developed well so that they were often used as objects of research regarding their business activities, such as mergers or acquisitions.

Referring to various differences in conclusions from previous studies, researchers are interested in conducting further scientific studies on company performance before and after mergers and acquisitions. The general purpose of this study is to compare the effects of mergers and acquisitions on the manufacturing companies’ financial performance before and after the corporate action.

The observation period studied was one year before one year after; one year before two years after; two years before two years after; two years before three years after and three years before three years after the company took corporate actions of mergers and acquisitions. While the financial performance measured is the current ratio, total asset turnover, debt to equity ratio and net profit margin. The results of this study are also expected to be used as additional references for other researchers who will conduct research in the same scope.

THEORETICAL REVIEW

Sartono (2001: 365) argues that a merger is a combination of two or more companies that merge into a new company. In a merger, companies that have more assets and greater profit levels will still be left standing, while companies with smaller sizes will be dissolved. Furthermore, Noer (2009: 242) states that a merger is the merger of two or more companies into one new company. This means from some of these definitions it can be concluded that the merger is the process of merging two companies, one of them remains standing under the name of the company, while the other is lost with all its names and wealth.

Moin (2010: 6) reveals that parties who are still alive or accepting a merger are called surviving firms or issuing firms. Meanwhile, the company that stopped and disbanded after the merger was called a merged firm. Company A by itself has an increasingly large size because all assets and liabilities of company B are transferred to the company A. Company B will abandon its legal status as a separate entity and after the merger its status changes to part (business unit) under company A. Thus, company B cannot act lawfully in its own name because company A has become a public company that sells its shares in the Indonesian capital market.

The explanation can be described as a scheme for mergers as one of the company’s strategies.

![Merger Scheme](Source: Moin, 2010:7)
Meanwhile acquisition comes from the word acquisition which means buying or getting something to add to objects that have been previously owned. In business terminology, acquisitions can also be interpreted as taking ownership or control over shares or being taken over while remaining as separate legal material (Moin, 2010: 8).

Switching control means that the acquirer has a majority of voting stock, which is usually indicated by the ownership of more than 50 percent of the voting rights. It is possible that even if the shares have less than that amount, company A can also be declared as the majority owner if B's articles of association mention such things. However, it is also possible that the owner of 51 percent is not necessarily stated as the owner of majority votes if in the articles of association of company A mention otherwise. The acquisition raises the relationship between companies (acquirers) and subsidiaries (acquired) (Moin, 2010: 8).

From this explanation it can be described as a process of one form of acquisition.

![Figure 2 – Acquisition Scheme (Source: Moin, 2010:9)](image)

Financial ratio analysis is a general method used to measure company performance. Ratio is a tool that compares things to other things so that it can show the relationship or correlation of a financial report in the form of balance sheet and income statement. The types of ratios used in this study are liquidity ratios, activity ratios, solvency ratios, and profitability ratios (Simamora, 2000: 822).

Current Ratio (CR) provides information about the ability of current assets to cover current debt. The greater the comparison of current assets with current debt, the higher the ability of the company to cover its short-term liabilities. So it is said to be healthy if the CR is above 1 or 100 percent. This means that current assets must be far above the amount of current debt (Harahap, 2002: 301).

\[
\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liability}}
\]

Total Assets Turnover (TATO) measures the extent to which a company's ability to generate sales is based on the total assets held. The higher this ratio means the more effective the proportion of these assets (Hanafi and Halim, 2000: 81). TATO can be calculated by the following formula:

\[
\text{TATO} = \frac{\text{Sales}}{\text{Total Asset}}
\]
Debt to equity ratio is a balance between debt owned by a company and its own capital. The higher this ratio means less capital than the debt. The smaller this ratio the better (Harahap, 2002: 304), with the following formula:

\[
\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}}
\]

Net profit margins are used to measure the amount of net income generated by every single Rupiah of sales and measure all efficiency, both production, administration, marketing, funding and tax management. If the ratio is low, the sales are too low for a certain level of costs, or the costs are too high for a certain level of sales, or a combination of the two things (Prastowo and Juliay, 2003: 91). This ratio can be calculated by the formula:

\[
\text{NPM} = \frac{\text{Earning After Tax}}{\text{Net Sales}}
\]

Here are some studies that are used as comparisons. Nugroho's research (2010) entitled "Comparative Analysis of Corporate Financial Performance Before and After Mergers and Acquisitions". This study uses the Wilcoxon Signed Rank Test. The results obtained in the test one year before with one year after showing NPM, DER, TATO, and CR there were no significant differences. As for one year before two years after, only DER experienced a significant difference. Furthermore, for one year before with four years after proving the same results, there were no significant differences from all variables studied.

Hamidah and Noviani (2013) in their research entitled "Comparative Analysis of Financial Performance Before and After Acquisition" obtained CR results have increased. This study uses paired sample t test.

Different research results were obtained in Ahmed's (2014) study, entitled "Effect of Merger and Acquisition on Pakistan's Financial Performance of Manufacturing Companies". The variables used are CR proving that there is no significant difference but DER is positively significant different.

Kharisma (2014) examined about "Comparative Analysis of Corporate Financial Performance Before After Merger and Acquisition". The result was that CR and TATO did not experience significant differences, but DER and NPM were increased. Furthermore, Aprilia and Oetomo (2015) research on "Comparison of Financial Performance Before and After Acquisition in Manufacturing Companies". The conclusion of this study is CR, TATO, and NPM significant positive, while DER is not significant.

**METHODS OF RESEARCH**

This type of research is hypothesis testing. Dantes (2012: 164) states that hypotheses are presumptions or assumptions that must be tested through data or facts obtained from research in order to guide researchers in exploring the desired data. This study will examine the effect of independent variables on the dependent variable. The unit of analysis uses several financial ratios which include: current ratio, total asset turnover, debt to equity ratio, and net profit margin. The scope of this research is manufacturing companies that conduct mergers and acquisitions on the IDX during the period 2009-2013.

The population in this study is all manufacturing companies in the mining and property sectors listed on the Indonesia Stock Exchange (IDX).

This study uses purposive sampling technique. The company is chosen based on certain criteria in order to get a representative sample.

The criteria are as follows:
- Manufacturing companies listed on the Indonesia Stock Exchange that conduct mergers and acquisitions during 2009-2013;
- The company takes ownership of another company in the form of share ownership of more than 50 percent of the shares;
The company during the study period routinely published financial statements as of December 31 in full; 
Companies that report the date of announcement of mergers and acquisitions during the period 2009-2013.

Given the large number of samples in this study, it is illustrated in the table of the sample selection process which can be seen in the appendix. The following is a list of companies that are included in the research sample consisting of 11 companies.

Table 1 – Sample Selection

<table>
<thead>
<tr>
<th>No</th>
<th>Company</th>
<th>Industrial Sector</th>
<th>Date of Mergers &amp; Acquisitions</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PT.Indika Energi, Tbk</td>
<td>Mining</td>
<td>June 30, 2009</td>
<td>Merger</td>
</tr>
<tr>
<td>2</td>
<td>PT.Akra Corporindo, Tbk</td>
<td>Mining</td>
<td>November 11, 2009</td>
<td>Merger</td>
</tr>
<tr>
<td>3</td>
<td>PT.Indonesia Prima, Tbk</td>
<td>Property</td>
<td>December 2, 2010</td>
<td>Acquisition</td>
</tr>
<tr>
<td>4</td>
<td>PT.Astra Internasina, Tbk</td>
<td>Automotive</td>
<td>December 27, 2010</td>
<td>Merger</td>
</tr>
<tr>
<td>5</td>
<td>PT.Aneka Tambang, Tbk</td>
<td>Mining</td>
<td>May 18, 2011</td>
<td>Merger</td>
</tr>
<tr>
<td>6</td>
<td>PT.Agung Podomoro, Tbk</td>
<td>Property</td>
<td>November 17, 2011</td>
<td>Acquisition</td>
</tr>
<tr>
<td>7</td>
<td>PT.Berau Coal Energi, Tbk</td>
<td>Mining</td>
<td>July 20, 2011</td>
<td>Acquisition</td>
</tr>
<tr>
<td>8</td>
<td>PT.Kalbe Farma, Tbk</td>
<td>Pharmacy</td>
<td>August 3, 2012</td>
<td>Merger</td>
</tr>
<tr>
<td>9</td>
<td>PT.Alam Sutra Real, Tbk</td>
<td>Property</td>
<td>August 28, 2012</td>
<td>Acquisition</td>
</tr>
<tr>
<td>10</td>
<td>PT.Harum Energi, Tbk</td>
<td>Mining</td>
<td>July 2, 2013</td>
<td>Acquisition</td>
</tr>
<tr>
<td>11</td>
<td>PT.Medco Internasional, Tbk</td>
<td>Mining</td>
<td>January 11, 2013</td>
<td>Acquisition</td>
</tr>
</tbody>
</table>


Data processing of this study uses the help of SPSS version 21 for windows. Before being tested, the Kolmogorov-smirnov data normality test is first tested to see whether the data is normally distributed or not. If the significant value is more than 0.05, the data is normally distributed, but if the significance value is less than 0.05, the data is not normally distributed. If the data is normally distributed, hypothesis testing uses a paired sample t-test. However, if the data is not normally distributed, then the data test will be ranked with the Wilcoxon signed rank test.

RESULTS AND DISCUSSION

Based on the results of the normality test for the sample of this study, it can be concluded that all data are normally distributed. Therefore, the next test uses a paired sample t-test.

Table 2 – Paired Sample T-test, One Year Before Compared to One Year After

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Std Error</th>
<th>Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 CR, SRLM - CR, SUDH</td>
<td>3.95936</td>
<td>57.31539</td>
<td>17.34167</td>
<td>-34.66380 to 42.58602</td>
<td>.228</td>
<td>10</td>
<td>.824</td>
<td></td>
</tr>
<tr>
<td>Pair 2 TATO, SRLM - TATO, SUDH</td>
<td>15.27162</td>
<td>45.74945</td>
<td>13.78996</td>
<td>-15.86244 to 46.36064</td>
<td>1.107</td>
<td>10</td>
<td>.294</td>
<td></td>
</tr>
<tr>
<td>Pair 3 DER, SRLM - DER, SUDH</td>
<td>-34.61830</td>
<td>121.78586</td>
<td>38.71978</td>
<td>-118.78398 to 48.54306</td>
<td>-.951</td>
<td>10</td>
<td>.364</td>
<td></td>
</tr>
<tr>
<td>Pair 4 NPM, SRLM - NPM, SUDH</td>
<td>31.17455</td>
<td>52.86196</td>
<td>24.74936</td>
<td>-23.96037 to 86.2138</td>
<td>1.260</td>
<td>10</td>
<td>.236</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Processed (2018).

Based on table 2, the results of paired sample t-tests can be stated as follows:
The probability value of CR (0.824) > alpha (0.05), then H0 is accepted and Ha is rejected. This means that CR by comparing the performance of one year before one year after not having a significant effect.
The probability value variable TATO (0.294)> alpha (0.05), then H0 is accepted and Ha is rejected. This means TATO by comparing the financial performance of a company one year before one year after no differences occur.

Probability value of DER variable (0.364)> alpha (0.05), it means that H0 is accepted while Ha is rejected. Thus DER after comparing financial performance one year before with one year after not having a significant effect.

The probability value variable NPM (0.236)> alpha (0.05), then H0 is accepted while Ha is rejected. That is, there is no difference in NPM after comparing one year before and one year after.

Table 3 – Paired Sample T-test, One Year Before Compared to Two Years After

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>Lower</th>
<th>Upper</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 CR_SBLM - CR_SUDH</td>
<td>-1.9545</td>
<td>1.1159</td>
<td>.33669</td>
<td>(.94565, .50475)</td>
<td>- .591</td>
<td>10</td>
<td>.574</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2 TATO_SBLM - TATO_SUDH</td>
<td>-1.9636</td>
<td>4.0225</td>
<td>.12345</td>
<td>(-1.9645, .48017)</td>
<td>1.376</td>
<td>10</td>
<td>.199</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 3 DER_SBLM - DER_SUDH</td>
<td>-1.1573</td>
<td>3.5015</td>
<td>1.07589</td>
<td>(-3.5606, 1.2534)</td>
<td>-1.067</td>
<td>10</td>
<td>.311</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 4 NPM_SBLM - NPM_SUDH</td>
<td>0.1445</td>
<td>1.1103</td>
<td>.03348</td>
<td>(.0514, .05004)</td>
<td>.462</td>
<td>10</td>
<td>.584</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Processed (2018).

Based on table 3, the results of paired sample t-tests can be stated as follows:

The probability value of the variable CR (0.574)> alpha (0.05), then H0 is accepted while Ha is rejected. This means that CR has no significant effect after mergers and acquisitions have been made.

Based on the probability of variable TATO (0.199)> alpha (0.05), then H0 is accepted with Ha rejected. That is, TATO has no significant difference after the merger and acquisition process.

The probability of the DER variable (0.311)> alpha (0.05), then H0 is accepted while Ha is rejected. Therefore, after comparing the performance one year before with one year after, DER has no significant effect.

The probability value variable NPM (0.654)> alpha (0.05), then H0 is accepted and Ha is rejected. This means that after the merger and acquisition there is no synergy that can be expected for NPMs.

Table 4 – Paired Sample T-test, Two Years Before Compared to Two Years After

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>Lower</th>
<th>Upper</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 CR_SBLM - CR_SUDH</td>
<td>-4.1591</td>
<td>58.6303</td>
<td>17.6777</td>
<td>(-43.5446, 35.2307)</td>
<td>-2.25</td>
<td>10</td>
<td>.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2 TATO_SBLM - TATO_SUDH</td>
<td>-8.1500</td>
<td>61.2477</td>
<td>18.4689</td>
<td>(-49.2967, 32.9967)</td>
<td>-4.41</td>
<td>10</td>
<td>.688</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 3 DER_SBLM - DER_SUDH</td>
<td>-19.0069</td>
<td>81.3732</td>
<td>24.5306</td>
<td>(-73.7501, 35.7593)</td>
<td>-1.78</td>
<td>10</td>
<td>.455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 4 NPM_SBLM - NPM_SUDH</td>
<td>-18.2854</td>
<td>78.7084</td>
<td>23.7315</td>
<td>(-71.1925, 34.5912)</td>
<td>-4.71</td>
<td>10</td>
<td>.459</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Processed (2018).

Based on table 4, the results can be stated as follows:

The probability value of variable CR (0.819)> alpha (0.05), then H0 is accepted and Ha is rejected. This means that CR has no significant effect in two years before and two years after mergers and acquisitions.

The probability value of variable TATO (0.668)> alpha (0.05), then H0 is accepted while Ha is rejected. This means that TATO is no different from before.

The probability value of the variable DER (0.455)> alpha (0.05). Thus there is no significant difference in DER two years before and two years after mergers and acquisitions.
The probability value of variable NPM (0.459) > alpha (0.05), then H<sub>0</sub> is accepted while Ha is rejected. That is, the NPM has no significant effect after the merger and acquisition in two years before and two years after.

Table 5 – Paired Sample T-test, Two Years Before Compared to Three Years After

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>CR_SBLM - CR_SUDH</td>
<td>-.3106</td>
<td>.35154</td>
<td>.16599</td>
<td>-.54017</td>
<td>-.07383</td>
<td>-2.925</td>
</tr>
<tr>
<td>Pair 2</td>
<td>TATO_SBLM - TATO_SUDH</td>
<td>1.2091</td>
<td>.71373</td>
<td>.05167</td>
<td>.00578</td>
<td>.23094</td>
<td>2.340</td>
</tr>
<tr>
<td>Pair 3</td>
<td>DER_SBLM - DER_SUDH</td>
<td>.3191</td>
<td>.47182</td>
<td>.14226</td>
<td>.06121</td>
<td>.63516</td>
<td>.2277</td>
</tr>
<tr>
<td>Pair 4</td>
<td>NPM_SBLM - NPM_SUDH</td>
<td>-.02306</td>
<td>.29430</td>
<td>.06572</td>
<td>-2.1736</td>
<td>.16463</td>
<td>-3.080</td>
</tr>
</tbody>
</table>

Source: Data Processed (2018).

Based on table 5, the results of paired sample t-tests can be stated as follows:

- Probability value of variable CR (0.015) < alpha (0.05), then H<sub>0</sub> is rejected while Ha is accepted. That is, there are significant differences in CR two years before with three years after mergers and acquisitions.
- Variable probability value of TATO (0.041) < alpha (0.05), then H<sub>0</sub> is rejected and Ha is accepted. This means a significant difference in TATO two years before with three years after mergers and acquisitions.
- Probability value of DER variable (0.049) < alpha (0.05), then H<sub>0</sub> is rejected and Ha is accepted. Thus, there are significant differences in DER two years before with three years after mergers and acquisitions.
- The probability value of variable NPM (0.765) > alpha (0.05) indicates that H<sub>0</sub> is accepted while Ha is rejected. This means there is no difference in NPM or there is no synergy from mergers and acquisitions.

Table 6 – Paired Sample T-test, Three Years Before Compared to Three Years After

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>CR_SBLM - CR_SUDH</td>
<td>-.14909</td>
<td>.75818</td>
<td>.22969</td>
<td>-.66866</td>
<td>.26279</td>
<td>-4.800</td>
</tr>
<tr>
<td>Pair 2</td>
<td>TATO_SBLM - TATO_SUDH</td>
<td>-.64964</td>
<td>.50089</td>
<td>.24147</td>
<td>-1.90167</td>
<td>.41069</td>
<td>-2.665</td>
</tr>
<tr>
<td>Pair 3</td>
<td>DER_SBLM - DER_SUDH</td>
<td>-.16906</td>
<td>.51588</td>
<td>.18570</td>
<td>-.58285</td>
<td>.19466</td>
<td>-9.011</td>
</tr>
<tr>
<td>Pair 4</td>
<td>NPM_SBLM - NPM_SUDH</td>
<td>.04816</td>
<td>.13395</td>
<td>.04129</td>
<td>-.04363</td>
<td>.13409</td>
<td>1.167</td>
</tr>
</tbody>
</table>

Source: Data Processed (2018).

Based on table 6, the results of paired sample t-tests can be stated as follows:

- The probability value of the variable CR (0.531) > alpha (0.05), then H<sub>0</sub> is accepted while Ha is rejected. This means that there is no significant difference in CR.
- Variable probability value of TATO (0.024) < alpha (0.05), then H<sub>0</sub> is rejected and Ha is accepted. Thus, there is a significant difference between TATO three years before with three years after mergers and acquisitions.
- The probability value of the DER variable (0.384) > alpha (0.05), then H<sub>0</sub> is accepted and Ha is rejected. This means there is no significant difference in DER.
- The probability value of variable NPM (0.270) > alpha (0.05) indicates that H<sub>0</sub> is accepted while Ha is rejected. That is, there is no difference in NPM or there is no synergy obtained from mergers and acquisitions.
DISCUSSION OF RESULTS

Based on the tests that have been carried out, CR is significantly different in two years before with three years after mergers and acquisitions. Means, Ha is accepted for a period of two years before and three years after. The results of this study support Kharisma (2014) which states that there is a significant increase in current ratio after carrying out mergers and acquisitions. This means that there is an efficiency of the company in managing finances to fulfill its obligations.

Furthermore, based on the same test, TATO differed significantly in the two years prior to three years after mergers and acquisitions. This means that Ha is accepted for a period of two years before and three years after and three years before with three years after mergers and acquisitions. This research is in line with what was done by Aprilia and Oetomo (2015), which concluded that there were significant differences in total asset turnover after carrying out mergers and acquisitions. According to Moin (2010: 143), if this ratio is high, there is a possibility that companies will use assets above capacity so that companies can increase revenues, for example by increasing sales volume. The greater the TATO ratio shows good management or the level of effectiveness of the company in using all assets to create sales.

Then, based on the results of data processing, DER differs significantly in the two-year period before and three years after mergers and acquisitions. In conclusion, Ha is accepted while H0 is rejected. This research is not in line with what was done by Aprilia and Oetomo (2015) which stated that DER did not experience differences in periods before and after mergers and acquisitions.

Finally, based on test results, NPM did not differ significantly in the two-year period before with three years after mergers and acquisitions. The conclusion Ha was rejected while H0 was accepted. This result is not in line with research conducted by Aprilia and Oetomo (2015). However, it supports the research conducted by Kharisma (2014) that there is no significant difference in the two years before with three years after mergers and acquisitions. For more details, the following table 7 is a recapitulation of the results of processing with a paired sample t-test.

<table>
<thead>
<tr>
<th>VAR</th>
<th>YEAR</th>
<th>INTERPRETATION RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CR</td>
<td>1</td>
<td>no different</td>
</tr>
<tr>
<td>TATO</td>
<td>1</td>
<td>no different</td>
</tr>
<tr>
<td>DER</td>
<td>2</td>
<td>no different</td>
</tr>
<tr>
<td>NPM</td>
<td>3</td>
<td>no different</td>
</tr>
</tbody>
</table>


Based on table 8, the significant results of CR two years before with three years after mergers and acquisitions amounted to 0.015 so that H0 was rejected or there were differences before and after mergers and acquisitions.

<table>
<thead>
<tr>
<th>No</th>
<th>CR</th>
<th>Significant</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 year (+) vs 1 year (+)</td>
<td>0.824</td>
<td>No Different</td>
</tr>
<tr>
<td>2</td>
<td>1 year (+) vs 2 years (+)</td>
<td>0.574</td>
<td>No Different</td>
</tr>
<tr>
<td>3</td>
<td>2 years (+) vs 2 years (+)</td>
<td>0.819</td>
<td>No Different</td>
</tr>
<tr>
<td>4</td>
<td>2 years (+) vs 3 years (+)</td>
<td>0.015</td>
<td>Different</td>
</tr>
<tr>
<td>5</td>
<td>3 years (-) vs 3 years (+)</td>
<td>0.531</td>
<td>No Different</td>
</tr>
</tbody>
</table>


This means that companies conducting mergers and acquisitions show good prospects because there is an increase in CR for some companies in the two-year period before with three years after mergers and acquisitions. The results of this study support the
previous research conducted by Kharisma (2014), that there is an improved outlook for the variable liquidity. But contrary to the results found by Nugroho (2010), that there is no synergy that occurs even said there are no good prospects after mergers and acquisitions have been made.

From table 9, it can be seen that the probability of TATO in two years before compared with three years after the merger is 0.041 then H0 is rejected. That is, there is an improved prospect because there is a slight increase in TATO in several companies after mergers and acquisitions in the two-year period before with three years after mergers and acquisitions. Similarly, TATO three years before with three years after mergers and acquisitions shows a difference because of the significant amount of 0.024.

This study supports the previous findings of Aprilia and Oetomo (2015) with the result that there are improved prospects for mergers and acquisitions. But different from Kharisma's research (2014) which concluded that there were no synergies that occurred in the two-year period before and three years after mergers and acquisitions. This means that there are no improved prospects for the merger and acquisition.

<table>
<thead>
<tr>
<th>No</th>
<th>TATO</th>
<th>Significant</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 year (+) vs 1 year (+)</td>
<td>0.294</td>
<td>No Different</td>
</tr>
<tr>
<td>2</td>
<td>1 year (-) vs 2 years (+)</td>
<td>0.199</td>
<td>No Different</td>
</tr>
<tr>
<td>3</td>
<td>2 years (-) vs 2 years (+)</td>
<td>0.668</td>
<td>No Different</td>
</tr>
<tr>
<td>4</td>
<td>2 years (-) vs 3 years (+)</td>
<td>0.041</td>
<td>Different</td>
</tr>
<tr>
<td>5</td>
<td>3 years (-) vs 3 years (+)</td>
<td>0.024</td>
<td>Different</td>
</tr>
</tbody>
</table>


Based on table 10, the significance of DER in two years before and three years after is 0.049, so H0 is rejected. That is, the company's DER in two years before was different from DER in three years after mergers and acquisitions. The DER value in the company does not seem to improve because after the merger shows the ratio is too high, which indicates that the company uses more loan capital (debt) than using its own capital.

The results of this study support Setiawan's (2013) research which shows significant before and after mergers and acquisitions. However, it is not in line with Ahmed (2014) which proves that there was no synergy in that period.

<table>
<thead>
<tr>
<th>No</th>
<th>DER</th>
<th>Significant</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 year (-) vs 1 year (+)</td>
<td>0.364</td>
<td>No Different</td>
</tr>
<tr>
<td>2</td>
<td>1 year (-) vs 2 years (+)</td>
<td>0.311</td>
<td>No Different</td>
</tr>
<tr>
<td>3</td>
<td>2 years (-) vs 2 years (+)</td>
<td>0.455</td>
<td>No Different</td>
</tr>
<tr>
<td>4</td>
<td>2 years (-) vs 3 years (+)</td>
<td>0.049</td>
<td>Different</td>
</tr>
<tr>
<td>5</td>
<td>3 years (-) vs 3 years (+)</td>
<td>0.270</td>
<td>No Different</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No</th>
<th>NPM</th>
<th>Significant</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 year (-) vs 1 year (+)</td>
<td>0.236</td>
<td>No Different</td>
</tr>
<tr>
<td>2</td>
<td>1 year (-) vs 2 years (+)</td>
<td>0.654</td>
<td>No Different</td>
</tr>
<tr>
<td>3</td>
<td>2 years (-) vs 2 years (+)</td>
<td>0.459</td>
<td>No Different</td>
</tr>
<tr>
<td>4</td>
<td>2 years (-) vs 3 years (+)</td>
<td>0.765</td>
<td>No Different</td>
</tr>
<tr>
<td>5</td>
<td>3 years (-) vs 3 years (+)</td>
<td>0.270</td>
<td>No Different</td>
</tr>
</tbody>
</table>


Based on table 11, it can be seen that the results of paired sample t-test on the NPM variable for one year before and one year after, one year before and two years after, two years before and two years after and two years before and three years after and three years after.
before and three years after the merger and acquisition there is no difference. That is, there are no good prospects for the company in these periods. This research is not in line with Hamidah and Noviani (2013) which states that there are differences that occur in CR, TATO, DER and NPM of the company before and after the merger.

CONCLUSION AND SUGGESTIONS

Based on the results of the research obtained through the paired sample t-test during the research time window before and after the mergers and acquisitions, it can be concluded that the Current Ratio is different in the two years before compared to three years after the mergers and acquisitions because CR several companies have increased. Total asset turnover in the two-year period before was different compared to three years after mergers and acquisitions and three years before with three years after mergers and acquisitions also showed an increase.

Similarly, the debt to equity ratio in the two-year period before compared to three years after mergers and acquisitions experienced differences. However, there is no difference in net profit margin in all observation periods.

The recommendations that can be given for the development of further research, namely using the object of research in different corporate sectors (other than manufacturing), such as the textile industry, automotive and banking industry, so as to get more varied results. Furthermore, the observation period is suggested to use a comparison of financial performance in a longer period of time, for example two years before and four years after, two years before and five years after and one year before and five years after mergers and acquisitions. This allows better research findings.

Then, the variables tested are advised not only to use only four financial ratios, because there are many other financial ratios that may have an impact on this corporate action. These ratios include return on equity, return on assets, debt ratio, price earnings ratio and fixed assets turnover.

REFERENCES

CAPITAL STRUCTURE, INVESTMENT OPPORTUNITY SET, DIVIDEND POLICY AND PROFITABILITY AS A FIRM VALUE DETERMINANTS

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ABSTRACT
The purpose of this study was to determine the effect of capital structure, investment opportunity set, dividend policy and profitability on the value of manufacturing companies in the Indonesia Stock Exchange. The populations in this study were all manufacturing companies on the Indonesia Stock Exchange totaling 146 companies in the 2013-2016. The sample determination technique used was purposive sampling, so the final sample obtained was 24 companies incorporated in manufacturing companies on the Indonesia Stock Exchange. The data analysis technique used is multiple linear regression analysis with the help of SPSS 22 for Windows application. Based on the results of the analysis shows that: investment opportunity set, dividend policy, and profitability have an influence on the firm value, while the capital structure does not have an influence on the value of manufacturing companies in the Indonesia Stock Exchange.

KEY WORDS
Capital structure, investment, opportunity, dividend policy, profitability, firm value.

The firm value is the investor's perception of the company. The firm value is very important because it reflects the company's performance that can affect investor perceptions of the company. Investor perception on the level of success of the company is reflected through the firm value. Investors who invest their funds in the capital market not only have short-term goals, but also earn long-term income. Investors must utilize all information to analyze the market and invest in the hope of gaining profit (Budiandriani and Mahfudnurnajamuddin, 2014).

Firm value can be influenced by external and internal factors. According to Sujoko and Soebiantoro (2007), external factors are variables that cannot be controlled by the company while internal factors are a set of variables that can be controlled by a company which is often seen as an important factor for determining firm value. The company's internal factors in capital market analysis are often referred to as the company's fundamental factors; this factor is controllable so that it can be controlled by the company. External variables that affect firm value such as exchange rates, inflation, and government policies and so on. Internal variables that affect firm value are financial decisions consisting of funding decisions, investment decisions, and dividend policies. These three financial decisions will maximize the firm value which will further increase the wealth of shareholder wealth.

The firm value can provide maximum prosperity to shareholders if the stock price increases. The higher the share prices of a company, the higher the prosperity of its shareholders. Firm value is an indicator for the market in providing an overall assessment of the company (Salvatore 2011: 10). The success of creating firm value gives hope to shareholders in the form of greater profits (Salvatore 2011: 12). Firm value is measured by Price Book Value (PBV) which is the market ratio used to measure the performance of stock market prices on the value of the book (Robert in Kusumajaya, 2011).

The trade-off theory predicts a positive relationship between capital structure and firm value assuming that tax returns are still greater than the costs of financial pressure and agency costs. Trade-off theory also predicts a positive relationship between capital structure and the level of profitability or financial performance of a company. Reducing debt interest on the calculation of taxable income will reduce the proportion of tax burden, so that the proportion of net income after tax becomes greater, or the level of profitability is higher.

Increased firm value is the result of evaluating good investment opportunities before. Future investment options and a combination of asset placement are the understanding of the company as seen from the decomposition of the investment opportunity set by Myers (1977). Company spending will determine in the future from the firm value (Zahro, 2009). Rising investment opportunities accompanied by good corporate performance will increase the higher cash flow that will be used again to get high investment opportunities.

The theory that deals with the influence of dividend policy and firm value, is the dividend irrelevance theory and the bird-in-the-hand theory, both of which contradict each other. According to the dividend irrelevance theory recommended by Merton Miller and Franco Modigliani (1958) in Brigham (2001: 66), it is said that dividend policy does not have an effect on both the firm value and its capital costs. They argue that the value of a company will only be determined by its basic ability to generate profits and business risks, in other words, the value of a company depends solely on the income generated by its assets, not on how the income is divided between dividends and retained earnings. In contrast to irrelevance theory, according to the bird-in-the-hand theory proposed by Myron Gordon and John Lintner (1959) in Brigham (2001: 67), which states that the value of a company will be maximized by a high dividend payout ratio, because investors consider that The risk of dividends is not as high as the increase in capital costs, so investors prefer profits in the form of dividends rather than the expected profits from the increase in capital value.

LITERATURE REVIEW

The firm value is very important because it reflects how much the company can provide benefits to investors. The higher the value of the company, the greater the prosperity that the owner of the company will receive (Wiagustini, 2014: 8). Originally the company's theory was based on the assumption that the company's purpose or objective was to maximize current or short-term profits. However, based on observations companies often sacrifice short-term profits to increase future or long-term profits. Because both short-term and long-term profits are very important, the company's theory (theory of the firm) now postulates that the main purpose or goal of the company is to maximize wealth or firm value. This is reflected in the present value of all expected corporate profits in the future.

The company's capital structure is permanent financing which consists of long-term debt, preferred stock and shareholder capital. The company's goal in the long run is to optimize the value of the company by minimizing the company's capital costs. Determining the optimal target capital structure is one of the main tasks of the company's management. Capital structure is equity and debt funding in a company. The capital structure is the proportion of the company's debt financing, namely the company's leverage ratio. The capital structure has the key to improving productivity and company performance. Capital structure theory explains that the company's financial policy in determining the capital structure (mix between debt and equity) aims to optimize the firm value.

The term Investment Opportunity Set (IOS) was first introduced by Myers (1997). According to Myers (1997) Investment Opportunity Set (IOS) is an investment decision indicator in the form of a combination of assets in place and investment choices that will come with a positive Net Present Value (NPV) that will affect the company's value. According to Gaver and Kenneth (in Hasnawati, 2005: 118) Investment Opportunity Set (IOS) is the value of a company whose amount depends on expenditures set by management in the future, which is currently the investment choices that are expected to return the big one. In general, it can be said that the IOS describes the extent of investment opportunities or
opportunities for a company, but it depends on the company's expenditure choice for future interests. The growth potential of a company can be demonstrated by the existence of investment opportunities that can produce higher profits in the future (Jati, 2003). Thus the IOS is not observable so that a proxy needs to be selected which can be linked to other variables.

Dividends are distributions, which can take the form of cash, other assets, letters or other evidence stating the company's debt, and shares, to the shareholders of a company as a proportion of a number of shares owned by the owner. While the dividend policy (dividend policy) is a decision to determine how much part of the company's income that will be distributed to shareholders and who will be reinvested (reinvestment) or retained (retained) in the company. From this definition, dividend policy is based on a range of considerations between the interests of shareholders on the one hand and the interests of the company on the other (Ang, 1997). Dividends are distributed to shareholders as earnings after tax or after-tax income from company profits. And the amount or percentage of profit or income that will be paid by the company to shareholders as cash dividends is called the dividend payout ratio. So we can conclude that the higher the DPR of a company, the higher the amount of profit that will be paid as dividends to shareholders. According to Robert Ang (1997), dividend payout ratio is the ratio between dividends per share and earnings per share. So perspective is seen as dividend growth per share on the growth of earnings per share. There are several opinions and theories described above used as guidelines and references, which theories are relevant and in accordance with the policies or conditions of each company and country.

Corporate profitability is one way to assess precisely the extent of return that will be obtained from investment activities. Profitability is the company's ability to generate profits and measure the level of operational efficiency and efficiency in using its assets (Chen, 2004). In this case it can be explained to know the profitability of a company is very important for investors and creditors. According to Sartono (2001: 122) profitability is the company's ability to make a profit in relation to sales, total assets and own capital. Whereas according to Munawir (1995: 31) in Martalina (2011) profitability is the company's ability to generate profits in a certain period. From these two definitions it can be concluded that what is meant by profitability is the company's ability to generate profits during a certain period that can be calculated based on sales or assets or own capital.

Hypotheses:
H1: Capital structure has a positive and significant effect on the firm value;
H2: Investment Opportunity Set has a positive and significant effect on firm value;
H3: Dividend policy has a positive and significant effect on the firm value;
H4: Profitability has a positive and significant effect on firm value.

METHODS OF RESEARCH

The population in this study was all 146 manufacturing companies on the Indonesia Stock Exchange in 2013-2016. The sample determination technique used in this study is nonprobability sampling with purposive sampling technique, which is a sample determination technique with certain considerations (Sugiyono, 2013: 120). The total manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2013-2016 were 146 companies and the total companies that did not distribute dividends continuously during the 2013-2016 were 122 companies. The final sample is 24 manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the 2013-2016. Data collection methods used in this study are non-participant observations, namely data collection techniques by recording the data needed in manufacturing companies listed on the IDX for the period 2013-2016 where researchers are not directly involved in company activities and only as observers independent. The data needed in the form of financial statements of manufacturing companies obtained from ICMD products and www.idx.co.id. In this study used multiple linear analysis techniques to determine the effect of capital structure, investment opportunity
set, dividend policy, and profitability on firm value in the 2013-2016 with the help of SPSS (Statistical Package for Social Science) version 22.0 for Windows.

**RESULTS OF STUDY**

The analysis model used in this study is multiple linear regression analysis. This analysis is used to determine whether there is influence between independent variables, namely Capital Structure (DER) (X1), Investment Opportunity Set (MBVE) (X2), Dividend Policy (DPR) (X3) and Profitability (ROE) (X4), against variables bound is the company value (Y) which is proxied by the price book value at manufacturing companies in the Indonesia Stock Exchange for the period 2013-2016. To facilitate data processing, the SPSS program is used. The summary of regression analysis results can be seen in Table 1 below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-3.885</td>
<td>.815</td>
<td>-4.768</td>
<td>.000</td>
</tr>
<tr>
<td>DER</td>
<td>.009</td>
<td>.006</td>
<td>.085</td>
<td>1.577</td>
</tr>
<tr>
<td>1 IOS</td>
<td>.006</td>
<td>.001</td>
<td>.236</td>
<td>4.356</td>
</tr>
<tr>
<td>DPR</td>
<td>.009</td>
<td>.005</td>
<td>.099</td>
<td>1.995</td>
</tr>
<tr>
<td>ROE</td>
<td>.371</td>
<td>.023</td>
<td>.818</td>
<td>15.881</td>
</tr>
</tbody>
</table>

*Source: Primary data, 2018.*

Based on Table 1, we can obtain multiple linear line equations as follows:

$$Y = -3.885 + 0.009 X1 + 0.006 X2 + 0.009 X3 + 0.371 X4$$

Based on the results of the study, it was found that the capital structure had a positive but not significant effect on the value of the company in manufacturing companies in the Indonesian stock exchange in the 2013-2016, so it can be concluded that the capital structure does not affect the value of the company. That is, a rise or fall or a high level of debt of a company will not affect the value of the company. The reason for the capital structure does not affect the value of the company because the size of the debt is not the only factor that influences investors' decisions in investing, but there are other factors that are taken into consideration by investors, including profit or profitability level of the company. Not influencing the level of debt to the value of the company should encourage companies to be better at managing the funds owned by the company. Because, what is of concern to investors is not the high and low level of debt, but how the company manages the source of these funds to achieve maximum profit that can increase the prosperity of shareholders. Thus, the increase in shareholder prosperity will be in line with the increase in the value of the company. The findings are also consistent with the results of Safrida (2008) and Suguhen (2003), Sulistiono (2010), Cheryta et al (2017), Mahdaleta et al (2016), Rasyid (2015), Manjunatha (2013), Manurung (2014), Sujoko and Soebiantoro (2007) who found evidence that capital structure has no effect on firm value.

Based on the results of the study, it was found that IOS had a positive and significant effect on the value of the company in manufacturing companies in the Indonesian stock exchange period 2013-2016. Market to Book Value of Equity is an IOS proxy based on prices that sees the company's growth from the company's ability to obtain and manage capital. For this reason, these results provide an understanding that investment opportunities that are seen from the company's ability to obtain and manage capital have a positive and significant effect on the value of the company. IOS will provide information about the prospects of future income. The results show that if the IOS increases, the value of the company will increase due to the higher opportunities the company has to invest and are expected to get a higher return. IOS shows the company's growth potential, so that it becomes an attraction for investors because it will benefit investors in the future. The results of this study are in line

Based on the results of the study, it was found that dividend policy has a positive and significant influence on firm value in manufacturing companies in the Indonesia stock exchange for the 2013-2016 period, so it can be concluded that the higher the dividend payout ratio, the higher the company value will be. Because, the high dividend payment will cause a positive reaction from investors which will be reflected in the increase in stock prices. The above results are in line with signaling theory which states that investors consider changes in dividends as a sign of management's estimates of profits. Thus, the increase in dividends is a signal that the company predicts a good income in the future, and vice versa. Keown (2000) states that a company’s dividend policy includes a dividend payout ratio that shows the amount of dividends paid relative to company income and the stability of dividends over time. The results of previous studies regarding the effect of dividend policy on company value were carried out by Ashamu et al. (2012), Fenandar and Raharja (2012), Rehman (2016), Guizani, et al (2012), Anton (2016), Nwamaka (2017), Malik, et al (2015), Budagaga (2017), Vidhya and Mohanasundari (2016), Winarto (2015), Darmawan (2012), Juhandi, et al (2013) found that dividend policy has a positive effect on firm value.

Based on the results of the study, it was found that profitability had a positive and significant effect on the value of the company in manufacturing companies in the Indonesia stock exchange for the 2013-2016 period. This means that if profitability increases, the value of the company will also increase. The results of research from Suprantiningrum and Sabat (2013), the higher the ROE, the higher the price book value is as a measure of the value of the company because investors will buy shares and will be more interested in ROE or part of their total profitability to shareholders. In line with research, Wirawati (2008), Marangu and Ambrose (2014), and Nurhayati (2013), Dewi, et al. (2014), Nurmalasari (2002), Ali (2009), Ayuningtias (2013), Mardiyati et al. (2010), Aggarwal and Padha (2017), Hermuningsih (2013), Sabrin, et al. (2016), Cheryta, et al. (2017), Rasyid (2015), Winarto (2015), Manurung, et al. (2014), Putu, et al (2014) that the amount of profits obtained by a company through its capital will increase the value of the company.

CONCLUSION AND SUGESTIONS

Capital Structure has a positive but insignificant effect on the value of the company in manufacturing companies in the Indonesia Stock Exchange in the 2013-2016 period, so it can be concluded that the capital structure does not affect the value of the company which means that the rise and fall of a company’s debt will not affect the value of the company due to high low debt is not the only factor that influences investors’ decisions in investing.

Investment Opportunity Set has a positive and significant effect on the value of the company in manufacturing companies in the Indonesia stock exchange for the 2013-2016 period, these results prove that if the IOS increases, the value of the company will increase due to the higher opportunities the company has to invest.

Dividend policy has a positive and significant influence on the value of the company in manufacturing companies in the Indonesian stock exchange for the 2013-2016 period, these results prove that shareholders prefer to share profits in the form of dividends compared to the distribution of profits in the form of capital gains.

Profitability has a positive and significant effect on the value of the company in manufacturing companies in the Indonesia stock exchange for the 2013-2016 period, these results prove that the higher the value of profit obtained, the higher the value of the company.

It is recommended to companies, determining the capital structure by using debt at a certain level (as far as greater benefits, additional debt is still allowed) as a source of funding can increase the value of the company. The IOS variable that shows the company's growth potential, so that it becomes an attraction for investors because it will benefit investors in the
future. By increasing the Dividend Payout Ratio (DPR), the greater the dividend divided will further increase the share price which also increases the value of the company. With high profit, it will give an indication of good company prospects so that it can trigger investors to participate in increasing stock demand.

With the existence of one independent variable in this study that is insignificant, which is due to the fact that this research is purely only using internal factors or fundamental factors of the company based on information in the company's financial statements, it is suggested that the next researcher use the profitability variable as a mediating variable between capital structure and firm value.

Subsequent research is expected to be able to use a larger number of samples, so that the results of the research will be better because the element of data representation is higher and not only focuses on manufacturing companies.

It is expected that further research can be developed using other internal factors such as firm size, insider ownership, growth, asset structure, but the value of the company is not only influenced by internal factors, the value of the company is also influenced by external factors such as interest rates, rates inflation, currency exchange rates, socio-political situation, Government Policy and so on.

This study uses the Market to Book Value of Equity (MV / BVE) ratio to promote investment decisions. IOS (Investment Opportunity Set) has many proxies that can be used to assess investment decisions, so it is recommended that further research use other proxies in investment decisions, such as Total Assets Growth, Market to Book Assets Ratios, Capital Expenses to market the value of assets, and Current Assets to Total Assets.

Research Limitation. This research only considers manufacturing companies while other companies such as banking, services, property, trade, mining and agriculture are not considered so that they cannot be generalized to all companies in Indonesia. This study uses a small number of samples and focuses on the 2013-2016 period, so it cannot be known whether the results of the study will be different if the period of time is long. There are many factors that can influence a company's value, including: internal and external factors. In this study only examined the internal factors of the company, namely four independent variables that can affect the value of the company.

REFERENCES


24. Marangu, Kenneth dan Ambrose Jagongo. 2014. Price to Book Value Ratio and


ABSTRACT
The purpose of this study is to compare the performance of the winner and loser stock shares portfolio in the Manufacturing Sector on the IDX. Data collection method in this study uses non-participant observation method. The number of samples is 134 companies with census method. Data analysis techniques used are two average difference tests. The results of this study indicate that the stock winner stock portfolio performance in the subsequent ownership period results in lower performance than the period of its formation, while the performance of the loser stock portfolio period of ownership further results in a higher performance than the formation period, but there is no significant difference between portfolio performance winner-loser stock period formation with subsequent ownership period and there is no significant difference between the stock winner stock portfolio performance and the performance of the stock portfolio of loser shares and market index in the next ownership period.

KEY WORDS
Stock portfolio, performance, public service, business.

Investors will basically take several strategies in investing in order to get the maximum return with a certain amount of investment risk. Return is the investor's advantage over the investment he made. One strategy that is usually done by investors in investing is to form a stock portfolio. Portfolios are strategies that investors make to minimize investment risk by diversifying, namely distributing capital in the form of different stocks (Hartono, 2013).

Practitioners and financial management academics are familiar with investment strategies that investors can use to form stock portfolios, namely Momentum Strategies and Contrarian Strategies. Contrarian Strategy is an investment strategy that finds reversal returns, namely the reversal of stock returns over a certain period of time. Unlike the Strategy Momentum finds continuation returns, namely stocks that have a positive return that will continue to be positive continuously for a certain period of time (Kumar, 2016).

This study examines portfolios formed from Manufacturing Sector stocks, whether there is continuation return or reversal return, so it is expected to provide information to investors in making their investment decisions. A high level of competition will make every company in the Manufacturing Sector continue to improve its performance. Fluctuations in IHSS Manufacturing companies also reflect that returns and risks if investors invest in shares of manufacturing companies will also fluctuate during 2013-2017. So, it is necessary to determine the right investment strategy for investors in investing and it is expected that the Manufacturing Sector can represent or reflect the characteristics of the capital market in Indonesia. This research period is divided into 2 parts, namely the period of portfolio formation and portfolio testing period. Establishment period or hereinafter referred to as the formation period using a span of 12 months. The testing period in this research or hereinafter referred to as the ownership period using the next 3, 6 and 12 months-time next is used to test the performance of the stock portfolio that has been formed in the formation period.

This study uses abnormal return and risk-adjusted return, namely the Sharpe Index to measure the performance of stock portfolios. Sharpe Index is right to be used to measure stock portfolios that are not well diversified, as in this study which only uses one sector, namely the Manufacturing sector.
Based on the description, the research objectives are: (1) to test the significance of the difference between the performance of the stock winner's stock portfolio and the performance of the stock portfolio of loser shares in the ownership period of the next 3, 6 and 12 months. (2) test the significance of the difference between the performance of the winner-loser stock portfolio in the formation period with the performance of the winner-loser stock portfolio in the next 3, 6 and 12 months.

**LITERATURE REVIEW**

Moment investment strategy is an investment strategy that is done by buying shares that previously had good performance and selling stocks that previously had poor performance (Sharpe. Et al., 1995). This strategy makes investors look for the right momentum, namely when the price changes that occur can provide benefits for investors through the act of selling or buying shares. Various techniques for finding the right momentum in a stock portfolio can be done. Data that has occurred (ex-post data) is used to find stock movement patterns and look for a causal relationship between one event and another.

Jagadessh and Titman (1993), researchers who popularized the momentum investment strategy, in their research stated that winner portfolios continue to outperform loser portfolios in subsequent ownership periods. Research conducted in 1965-1989 found that the Momentum Strategy was profitable and produced significant abnormal returns along the medium-term investment horizon of 3 to 12 months. Sehgal and Sakshi Jain (2011) conducted research in the Bombay Stock Exchange on momentum strategies at the sectoral level, found that the momentum strategy is very appropriate to be implemented in India where the winner's stock portfolio produces higher average returns than the loser stock portfolio. The same thing then Dhankar and Supriya (2015), found that the application of the long-term Momentum Strategy is more profitable on the Indian Stock Market. The winner's stock portfolio performance is above the loser stock portfolio, and shows a significant difference.

Bettman, et al. (2010) investigated momentum investment strategies in the Australian Equity Market during the period 1996-2008. The results of his research found that the investment strategy momentum benefits the more liquid stocks on the Australian Stock Market, where the winner's stock portfolio continues to outperform the loser stock portfolio. Furthermore Balakrishnan (2015) in his study which tested Momentum Strategy in 3 time windows, namely 3, 6 and 12 months on the Bombay Stock Exchange, it was found that the momentum strategy gains with a time window of 6 and 12 months together gave an average return rate high because the winner's portfolio gives a monthly yield of 3.3%.

**Hypotheses:**

H1: There is a significant difference between the performance of the winner's stock portfolio and the performance of the loser's stock portfolio in the next ownership period.

H2: There is a significant difference between the winner-loser stock portfolio performance in the formation period and the winner-loser stock portfolio performance in the next ownership period.

**METHODS OF RESEARCH**

The variable in this study is the performance of winner and loser stock portfolio as measured by abnormal return and risk adjusted return (Sharpe Index). Stock stock portfolio performance is the performance of the stock portfolio formed from winner and loser shares in the Manufacturing Sector on the Stock Exchange during the period 2013-2017 with two methods, namely: Abnormal Return Method, where winner-loser portfolio abnormal return measurements are carried out using market adjusted models (Market-Adjusted Model). The second method used in this study is the winner-loser risk-adjusted return portfolio which is a measurement of the performance of the stock portfolio that has included risk factors, in this study using the Sharpe Index winner stock portfolio and loser stock portfolio in the
Manufacturing Sector on the Stock Exchange during the period of 2013-2017. The Sharpe Index is used to measure a portfolio that is not well diversified, in accordance with this study which only uses one sector, namely the Manufacturing Sector.

Research hypothesis testing is done using two different test analysis techniques on average with the help of SPSS 22.0 for Windows program. The independent t-test analysis technique used in this study is to examine the significance of the difference in the performance of the stock winner's stock portfolio with the performance of the loser's stock portfolio in the subsequent ownership period, while the paired samples test is used to test the significance of the difference. The test results will be significant if the value of Sig. (2-tailed) <0.05, otherwise the test results are not significant if the value of Sig. (2-tailed)> 0.05.

The population in this study is the Manufacturing Sector listed on the Indonesia Stock Exchange in 2013-2017, namely as many as 134 companies, consisting of 56 companies in the Basic and Chemical Industry sub-sector, 41 companies in the Multifarious Industry sub-sector and 37 Consumer Goods sub-sector companies. Determination of the sample used using the census method by using the entire population.

RESULTS OF STUDY

The results of testing the performance of winner and loser stock portfolios can be seen in Table 1 and Table 2 which shows that, the significance value of winner with loser stock portfolio performance is measured by abnormal return and index sharpe. Stock portfolio performance in the formation period of 0.005 as measured by abnormal returns and 0.015 as measured by the Sharpe Index. The significance value is lower than alpha 0.05 which means that the winner's stock portfolio with the performance of the loser stock portfolio period formation produces a significant difference. The significance value of the winner's stock portfolio performance with the following ownership period 3, 6 and 12 months is 0.107, 0.133 and 0.199 as measured by abnormal returns as well as 0.294, 0.272 and 0.147 as measured by the Sharpe Index. The significance value is higher than alpha 0.05, which means that there is no significant difference between the performance of the stock winner's stock portfolio and the performance of the loser stock portfolio for the next 3, 6 and 12 months.

Table 1 – T-test Abnormal Return Portfolio Winner and Abnormal Return Portfolio Loser Result

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Formation period</th>
<th>Period of ownership</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>3 months</td>
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<tr>
<td>Winner</td>
<td></td>
<td>0.093</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.477</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.482</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.316</td>
</tr>
<tr>
<td>Loser</td>
<td></td>
<td>-0.057</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.074</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.038</td>
</tr>
<tr>
<td>Sig</td>
<td></td>
<td>0.005</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

Table 2 – T-test of Portfolio Winner and Portfolio Loser Result

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Formation period</th>
<th>Period of ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3 months</td>
</tr>
<tr>
<td>Winner</td>
<td></td>
<td>0.392</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.543</td>
</tr>
<tr>
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<td>0.470</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.715</td>
</tr>
<tr>
<td>Loser</td>
<td></td>
<td>-1.884</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-2.078</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-7.400</td>
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<tr>
<td></td>
<td></td>
<td>-6.092</td>
</tr>
<tr>
<td>Sig</td>
<td></td>
<td>0.015</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.
Table 3 and Table 4 present the results of t-test winner-loser stock portfolio performance as measured by abnormal return and Sharpe Index.

Table 3 – T-Test Abnormal Return Portfolio Winner-Loser Formation Period and Ownership Periods 3, 6 and 12 Months Next Year 2013-2017

<table>
<thead>
<tr>
<th>No</th>
<th>Period of ownership</th>
<th>Portfolio</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Winner</td>
<td>Beda</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loser</td>
<td>Beda</td>
<td>Sig</td>
</tr>
<tr>
<td>1</td>
<td>3 months</td>
<td>-0.001</td>
<td>0.991</td>
<td>0.069</td>
</tr>
<tr>
<td>2</td>
<td>6 months</td>
<td>-0.173</td>
<td>0.024</td>
<td>0.068</td>
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<tr>
<td>3</td>
<td>12 months</td>
<td>-0.210</td>
<td>0.056</td>
<td>0.080</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

Table 3 shows the insignificant negative value of the stock winner's stock portfolio performance as measured by abnormal return of ownership periods 3 and 12 months for 0.991 and 0.056 higher than alpha 0.05, while for ownership of 6 months the significance value is 0.024, lower from alpha 0.05 shows a significant negative value. The loser stock portfolio for ownership periods 3 and 6 months later has a non-significant positive value of 0.140 and 0.083, higher than alpha 0.05, while for the ownership period of the next 12 months shows a significant positive value of 0.039 lower than alpha 0.05.

Table 4 – T-Test Sharpe Winner-Loser Portfolio 12 Months Formation Period with Next 3, 6 and 12 Months Ownership Period 2013-2017

<table>
<thead>
<tr>
<th>No</th>
<th>Period of ownership</th>
<th>Portfolio</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Winner</td>
<td>Beda</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loser</td>
<td>Beda</td>
<td>Sig</td>
</tr>
<tr>
<td>1</td>
<td>3 months</td>
<td>-0.448</td>
<td>0.107</td>
<td>3.989</td>
</tr>
<tr>
<td>2</td>
<td>6 months</td>
<td>-0.612</td>
<td>0.132</td>
<td>3.594</td>
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<tr>
<td>3</td>
<td>12 months</td>
<td>-0.434</td>
<td>0.025</td>
<td>3.460</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018.

Table 4 shows the insignificant negative value of the winner's stock portfolio performance as measured by the Sharpe Index for the next 3 and 6 months ownership period of 0.107 and 0.132 higher than alpha 0.05, while for the next 12 months ownership the significance value is 0.025, lower than alpha 0.05 shows a significant negative value. The performance of the loser stock portfolio for the ownership periods 3 and 6 and 12 months later has a non-significant positive value of 0.117, 0.144 and 0.140, higher than alpha 0.05.

Table 5 – Significant Testing Result of Abnormal Winner’s Stock Portfolio Return, Loser Stock Portfolio and Market Index (CSPI)

| Portfolio | Formation period | Period of ownership | | |
|-----------|------------------|---------------------|---|---|---|
| Winner    | 0.093            | 0.001               | -0.007| 0.037|
|           | 0.477            | 0.768               | 0.370| 0.339|
|           | 0.462            | 0.445               | 0.252| 0.122|
|           | 0.316            | 0.149               | 0.061| 0.031|
| Loser     | -0.057           | -0.049              | -0.035| 0.038|
|           | -0.074           | -0.043              | -0.016| -0.020|
|           | -0.059           | 0.106               | 0.087| 0.079|
|           | -0.038           | 0.034               | 0.011| -0.003|
| IHSG      | 0.000            | 0.031               | 0.024| 0.015|
|           | 0.015            | -0.012              | -0.015| -0.010|
|           | -0.010           | 0.016               | 0.021| 0.012|
|           | 0.012            | 0.024               | 0.017| 0.017|
| Sig       | 0.001            | 0.073               | 0.102| 0.146|

Source: Primary Data, 2018.

Table 4 shows the insignificant negative value of the winner's stock portfolio performance as measured by the Sharpe Index for the next 3 and 6 months ownership period of 0.107 and 0.132 higher than alpha 0.05, while for the next 12 months ownership the significance value is 0.025, lower than alpha 0.05 shows a significant negative value. The performance of the loser stock portfolio for the ownership periods 3 and 6 and 12 months later has a non-significant positive value of 0.117, 0.144 and 0.140, higher than alpha 0.05.
Table 5 and Table 6 present the significance value of winner stock portfolio performance and the performance of loser stock portfolios with market indices measured by abnormal return and Sharpe Index. Table 5 shows that stock portfolio performance as measured by abnormal return formation period is 0.001, lower than alpha 0.05, which means that the performance of the winner stock portfolio and the performance of the loser stock portfolio with the market period formation index produces a significant difference. The significance value of the performance of the winner stock share portfolio and the performance of the loser stock portfolio with the market index of ownership periods of 3, 6 and 12 months is 0.073, 0.102 and 0.146; higher than alpha 0.05, which means that there is no significant difference between the performance of the winner portfolio stock shares and loser shares with the market index of ownership periods of 3, 6 and 12 months which is measured by abnormal returns.

Table 6 – Significant Testing Result Sharpe Winner Portfolio Index, Loser Stock Portfolio and Market Index (CSPI)

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Formation period</th>
<th>Period of ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3 months</td>
</tr>
<tr>
<td>Winner</td>
<td>0.392</td>
<td>-0.635</td>
</tr>
<tr>
<td></td>
<td>0.543</td>
<td>0.349</td>
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<tr>
<td></td>
<td>0.470</td>
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<tr>
<td></td>
<td>0.715</td>
<td>0.361</td>
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<td></td>
<td>-1.684</td>
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</tr>
<tr>
<td></td>
<td>-6.092</td>
<td>0.126</td>
</tr>
<tr>
<td>Loser</td>
<td>-0.015</td>
<td>0.031</td>
</tr>
<tr>
<td></td>
<td>-0.010</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td>0.012</td>
<td>0.024</td>
</tr>
<tr>
<td>IHSG</td>
<td>0.005</td>
<td>0.355</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018.

Table 6 presents that the significance value of the winner stock portfolio performance and the performance of the loser stock portfolio with the market index. The stock portfolio performance in the formation period was 0.005, lower than alpha 0.05, which means that the performance of the winner stock portfolio and loser stock portfolio with the market period index produced a significant difference. The significance value of stock winner stock portfolio performance of loser stock portfolio and market index of ownership periods for the next 3, 6 and 12 months is 0.35, 0.235 and 0.133; higher than alpha 0.05, which means that there is no significant difference between stock winner portfolio loser stock portfolio and market index ownership period 3, 6 and 12 months as measured by the Sharpe Index.

This study found that the winner’s stock portfolio produced lower performance in the ownership period of 3, 6 and 12 months later, while the loser stock portfolio actually increased in the ownership period of 3, 6 and 12 months later. The findings of this study reflect that the existence of the Momentum Investment Strategy is not found in the Manufacturing Sector in the Indonesia Stock Exchange during the period 2013-2017, research that is in line with the results of this study, among others research conducted by Wiksuana (2009) which states that the results of the formation period with the ownership period the winner-loser portfolio experiences a reversal or reversal.

There are several studies that found similar results including: Wiksuana (2009), Alper and Ebru Aydogan (2017), Chen, et al. (2010), Longshi, et al. (2015), Dapaah, et al. (2010), Filbeck et al. (2013), Chui, et al. (2010), Gunarsa and Ekayani (2011), Suarmanayasa and Susila (2012), and Swandewi and Mertha (2013). Other studies that are not in line with the results of testing hypothesis 1 in this study, include research conducted by Shan Hu and Yue Chin Chen (2011), Pyo and Yong Jae Shin (2013), Leivo (2012), Dhankar and Supriya
Based on the t test on the differences in the performance of the winner and loser shares' stock portfolios in the ownership period of 3, 6 and 12 months, it was found that there was no significant difference between the stock winner's stock portfolio performance and the stock portfolio performance of loser shares in the ownership period of 3, 6 and 12 months. The findings of this study reflect that the performance of stock winner stock portfolios is not different from the performance of the loser stock portfolio significantly, so it can be said that there was no overreaction of investors during the study period. This research was supported by research by Yulianawati (2003) and Sasmikadewi (2017).

The findings of this study also show that there is no significant difference between the performances of the winner-loser stock portfolio in the formation period with the winner-loser stock portfolio performance in the next ownership period. The findings of this study also reflect that there was no overreaction of investors in the manufacturing sector during the period 2013-2017. The results of this study are supported by the research of Sasmikadewi (2017) and the research of Maharani and Witiastuti (2015), but contrary to research conducted by Shan Hu and Chin Chen (2011), Zoglami (2011), Berh et al. (2012) and Yunita (2012).

CONCLUSION AND SUGESTIONS

Based on the results of the analysis that has been carried out, it can be concluded that the performance of the winner's stock portfolio in the ownership period of 3, 6 and 12 months results in lower performance, while the performance of loser stock portfolio ownership periods of 3, 6 and 12 months results in higher performance. There is no significant difference between the performance of the winner's stock portfolio and the performance of the loser stock portfolio in the ownership period of the next 3, 6 and 12 months, and there is no significant difference between the performance of the winner's stock portfolio and the performance of the loser stock portfolio and Market Index in ownership period 3, 6 and 12 months later.

REFERENCES

ENVIRONMENTAL, SOCIAL AND CULTURAL CHANGE IN COMMUNITY AROUND NICKEL MINE: A CASE STUDY IN PT. BDM NICKEL MINE, FATUFIA, MOROWALI, INDONESIA

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University of Tadukalo, Palu, Indonesia
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ABSTRACT
This study discusses environmental, social and cultural change taking place in a community who lives around a nickel mine in Fatufia village, Bahodopi region, Morowali, Central Sulawesi. The approach used in the study was social fact. The data collection methods were interview, observation, documentation and library study. The interview was conducted to 5 community members from Fatufia village. Purposive sampling was used to select these 5 informants. The data analysis method was path analysis. The findings were environmental change took place in the form of land conversion from agricultural area or plantation to mining and residential area; modernization and increasing business activities represented social change taking place in Fatufia village; and a shift in social interaction and solidarity represent cultural change happening in the area.

KEY WORDS
Mine, environmental change, socio-cultural change, villagers.

In the last four decades, the national mining sector has become one of the most controversial public discourses from economic, political, environmental and socio-cultural perspectives. It has been proven that the national mining industry has made significant contribution to the national economy; however, it has damaged both the environment and ecosystem and is responsible for eradication of cultural value and local wisdom. Even though this sector makes less contribution to the national budgets compared to agricultural sector and fisheries, mining industry is still attracting a lot of attention because it creates a lot of job vacancy, generates higher income and fosters business activities more particularly in rural areas.

Robinson & Mukhlis (1986) elaborated how significant penetration of multi-national companies is towards the proletarianization of farming communities around mining. Robinson and Mukhlis' dissertation revealed that people lost the most productive land for agricultural activities because it was taken over by the mining industry. Those farmers were forced to work as low-level laborers in the mine, while most farmers who were not qualified to work in mining industry worked part-time job in informal sector (Robinson & Mukhlis, 1986).

One of the Indonesian companies that holds nickel mining business licenses and later becomes the site of this study is PT. Bintang Delapan Mineral (BDM). This LLC started nickel mining in 2007. It is located in Fatufia village, Bahodopi district, Morowali. Starting from their exploration to exploitation process, PT.BDM mining has resulted in land conversion, socio-economic and cultural changes. Due to the land conversion, subsistence farmers and fishermen lost major proportion of their income.

From the social and cultural perspectives, environmental change causes more complex social dynamics. Nickel mining attracted a lot of people to move to Fatufia and other villages nearby. This migration causes interaction between people from various ethnic groups. These people come to work in the nickel mine. The locals of Fatufia village took advantage of this opportunity and started their business. Urbanization has taken over Fatufia and the villages nearby gradually. More people live in the villages and their economic sectors grow rapidly. There is significant increase in number of stores, food stalls, boarding houses and recreational facilities in those villages.

The mining workers and their families are two reasons for the rapid growth of business in Fatufia Village. Catering service, food stalls and laundry service, for example, has
provided job vacancy for the locals. Some of the locals built boarding houses for the workers to rent. These businesses generate higher income for the locals (Andal, 2013). In short, most businesses in Fatufia village are locally-owned. Although they have started new business ventures, most of the locals are still working as farmers. Popkin (1986) called these people ‘rational farmers’ which means a group of farmers who work not only to maintain their living but also to gain more profit.

The presence of these various businesses is a response to the immediate needs of employees / workers and their families who live in Fatufia Village. The growth of catering services, food stalls, laundry services for example, has provided additional employment opportunities for local workers from nearby villages. Likewise for housing needs for workers, in Fatufia Village there are enough boarding houses available for workers, these things contribute to improving the welfare of their lives (Andal, 2013). All of these activities are mostly carried out by the local community, most of whom still maintain their old profession as rice farmers / gardens. By Popkin (1986), the actions of rural communities like this are called ‘rational farmers’ who work not only to maintain subsistence but also go further to gain profit.

The nickel mining attracted the locals’ attention because it provides various job opportunities. The locals are determined to get socio-economic benefits from the mining industry because prior to the nickel mine most of the Fatufia locals are poor. As most of them are either farmers or fishermen, they rely on their farm, plantation or number of fish they can catch. An aspect to highlight is that the nickel mining requires the locals to compete with people from other regions or even foreign countries to get a job in PT.BDM. Such competition and similar competition at business sector may result in social conflict among members of a community.

Land conversion from agricultural area, plantation and fish farm to mining has caused a lot of people to leave their job as farmers or fisherman and work as mining workers. Mining workers get more money than farmers whose farm or plantation is below one hectare. However, based on the socio-cultural perspective, farmer is a more prestigious occupation compared to mining worker for Fatufia locals because farmers can pass down their farm to younger generation. Besides that, the only type of occupation available for the locals in the nickel mine is unskilled labor. Some locals hope that they can afford their expenses after working as unskilled labor in the nickel mine. Unfortunately, the local workers are facing discrimination repeatedly. PT.BDM does not treat their skilled labor who many times are coming from other areas and the local workers, those from Fatufia village, equally. The company does not give any opportunity for the local workers to hold strategic posts because of their lacking skills. It is an example of discrimination against the local workers.

Besides the economic change, the nickel mine also brings some cultural changes. Fatufia locals are known as their agrarian culture and associated to ‘cooperative work,’ ‘communal-based’ work ethics and strong ‘social solidarity.’ Unfortunately, these characteristics have begun to disappear. There is a shift from ‘cooperative work’ to ‘individual work’ when the number of farms and plantations in the village is declining slowly. As an addition, ‘communal-based’ work ethics slowly becomes ‘contractual-based’ interest. ‘Community-based’ disappeared gradually into ‘personal and materialistic.’

In terms of working culture, the mining industry introduced competition and individualism. The nickel mining job market becomes more competitive because number of job vacancy is limited and PT.BDM only recruits skilled labor who has particular background of education. These phenomena result in social jealousy.

Previous researchers have discussed the impact of industrialization towards village community. In 2014, Etty Mediatris, Nuha, Tykson, Salman conducted a study entitled “Social, Economic and Sapital Change in Batui, Banggi Liquid Gas Project.” Andri Aditya Irawan conducted a study entitled “Economic and Social Impact of PT. Tanito Harum Coal Mining towards Community Members in Loa Tebu, Tenggarong” in 2013. In 2010, M.Ilmi Hidayat conducted a study entitled “Impact of Coal Mining towards Socio-Economic Aspect of Community Members in Sei Pinang, Banjar, South Kalimantan.” The three studies reported that industrialization has positive influence towards locals’ income.
Based on the elaboration on the impact of industrial sector towards the environment and social dynamics in Fatufia village, the researcher is interested in conducting an in-depth study based on the following considerations. First, the local community has experienced both positive and negative impact of the nickel mining. The nickel mining has influenced livelihoods of the local community and they changed their job as part of adaptation strategies. Secondly, despite of the negative effects of the nickel mining, the local community continues to maintain good relationship with PT.BDM. Third, both the company and local community have always seeked for solution to minimize the impact of the nickel mine.

LITERATURE REVIEW

Socio-cultural impact refers to overall consequence and change of all components in particular society over time. Concrete examples of socio-cultural impacts are changes in population, quality of population, livelihood, population composition, methods of communication and social interaction, value and norm, institutions, perceptions, and at last behavior.

As an impact, socio-cultural change includes changes that occur within social system (there are differences between state of a particular system in different time periods). In other words, change happens in certain amount of time, deals with differences in circumstances while being observed between before and after a certain period of time.

Wilbert Moore (Lauer, 1993) stated that social change refers to “important change in social structure.” Social structure means “patterns of behavior and social interaction.” This definition involves various expressions about structure such as norm, value and cultural phenomenon. Besides that, literatures have discussed definition of social change in broad sectors, for instance social change as variation or modification in every aspect of social process, social patterns, social elements and ‘every modification of well-established interrelational pattern and standardized behavior.’

Furthermore, Sztömpka (2004:3) explained that the concept of social change is ideas of a social process as series of interrelated social changes. Pitirim Sorokin then mentioned a classic definition corroborating that ‘every subject changes in the course of time, whether change of place and space or modification of quantity and quality.’

Herbert Spencer, a classical sociologist, also stated that change through modernization will result in heterogenous society. His perspective on social development emphasized on increase of both quantity and quality in different aspects of a system. Spencer explained that the law on development of organism is general. Development has always involved evolution from a simple to sophisticated being (Sztompka, 1994; Soekanto, 1989). Spencer described social development from homogenous to more heterogenous society. The analogy is the development from primitive society (homogenous) to modern society (heterogenous). Social evolution, according to Spencer (Sztompka, 1994), takes place through structural and functional differentiation as follows: first, from a simple to sophisticated concept; second, from non-existence to a system with multiple aspects; third, from uniformity and homogenous into specific and heterogenous; and fourth, from unstable to stable. These four types of process are universal. Increasing population is the first stage of social development and is followed by establishment of social organizations. Development has always been characterized as increasing quantity, various forms and stability. As a matter of fact, evolution consists of several stages of development, namely: first, conservative society. Characteristics of this type of society are isolated, similar activities and absence of political organization. The second is complex society, characterized by job division between individuals, different function among different elements of society, and hierarchical political organizations. The third is increasingly complex society, which is characterized by public space, constitution and permanent law and regulation. The fourth is civilization or the most sophisticated social construction of which characteristics are establishment of nation-state, federation consisting of several countries or large empire (Sztompka, 1994).

Furthermore, Durkheim argued that evolution and/or change will result in division of labor and social solidarity. According to this expect, one should describe social solidarity
while explaining social reality (Samuel, 2010). He observes social changes from primitive (traditional) society to industrial society. Durkheim focuses on division of labor in both types of society. He assumed that division of labor in primitive community (traditional society) is less sophisticated that that in industrial community. The main factor that causes change in labor division is increase of population. In addition, social labor division is directly related to moral density or social dynamics. Moral density refers to level of interaction between community members. Higher population increases moral density level and then relationship between community members. Relationship between groups results in new social interaction. This will increase cooperative work and induce emergence of new ideas, more particularly ones about labor division, in the community (Lauer, 1982; Samuel, 2010).

Durkheim observed that increase of labor division system caused change in social solidarity. He explained two types of social solidarity that are associated to level of labor division in the society. Mechanical solidarity appears in a society with a low labor division, while organic solidarity appears in a society with complex labor division (Lauer, 1982; Samuel, 2010). In short, mechanical solidarity is developed because of the mutual similarity between community members, while organic solidarity is developed based on differences between members of society. Because of these differences, members of community should rely on each other.

Based on the elaboration, it can be concluded that the concept of social change (1) is associated to changes, (2) refers to similar social system (taking place in particular society or causing change in the society as a whole), (3) is associated to cause-effect relationship and goes beyond factor that accompanies or proceeds other factors, (4) change takes place in sequential order, for example social process from macro to micro level, namely industrialization, democracy, expansion of war, social movement, friendship and family crisis.

More specifically, Parker (1990) stated that industrial sector brings tremendous impact to those living in rural areas. Industrial sector changes value, infrastructure, industrial interest group, behavior and work ethics of particular community where it is located. These change may have direct influence towards industrial sector or appear as effect of industrial sector. Other communities will take advantage of service or other sectors but industrial sectors.

Based on the aforementioned phenomena, it can be concluded that industrial sector leads to social transformation. A shift from agriculture to industrial sector is an example of the social transformation. Increasing number of people living in the villages will shift from agricultural sector to industrial one.

As the effect of industrial sector, rural area along with its traditional social structure and culture will transform into modern society. Internalization of social industry, the result of rural economic development, will lead to social, cultural, environmental and demographical change.

METHODS OF RESEARCH

The study was categorized as a descriptive qualitative study. There were 5 informants that consisted of 3 members of the local community (Fatufia village), Head of Fatufia village and 1 public figure. The data collection techniques were structured interview, observation and library study. The data analysis technique was path analysis.

RESULTS OF STUDY

*Environmental Change.* Establishment of PT. BDM’s nickel mine in Fatufia village had caused land conversion from farm land or plantation to nickel mine and factory. Most of the forest in the village was turned into nickel mine. Besides that, locally-owned plantation was turned into nickel factory and its facilities such as steam electricity power plant, water treatment, conveyor for cut and fill and hauling for mobilizing mining equipment, materials and nickel itself.

These land conversion decreased quality of Bahodopi River, located near PT. Bintang Delapan Mineral’s nickel mine dan Kumpi River, located near PT. Indonesia Morowali
Industrial Park (PT.IMIP). The nickel mine and factory caused some sedimentation on the rivers. In the long run, this will cause water crisis and damage to Fatufia village environment.

Establishment of the nickel mine and factory also resulted in deforestation. Majority of the forest in Fatufia village was severely damaged. Fatufia village and the nearby areas were prone to land slide particularly during rainy season because PT.BDM did not apply the terracing system for their nickel mine. The nickel mine also left behind giant holes of which depth was between 3 and 4 meters. In short, the nickel mine and factory had damaged the natural resources and vegetation.

Heavy equipments the nickel mine had caused water degradation and land conversion and released heavy metals to the rivers. Besides those, the heavy equipment damaged the ecosystem and decreased soil productivity. As the consequence, the locals could no longer use their farm land or plantation for growing crops. Furthermore, soil erosion also became a major threat. The soil on the surface was not fertile but unfortunately, the farmers could not access the fertile soil below the surface. Subowo (2011) reiterated that living organism that used to live on the surface and help fertilizing the soil was either sunk below the surface, dead or malfunctioned.

The data showed that PT.BDM’s nickel mine had contaminated the farm land and plantation nearby. As the result, soil fertility, productivity and harvest were declining sharply.

Unable to rely on their farm land any longer, the farmers were frustrated and began to leave their farm land unattended. Those farm land and plantation were gradually turned into waste land. When PT.BDM needed some more areas to expand their nickel mine and develop nickel manufacturing industry and its equipment, the locals decided to sell their unattended farm land or plantation to the company. Nevertheless, there were some locals who sold their productive farm land or plantation to the company through the workers who were acting as broker. Their objective was to gain some money and start their own business.

Social Change. The establishment of IMIP industrial area had changed the landscape of Fatufia village from agriculture and fishery-oriented to capital-intensive industry. Business such as food stall, coffee shop, convenience store, laundry service, cafe, electronic store, leasing agent, motorcyle wash, repair station and karaoke started blooming. Few years ago, people had to travel to Bahadopi, the capital of the region to find a food stall that can serve more than ten customers. At present, there are 3 large food stalls that can serve more than 10 customers simultaneously in Fatufia village. Due to the nickel industry, the locals of Fatufia village began their activities very early in the morning. The food stalls served breakfast for both the mine labors and the locals. Most of the mine labors had breakfast from 9 a.m. to 11 a.m.

Besides food stalls, many locals decided to run a coffee shop. Until recently, there are 5 five coffee shops spread in strategic locations in the village. Those coffee shops had always been crowded. Serving snacks and meal, the coffee shops opened at 9 a.m. until 11 p.m. local time.

Based on macro economic estimation, average income of the Fatufia locals prior to the nickel industry was 500,000 rupiahs/month. Their income increased sharply to 2,000,000 rupiahs/month after the establishment of the nickel mine. In other words, the nickel mine had significant influence towards poverty rate in Fatufia village; poverty rate in the area plummeted from 35 to 15 households.

Another factor that contributed to the decline of poverty rate was increasing land price. During the construction phase, land price was 500% higher as PT.BDM needed large area to develop and expand their nickel mine. The locals of Fatufia were looking forward to this phase because land price increased from 2,200/m² to 7,500 m² once the nickel industry was established.

Analyzing the social reality above, the nickel industry had caused mass job migration from farm to off-farm. The job migration occurred because of two important social aspects, namely: (1) the local farmers were not able to rely on their harvest any longer. It took significant amount of time before they could earn money from their farm land or plantation. Furthermore, they earned very little money selling their harvest; (2) the locals were able to
earn more money from mining and industrial sector without having to make as much effort as they used to.

The job migration among the locals of Fatufia represented the Marxian Class Theory. The locals left their farm to improve their social and economic status. They could not make ends meet from farming anymore. Therefore, they decided to live a more practical lifestyle in which they can earn more money and improve their socio-economic status.

The nickel mining and nickel manufacturing industry created a lot of job vacancy. In addition, they had positive contribution towards Local Own-Source Revenue, such as tax, royalty and grant. These two had direct implication towards the local economy. The most vital implication was that people who lived around the industrial area could work for the PT.BDM when they the company’s requirement. In short, PT. Bintang Delapan Mineral created job vacancy for Fatufia locals. Having been running for a while, PT.BDM has transformed from nickel mine to nickel manufacturing industry. Ownership of the company had changed and therefore, there were some adjustment in staff and labor recruitment.

As hightech industry, nickel mining and nickel manufacturing industry needs specific set of skills. This had become major problem for years. The industry needed skilled workers immediately and consequently, could not afford to wait for some time for job training to finish. They were looking for competent, experienced workers. Unfortunately, most of the locals did not have any competence to work as skilled workers in the nickel industry. PT.BDM/IMIP then conducted open job recruitment where anyone could apply. They even had to hire migrant workers from China to run their nickel mine and nickel manufacturing industry.

The locals of Fatufia perceived the phenomenon as discrimination because they were hopeful that they could work for the company. According to the locals, the company did not make the locals a priority during the job recruitment. The locals were disappointed and decided to commit violent act against PT. BDM. One of the informants, a 57-year-old local named Muh. Ali stated that: “...the locals were looking forward to the establishment of PT. BDM in the area. The company promised to hire local people more particularly those whose farm land and plantation were converted into nickel mine. However, the company hired other people due to various consideration...”.

Getting a job at the nickel mining and manufacturing industry had never been an easy process. There were particular requirements to meet. The locals tried to meet the requirement because they needed a job. Currently, PT.BDM HRD was responsible for job recruitment. Instead of simplifying the job recruitment process, the human resource department made some additional requirements. Some people bribed the company (between two and three million rupiahs) and some others were willing to give away the first two months of their salary to people helping them getting a job in PT.BDM. The Head of Labota village stated that sexual exchange was a method to get a job in the company. However, he continued that the staffs involved in the sexual exchange had been fired from PT.BDM.

The government has issued laws and regulation on labor to protect the rights of employees. Both public and private institutions should obey these law and regulation.

One of the aspects Indonesian laws and regulation on labor discusses is wage system. Based on the informants, PT. BDM had violated this regulation. An informant said “PT.BDM workers have decent amount of wage but it is still below the minimum amount of wage stated in Indonesian laws and regulation on labor.” The local workers staged a protest against this wage system.

Cultural Change. People living in rural areas have always had stronger connection to their environment compared to those living in the city. This assumption is based on the fact that most people in rural areas work as farmers. In other words, rural areas have always been associated to agrarian culture. It means norm, value, belief system, point-of-view and action applicable in rural areas are derived from their agricultural system. Some words associated with agrarian culture are simple, practical, socio-communal.

The nickel mine in Fatufia has caused social, economic and cultural change. The mining industry forced the locals to adjust to modernization and industrial lifestyle. Some of the locals may have culture shock due to this drastic change in the last few years.
Financial condition of the locals in Fatufia village was improving both in quantity and quality. However, this improvement, according to Mercuse is temporary. Financial condition of the locals may have improved quite drastically. However, there is a decline in moral, cultural and religious value. Human used technological advances and objects to fill the void in their private life.

The locals then spent their salary in recreational facilities, game centers, and shopping malls. They were unaware that they had turned into consumer groups. Many people were trapped in a consumptive and hedonistic lifestyle. To become industrial community, community members should realize that they would be exposed to certain value they may never heard of and be prepared to accept a set of values that goes hand in hand with industrialization (Nurcholish Madjid, in Ibrahim, 2010). Industrial society usually has job division which is derived from increasingly complex fields of work in the industry. Job division leads to prestige, income gap and eventually a stratification in society (social pyramid). This social stratification classified community members based on attitudes and characteristics of each group member.

Rapid economic growth in Fatufia village also caused some changes in consumption pattern and lifestyles. The locals were getting more consumptive and started to adopt luxurious lifestyle. One household in Fatufia had between 2 and 3 motorcycles. The locals who worked in the nickel industry would own a motorcycle that costs between 20 and 30 million rupiahs. The informants stated that the sale of motorbikes in Bahodopi increased so sharply that some brands of motorcycle decided to open their dealership in a village with relatively small population like Fatufia. Besides motorcycle dealership, leasing companies began to appear in Fatufia. More locals and local administrative could afford a car.

Cultural change has always been preceded by change in value and behavior. The establishment of nickel industry in Falufia allowed the locals to work in PT. BDM. However, due to their background of education and lacking skills, very few locals got hired as skilled workers in the company. Majority of the locals became non-permanent unskilled workers.

At the same time, the nickel industry had motivated the locals to start their business, for example food stalls, coffee shop and office supply store. The nickel industry encouraged the locals to be effective, efficient and profit-oriented.

Despite of the modernization, particular members of the local community were striving to maintain the agrarian culture. Ogbum used the term “cultural survival” to describe the phenomenon. These group of locals kept working at farm land or plantation even though they had to go to other villages where farm land and plantation still existed. However, they also had business venture in Fatufia at the same time. Nadir (36 years old) who raised rooster in his spare time stated that:

"I used to go to the plantation every day and go to the forest to pick some fruits...... Once I started a family and worked in IMIP, I do not have any time to do those anymore. I have collected some money and bought a plantation in the suburb of Bahodopi. I know that I cannot rely on this plantation but I still grow some plants there. I like farming and always head to the plantation in my spare time." (Interview was conducted on Saturday, August 18, 2017, in Fatufia)

Change in value and behavior also took place in Falufia village; one of which was social interaction between the locals and non-locals or migrant workers. Cultural integration happened at the initial stage when non-locals brought their custom and habitual actions to Falufia. Interaction between the local community and non-locals (migrant workers) in both at or outside work resulted in cultural encounter between both groups.

The nickel industry also caused "cultural conflict," in which simple and traditional farmers were forced to adapt to complex and modern industrial community. Farmers did not stick to particular schedule because they can go to their farmland or plantation anytime. Farmers may not work when they have other activities such as wedding or house-warming parties. Farmers had culture shock once they worked in PT, IMIP. They had to wake up early and be at work at 8.30 a.m since late coming would result in penalty. They were not allowed to leave work until their shift was over. They focused more on their job rather than communal activities. As an example, factory workers had to wake up early and went to work. They came
home from work tired and thus, went straight to bed. As the result, they had very little time to interact with their neighbors.

Basruddin (38 years old) described his adjustment to his factory work.

"The first few days, I am very excited to work in PT. IMIP. I was told that I have to follow some regulations. I have to be on-time and cannot leave before I finish working. When I worked as a farmer, I did not have any timetable. I made my own schedule." (Interview was conducted August 18, 2017)

Such condition forced the locals to become money-oriented individuals. They would rather paying other people some money to do their house chores or finish their paper work than taking a leave from work. They began to think that money can substitute time and effort. The locals became more self-centered just like people who lived in industrial area. Ria (21 years old), a public administration staffs in Fatufia village stated that:

"Most of the factory workers asked other people to finish their paper work. They do not have time to come here. Sometimes, they ask for help from our staffs whom they know well before. We are given some amount of money for our help." (Interview was conducted August 20, 2017)

The nickel industry brought electricity to the village. As the effect, the village were getting lively and the locals were able to carry on their activities for 24 hours. People began to buy electrical equipment such as television, antenna, cellular phone, electric iron and video player.

The community members spent more time watching television. They were interested in watching various TV programs. Television had become the most current source of information for the locals. They copied what they had watched on TV. The locals also spent more money buying consumptive goods having watched some advertisement on TV. Television had also affected local children. They were glued to the TV and reluctant to have Qur'an recital practice in the late afternoon.

Diceritakan oleh Adas (40 Tahun) bahwa:

"Once the cement factory has been built, they finished installing the electricity. This village is getting livelier in the evening. Some people bought TV immediately. The children were very keen on watching TV and staying up late. After that, very few people are going to the mosque. The children prefer watching TV to have Qur'an recital practice." (Interview was conducted August 20, 2017)

As an addition, the locals began to purchase means of communication and more furniture. Once Telkomsel, cellular phone provider, reached Fatufia village, the locals began to purchase mobile phone. Younger generations and the locals who worked in the nickel industry bought android cellular phone that has high camera resolution to access their social media. Cellular phone vendors, cellular phone accessory vendors, cellular phone repair station and top-up kiosk started blooming in Fatufia village.

Related to the cellular phone phenomenon, Yunus (47 years old) stated that:

"Cellular phone has made things a lot easier. We do not have to go out while the sun is shining brightly any longer. All we have to do is to pick up our cellular phone. If I want to have a family gathering here, I can just call my relatives in Bahodopi and Bahomakmur asking them to come. I do not have to go to Bahodopi and Bahomakmur like I used to." (Interview was conducted August 18, 2017)

Cellular phone made people more private, for example an individual would turn off his or her cellular phone when he or she wanted to take a rest after a long day of work or were busy working. However, the individual may miss important call from his or her relatives or friends. Furthermore, Yunus (47 years old) stated that:

"Cellular phone is really beneficial, but it has several disadvantages as well. People will turn off their phone to avoid seeing other people. They do not interact with other people as much or meet other people in-person." (Interview was conducted August 18, 2017)

Nevertheless, those phenomena did not occur in certain community groups. The locals who did not work in the nickel industry were able to maintain the local value and tradition. As an example, cooperative work, one of the characteristics of agrarian community, was a common phenomenon in the suburb of Fatufia village. Members of this community were able
to work together and interact with one another because they had fulfilled their primamry need. Thus, they could devote more time to their community.

As an example, one of the informants Ahmad (38 years old) were renovating his house. Even though he had hired carpenters for the project, his neighbors still came to help finishing the project. Ahmad then stated that “Fatufia is a close-knit community where the locals were more than willing to help each other. They will come to every social gathering should they be invited. The locals who work in the nickel industry and thus, are not able to attend the social gathering will ask their family members to attend the social event. In short, social interaction here is pretty well-maintained.” (Interview was conducted in August, 2017).

Based on the elaboration, cultural changes taking place in Fatufia village were evident. Recently, the locals focused on modernization, for instance effectiveness, time-efficiency, specialization and privacy.

**DISCUSSION OF RESULTS**

Based on the perspectives of environmental sociology and ecocentrism, not only does land conversion damage the ecosystem, but it also is harmful for human being. These perspectives allow individuals that all living beings depend heavily upon the environment. Furthermore, based on the perspective of cosmology, human being, nature and God are parts of one system. It means damage to one element will affect the other two, for instance damage to environment will have negative influence towards human beings.

Aditjondro (2003) used the term ‘environmental degradation’ to describe environmental damage since ability of the environment to support living beings is declining. Aditjondro also classified environmental degradation as the first generation effect from three generations effect.

Based don Neo-Marxis’ economic determinism, a piece of land is a commodity because it has production ‘value.’ Neo-Marxis also described that ‘a piece of land’ is not only a location (material) but also space that has production value (non-material). Mining and industrial area are areas for natural resource exploration. At the same time, they are social space in which interaction and transaction (production) occur.

Besides damaging the environment, mining and industry cause socio-cultural changes. Aditjondro (2003:362-374) categorized this as the first generation effect. The first generation influence is some phenomena that have direct relationship towards mining and industry. The first generation effect consists of (a) land conversion from farm land, plantation or fish farm to mining or industrial area, and (b) water, soil and noise pollution at work.

Socio-cultural impacts are overall consequences and changes of all components of society over time induced by an event. Concrete examples of socio-cultural impacts are changes in population, quality of population livelihood, composition of population, methods of communication and social interaction, values and norms, institution, perception and behavior.

Using the socio-cultural phenomena in Fatufia and theoretical analysis above as the reference, this study shows that the nickel mining and industry has caused a revolutionary change in Fatufia. Revolutionary change means rapid and change. This change, according to Wilbert Moore, is characterized by change of demography. A lot of people come to Fatufia village to work in the nickel industry or start a business around the industry. The socio-cultural impact of the nickel industry can be seen in the form of cultural interaction that leads to assimilation, diffusion and acculturation.

The cultural interaction brings ‘Cultural Lag’ and ‘Cultural Survival’ that the local employees and local communities should experience. Local employees who are accustomed to traditional agrarian culture experience ‘Cultural Lag’ while working in a company that has a set of formal rules. The local community experience ‘Cultural Survival' when they start a business around the nickel mine but still maintain their former occupation as farmer at the same time.

With regard to the cultural issues, Wilbert Moore argued that a shift from agrarian culture to industrial area causes significant change in ‘interaction.’ People change occupation from farmers to factory workers. Previously, farmers spent a lot of time in their farm land,
plantation or forest so that it was difficult to meet them in the afternoon. Once they have become factory workers, everyone can meet them in the afternoon particularly during the breaks.

Aditjondro then stated that the nickel industry caused a "third generation impact" towards value system in the community. The change of value system has direct and indirect influence towards the environment.

In Fatufia village, the change of socio-cultural system as the third generation impact took place more quickly than the prediction. It was predicted that change of socio-cultural system would take place within deases, but instead, it only took 5 to 6 years for socio-cultural system in Fatufia to change. It happened because the nickel mining and industry and the 'culture' it brought along has caused extreme shift to the local culture. This phenomenon is called 'Cultural Reversal'.

Some examples of the cultural reversal are: First, the establishment of community-specific activities such as laundry service, office supply store and fruit shop. It indicates social differentiation. Second, land conversion from agriculture to mining and industrial areas. It indicates a change from subsistence agrarian economy to a capitalist mode of production and economic activity. These two cause changes in every aspects of the locals of Fatufia, including their social life. First, there is a change in the economic structure of the community. Second, there is a change of mindset due to transformation of value and interaction between the locals and non-local workers and the industrial environment.

Socio-cultural shift as the "impact" of industrialization is characterized by social change from simple to the more sophisticated and from being uniform to diversified. The society develops from gemeinschaft to gesellschaft. Based on the social change, gemeinschaft includes close social interaction, kinship and friendships, while gesellschaft is voluntary, contractual and self-based social interaction (Tonnis as cited in Garna, 1996: 148).

On the other hand, the local community in Fatufia village has evolved from a small tradition (a society with a simple culture) to a larger tradition (great cultural society) (Redfield, 1985). Society also moves from mechanical solidarity to what Durkheim (1964) described as organic solidarity. Weber (Ritzer, 2012) focused on human interaction, where society develops from traditional into a society that acts rationally. The social change will eventually develop several more complex social units (differentiation) (Smelser in Weiner, 1994: 71). The development is also strongly influenced by change of individual behavior that occur in the environment where the individual is at where his or her current behavior has some consequences and affects his or her future (Skinner as cited in Ritzer, 2004: 70).

CONCLUSION

The findings of the study have shown that the nickel mine has caused socio-cultural changes in Fatufia village. These socio-cultural changes have positive influence towards the community members in and around Fatufia village. The nickel industry helps the locals increasing their income. Even though the nickel industry has some negative influences towards the village, these do not really affect the community members.

The nickel mine has introduced modern and industrial lifestyle to the community in and around Fatufia village. As the result, the community members should make some adjustment to adapt to the current way of living. In other words, the nickel mine helps developing the local community.

REFERENCES


THE IMPACT REGULATION OF TRADE MINISTER OF THE REPUBLIC OF INDONESIA #82 OF 2017 AGAINST MARKET REACTIONS IN INDONESIA STOCK EXCHANGE

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ABSTRACT
This study aims to determine the impact and analyze differences in average abnormal returns before and after the issuance of trade minister regulation number 82 of 2017 dated December 8, 2017 on shipping & logistics sub-sectors in the Indonesia Stock Exchange. The results showed the market reaction at t-4, t + 3 and t + 4, but it was suspected that there was a leakage of information indicated by the presence of a significance value at t-4. The results of this study also showed that there were no significant differences before and after the publication of the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017.

KEY WORDS
Abnormal return, event study, market efficiency, capital market.

Research on market reactions is closely related to Market Efficiency. How a market reacts to information to achieve a new equilibrium price is important. If the market reacts quickly and accurately to achieve a new balance that fully reflects the available information, then this market condition is called an efficient market (Jogiyanto, 2016). The relationship between market theory which describes equilibrium with the concept of an efficient market that tries to explain how the market processes information to lead to a new equilibrium position. Fama (1970), presents three main forms of market efficiency, namely, weak form of market efficiency, semi-strong form of the market efficiency and strong form of market efficiency.

The impact assessment of the issuance of the Republic of Indonesia trade minister's regulation number 82 of 2017 on the Indonesian capital market is an event study. Jogiyanto (2016) mentions that event studies (studies) are studies that study the market reaction to an event (event) whose information is published as an announcement. Event studies can be used to test the information content of an announcement.

Information content testing must be done to be able to see the reaction of an announcement. If the announcement contains information, the market is expected to react when the announcement is received by the market. Market reaction can be seen from changes in prices of the securities concerned. This reaction can be tested using abnormal returns. Announcements are said to contain information content if one or more market participants can enjoy high abnormal returns or low returns from real returns in a long time (Jogiyanto, 2016).

Abnormal return is the difference between actual return and expected return. The test will involve an estimation period which is generally the period before the event. The event period is also called the observation period or window period (event period). In this study the period event used was 111 days, namely on July 8, 2017 until December 15, 2017.

This research uses shipping & logistics sub-sector as a sample. The selection of research locations is because researchers see opportunities for companies incorporated in the sub-sector. Export and import transport activities are still dominated by foreign vessels in 2016.

In addition to the phenomena that have been described, one of the reasons behind this research is the existence of previous research gap research that has examined the market reaction due to political events. Research by Ghanem and Rosvall (2014), Mahmood et al. (2014), Najaf et al. (2014), Kabiru et al. (2015), Pamungkas, et al (2015), Ramesh and
Rajumesh (2015), Sasongko, et al (2015), Yuliana and Sudana (2015), Hatmanti and Bambang (2017) get results that there are significant abnormal returns in the period after the event politics studied. While different results are found in Hung (2013), Pratama, et al (2015), Yuniarti and Sujana (2016) Octafilia (2016), and Wong and Hooy (2016) found results that there were no significant abnormal returns in the period after the event politics studied.

LITERATURE REVIEW

Both direct and indirect investments can be made in the capital market. In general, long-term investments that are traded in the capital market, either in the form of fixed income securities, and equity securities. Through various types of financial instruments, investors can carry out investment portfolios in accordance with the expected level of profit and risk that can be borne. Based on the information available, investors can make the right decisions in investing with certain risks. Among securities that can be traded in the capital market, stocks are the most widely known. Investment in shares in the capital market can provide unlimited profits for investors. If the stock issuing company or issuer is able to generate large profits, it is possible that the shareholders will enjoy large profits which are distributed in the form of dividends. The advantage of stock investment is also obtained from capital gains or the difference between the price when selling and the price when buying.

Jogiyanto (2016) also defines that an efficient market if market conditions react quickly and accurately to achieve a new equilibrium price that fully reflects the available information. The faster new information is reflected in the more efficient securities market price of the capital market, so that it is difficult and even impossible for investors to obtain a constant level of income above normal, ie the realized income level is higher than the expected level of income by trading transactions in the capital market.

Fama (1970) divides market efficiency into three categories, namely:
- Testing of weak form market efficiency or testing of Return estimation (test for return predictability);
- Semi-strong form market efficiency tests or event studies;
- Tests of strong market efficiency or testing of private information (test for private information).

Jogiyanto (2016: 606) also said that the testing of information content and testing the efficiency of the semi-strong form market were two different tests. Testing the content of information is intended to see the reaction of an announcement. If the announcement contains information, the market is expected to react when the announcement is received by the market. This market reaction can be measured using return as the value of price changes or by using abnormal returns. If using abnormal returns, it can be said that an announcement containing information content will give abnormal returns to the market. Conversely, if it does not contain information, it will not give abnormal returns to the market.

Tandelilin (2010: 18) states that the capital market or funds or securities traded in the capital market are generally in the form of stocks and bonds. Shares are defined as a sign of ownership or ownership of a person in a company or business entity. Investors make investments in the capital market by buying shares and selling them again for profit. The level of profit or return received by an investor from shares traded in the capital market (shares of companies going public) are usually termed stock returns (Jogiyanto, 2016: 189).

Based on the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017 what is meant by the Navy is a transportation activity which according to its activities serves sea transportation activities. National sea transport companies are marine companies that are Indonesian legal entities that carry out sea transportation activities in Indonesian waters and or from and to ports abroad. Based on the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017 Article 3 includes:
- Exporters who export coal and / or CPO, their transportation is obliged to use Sea Transportation controlled by the National Sea Transport Company;
- Importers who import rice, their transportation is obliged to use sea transportation controlled by the National Sea Transport Company;
Importers who import goods for the procurement of government goods, their transportation must use Sea Transportation controlled by the National Sea Transport Company.

Research hypothesis:

H1: There is a significant average abnormal return in the issuance of the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017.

H2: There are differences in average abnormal returns before and after the publication of the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017.

METHODS OF RESEARCH

Abnormal returns can be calculated with the following formulations (Jogiyanto, 2016: 610):

\[ AR_{it} = R_{it} - E[R_{it}] \]

Where: \( AR_{it} \) = Abnormal return of securities to the period of the t-event; \( R_{it} \) = The actual return that occurs for the securities in the period of the t-event; \( E[R_{it}] \) = Return to the 1st securities expectation for the t-event period.

The population of this study was Shipping & Logistics sub-companies listed on the IDX as many as 21 companies. The sampling technique in this study used purposive sampling where the samples were taken intentionally according to the research needs. The sample used is shares listed on the Indonesia Stock Exchange with the following sampling criteria:

- Companies that do not conduct corporate actions (share dividends, conduct stock split, or merger) in the observation period and event period;
- Companies that have listed during the observation period and event period;
- Companies that provide complete historical data that can be viewed through web finance.yahoo.com;
- Companies that are actively traded during the observation period and event period.

In this study the data analysis method used is a comparative method. Comparative analysis method or different test is a form of variable analysis to find out the differences between two or more groups of data (Misbahuddin, 2013). In this study will examine the difference between average abnormal returns before and after the occurrence of the issuance of trade minister’s regulation number 82 of 2017. The data processing results will be compared between t-value and t-table to find out a significant difference between before and after the event.

The first step taken in testing the hypothesis I is to determine the observation period. Because the abnormal return calculation uses a market model, the observation period consists of the estimated period and window period. The estimated period used is 100 days of shares starting from July 8, 2017 until November 29, 2017. After finding the estimated period, the steps taken are to determine the window period. In this study the window period used was 11 days consisting of 5 days before the event, the day of the event and 5 days after the event, namely November 30, 2017, December 8, 2017 and December 15, 2017.

Five days is taken because it is considered that the period is the best period to see the market reaction. If the estimated period is taken too short, it is feared that there is a long market reaction but cannot be detected in the research conducted, whereas if the period taken is too long, there are other significant events affecting the results of the study.

The next step that must be done to test hypothesis I is to calculate abnormal return (excess return), where the abnormal return of a stock is the difference between actual return and expected return. To calculate abnormal returns are as follows:

\[ AR_{it} = R_{it} - E(R_{it}) \]

Where: \( AR_{it} \) = Abnormal stock return I on day t; \( R_{it} \) = stock return for stock I on day t; \( E(R_{it}) \) = expected return for stock I on day t.
To calculate stock returns using the following formula:

$$R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}$$  \hspace{1cm} (2)

Where: $R_{it}$: actual return; $P_t$: stock price on day $t$; $P_{t-1}$: stock price on the previous day.

To calculate the expected return of $E(R_{it})$ this must first be determined in advance the estimation technique to determine this abnormal return. In this study used a market model, because the market model is a more sophisticated technique or model where the market model illustrates the relationship between securities and markets that are formed using simple regression techniques with equations, (Jogiyanto, 2016):

$$E(R_{it}) = \alpha_i + \beta_i \times R_{mt} + \epsilon_i$$  \hspace{1cm} (3)

Where: $E(R_{it})$: expected return for shares $i$ on day $t$; $R_{mt}$ = rate of return from the market index on day $t$; $\alpha_i$ = intercept, is a constant or expectation value of independent securities returns to market returns; $\beta_i$ = stock beta which is a coefficient that measures changes in $R_i$ due to changes in $R_m$.

Market Return ($R_m$) is sought using the basis of the Composite Stock Price Index (CSPI). The JCI data that will be used is during the event period. Testing for abnormal returns or not done by each security, but carried out in aggregate by examining the average abnormal return for all securities in a cross section for each day of the event period. By using the market model produced in the estimation period, the abnormal return for the event period can be calculated by the following formula:

$$AR_{it} = R_{it} - E(R_{it})$$  \hspace{1cm} (4)

To test the null hypothesis (H0) which states that the abnormal return is equal to zero, the $t$ test is used, while standardization of abnormal returns (SAR) is used as standard. In this study the $t$ test used to test the null hypothesis explains that abnormal returns equal to zero are as follows:

$$SAR_{it} = \frac{AR_{it}}{\text{estimation standard error}}$$  \hspace{1cm} (5)

$$T_{value} = \frac{AR_{it}}{\text{estimation standard error}}$$  \hspace{1cm} (6)

Hypothesis testing is done by comparing $t$-value with $t$-table to see events that have a significant impact on the Indonesian capital market, in testing the level of abnormal return significance is used 5%.

The step taken in testing hypothesis II is determining the average abnormal return. The abnormal value of stock return in each period is the same and the average is calculated so that the average abnormal return results are obtained. The next step is to test the difference in abnormal return average before and after using a different test. The basis for decision making is as follows:

If the significance value is <0.05, the hypothesis I is accepted, meaning that there is a significant difference in the average abnormal return before and after the publication of the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017;

If the significance value is> 0.05, hypothesis 1 is rejected, meaning that there is no significant difference in the average abnormal return before and after the publication of the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017.

\section*{RESULTS OF STUDY}

The following is the calculation of the average abnormal return and cumulative average abnormal return on events:
Table 1 – Average abnormal return and cumulative average abnormal return

<table>
<thead>
<tr>
<th>Period</th>
<th>Average abnormal return</th>
<th>Cumulative Average Abnormal Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>-4</td>
<td>-0.035</td>
<td>-0.034</td>
</tr>
<tr>
<td>-3</td>
<td>-0.028</td>
<td>-0.062</td>
</tr>
<tr>
<td>-2</td>
<td>-0.012</td>
<td>-0.074</td>
</tr>
<tr>
<td>-1</td>
<td>-0.008</td>
<td>-0.083</td>
</tr>
<tr>
<td>0</td>
<td>0.004</td>
<td>0.004</td>
</tr>
<tr>
<td>1</td>
<td>-0.029</td>
<td>-0.108</td>
</tr>
<tr>
<td>2</td>
<td>-0.004</td>
<td>-0.112</td>
</tr>
<tr>
<td>3</td>
<td>0.032</td>
<td>-0.080</td>
</tr>
<tr>
<td>4</td>
<td>-0.028</td>
<td>-0.108</td>
</tr>
<tr>
<td>5</td>
<td>0.010</td>
<td>-0.098</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018.

The calculation results of Table 1 are used to compile a graph with the time period as the X-axis and the CAAR (cumulative average abnormal return) value as the Y-axis. The following is a graph showing the movement of CAAR during the event period:

The basis of decision making in hypothesis I is done by comparing t-value with t-table to see events that have a significant impact on the Indonesian capital market, in testing the level of abnormal return significance is used 5%. The value of t table is 2.145.

Table 2 – Average value of abnormal return and t-value of companies in the event period

<table>
<thead>
<tr>
<th>Period</th>
<th>AAR</th>
<th>T value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>0.001</td>
<td>0.097</td>
<td>Not sig.</td>
</tr>
<tr>
<td>-4</td>
<td>-0.035</td>
<td>-2.442</td>
<td>Sig.</td>
</tr>
<tr>
<td>-3</td>
<td>-0.028</td>
<td>-1.833</td>
<td>Not sig.</td>
</tr>
<tr>
<td>-2</td>
<td>-0.012</td>
<td>-0.706</td>
<td>Not sig.</td>
</tr>
<tr>
<td>-1</td>
<td>-0.008</td>
<td>-0.921</td>
<td>Not sig.</td>
</tr>
<tr>
<td>0</td>
<td>0.004</td>
<td>0.820</td>
<td>Not sig.</td>
</tr>
<tr>
<td>1</td>
<td>-0.029</td>
<td>-2.104</td>
<td>Not sig.</td>
</tr>
<tr>
<td>2</td>
<td>-0.004</td>
<td>-0.550</td>
<td>Not sig.</td>
</tr>
<tr>
<td>3</td>
<td>0.032</td>
<td>2.406</td>
<td>Sig.</td>
</tr>
<tr>
<td>4</td>
<td>-0.028</td>
<td>-2.643</td>
<td>Sig.</td>
</tr>
<tr>
<td>5</td>
<td>0.01</td>
<td>0.762</td>
<td>Not Sig.</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018.

Table 2 shows the results of average abnormal returns for 15 sample companies and t-test (t-value) in the days of the event period. AAR positive in the event period only occurs at t-5, t0, t + 3 and t + 5. AAR which is statistically significant only occurs at t-4, t + 3 and t + 4. This shows that the issue of the issuance of the Republic of Indonesia trade minister’s regulation number 82 of 2017 has information, but the information has leaked and investors have reacted before the event took place.

T-test on the difference in average abnormal returns before and after the publication of the regulation of the Minister of Trade of the Republic of Indonesia number 82 of 2017 shows the following results:

Table 3 – T-Test of Average Abnormal Return Before and After the Publication of the Regulation of the Minister of Trade of the Republic of Indonesia Number 82 of 2017

<table>
<thead>
<tr>
<th>n/n</th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAR before and after</td>
<td>5</td>
<td>-0.547</td>
<td>0.340</td>
</tr>
</tbody>
</table>

Source: Primary data, 2018.

Based on the results of data processing using SPSS 21.0 in table 5.6 it is known that Sig. is 0.340, which means that 0.340 > 0.05, then H1 is rejected and H0 is accepted, ie there is no significant difference in average abnormal returns before and after the issuance of the
Republic of Indonesia trade minister's regulation number 82 of 2017 on the shipping & logistics sub-sectors in the Exchange Indonesian securities.

CONCLUSION AND SUGGESTIONS

The Indonesian capital market reacted to the issue of the Republic of Indonesia trade minister's regulation number 82 of 2017. This is evidenced by the significance value at t-4, t + 3 and t + 4, but the information leak caused the market to react before the event took place.

There is no difference in average abnormal returns between before and after the issuance of the Republic of Indonesia's trade minister's regulation number 82 of 2017 on the Indonesia Stock Exchange. This means that capital market players have obtained information and are more vigilant in calculating long-term possibilities, so that they are not in a hurry to take action to buy and sell shares.

For shareholders in the Indonesia Stock Exchange (IDX) who found information about the trade minister's regulation of the Republic of Indonesia going forward, they can always make buying and selling decisions on shares that have an impact on the regulation of the Republic of Indonesia trade minister.

For future researchers who want to do similar research, you should observe capital markets outside Indonesia such as the Nikkei 225 Index, Hang Seng Index, Shanghai Composite Index, Straits Times Index, FTSE 100 Index, Dow Jones Index, S & P 500 Index or NASDAQ to see if foreign capital markets have the same impact as Indonesia.

REFERENCES

IMPLEMENTATION OF ECONOMIC GROWTH AND DISPARITY OF INTER-DISTRICT DEVELOPMENT IN BANJARNEGARA

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ABSTRACT
Economic development is expected to be enjoyed by all communities, sustainable economic growth and determination of the direction of development in the future. This study aims to determine the level of development disparity between districts in Banjarnegara Regency and the factors that influence disparity in the area. This study uses two approaches; descriptive and quantitative. The data used in this study is secondary data in the form of time series data sourced from the Central Statistics Agency (BPS) of Banjarnegara Regency. The data includes data related to Gross Regional Domestic Product (GRDP), population; Micro, Small and Medium Enterprises (MSMEs); Foreign Investment, Domestic Investment, and service sector from 20 districts in Banjarnegara Regency in 2010-2014. The analysis technique used for descriptive analysis is the Williamson disparity index, while, to determine the effect of the independent variable on the dependent variable, the analysis was carried out using panel data regression analysis method with the Fixed Effect model approach. From the results of the Williamson index, development carried out in 2010-2014 shows that Purworejo Klampok district has a value of 0.319 higher than Wanadadi district with a value of 0.16. This fact indicates that, from 2010 to 2014, development disparity between districts still occurred in Banjarnegara. Furthermore, population variables and service sector variables have a positive and significant effect on regional development disparity in Banjarnegara Regency.

KEY WORDS
GRDP, Banjarnegara, development disparity, panel data.

Development is a process of transformation that is carried out systematically and sustainably. An important part of national development is economic development to improve people's welfare in local areas. Economic development can be interpreted as a process that causes per-capita income of a community’s population to increase. The increase in per-capita income is a reflection of improvements in the economic welfare of the community. According Sukirno (2006), the high economic growth can describe a process of the improvement of public welfare by strengthening the capacity of production output, an increase in the amount of consumption, and increased revenue.

Increasing disparity is a natural thing for developing countries. This happens because economic growth requires capital whose formation requires public savings. The growth of wealthy groups allows capital accumulation to occur faster. However, the relevance of the hypothesis has diminished with the emergence of "new growth theories" that promote the role of human capital in growth. If innovation (the effect of human capital) is a major contributor to economic growth, the accumulation of human capital is central to the growth process.

Nurkse (in Kuncoro, 2006) illustrates that in the theory of poverty, backwardness, market imperfection, and lack of capital can result in low human productivity. Low human productivity will result in low income received. The low income received will result in low savings and low investment. Investment can be in the form of investment in human resources, namely the size of education, as well as capital investment with consumption measures. Based on the theory of poverty circle, it can be seen that there are several factors that cause poverty including the level of income, level of education, and the amount of public consumption.
Banjarenegara Regency as one of the regencies located in Central Java Province has natural resources with diverse and potential variants to be developed. However, Banjarenegara Regency is still classified as an area with a relatively small economic rate. In this era of regional autonomy, it is expected that Banjarenegara Regency will experience accelerated development. GRDP data and economic growth in Banjarenegara over the past five years shows a better direction. Since 2010, economic development has increased year by year. The development of economic growth of Banjarenegara can be seen in Figure 1 as follows:

![Economic Growth of Banjarenegara Regency from 2010 to 2014](Image)

Figure 1 – Economic Growth of Banjarenegara Regency from 2010 to 2014
(Source: BPS Banjarenegra, 2010-2014)

Economic development is a process whereby the state government and all components of society manage existing resources and then form a partnership pattern between local government and the private sector to form new jobs and stimulate the development of economic activities in the region. Economic development basically aims to improve people's welfare.

Development disparity, often, becomes a serious problem. If it cannot be handled carefully it will lead to more complex crises such as problems related to population, economic, social, political, environmental and also problems in the macro context which can harm the development process in a certain area.

The interaction between economic growth and income disparity between regions attracted most of the attention in recent years. Growth and disparity in the early stages of development, according to more recent research, is a mechanism in which disparity increase due to the influence of economic growth or income disparity affects growth (either positively or negatively).

Development disparity has been going on in various forms, aspects and dimensions. Based on the background of these problems, the problem of this research focuses on: (1) determining the level of development disparity between districts in Banjarenegara Regency, (2) analyzing what factors influence development disparity between districts in Banjarenegara.

THEORETICAL REVIEW

*Economic growth.* In general, economic growth is defined as an increase in the ability of an economic system to produce goods and services. Economic growth is one of the most important indicators in analyzing economic development that occurs in a country. It shows how far the economic activity will generate additional income for a community in a given period because basically economic activity is a process of using factors of production to produce output. Therefore, this process, in turn, will produce a stream of remuneration for the production factors that are owned by the community. With the existence of economic growth, it is expected that the income of the community as the owner of the factors of production will also increase. Economic growth can come from growth on the aggregate demand side and the aggregate supply side. As illustrated in Figure 1, the point of intersection between the
aggregate demand curve and the aggregate supply curve is the economic equilibrium point that produces a certain amount of aggregate output (GDP) with a certain general price level. The aggregate output generated, then, will form national income. Developing economic growth theories include:

1. Classical Growth Theory;
2. Harrod-Domar’s Growth Theory;

Regional economic development is a process whereby local governments and communities manage the existing resources and form a partnership pattern between local government and the private sector to create new jobs and stimulate the development of economic activities (economic growth) in the region.

Regional development aims to improve the welfare of the community, expand employment opportunities and equalize the results of development to all levels of society. The success or failure of national development is inseparable from the success of local governments in carrying out regional development. Thus, regional development contributes greatly to the success of national development.

The construction will create economic growth and prosperity of society fair and equitable if it is produced by many people. As described in Todaro (2000), development requires high levels of GNI and sustainable growth. If the increase in economic growth is only done by a handful of rich people, then the increase in yield is likely to only benefit them. As a result, progress in overcoming poverty will move slowly and disparity will worsen.

This theory argues that the economic growth of a region is very much determined by the existence of a strong synergy between the economic activities of rural areas and urban activities. Development synergy between rural and urban areas will be realized if there are linkages and can usually be developed input linkages (backward linkages) and output linkages (forward linkages) between related activities.

Gross Regional Domestic Product (GRDP) is one of the important indicators for knowing the economic conditions in an area within a certain period, both at current prices and on the basis of constant prices. GRDP is basically the amount of added value of final goods and services produced by all economic units in an area.

Kuncoro, 2004 stated that the traditional development approach is more defined as development which focuses more on increasing the GRDP of a province, district, or city. While economic growth can be seen from the growth of GRDP figures. Currently, GRDP is only calculated based on two approaches; from the sectoral / business field and from the use of economic products. Furthermore, the GRDP is also calculated based on the current price and constant price. Total GRDP shows the total amount of added value generated by the population in a certain period.

METHODS OF RESEARCH

This study uses secondary data in the form of panel data which is a combination of time series and inter-individual data (cross section). the data used is GRDP, number of graduates, UMKM, PMA, PMDN, service sector of Banjarnegara Regency. all of them are the results of a survey by the Central Statistics Agency (BPS). The years observed were from 2010 to 2014. In measuring disparity between regions, we used a tool called the Williamson index and panel data analysis.

Williamson Index. Development disparities between regions that occur can be analyzed by using a regional in equality index called the Williamson disparity index. The Williamon index shows the index of income variation between regions within a country. The Williamon Variation formula (Sjafrizal, 1997) is as follows;

$$W_i = \sqrt{\frac{\sum (y_i - \mu) x \sum y_i/n}{y}}$$  \hspace{1cm} (1)
Where: \( Wi = \) Williamson Variations; \( yi = \) Per capita income in district \( \text{"i"} \); \( f = \) Population of district \( \text{"i"} \); \( n = \) Regency population.

Hypothesis Testing Criteria:
- If \( Wi \) is smaller or near zero, it indicates that disparity is smaller / more evenly distributed;
- If \( Wi \) is far from zero, it means that disparity spreads widely.

**Panel Data Regression.** In the panel data, the same cross section data is observed according to time (Gujarati, 2004). The data panel is a combination of time series data and cross section data. Therefore, panel data is data that has time and space dimensions. Some advantages of using panel data include:

- Heterogeneity, more informative, varied, greater and more efficient degree of freedom, avoidance of multicollinearity problems, superior in studying dynamic changes, ability to detect and measure effects that cannot be observed in pure cross section data or pure time series, ability to study behavioral models, and bias minimization. While the general form of the panel data regression model can be formulated with the following equation:

\[
Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}
\]  

(2)

Where: \( i = 1, 2, 3, \ldots, N \) (cross section dimensions); \( t = 1, 2, 3, \ldots, T \) (time series dimension); \( Y_{it} = \) dependent variable (Williamson Index disparity); \( \beta = \) constants of the independent variable at time \( t \) and unit \( i \); \( \beta_1 X_{1it} = \) GDP variable; \( \beta_2 X_{2it} = \) population variable; \( \beta_3 X_{3it} = \) MSME variable; \( \beta_4 X_{4it} = \) Foreign Investment variable; \( \beta_5 X_{5it} = \) Domestic Investment variables; \( \epsilon_{it} = \) service sector variables; \( \epsilon_{it} = \) error.

**Panel Data Regression Model Selection.** Determination of the most appropriate model among Common Effect, Fixed Effect and Random Effect models consists of several stages, namely:

- Chow test is done to determine whether the common effect model is better than the fixed effect method.
- The significance test of random effects is done to determine whether the model with a random effect approach is better than the common effect model.
- Hausman test is done to determine whether the fixed effect model is better than the random effect model.

**RESULTS AND DISCUSSION**

**Analysis of Development Disparity (Williamson Index).** The difference in GRDP per-capita between districts in Banjarnegara provides an overview of the conditions and progress of development in Banjarnegara Regency.

Based on the test results in table 1, the Williamson Index shows that the highest disparity value is found in Purworejo Klampok sub-district with a value of 0.319 while the smallest value is in Wanadadi sub-district with a value of 0.16. The low value of the disparity index of the Gross Regional Domestic Product (GRDP) between districts in Banjarnegara shows that the distribution of GRDP, in each district, in Banjarnegara tends to be evenly distributed.

The low value of the Williamson index does not mean that the people in Banjarnegara Regency have a high level of welfare. For example; Pagedongan, Punggelan, Wanayasa, and Pandanarum which have disparity values of 0.130, 0.134, 0.032 and 0.090, respectively, have a low disparity value but when viewed from the klassen typology analysis, they are categorized as underdeveloped regions. It means that the equity in those districts is in terms of poverty, not welfare. The Williamson index only explains the distribution of GRDP without explaining how much the distribution compared to the average GRDP of other regions.

**Analysis of Factors Affecting Development Disparity.** In this analysis there are six independent variables tested using Stata software because it is suspected that these variables are able to explain variations in the index magnitude of economic development...
disparity in Banjarnegara Regency. Furthermore, in this discussion, panel data estimation techniques and panel data regression models are carried out using three methods; Pooled Least Square (PLS) methods, Fixed Effect Model (FEM) and Random Effect Model (REM). Of the three available panel data methods, the panel data method that is most suitable for use in this study will be determined. Therefore, we did several tests (F Restricted test, Lagrange Multiplier test, and Hausmann test). These tests are carried out to determine the best model.

<table>
<thead>
<tr>
<th>No</th>
<th>Districts</th>
<th>Disparity Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SUSUKAN</td>
<td>0,093</td>
</tr>
<tr>
<td>2</td>
<td>Purwareja Klampok</td>
<td>0,319</td>
</tr>
<tr>
<td>3</td>
<td>Mandiraja</td>
<td>0,040</td>
</tr>
<tr>
<td>4</td>
<td>Purwanegara</td>
<td>0,064</td>
</tr>
<tr>
<td>5</td>
<td>Bawang</td>
<td>0,074</td>
</tr>
<tr>
<td>6</td>
<td>Banjarnegara</td>
<td>0,299</td>
</tr>
<tr>
<td>7</td>
<td>Pagedongan</td>
<td>0,130</td>
</tr>
<tr>
<td>8</td>
<td>Sigaluh</td>
<td>0,029</td>
</tr>
<tr>
<td>9</td>
<td>Madukara</td>
<td>0,064</td>
</tr>
<tr>
<td>10</td>
<td>Banjarmangu</td>
<td>0,026</td>
</tr>
<tr>
<td>11</td>
<td>Wanadadi</td>
<td>0,016</td>
</tr>
<tr>
<td>12</td>
<td>Rakit</td>
<td>0,080</td>
</tr>
<tr>
<td>13</td>
<td>Punggelan</td>
<td>0,134</td>
</tr>
<tr>
<td>14</td>
<td>Karangkobar</td>
<td>0,021</td>
</tr>
<tr>
<td>15</td>
<td>Pagetan</td>
<td>0,065</td>
</tr>
<tr>
<td>16</td>
<td>Pejawaran</td>
<td>0,142</td>
</tr>
<tr>
<td>17</td>
<td>Batur</td>
<td>0,174</td>
</tr>
<tr>
<td>18</td>
<td>Wanayasa</td>
<td>0,032</td>
</tr>
<tr>
<td>19</td>
<td>Karangkobar</td>
<td>0,078</td>
</tr>
<tr>
<td>20</td>
<td>Pandanarum</td>
<td>0,090</td>
</tr>
</tbody>
</table>

Source: Banjarnegara Central Bureau of Statistics 2010-2014 (analysis result).

Based on estimation techniques, panel data regression models can be estimated using three estimation methods, namely Pooled Least Square (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). To choose the best estimation model in panel data regression, there are three tests conducted in this study. First, the Restricted F test is used to choose between PLS or FEM models. Second, if the test rejects the FEM model, the Breusch – Pagan Lagrange Multiplier test (LM Test) must be done to choose between the PLS or REM models. Third, the Hausman test is carried out if the first or second test rejects the PLS model.

The results of the Restricted F test estimation are used by looking at the lowest probability value of F on the FEM output as shown in Table 2. The table shows that the Prob> F value is 0.0000 or less than α (5%). Therefore, a decision can be made that H0 (PLS) is rejected and the best temporary estimation model is the FEM model.

Based on the test results, FEM was chosen as the best model used to estimate the influence of the independent variables (Gross Regional Domestic Product, population, MSMEs, Foreign Capital Safeguards, Domestic Investment, and Services sector) on Williamson’s index in Banjarnegara Regency in the period between 2010 and 2014. The results of the selection of the FEM estimation model can be seen in Table 2:

Based on the regression model test on the variables of economic development disparity in districts in Banjarnegara Regency, the results showed that the population variables and service sector variables had a significance level of 0.01. Furthermore, Domestic Investment variables have a significance level of 0.10. Meanwhile, GRDP, MSMEs, and Foreign Investments variables have no significance to the Williamson index of development disparity (Y).

Furthermore, based on the calculated F value of 708.39 with a significance of 0.0000 <α = 0.01, it was concluded that GDP, population, MSMEs, FDI, domestic investment and services simultaneously had a significant effect on economic growth in Banjarnegara Regency. With the R-squared value of 0.9935, it means that the magnitude of GRDP (X1),
population (X2), MSMEs (X3), FDI (X4), Domestic Investement (X5), and service sectors (X6) are able to influence economic growth.

| Variable | Coef  | Std. Error | t     | P>|t| |
|----------|-------|------------|-------|------|
| PDRB     | 4.50e-09** | 4.97e-09 | 0.90  | 0,369|
| Penduduk | 2.75e-06    | 4.45e-08 | 61,54 | 0,000|
| UMKM     | -2.88e-07** | 1.89e-07 | -1.52 | 0,132|
| PMA      | -5.14e-16** | 1.25e-14 | -0,05 | 0,964|
| PMIDN    | -2.29e-16** | 1.25e-16 | -1.83 | 0,072|
| Sektor Jasa | -5.11e-08 | 1.31e-08 | -3.90 | 0,000|
| Cons     | 0.090670   | 0.0019089 | 47.50 | 0,000|

Based on table 2, the model of development disparity that is formed is as follows:

\[ Yit = 0,900670 - 4,50x10^{-9}(PDRB) + 2,741x10^{7} \cdot (\text{Penduduk}) - 2,88x10^{7} \cdot (\text{UMKM}) - 5,14x10^{16} (\text{PMA}) - 2,29x10^{16} (\text{PMIDN}) - 5,11x10^{8} (\text{Sektor Jasa}) + \text{Cons} \]

Gross Regional Domestic Product (GRDP) shows how well the economy in Banjarnegara Regency. Based on the estimation of panel data, GRDP variable (X1) shows that the coefficient of positive GRDP variable of 4.50 does not significantly influence the development disparity in Banjarnegara Regency in the period of 2010-2014. The results of the t test (0.369) in Banjarnegara District explain that per-capita GRDP has no relationship with the level of regional development disparity in Banjarnegara Regency in the period of 2010-2014.

Then, from the results of the regression test, it is known that the variable coefficient of population (X2) is 0.000 with a probability of 0.000 and a significance level of 99%. This shows that the population factor has a positive influence of 2.74 and has a significant influence on development disparity. This also means that an increase in the population of 1% can increase development disparity. Supported by previous research, conducted by Devi (2010) with the title "Analysis of the Influence of Income Distribution Disparity on West Java Economic Growth", similar result showed that the population growth rate has a negative but significant effect.

Another factor from the panel data estimation, the MSMEs (X3) variable, shows that this variable has no significant effect on development disparity in Banjarnegara District in the period 2010-2014. With the results of t test (0.132) in Banjarnegara Regency, it can be explained that the MSMEs factor has no relationship with the level of regional development disparity in Banjarnegara Regency in the period of 2010-2014.

Based on the estimation of the variable panel data of Foreign Investment (X4), it can be indicated that Foreign Investment does not have a significant effect on the development disparity in Banjarnegara Regency in the period of 2010-2014. With the results of t test (0.964) in Banjarnegara Regency, it can be explained that Foreign Investment does not have relationship with the level of regional development disparity in Banjarnegara Regency in the period of 2010-2014.

From the estimation results, it is known that the variable of domestic investment has a significant influence on the development disparity in Banjarnegara Regency with a probability of 0.000. Therefore, it can be said that domestic investment variables affect the development inequality.
Investment will directly or indirectly affect economic growth. With the increase in investment, economic growth will also increase. Further more, the conditions would result in the disparity of income.

From the regression test results, it is known that the service sector variable coefficient (X6) is valued at 0,000 with a probability of 0,000 and a significance level of 99%. It is seen that the coefficient is negative, which is equal to -5.11, meaning that the increase in the service sector by 1% can reduce the development inequality of Banjarnegara Regency by 5.11%. Mishra's research results in 2011 concerning the service sector show all the needs for goods and services obtained by consumers during a visit in less than one year. This sector includes business and personal travel, personal travel includes trips for vacation purposes, visiting relatives, Hajj & Umrah, as well as education and health services. This fact shows the importance of openness for each country as it can provide benefits, such as benefits in educational sector and better service.

CONCLUSION AND RECOMMENDATIONS

Per-capita GRDP disparity between districts in Banjarnegara Regency during the period of 2010-2014 is included in the criteria of high disparity. In the calculation of the Williamson index, the greatest inequality is found in Purworejo Klampok sub-district (0.319) while the smallest value is in Wanadadi sub-district (0.16). this happened due to differences in inter-district natural resources and per-capita Gross Regional Domestic Product (GRDP) between districts in Banjarnegara Regency. This is a sign that the development disparity between districts is still large.

Whereas, from the results of the regression test, population variables (x2) and service sector (x6) have a significant and positively related effect on the index of regional development in Banjarnegara Regency. Based on the results of the study, it is suggested to the government to improve the investment climate which is more conducive by providing licensing facilities and simplifying regional regulations in Banjarnegara Regency. The provision of development assistance to the local districts should be adjusted to the situation and conditions in each district, so that the disadvantaged districts will be able to catch up with the developed districts.

REFERENCES

ANALYSIS OF FACTORS INFLUENCING THE FAILURE OF HOT MIX ROAD TIMELINE ACHIEVEMENT IN TULUNGAGUNG DISTRICT

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ABSTRACT
This study is aimed to know factors influencing the failure of hot mix road timeline achievement and to discover the dominant factor so that appropriate strategies can be applied to overcome those factors. In this study, factor analysis and multiple linear regression analysis from the responses of questionnaire are used to analyze data. The questionnaire was distributed to 70 respondents from contractors, owners, and supervisors involved in hot mix road project in Tulungagung District in fiscal year of 2013. The findings of F-test shows that (X1), (X2), (X3), (X4), (X5), (X6), (X7), (X8), and (X9) factor affects simultaneously on the failure of hot mix road timeline achievement with $F_{\text{count}} = 7.424 > F_{\text{table}} = 2.040$. However, regarding to partial t-test, factors that significantly influence the failure of hot mix road timeline achievement is Quality Control (X9) with $t_{\text{count}} = 4.875 > t_{\text{table}} = 2.000$, Vehicle (X1) with $t_{\text{count}} = 2.822 > t_{\text{table}} = 2.000$, and Environment (X2) with $t_{\text{count}} = 2.141 > t_{\text{table}} = 2.000$. Moreover, it is found that the dominant factor is Quality Control factor (X9) with .375 as its coefficient β value. In addition, to overcome the problem, controlling materials used carefully during the work and testing asphalt after the work are required.

KEY WORDS
Contractor, owner, consultant, quality.

One of the purposes of constructing hot mix road construction structure in Tulungagung District is to reduce stress or pressure due to vehicle wheel loads so that level of value received by soil supporting the structure can be achieved, (Epps, 2002). In stationary position, vehicle on the hardened surface creates direct load (static stress) on the pavement concentrated on small area between the wheel and pavement, (King et. al.,1994). On the other hand, in motion position, additional dynamic stress exists due to up and down movement of vehicle and uneven pavement, wind loads, and others. As a result, additional effect of load on the road surface while the vehicle moves will exist, (Eriksson et a., 2008)

In fact, highway flexible pavements has been designed to last up to 10 years, considering the growth of traffic every year (assuming the traffic growth is 2%). Good quality road pavement is when it can reach the timeline based on the panned design with a number of planned vehicles crossing it, the implementation of road pavement construction is carried out properly, and all materials used are in accordance with standard requested in design specification and always used correctly, (Foltz, 1996).

However, not all road pavements can reach the timeline. For instance, in the implementation of hot mix road project in Tulungagung District, it is suspected that there are still many quality deviations. It can be seen in some hot mix road projects constructed in fiscal year of 2013 which are lightly, moderately, and even severely damaged which is estimated to reach 20% up to 40% of 10-year timeline. As a result, the cost of maintenance required is quite a lot. Even at this time, road construction in certain points no longer meets the technical requirements. Repair and maintenance with the same construction, both surface and thickness, will always show damage again. In this case, there are some factors contributing to the failure of road timeline achievement, such as Vehicle, Work Environment, Human Resources, Work Implementation Method, Equipment, Land Condition, Materials, Financial, and Quality Control.
In order to make the quality of hot mix road construction reach the timeline planned, some parties, such as owners, contractors, and consultant supervisors should be able to identify the factors earlier. Therefore, study about it should be conducted. However, different from the previous studies, this study was conducted in different location with different variables and indicators too in order to make the findings more applicative and competent. Besides, the findings are expected to be able to contribute to the Government of Tulungagung District in detecting causes of the failure of hot mix road timeline achievement.

THEORETICAL FRAMEWORK

Road, according to the Law Number 38 article 1 of 2004, is land transportation infrastructure involving all parts of road including complementary building and equipment intended for traffic, which is at ground level, above ground level, below ground and/or water level, and above water level, except rail road tracks, lorry roads, and cable roads.

In the implementation, road construction should pass the plan adapted to the level of transportation growth of road in the area, especially on the appropriateness between load and traffic density with road carrying capacity, road network at the center of growth, center of production, and that which connects center of production with marketing area. In realizing the road construction in integrated manner, the policy of development by considering the characteristic of area, human resources potency, other sectors potency, and selection of appropriate technology are taken, (Alkass and Harris, 1991).

Highway construction should be constructed in such way so that it can hold traffic (vehicle) load crossing on it without any surface structure change. Along with the development of land transportation, especially motor vehicle including types and size, and number, traffic flow, safety, comfort, and carrying capacity of road pavement must be a concern, (El-Rayes and Kandil, 2005).

Road is the infrastructure connecting two or more locations consisting of some parts with certain purpose and function formed on a construction. Road construction generally consists of different layers of materials in accordance with properties used. In conclusion, there are three kinds of pavement construction, i.e. rigid, flexible, and composite.

Hot mix asphalt is a kind of mixture made to do road paving placed as the top layer construction (surface course) which receives loads directly from vehicle wheels crossing over it, (Bari, 2005). The composition of hot mix consists of coarse aggregate, fine aggregate, asphalt and rock ash (filler). Furthermore, the allowed temperature for hot mix asphalt is between 145°-155°C, while for spreading is >95°-145°C.

Road quality is good when it can provide maximal service to road user based on development plan from comfort, safety, and durability aspect. Basically, the physic of road will experience damage progressively since the first time it is open for traffic. Therefore, protection and correlation is required.

Protection and correction are activities of road maintenance based on the exist regulation in Highways. Correction is aimed to restore the value of strength, safety level, comfort level, level of comfort of water permeability and water flow smoothness and applied to paved pavement which has been damaged with severe damage having local spread, such as collapsed holes, waves, crocodile crack, and mound. On the other hand, the characteristics of correction are carried out in accordance with events in the field, involving rural areas, which can be started from surface layer to ground, replacing or adding pavement part and providing construction value.

On the other hand, protection is aimed to maintain the value of strength, safety level, comfort level, surface permeability, water flow smoothness, which is applied on paved pavement surface showing symptoms of damaged road with wide spread degree, i.e. smooth crack, longitudinal crack, alligator crack, shrinking crack, swelling, corrugation, obesity (Public Works Department of Directorate General of Highways, 1983).

Timeline of road pavement is the number of year from the first time it is open for traffic until structural repair is required. During the timeline, road pavement maintenance should be continuously done, such as nonstructural coating which function is as a wear layer.
Commonly, the timeline for new road pavement is 20 years, and for road improvement is 10 years. The timeline which is more than 20 years is no longer economical because the development of traffic is too large and difficult to obtain adequate accuracy (Alik, 2006).

Factor analysis is the extension of the main analysis component. Factor analysis is used to reduce data and to describe the correlation of some variables in a small number of factors. The variables are classified into several factors in which a factor will have high correlation, whereas its correlation with variables of other factors is relatively low.

Therefore, factor analysis aims to find out a way to summarize information in the original variable (initial) into a set of new dimensions or variations (factor) by defining structure through data summarization or data reduction. Factor analysis identifies relationship structure among variables or respondents by looking at the correlation among variables or respondents.

Multiple linear regression analysis in this study is used to test questions related to factors contributing to the failure of hot mix road timeline achievement in Tulungagung District and the dominant factor affecting the technique of analysis. Besides, it is used to test or analyze the impact of or correlation between independent variable with one or more variable (s). In the analysis technique, ANOVA or F-test, t-test, and finding determination coefficient or R\(^2\) adjusted of the calculation will be done using SPSS based on multiple linear equation:

\[
Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9
\]

Where:
- \(Y\) = Failure of Hot Road Mix Timeline;
- \(X_1\) = Vehicle;
- \(X_2\) = Work Environment;
- \(X_3\) = Human Resources;
- \(X_4\) = Work Implementation Method;
- \(X_5\) = Equipment;
- \(X_6\) = Land Condition;
- \(X_7\) = Material;
- \(X_8\) = Financial;
- \(X_9\) = Quality Control;
- \(b_1, b_2, b_3, b_4, b_5, b_6, b_7, b_8, b_9\) = Regression Coefficient.

**METHODS OF RESEARCH**

Research is a science way to overcome a problem and to break the limit of human ignorance. Research is conducted through collecting and processing existing facts so that the facts can be communicated by researchers and the findings can be used for human life. In this study, descriptive study is conducted in which the researcher wants to know factors contributing to the failure of hot mix road timeline in Tulungagung District, to obtain dominant factor influencing it, and to determine strategies to overcome the factors.

To collect the data, direct observation and questionnaire were conducted. The questionnaire consists of asking opinion, experience and respondent behavior to obtain primary data. Furthermore, to obtain secondary data, any information from some institutions involved relating to the factors affecting failure of hot mix road timeline achievement. Then, factors based on some variables were determined to formulate question items which will be measured in a form of questionnaire.

This research was conducted on hot mix road in Tulungagung District in fiscal year of 2013 which could not reach the timeline.

**Research Variables:**

Independent variable (X) consists of: Vehicle (X1), Work Environment (X2), Human Resources (X3), Work Implementation Method (X4), Equipment (X5), Land Condition (X6), Material (X7), and Financial (X8), Quality Control (X9).
Dependent variable (Y): The failure of hot road mix timeline (Y).

Data obtained from the questionnaire was processed to obtain some information in the form of table. The research of data processed is then used to answer the research questions. In processing the data, the data should be in regard to the purpose wanted to be achieved. Because the precise of analysis technique influences the result of the study, data analysis technique of this study are factor analysis and multiple linear regression analysis. The data obtained from questionnaire with range 1-5 of each variable is then repeated; thus each variable consisting of several indicators will produce only one score value which is analyzed using factor analysis and multiple linear regression analysis. Furthermore, data processing was conducted using Statistical Package and Service Solution (SPSS) 15 program for windows.

RESULTS AND DISCUSSION

**Findings of Factor Analysis:**
- Vehicle (X1) variable is formed by manifest variables consisting of the number of vehicle (X1.1), large vehicle with load exceeding tonnage (X1.2), and low vehicle speed (X1.3)
- Work Environment (X2) variable is formed by manifest variables consisting of road safety construction (X2.1), frequent rainfall (X2.2), surrounding condition (X2.3), and drainage condition (X2.4)
- Human Resources (X3) variable is formed by manifest variables consisting of PPTK Existence (X3.1), low quality Human Resource (X3.2), Difficulties in Finding Human Resources (X3.3), Human Resources with low coordination ability (X3.4), and Human Resources with low responsibility (X3.5)
- Work Implementation Method (X4) variable is formed by manifest variables consisting of discrepancy of work and existing ways (X4.1), specification deviation work (X4.2), and improper method while working (X4.3).
- Equipment (X5) variable is formed by manifest variables consisting of poor equipment condition (X5.1), equipment use neglecting its function (X5.2), equipment use neglecting its specification (X5.3), delay equipment delivery (X5.4), and limited number of equipment (X5.5).
- Land Condition (X6) variable is formed by manifest variables consisting of frequent landslide (X6.1), poor compaction (X6.2), and no repair on subgrade (X6.3).
- Material (X7) variable is formed by manifest variables consisting of material deficiencies (X7.1), material delivery lateness (X7.2), material changes (X7.3), material damaged in storage (X7.4), and material scarcity (X7.5).
- Financial (X8) variable is formed by manifest variables consisting of the delay of payment by contractors to workers (X8.1), late payment by contractors to suppliers (X8.2), and late payment by owners to contractors (X8.3).
- Quality Control (X9) variable is formed by manifest variables consisting of material (X9.1) and none asphalt test (X9.2).
- Variables of hot mix road timeline failure (Y) are formed by manifest variable consisting of: road damage rate (Y1.1) and timeline toward road damage (Y1.2).

**Findings of Multiple Linear Regression Analysis.** The finding of multiple linear regression analysis uses SPSS 15 software as it can be seen in Table 1.

Regarding to Table 1, not all independent variables are significant. Independent variables having significant value (significantly affect the failure of hot mix road timeline achievement in Tulungagung District) are Vehicle (X1), Work Environment (X2), and Quality Control (X9). On the other hand, the variables which are not significant are (not significantly affect the failure of hot mix road timeline in Tulungagung District) are Human Resources (X3), Work Implementation Method (X4), Equipment (X5), Land Condition (X6), Material (X7), and Financial (X8).
R² value is the determination coefficient which mainly measures how far regression model ability in describing the diversity of dependent variable (Y). In this study, it is found that the diversity of dependent variable (Y) is .527 meaning that 52.7% affects the failure of hot mix road timeline achievement (Y) in Tulungagung District. Moreover, R value which is the correlation explaining the closeness of relationship between independent variables (X) and dependent variable (Y) found in this study is .726.

Table 1 – Summary of Multiple Linear Regression Analysis Findings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardize Coefficient β</th>
<th>t_count</th>
<th>p-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (X1)</td>
<td>0.270</td>
<td>2.822</td>
<td>0.006</td>
<td>Significant</td>
</tr>
<tr>
<td>Work Environment (X2)</td>
<td>0.210</td>
<td>2.141</td>
<td>0.036</td>
<td>Significant</td>
</tr>
<tr>
<td>Human Resources (X3)</td>
<td>-0.154</td>
<td>-1.654</td>
<td>0.103</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Work Implementation Method (X4)</td>
<td>-0.046</td>
<td>-0.471</td>
<td>0.639</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Equipment (X5)</td>
<td>-0.048</td>
<td>-0.504</td>
<td>0.616</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Land Condition (X6)</td>
<td>-0.148</td>
<td>-1.647</td>
<td>0.105</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Material (X7)</td>
<td>0.074</td>
<td>0.804</td>
<td>0.425</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Financial (X8)</td>
<td>-0.167</td>
<td>-1.816</td>
<td>0.074</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Quality Control (X9)</td>
<td>0.453</td>
<td>4.875</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

α = 0.05  
R² = 0.527  
R = 0.726  
F-count = 7.424  
F-table (0.05,9,60) = 2.040  
p-value = 0.000  
t-table (0.05,60) = 2.000

Sources: SPSS Analysis, 2017.

Moreover, to determine the dominant independent variable (factor) influencing the failure of hot mix road timeline, comparing standardized coefficient β value of each independent variable (factor) toward Y is carried out. As a result, the dominant variable is a variable which affects significantly and has the largest standardized coefficient β value.

Based on Table 1, factor of Quality Control (X9) is the variable having the largest standardized coefficient β value. It means the dominant factor in infector study on the failure of hot mix road timeline achievement in Tulungagung District is Quality Control Factor (X9). It shows that the failure of hot mix road timeline achievement is mostly affected by Quality Control Factor (X9). The positive standardized coefficient β value indicates that the better Quality Control Factor (X9) is the greater achievement hot mix road timeline is.

CONCLUSION AND SUGGESTIONS

Regarding to the findings and discussion of this study, it can be concluded that:

F test shows that Vehicle (X1), Work Environment (X2), Human Resources (X3), Work Implementation Method (X4), Equipment (X5), Land Condition (X6), Material (X7), Financial (X8), and Quality Control (X9) affect simultaneously on the failure of hot mix road timeline achievement in Tulungagung District with F_{count}= 7.424 > F_{table}= 2.040. On the other hand, partial t-test shows that factors that affect significantly on the failure of hot mix road timeline achievement are Quality Control (X9) with t_{count}= 4.875 > t_{table}= 2.000, Vehicle (X1) with t_{count}= 2.822 > t_{table}= 2.000, and Work Environment (X2) with t_{count}= 2.141 > t_{table}= 2.000.

The dominant factor affecting the failure of hot mix road timeline achievement in Tulungagung District is Quality Control (X9) with .453 as the coefficient β.

Strategies to overcome the problems in order to achieve hot mix road timeline achievement are:

- Controlling the materials used carefully during the work and testing the asphalt after the works finishes;
- Testing the asphalt should be carried out after the works finishes.
Suggestions:
- To reach the project target planned, quality control factor of material should be considered well;
- Material testing to laboratory needs to be carried out in order to make the quality of materials used meets the standard quality;
- For future researchers, they should add additional variables, such as the correlation with government and pay more attention on indicators used so that it will be more applicative that can complete this study.

REFERENCES

ABSTRACT
Trading House is an institution formed by the Government with the aim of helping farmers in the implementation of marketing their products. In Indonesia, the majority of farmers are still marketing their products to middlemen, this is because farmers have previously borrowed funds for their daily needs, so they have to sell products to middlemen with prices determined by the middlemen. In this research, the role of Trading House institutions to provide efficient and effective marketing solutions like farmers is to be studied. The research was conducted in Sidoarjo, East Java, Indonesia by using descriptive analysis.

KEY WORDS
Trading house, agriculture, marketing, public service.

Farmers in Indonesia on average still depend on middlemen, and this cooperation habit is valid until now, this cooperation actually disadvantages farmers, but there is no other choice for farmers because farmers are used to borrowing funds for life the day before the harvest arrives. In the world arena, the Government of Indonesia has signed an ASEAN agreement, while the agreement is that ASEAN will become a production base in the world which certainly has an impact on farmers' demands, farmers must increase production, quality productivity and increase the ability to transact with global markets Small farmers with a narrow land area, low education and weak mastery of technology need to be given assistance by the government, because farmers are not used to trade in a modern way. So the Government needs to help farmers in the process of marketing results. In the World, known as the Trading house, Bunge, Cargill and Dreyfus and Archer Daniels Midland, these four institutions are important for world food trade, by working using silo networks (places for storing large quantities of grain), ports, ships and farmers who are difficult to imitate, there is a Mayhem trading house in power in the agricultural market between 2010 and 2012, in that year the prices of corn and soybeans soared due to drought in the US and Brazil. While wheat prices surged after Moscow imposed a ban on cereal exports because of a panic caused by heat waves in Russian territory. (Meyer, Gregory, 2013) Farmers who only have the ability to grow crops, it is necessary for the Government to provide assistance to farmers by forming institutions that are able to help marketing farmers' products.

Formulation of the problem: What is the role of Trading House in East Java Province of Indonesia in marketing agricultural products, What is the Role of the Provincial Government in managing the Trading House in East Java Province.

Research purposes, To analyze the role of Trading House in East Java Province in marketing agricultural products, Analyzing the Role of the Provincial Government in managing the Trading House in East Java Province.

METHODS OF RESEARCH
The research location was chosen intentionally (purposive) in East Java Province precisely in Sidoarjo Regency because Sidoarjo Regency was a district with relatively high rice production in East Java., Sample Determination Method Indetermining, the sample in this study by using purposive sampling method to experts such as agricultural experts from the East Java Agriculture Service, agricultural extension experts, Sidoarjo Regency Agriculture Office and Development Planners (BAPPEDA) , Data Retrieval Method, For the sake of more in-depth data retrieval, it is necessary to use the Delphi technique where the questionnaire is repeated repeatedly to experts and farmers by interviewing the list of
questions that have been prepared, and Focus Group Discussion (FGD). Types of Data, The data collected is primary data and secondary data. To explore data about the initial ability to use primary data collection methods carried out through interviews directly with respondents, the tools used were questionnaires, secondary data was obtained from statistical data of research areas and related institutions (Food Security Office, Agriculture Office and BPS Sidoarjo Regency), Data Analysis Method, Using Delphi analysis and expected to determine the strategy of agricultural development through increasing the role of Trading house institutions in East Java Province.

RESULT OF STUDY

Analysis of the role of Trading House in Sidoarjo Regency, East Java Province In the analysis of the Role of Trading Houses in Sidoarjo Regency, it is necessary to pay attention to several characteristics that must be owned by the Trading House:

1. Building a system of division of labor, at the grass-root economy, the people of the economy are free to produce according to their expertise, producing superior commodities on a larger scale to be traded, by handling various kinds of community commodities, so that efficient and directed. In Japan, for example, it can create a large agricultural area, people who are members of the cooperative movement or local farmer groups cultivate certain commodities simultaneously and together. In addition to forming economies of scale, such handling also allows the fulfillment of the need for seeds, fertilizers and even anti-pest treatment with agricultural mechanization that is relatively cheaper for each hectare.

The results show that there is no system established at the sub-district level, so far farmers sell their products to middlemen or to the puspa Agro market, and are bought by buyers from other regions, the majority of farmers still think that the market is a meeting place for sellers and buyers, farmers sell products selling pedestrian products that have been prepared by Puspa Agro managers, so that the vast Puspa Agro in Jemundo becomes less optimal to operate because farmers still sell individually not in groups.

In Puspa Agro the product is marketed according to zoning or region to make it easier for buyers to buy products.

Table 1 – Product Marketing Zoning in Puspa Agro Jemundo Sidoarjo

<table>
<thead>
<tr>
<th>No</th>
<th>Product marketing zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Processed Product</td>
</tr>
<tr>
<td>2</td>
<td>Meal and Fish</td>
</tr>
<tr>
<td>3</td>
<td>Flower</td>
</tr>
<tr>
<td>4</td>
<td>Vegetable</td>
</tr>
<tr>
<td>5</td>
<td>Various Fruit</td>
</tr>
<tr>
<td>6</td>
<td>Crop, Rice</td>
</tr>
</tbody>
</table>

Source: Puspa Agro 2018.

Table 2 – Commodities Offered By Trading House To Buyers

<table>
<thead>
<tr>
<th>No</th>
<th>The commodities offered by Puspa Agro</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Corn</td>
</tr>
<tr>
<td>2</td>
<td>Coffee</td>
</tr>
<tr>
<td>3</td>
<td>Rice</td>
</tr>
<tr>
<td>4</td>
<td>Fish</td>
</tr>
<tr>
<td>5</td>
<td>Chocolate</td>
</tr>
<tr>
<td>6</td>
<td>Chili</td>
</tr>
<tr>
<td>7</td>
<td>Coconuts</td>
</tr>
</tbody>
</table>

Source: Puspa Agro 2018.

There are six (6) zones provided, the area of each zoning is quite broad, it's just that the zones are not optimized, there are only a few sellers and few buyers, this is due to several reasons, namely the entrance to Puspa Agro's parent market is relatively narrow and traffic jams, making buyers reluctant to shop at Puspa Agro. The strength of Puspa Agro as a business center because of its location in the wide main market, adequate parking, and a
special place for disposal of coconut fiber. Moreover, for the needs of loading and unloading, containers or truck transporting coconut can directly enter the market building.

The commodities offered by Puspa Agro are diverse, such as corn, coffee, rice, chili, fish, chocolate, vegetables and coconut. This shows the potential for good product diversity, but it is necessary to increase the volume of availability, because the need for export is very large, which has been in East Java and throughout Indonesia, the product volume is still relatively small. The area is also spread inefficiently for transportation costs. There are still many agricultural products that can be optimized, such as pumpkin, onion and cinnamon. Whereas East Java is potential for fruits, vegetables and others. Pumpkin potential in planting in Banyuwangi needs to be increased. Shallots and cinnamon potential to be planted in Malang, East Java can still be increased in production, but this does require support from government policy.

<table>
<thead>
<tr>
<th>No</th>
<th>Product</th>
<th>Transaction Value (Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yelow Squash</td>
<td>3.000.000.000</td>
</tr>
<tr>
<td>2</td>
<td>Onion</td>
<td>3.000.000.000</td>
</tr>
<tr>
<td>3</td>
<td>Cinnamon</td>
<td>2.800.000.000</td>
</tr>
</tbody>
</table>

Source: Puspa Agro in 2018.

In the table above, the turnover obtained has indeed increased, meaning that the Trading house division is more profitable because the broader market does not only serve domestically. In the Transaction from Pumpkin, Red Onion and Cinnamon and in 2017 the commodity Coconut.

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Omset (Milliar Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2014</td>
<td>14.37</td>
</tr>
<tr>
<td>2</td>
<td>2015</td>
<td>78</td>
</tr>
<tr>
<td>3</td>
<td>2016</td>
<td>279.12</td>
</tr>
<tr>
<td>4</td>
<td>2017</td>
<td>451.22</td>
</tr>
</tbody>
</table>

Source: Puspa Agro 2018.

At the Trading House Division, it seeks to accelerate the uptake of harvests of farmers, farmers, as well as farmers or fishermen, the first year of operation of the Trading House, namely in mid-2014 its turnover is only Rp. 14.37 billion. 2015 rose to Rp. 78 billion. The surge in turnover occurred in 2016, which was recorded at Rp 279.12 billion, and for 2017 until October the turnover of Trading House reached Rp 451.22 billion.

2. The second concept is the Trading house in charge of organizing community activities into (1). Production and development of community superior commodities, (2). Marketing and distribution channels, and (3). Financial management with a savings and loan program... The results of the study indicate that Trading House in Jemundo, Sidoarjo Regency is still only able to receive products from farmers and cooperation with other parties to develop certain products. Puspa Agro collaborates with PT Mitra Mina Agro (MMA) to develop a coconut business specifically to meet export markets, in addition to semi hushed coconut, it will also export white copra and white meat. Both of these products are also projected for the export markets of India, Thailand, Sri Lanka, China, Dubai, India and the United States (US). At the Puspa Agro location will also operate a greated coconut plant (grated coconut) with the aim of exporting to Canada, the US, and several countries in Europe.

In the local market, the distribution of coconut from Puspa Agro is widely channeled to the markets of Surabaya and Sidoarjo as well as some areas in East Java, such as Gresik, Babat (Lamongan), Tuban, Bojonegoro, Mojosari (Mojokerto), Pare (Kediri), Kertosono. In fact, from Puspa Agro coconut also distributed to Jatirogo (Cepu), Solo, and Yogyakarta.

3. The third concept is Encouraging the formation of economies of scale in the field of production, distribution channels and community savings and loans, so that the application
of modern technology and management, from the results of research shows that business people attend an auction held on Tuesday (10/24/2017), transactions occur Rp. 17.525 billion. There were 13 transactions, followed by participants from both farmers and agro businessmen in East Java and several regions in Indonesia. In September 2017 there were transactions worth Rp 5.9 billion, which means an increase in transactions of 11,625 billion.

From the transaction of Rp. 17.525 billion, the yellow pumpkin commodity was ranked first with a value of Rp. 3.5 billion which was collected from 1,000 tons. The second position is occupied by commodities of shallot plant seeds, which are transacted at a value of Rp. 3 billion from a total volume of 200 tons, followed by a commodity of cinnamon weighing 80 tons with a transaction value of Rp. 2.88 billion. dried turmeric, honey pineapple, brown sugar (local). In addition, the commodities are candlenut, arabica coffee, cardamom, mahogany, dried kahe, and corn.

Encouraging the formation of economic problems, it is only that Trading House facilitates transactions in the main Market area, there is no system built to improve greater economic performance and there is no savings and loan assistance activity.

4. Each region has a special commodity which is due to climate differences between regions. Likewise with existing handicrafts and home industries (cottage industries) due to cultural influences that have been growing for generations. From the results of the research this concept is still an obstacle, because farmers still work alone and there is no large-scale production.

5. Combining several villages in one sub-district, Trading house assists the development of the people's economy, coordinates other components to build supporting forces. Bringing together the components of production, consumption (and distribution) and funds will build the strong participation of the people needed to drive the people's economic progress.

Puspa Agro as a Trading House in East Java has indeed been able to export semi-hushed coconut coconut on March 13, 2018, to Toronto, Canada. The export was carried out by sending one 40 feet container (about 26.5 tons). Besides Canada, the plan, semi hushed coconut is also exported to Thailand, China, Dubai, Pakistan and India.

Coconut commodity turns out to be a profitable commodity for sale. Coconut is obtained from many areas in East Java such as Banyuwangi, Lumajang, Jember, and Trenggalek, from outside East Java, it comes from Pangandaran, Central Java, Sulawesi Island, such as Luwuk, Toli-toli, Palu, Gorontalo, but there is no economic development of the people who are able coordinate production, distribution and funding.

6. Distribution activities deal with meeting the daily needs of the community by maximizing the role of the organization, channeling community superior commodities to the market as well as meeting the needs of the community related to national supply.

7. Work systematically in a structured organization, the organization consists of nodes that work interdependently implementing strict SOP (Standard Operating Procedure). Each node acts as a Strategic Business Unit (SBU), working independently in accordance with the general policy determined at the central level to be carried out independently by each region. Activity 6.7 has not been implemented because the distribution is still carried out by the community, Trading house is still giving place. Moreover, working systemically by implementing SOPs has not been implemented.

8. Implementing a centralized policy approach, decentralized implementation allows each region to work in accordance with the conditions and progress of their respective regions. Each node is required to manage three main activities: (1). Production and development of community superior commodities, (2). Marketing and distribution channels, and (3). Financial management with savings and loan programs. Especially for financial management applies centralized policies that are supervised by applying the Management Information System (MIS) designed for it. Computer use and ICT (Information and Communication Technology) From the results of the study showed that in carrying out its duties PT Puspa Agro in collaboration with East Java Disperindag tried to improve its economic role by continuing to increase the number of bidders, both from farmers / farmer groups and agro sector businessmen, in hopes of boosting the added value of farmers, farmers, and fish farmers / fishermen, especially in East Java. The auction mechanism is a
means of trading various agricultural commodities, effective to help the owners of goods (farmers / Gapoktan) and prospective buyers (buyers), accelerate the sale of goods with large volumes and fair prices. While for potential buyers, this auction forum is a quick way to get good quality goods and relatively cheap prices. Implementation of Management Information System (MIS) and the use of computers and ICT (Information and Communication Technology) is still not optimal.

Analysis of the Role of the Provincial Government in managing the Trading House in the Province East Java The East Java Provincial Government handed over the management of Trading House to the Jatim Graha Utama Limited Company (PT) in the hope of managing the Trading House profitably. Jatim Company Graha Utama stated that the management of Trading House is constrained by operational costs and costs to provide credit to farmers, because the Trading House concept is one of them providing capital assistance to farmers. The problem experienced by PT Jatim Graha Utama is the reluctance of farmers to form farmer groups, because all this time the operations carried out by the Trading House are farmer groups, not individual farmers, this has an impact on the number of products offered by farmers, on the other hand buyers ask for agricultural products in quantities large and sustainable. The availability of agricultural products is also caused by the absence of agricultural product clusters in East Java, so when there is a demand for agricultural products cannot be fulfilled because the products requested are sporadic and relatively small in production. Not yet optimal in the implementation of evaluation and monitoring in the implementation of Trading House management in Jatim Graha Utama Limited Company (PT), this will cause the marketing of products to become less smooth.

CONCLUSION

The role of Trading House is still not optimal, because it does not have a system that is able to become a reference for building a system of division of labor, at the sub-district level, organizing community activities into (1). Production and development of community superior commodities, (2). Marketing and distribution channels, and (3). Financial management with savings and loan programs.

The East Java Provincial Government handed over the management of Trading House to the East Java Graha Utama Limited Company (PT) byBUMD.

REFERENCES

DOI https://doi.org/10.18551/rjoas.2018-09.37

SOCIAL ASSISTANCE PROGRAM OF LOCAL CULTURE-BASED HOPE FAMILY PROGRAM IN SOUTH JAYAPURA DISTRICT, INDONESIA

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ABSTRACT
The implementation of conditional cash transfer gets a serious attention from a number of developed countries as an effective approach to cut poverty and increase long-term social investment for the poor family. However, in terms of multicultural social community, the implementation of Program Keluarga Harapan (Hope Family Program) gives a little attention to the local culture-based sensitivity. This research focuses on the enforcement of local culture-based Hope Family Program in South Jayapura district. This research aims to analyze the implementation of PKH and to determine a local culture-based program implementation. The research design selected was a sequential explanatory design by applying random sampling and purposive sampling technique. Data analysis is emphasized by a qualitative-descriptive analysis. This research result reveals that the implementation of local culture-based Hope Family Program never fully considered the cultural sensitivity of the poor family even though 10% of the poor family of Hope Family Program beneficiary has said to consider that local cultural sensitivity. This conclusion emphasizes that the implementation of conditional cash transfer assistance to the local culture-based poor family truly influences the achievement of program purpose in a dominant community of socio-culture. Thus, technically, the aspect of cultural competence and cultural sensitivity is important to pay attention to the organization of program implementation.

KEY WORDS
Local culture, cultural sensitivity, cultural competence, hope family program, implementation.

The right to get a better life, an equal recognition and treatment in a homogeneous and heterogeneous collectivity, and inclusively and equitably is a right of every individual, family or even community. Social safeguards is a policy created as a basis of transformation to protect rights of life for marginal, poor, or less privilege community (ILO & UNDP, 2011). However, the implementation of social policy program does not completely consider the diversity of culture, utilize a local wisdom, and is still centralization and top-down in nature, Kramer (as quoted in Dixon & Robert, 2002:54.; Hikmat, 2004; Kee, 2007). Meanwhile, cultural diversity and cultural sensitivity is a social resource which can be used by an organization or individual to deliver a social service program (Ife, 2001). Being responsive to the culture is very important in a cultural diversity and multidimensional social problem, as well as a human service organization (Sue, 2001; Lum, 2003; Nybell & Gray, 2004; Kee, 2007). Since the change of demographics cannot be avoided, even has been started, so the needs of policy, human service program which is responsive to the race, culture, and a minority is increasingly needed (Laenui, 2013).

Social assistance program of the Program Keluarga Harapan (Hope Family Program, hence called as “PKH”) is a model of conditional cash transfer, which is for the first time implemented in all provinces, cities/districts in Indonesia, and considered as an effective approach to alleviate poverty. In its execution, PKH chooses the poor family and adult woman group (mother, aunty, grandmother, elder sister) as a target of the program and the coordinator of the grants in the level of the poor family. Patel et al. (2013) conclude that the
social program with a high level of sensitivity in responding gender, woman and children problem, commonly deal with by the poor family, results in a very positive impact.

On the left hand, the use and the utilization of woman as a program coordinator in the family level will give a woman chance to defend his rights and needs, but on the other hands, a cultural obstacle still has a potential to influence responsibility burden as well as woman empowerment and his family. Moreover, in Papua province where the original culture is still applied, a woman plays an important role to drive the control and act jointly as a power to overcome a gap and end poverty (Rumbiak, 2012). As with the number of circulation in the poor family especially managed by a woman, and commonly got by Papuan people is truly low or even does not exist (owned). Even social separation and social gap in a health service for the poor family brings an issue “orang miskin dilarang sakit” (the poor are avoided to be sick), moreover, these two issues do not afford each other, which finally will create treatment options in the poor family, in relation to the awareness level; and economic factor that supports it (Giyai, 2012).

A mutual aid culture, or natural resources dependency and extended family dependency, powerfully influences the dynamics of social life of the People of Papua. Community has a great fear that the conditional cash transfer will shift the habitual basis, belief, value, customs and behavior which has passed over generation, or the other way around, it is positively impacted on the change of dependency habitual, position woman as a weak person, and to relocate the People of Papua (poor family) from the suburb to the downtown to be more competitive with other minority groups (newcomer). Laenui (2013) emphasizes that in order to decrease the gap between target and service, it needs cultural understanding and a cultural-sensitive interaction relationship by all aspects in the organizational chart of humanitarian service. Chambers (2013) in his books entitled Policy Analysis and Social program emphasizes that the understanding and the fulfillment of values underlying social program in the finishing of a social problem is very important. Cultural ability and high sensitivity level of culture helps the achievement of social program purpose in a multicultural community (Lum, 2003; Sue, 2001; Cross, 1998). However, a study of cultural-sensitivity policy or social program is limited, especially in the scope of the people of Papua (the poor family of social program receiver), so this research aims to analyze cultural sensitivity in the implementation of PKH in South Jayapura district of Jayapura City.

LITERATURE REVIEW

A culture can be understood as a habitual basis, norm, belief, perspective, attitude, William (as quoted in Kee, 2007). It is different from each other. This means cultural has a complex definition. Cultur does not only involve ethnic, race or religion but also includes economic social status (Dell’Osso, 2017). Culture is not static and not constant but able to adapt (Unicef, 2005:1). Cultural essence can be understood as a behavior to influence someone else’s attitude and perspective. Laenui (2013) explains that in order to end the gap between target and service, cultural understanding, cultural awareness and a sensitive relationship of cultural interaction is required by all aspects of the organizational chart of humanitarian service. Cultural sensitivity element can be conducted by giving a mentoring pattern that responds the culture (language, perspective, belief, the use of a trusted character). High-level cultural ability and cultural sensitivity helps to reach social program purpose in a multicultural community (Lum, 2003; Sue, 2001; Cross, 1998). A culture can be used as a resource to change behavior (Wang, 2008; Metzeger, et al. 2013). Someone can change his/her behavior when they understand without avoiding its cultural aspect. For that matter, a balance between right and cultural is essential (Sohlberg, 2009). An obligation to do cultural-sensitive advocation is a separated conflict for a social worker (Katiuzhinsky & David, 2014). Program administration is truly influenced by the organizational chart and culture as well as adhering to the individual activity (Robbins & Timothy, 2013; Clammer, 2005). Program implementation also depends on the availability of resources (Grindel & Thomas, 1995; Dinitto, 2015). Actually, all policies and social program commit to increasing someone else’s welfare which is less privilege and a retired, but not all implementations in
the policy and program place the difference of culture in a similar context, so it frequently triggers a conflict. Social program administration needs to consider critical values to overcome social problem at the level of individual, family, and society (Chambers, 2013: 44).

METHODS OF RESEARCH

This research is designed to use mix methods research (combination) approach. The use of a quantitative and qualitative method supported each other, in which a quantitative method is carried out in advance to then follow up the data in qualitative research which is commonly known as sequential Explanatory Design (Creswell & Plano Clark, 2007). Simple random sampling and purposive sampling are a technique used to determine sample and informant. The sample is determined based on the database of PKH receiver, it is then selected based on the research object, with the sample measure of 100% homogenous, so the representative sample was chosen, which 50 respondents is. In order to support qualitative data is conducted data triangulation to follow qualitative data. Data collecting technique is carried out by several techniques i.e. observation, structured interview, literature review, and documentation. While the data collection tool uses questionnaire and interview guidance. Data analysis technique uses Miles and Huberman, et.al (2014) approach.

RESULTS AND DISCUSSION

Characteristic of the People of Papua is commonly a collection of Melanesia race. They administratively inhabit all areas of city/district in Papua Province since the first and can be said as a majority society. Every individual or society with his/her social structure inhabits his/her each area. A part of the area is also inhabited by a newcomer which is commonly called Amber and as a minority society. A group of newcomer comes and colors the dynamic of the population in Papua, through spontaneous transmigration activity and managed by the central government, with the aim to improve a better life. The principle is that social relationship is not limited to the area, but being built based on the needs of helping each other, but gradually is shifted to the stream of an individualist culture.

The phenomena of urbanization, centralization and development collapse between city and village as well as the social gap create a cubicle in society. A community cannot freely interact and develop a unique characteristic to fulfill the needs of socio-economic. A society with its all limitation is economy, social, knowledge, skill, ideology, will geographically face a marginalized phenomenon in a society. As what happened, that the majority people in Papua, which is the poor family, are more marginalized to the suburb, as a result of that limitation and the domination of a minority group (newcomer) which almost has an adequacy at all aspects of life. There are 65% of PKH beneficiary who chose inhabit in the suburb, since they have hak ulayat (indigenous land rights) and limitation in the aspect of life, and other 35% survive and blend with newcomer, since having no hak ulayat in the suburb. Hak ulayat is only owned by those having outward and inwards relationship, a passing generation with a certain area. This group (a newcomer group) is commonly a group of society conducting urbanization method (local comer), laid on a willingness for having a better life in another region.

A life in an urban area (subdistrict capital) has no negative influence on the family’s socio-culture life of PKH beneficiary. A system of cultural value like mutual aid activity, big responsibility to the family bonding, and selections alternative of problem-solving behavior faced are still maintained. There is 95% family of PKH beneficiary which truly maintains that socio-economic activity. This is due to the social interaction relationship which is very limited to the newcomer. Besides, regulation, value, and belief have a social sanction, so if it is violated the sanction on termination of social and social identity given to the family and family member. PKH beneficiary family which has long inhabited an urban area said that they make an effort to preserve culture they hold, by participating in a extended family cultural event, like marriage, death, education, and health of the extended family, but the size of donation
value are which community. beneficiary required and cash made they (as cash implementation living an area, transfer economy, an PKH family. But precious to the family PKH is, to the family and other things, poverty category, program beneficiary family is a family with poverty characteristic caused by the structural design of social, economy, politics, ideology, and individual. Based on the views of life on poverty, PKH beneficiary family is a family having an ability to plan, but the characteristics of dependency and limitation of access become an obstacle to becoming a surviving family.

If considered from the habitual basis and the poverty family’s belief in Papua in general and the family of PKH beneficiary in particular, the implementation of PKH is considered as an implementation model which does not only give financial model and social model, but also create an earlier self-awareness of a poor family with the existence of social potential in the living area, which can be utilized to increase his/her family welfare. In addition, the implementation of PKH gives an impact on social interaction which is largely opened to the poor family, which previously is very limited and tends to be closed.

Around 3% of the beneficiary family says that a grant of cash transfer and a conditional cash transfer create a less-educated behavioral culture, since building a form of expectation/dependency on government assistance, create a habit of “asal bapak senang” (as long you are happy). It is not realized that a half of PKH beneficiary family acted as that, they can force a family member to fulfill commitment on the program. Whereas, the impact made from that characteristic and behavior causes an apparent self-awareness and conflict among family member. But not all PKH beneficiary family see that the grant of conditional cash transfer to the poor family does not produce a high level of dependency culture. By the granting of conditional cash transfer, they increasingly know that the value of any assistance is very high. Thus, they have to change their perspective and life pattern on the helplessness and poverty to keep getting conditional cash transfer. PKH beneficiary family also states that being ready to receive a program means to be also ready to receive all forms of requirement required by PKH program. Requirement value in PKH program is accepted by PKH beneficiary family as a regulation that they have to obey, as regulations which apply in the community. Requirement value is not considered as a full bonding regulation but a regulation which forms a characteristic, attitude and behavior that tend to depend on the availability of resources.

The grants of conditional cash transfer in the form of physical (money) during one year are considered as an approach which does injury money value in a local culture. Material value (money) in a PKH beneficiary family is very high because aside from a solution for basic life needs fulfillment, it also serves as a determiner of a social status level of individual and family. Money value received as a social assistance does not change perspective among the family of PKH beneficiary that they are a family with low social status. Value of (money) is less, changed with the availability of power, time and idea, which is commonly able to reach by PKH beneficiary family.

The implementation of the social assistance of the PKH conducted nationally since 2007 has impacted on the poor family, especially in the area of the district government in South Jayapura. The implementation of PKH since 2011/2012 involves the central government institution and local government through the social department, and public service institution: Post Office and Bank. Facilitator involvement as the main actor becomes an important factor in the program implementation. The PKH implementation for the poor family (especially community in South Jayapura) gives a positive different color for the fulfillment of basic needs and problem-solving which is dealing with by. A number of social experts like Griendle (1997); Spieker (2004) say that the implementation of a policy is a benchmark of policy purpose achievement, even Chambers (2013) says that the implementation of policy/social program that considers adequacy, efficiency, and effective aspect, relates to the behavior changes of a program target, is a factor of social program success. Different from Laeni (2013), cultural-responsive organizational chart decides the success of a policy implementation/humanitarian service program.

The implementation of PKH in the level of South Jayapura district aims to help decrease the poor family’s expenses, to increase active participation to the basic service access and to determine poverty transfer among generations. One characteristic of PKH beneficiary family is, among other things, as a common society with a low level of the economy, society who is opened to the changes. While poverty category, program beneficiary family is a family with poverty characteristic caused by the structural design of social, economy, politics, ideology, and individual. Based on the views of life on poverty, PKH beneficiary family is a family having an ability to plan, but the characteristics of dependency and limitation of access become an obstacle to becoming a surviving family.
benefits of PKH grant is not different from one family to another. Grant is commonly utilized to fulfill the basic needs like clothing, foods, and shelter. An interesting thing found in the aspect of PKH grants beneficial is it does not change the culture of life pattern in utilizing money. In the meaning of the grant received will only last for hours and days. PKH beneficiary family never had a consciousness to utilize money based on the needs category expected from the program. A life pattern that tends to be temporal in the event of PKH grant utilization is a habitual basis which can be found at all PKH beneficiary families. An awareness to save and leave money at home during days is truly low. This is due to the life needs which are more interesting in the family of PKH beneficiary. In addition, customs and behavior can fulfill the social needs (interesting and grateful) for the nuclear family member and part of multiple family members. Therefore, the granted of cash money annually does not fully have a positive influence on the culture (habitual basis and behavior) of PKH beneficiary family, especially to the level of money value benefits for long-term life needs.

The utilization of adult woman in the poor family by PKH program is positively responded to by the PKH beneficiary family. A woman in the PKH beneficiary family does not feel the multiplication of task burden and responsibility by the country to him. This condition represents Molyneux’s (2004) understanding of the impact of conditional cash transfer for a woman. There were also no widespread rejections from family members regarding the choice of a woman of PKH grant receiver. Position and role of woman in a PKH beneficiary family are very important. They are a foundation and pillar for the welfare of a family member. Thus, it is not uncommon to find that a woman in a family can relax or be at home all day without doing livelihood activities outside the home. Commonly, women working outside the home with long working hours is only to fulfill the basic needs of their families. With the PKH program, women in PKH beneficiary families can feel the different treatment from male family members. The treatment was in the form of an appreciation of women role value (mothers). Mothers are considered useful not only with the work done outside the home, which generates some money, but also as a partner in managing education and health services for family members (children), partners in caring for and raising children, partners in terms of resolving conflicts in the family, which generally never occurred in PKH beneficiary families.

This position is enough to change the way women view themselves and their roles. A culture that has branded itself as one of the less calculated groups in the family experiences a more positive shift in meaning. By getting the full opportunity in the PKH program, the tendency to position themselves as equal partners with male family members can be slowly carried out by women in PKH beneficiary families. There are no rejections received from other family members. A culture that restrains and positions women lower will experience a slight shift, but this situation still has a very high level of tendency to return to previous cultural patterns. This is because the implementation period of the PKH program is limited, and the culture hold by the people of Papua positions boys (men) as a very important and special one in the family. In this case, the implementation of PKH does not change the socio-cultural structure which is owned by PKH beneficiary families who position women lower than other family members but create a culture that can receive and work together to achieve a better level of family welfare.

The process of socialization and recollection, to technical assistance in the PKH assistance program, has not fully utilized local resources. Like utilizing the existence and influence of indigenous community leaders to encourage PKH beneficiary families to use the program appropriately. This then leads to rejection of other families who are not recipients of the program. In addition, the utilization of local resources as people who have the power to influence, and have a general information on the cultural characteristics of PKH beneficiaries family are not utilized in PKH companion meetings. In fact, a companion must have an understanding, awareness and cultural ability, which is sufficient to start mentoring with different cultural characteristics (Sue, 2001; Kee, 2007). The inability to transfer program objectives into a simple cultural understanding, so that it is easy to understand and stick to, due to language constraints, makes the program mentoring process seem to fulfill program administration requirements. Whereas with local culture-based assistance, changes in
behavior, attitudes and knowledge become important (Lum, 2003, Patel, et.al, i 2012; Laeni, 2013). By having a high awareness to start overcoming family problems, which has an impact on access to basic services such as education, health, the families of PKH beneficiaries actively participate in fulfilling their commitment to the PKH program.

CONCLUSION

The implementation of a local culture-based PKH gives a chance to create an awareness of the importance of long-term human social investment. A commitment of program administrator and program receiver to get a better welfare is a value and special strategic to promote awareness, knowledge, and skill in every form and regulation of PKH program service. When giving socialization of PKH program benefits service to the family of PKH beneficiary with different cultural characteristics, cultural competency and responsive service will finally help to achieve program purpose, as well as decreasing social, conflict, and social gap conflict that has been already felt by family of PKH beneficiary, before the existence of PKH administration, as an effective approach to decrease poverty. PKH implementation enlargement which is responsive to the local culture becomes very important.

REFERENCES

THE EFFECT OF CREDIT EXPERIENCE, NET INCOME, CREDIT TERM AND BUSINESS EXPERIENCE TOWARDS THE AMOUNT OF PEOPLE’S BUSINESS CREDIT FOR AGribusiness SECTOR: A CASE STUDY AT PT BANK RAKYAT INDONESIA PERSERO TBK OF BARON UNIT, SOLO BRANCH OFFICE, CENTRAL JAVA

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ABSTRACT
The research aims to determine the effect of the credit experience, net income, credit term and business experience on the amount of People's Business Credit (KUR) receiving for agribusiness sector at PT Bank Rakyat Indonesia Persero Tbk Baron Unit, Solo Branch Office. Micro and Small Medium Enterprise’s (MSMEs) have become an important part of Indonesia's economic system. However, as a majority of businesses, MSMEs have limited accessibility to formal institutions. This obstacle makes the government provide credit guarantees through the People's Business Credit (KUR). “People’s Business Credit (KUR)” is a superior credit product of PT Bank Rakyat Indonesia Persero Tbk. It is a micro credit that is given to MSMEs that are feasible but not bankable yet to help agribusiness entrepreneurs to scale up their business size. Purposive sampling technique was adopted. Primary data is collected through a questionnaire distribution from 55 respondents of debtors of People's Business Credit on agribusiness sector at BRI Baron Unit, Solo Branch Office, Central Java. The data were selected and analysed using descriptive statistics and Multiple Regression Models. The research showed that the credit experience, net income, credit term, and business experience have a significant effect on the amount of People's Business Credit (KUR) for agribusiness sector at BRI Baron Unit, Solo Branch Office.

KEY WORDS
People’s Business Credit (KUR), MSMEs, Micro Credit, Agribusiness

Micro, Small And Medium Enterprise’s (MSMEs) have become an important part of the economic system in Indonesia. This is because MSMEs are business units that are more numerous than large-scale industrial enterprises and have the advantage of absorbing more workers and also able to accelerate the equity process as part of development (Anggraini & Nasution, 2013). According to Ndungu, (2016) Small and medium enterprises (SME’s) play a very significant role in the economy of any country. They provide employment and improve the standard of living of individuals-both the employers and employees.

In the perspective of agribusiness, the agricultural commodity has become an economic entity for the actors of businesses to develop the integration of products from upstream to downstream (Friyanto & Saptana, 2017). The existence of the agricultural sector has been able to create a business chain from the land until business of fast food in the table. The agricultural sector is not only related to farm. But the scope of the agricultural sector is also related to off-farm, both upstream and downstream. This shows that the agricultural sector has a strategic role to realize development that can reduce poverty levels, while creating economic growth and employment (Daryanto, 2009). According to Maulidah, (2012) agribusiness systems can be interpreted as all activities, ranging from the procurement and distribution of production facilities (inputs) to the marketing of products produced by farms and agro-industries, which are interrelated with each other. Thus the agribusiness system is a system consisting of various subsystems, namely: Upstream Agribusiness / Agro-Industry Subsystem, Cultivation / Farm Subsystem, Subsystem Agribusiness / downstream Agroindustry, Agribusiness Support Services Subsystem.

Agribusiness development as economic development in the regions is also increasingly relevant, considering that currently agribusiness is the largest contributor in the economic
structure of almost every region. The agribusiness sector is the biggest contributor in GRDP and regional exports. Likewise in employment, business opportunities in each region, mostly contributed by the agribusiness sector. Therefore, through the acceleration of agribusiness modernization in each region will directly modernize the regional economy and can solve most of the economic problems in the region (Nurif & Mukhtar, 2010). With the contribution of agribusiness sector which is increase, can increase the income of the Indonesian people so that it can improve the welfare of the Indonesian people’s and overcome the poverty in Indonesia. The economic growth of Indonesia can be slow down because of the poverty. These problems can be overcome by increasing the income of Indonesian people’s, and one of them is by helping businesses in providing capital in the form of credit in developing their business to increase business income and contribute to economic growth in Indonesia. As a business actor that has a large number of business units, MSMEs make an important contribution to economic development in expansion of employment.

As only stated by the Coordinating Ministry for Economic Affairs (2017), 98 percent of companies in Indonesia are micro and small businesses but are able to contribute 57 percent of Gross Domestic Product (GDP) and absorb 60 percent of the workforce. However, micro and small businesses often face an obstacles including lack of information and access to credit, thus limiting their growth and investment opportunities. Likewise (Ratnaningtyas, Topowijono, & ZA, 2016) said that in general the capital provision made by banks was in the form of credit. Loans into one solution that is appealing to the public, but access to credit is not easy for people who have micro, small, and medium scale. Kisaka & Mwewa (2014) also said that MSMEs have limited access to credit due to insufficient capacity in providing financial services so that it becomes an obstacle in the expansion and growth of the economic sector. According to Formal institution, MSMEs have a high risk and is not commercially viable as a result only a few MSMEs have access to formal institution such as banking. The conditions in obtaining credit becom obstacles for SMEs owners who want to develop their business becomes larger. This obstacle make the government provide credit guarantees through People's Business Credit (KUR) (Ratnaningtyas et al., 2016). As a majority of businesses, MSMEs also have limited “accessibility” of credit mainly on formal credit institutions. MSMEs with a majority of units in Indonesia only get around six percent of the national credit share, although it is suspected that with the existence of People's Business Credit (KUR), this share has increased to one fifth in recent years (Darwin, 2018).

However, with the rollout of capital funds through People’s Business Credit (KUR) does not mean to override the impact of credit risk. One of the causes of credit risk is caused by the debtor's inadequacy. If the operating income of the debtor is disrupted, the obligation to pay back the party based on the credit will also be disrupted or experience delays and even experience payment failure. According to Ofonyelu & Alimi, (2013) This failure raises questions, how is the initial screening process in lending. Screening early the strict ones have a purpose to reduce the risk of default. However, it is undeniable that the initial screening is constrained by asymmetric information which means that the borrower's information is not observed carefully.

With the low access of MSME financing to financing / banking institutions and with the prudential princip of the banking sector, this study will review how the socio-economic characteristics of debtors of People’s Business Credit (KUR) agribusiness sector at Bank Rakyat Indonesia Unit Baron, Solo Branch Office and how the credit experience, the income, credit term and business experience impact the amount of credit of the agribusiness sector from the People’s Business Credit program channeled at the BRI Baron Surakarta Unit. The purpose of this study is in order to provide input to MSMEs that by knowing the influence of credit experience variables, income, credit term and business experience can increase credit access to financial institutions and increase capability so that MSEs can scale up to larger businesses. Although credit has important role for MSMEs of Agribusiness sector, only few studies are available to investigation of factors influence the disbursed credit. Therefore the result of this research maybe helpful to the formal institution (Banking), policy makers and other officials of banking and MSMEs of Agribusiness sector to enlargement the business
and provide convenience in accessing credit. This research may also provide information to the researchers for further studies.

**LITERATURE REVIEW**

*Agribusiness*. Conceptually according to Maulidah, (2012) Agribusiness systems can be interpreted as all activities, ranging from the procurement and distribution of production facilities (inputs) to the marketing of products produced by farms and agro-industries, which are interrelated with each other. Thus the agribusiness system is a system consisting of various subsystems, namely:

1. **Upstream (Upstream) Agribusiness / Agro-Industry Subsystem**: including the procurement of agricultural production facilities, among others, consisting of seeds, seeds, fodder, fertilizers, drugs to eradicate pests and diseases, credit institutions, fuel, tools, machinery, and agricultural production equipment.

2. **Cultivation / Farm Subsystem**: farming produces agricultural products in the form of food, plantation products, fruits and ornamental plants, livestock, animal and fish products.

3. **Subsystem Agribusiness / Agroindustry downstream (downstream)**: includes Processing and Marketing (trade system) of agricultural and processed products. In this subsystem there is a series of activities ranging from collecting farm products, processing, storage and distribution. Industries that process farm products are called downstream agroindustry. Its role is very important if it is placed in the countryside because it can be a driving force of the economy in the countryside, by absorbing / creating jobs so as to increase the income and welfare of rural communities. Agroindustry Downstream is industry processing results agriculture primary and even more large again covers industry secondary and tertiary who processes it more go on from product processed the results agriculture primary, like textile of yarn and yarn from cotton or silkworm, shoes from skin and skin from animals, industry cake from flour, and so forth.

4. **Agribusiness Support Services Subsystem (Institutional)**: agribusiness (institutional) or supporting institution support service subsystems are all types of activities that function to support and serve and develop upstream sub-system activities, farming sub-systems, and downstream sub-systems. The institutions involved in this activity are extension agents, consultants, finance, and research.

*Micro Credit*. Microcredit has become one of the most important tools used to combat poverty and to enhance families' wellbeing (Nader, 2008). The main characteristics of microcredit are: These loans are too small, no collateral required, mostly have weekly payments, short term such that less than one year loan, it is mostly for the women and poor people who are not eligible for borrowing the formal loan. In microcredit, the interest rates are high due to high micro credit program running cost (Nawai, 2010).

*People's Business Credit (KUR)*. People's Business Credit (KUR) is micro credit provided by banks to Micro, Small, Medium and Cooperative Enterprises that are feasible but not bankable. The point is that the business has good business prospects and has the ability to return the installment. MSMEs and cooperatives that are expected to be able to access KUR are those engaged in the productive business sector, among others: agriculture, fisheries and maritime, industry, forestry, and financial services. Distribution of People's Business Credit (KUR) can be done directly, this means Micro, Small, Medium and Cooperative Enterprises can directly access People's Business Credit (KUR) at the Branch Office or Sub-Branch Office. The distribution of People's Business Credit (KUR) can also be done indirectly to bring services closer to micro enterprises, this means that micro-businesses can access People's Business Credit (KUR) through Micro Finance Institutions and Cooperatives, or through other linkage program activities in collaboration with the Implementing Bank (Coordinating Ministry for Economic, 2017).

*Credit Experience*. Credit experience is a credit history of debtors. Credit history is the information about a borrower's responsible repayment of debts that recorded in the
Indonesian Bank (BI). Whether it is good or bad in repayment so it could be consideration for Bankers as a consideration in taking credit approval decision. It is a record of a borrower’s ability to repay debts. Potential borrowers who have no credit history that demonstrates their ability to make payments on time, for example college-age young adults, may have difficulty being approved for financing. By having a credit history, the borrower demonstrate how well they can manage their credit on a limited scale before taking on larger amounts of debt. Creditors who lend money to a borrowers with bad in repayment greater risk of that borrowers with good credit. According to Lemessa & Gemechu, (2016) Experience in credit use from the formal sources was important factors influencing formal credit use of smallholder farmers. In line with Mensah & Agbekponu, (2015) showed that credit access was influenced significantly by borrower experience.

Net Income. Net Income is the amount of revenue left after subtracting all expenses, taxes and costs. It is the other factor that affect your ability to get approved to access credit in formal institution. The higher the income, all other things being equal, the more credit the borrowers can access. The ability of the borrowers can be measured in making payments as a liability to the Bank by seeing their net income. So the ability to pay is seen especially in difficult times in managing the business of borrowers. Generally, the banks make credit granting decision based on both ability to repay a debt (income) and willingness (the credit report) as indicated by a history payments. In one side, Cheng, (2007) found that the household demand for micro-loans is positively correlated with household income. In the other side, Luvhengo & Lekunze, (2017) showed that income/yr was insignificant towards access to credit. In line with Zhao et al., (2006) find that SMEs’ financial variables such as income & net profit, are not obvious to affect their ability to get bank loan.

Credit Term. Credit term is the length of time that credit accounts have been open and active. It is the length of time given to debtors to be able to pay or repay the credit. It will also be taken into consideration for Bankers in taking credit approval decision. Furthermore, the patterns and regularity of repayment over longer periods of time will give more favorably in the assessment of credit. sometimes, borrowers was suggested to continue make installment payments rather than outright pay off outstanding debt in order to continue to build up a positive credit history. According to Ajagbe et al., (2012) The period of obtaining credit is positively correlated with personal savings which shows that the longer the payback period the higher the amount of credit secured from the scheme and the higher the income generated.

Business Experience. Business experience is abilities and capacities of entrepreneurs to manage their business. Skills refer to the abilities and capacities of people who perform tasks demanded of them in a work environment. Skills can either be generic, referring to general transferable skills, or specific to certain work functions, such as managing people, computing, dealing with risk and uncertainty, or developing a new product or service (Tether et al., 2005). According to Hutadjuulu & Blesia, (2016) The age of business is one of the considerations in the business assessment by banks and investors because it can assess the stage of business and its track record undertaken over the years. The age of business has a positive effect on the perception. This indicates that the older the companies are, the better their perception about the importance of book keeping and financial reports.

Someone who has business experience is very important consideration in assessing whether the person concerned can be trusted to manage the credit facility provided. Providing credit facilities to people who do not have business experience at all in the business world, are clearly very high risk. Moreover, if the credit facilities provided in large amounts are certainly very dangerous for the bank. In the world of business, there are many face competition, the state of the economy is often changing, prices are fluctuating, government policies are always changing, so that sufficient experience is needed to deal with it (Rivai & Veithzal, 2007). In line with Munene & Guyo, (2013) concludes that age of the business was factor influencing non-repayment of loans. In the other side Mensah & Agbekponu, (2015) showed that factors such as years of business experience of Agri-SME operators was insignificant and did not influence access to credit.
**Previous Research.** Previous research of credit has been widely conducted in the world. Wabei, (2012) examines important explanatory variables that influence credit demand. the result showed the size of the household, gender, age, education, total household expenditure, remittances received and residence were influence credit demand. Ofonyelu & Alimi, (2013) observed that the banks’ screening criteria was limited by the presence of information asymmetry. Adverse selection and moral hazard were observed to persist in the loan markets irrespective of the stringency of the banks’ screening measures. The observed difference between estimated and ex- post default risk incidence arise because of the presence of information asymmetry. According to Ndungu, (2016) number of lending institutions, interest charged on loans, collateral security and literacy levels are the most significant factors that affect access to credit among SMEs in Murang’a. Kisaka & Mwewa, (2014) showed that micro-credit, micro-savings and training jointly contribute positively to SMEs growth. However, the effect of training is not statistically significant. Khandker (2005) indicates that landholding determines group formation and consequently an individual’s demand for credit, the education of household members also affects demand for credit. More specifically, female education has a negative effect on the amount of borrowing from microfinance programs. Balogun & Yusuf, (2011) shows that household social capital variables (membership density index, meeting attendance index, cash contribution index & heterogeneity index), dependency ratio and credit variables (credit distance & interest rate) significantly explained households demand for credit. Social capital variables significantly influenced the amount of credit available from different sources. Alabi et al., (2016) identified farm size, membership of co-operative, household distance from source of credit and total amount of credit accessed as major factors influencing farmers’ access to formal agricultural credit.

**Hypothesis:**

The effect of credit experience towards the amount of People’s Business Credit for agribusiness sector. 

**H₁:** Credit experience has a significant effect towards the amount of People’s Business Credit for agribusiness sector.

The effect of net income towards the amount of People’s Business Credit.

**H₂:** Net income has a significant effect towards the amount of People’s Business Credit for agribusiness sector.

The effect of credit term towards the amount of People’s Business Credit.

**H₃:** Credit term has a significant effect towards the amount of People’s Business Credit for agribusiness sector.

The effect of business experience towards the amount of People’s Business Credit.

**H₄:** Business experience has a significant effect towards the amount of People’s Business Credit for agribusiness sector.

**METHODS OF RESEARCH**

**The Research Location.** This research location selected purposively in Bank Rakyat Indonesia for 3 months in 2017 with consideration that Bank Rakyat Indonesia PT, Tbk was the Biggest Goverment Banks with the highest amount of People’s Business Credit in Indonesia.

**Sampling Technique.** The research sampling technique using purposive sampling method. The data were taken from questionnaire distributed to 55 debtors of People’s Business Credit on Agribusiness sector at Bank Rakyat Indonesia, PT Tbk, Baron Unit, Solo Branch Office, Central Java. 55 respondents were selected base on their business on agribusiness off-farm sector which access credit from goverment program that called People’s Business Credit (KUR).

**Method of Data Collection.** The collected data for this research were obtained mainly from primary sources. Primary sources of information were obtained using a structured questionnaire. The questionnaire were designed to extract information on; socio-economic characteristics, these range from age, sex, level of education, asset, credit experience, net income, credit term, business experience was supported with direct interview.
**Method of Data Analysis.** Data for the research were analyzed using both descriptive and Ordinary Least Square (OLS) Multiple Regression Model. Objectives (i) was analyzed using simple descriptive statistics such as percentages and frequency distribution. Objective (ii) was accomplished using Ordinary Least Square (OLS) Multiple Regression Model.

**Descriptive Statistic.** This involved the use of the percentages distribution to analyze the data collected from the survey.

**Multiple Regression Model.** In order to determine the effect of credit experience, net income, credit term and business experience towards the amount of People’s Business Credit (KUR) on agribusiness sector in the research location.

Multiple Regression Model with Ordinary Least Square method also used to test the hypothesis ($R^2$, $F$-test, $t$-test) and classical assumption (normality, multicollinearity and heteroscedasticity).

The Multiple Regression Model that was used is specified below:

$$ Y_i = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \mu_i $$  \hspace{1cm} (1)

Then, transformed into natural logarithms are as follows:

$$ \ln Y_i = \alpha_0 + \alpha_1 X_1 + \alpha_2 \ln X_2 + \alpha_3 \ln X_3 + \alpha_4 \ln X_4 + \mu_i $$  \hspace{1cm} (2)

Where: $Y_i$ is the amount of People’s Business Credit (KUR) for agribusiness sector (rupiah), $X_1$ is credit experience (1: have a good credit experience; 0: otherwise), $X_2$ is monthly net income (rupiah), $X_3$ is the credit term (month), $X_4$ is the business experience (years), $\mu$ is the term of error, $\alpha_0$ is the regression constant, and $\alpha_1$, $\alpha_2$, $\alpha_3$, $\alpha_4$ are regression coefficient.

**RESULTS AND DISCUSSION**

**Socio-Economic Characteristics of debtors of People’s Business Credit (KUR) agribusiness off-farm sector at Bank Rakyat Indonesia Unit Baron, Solo Branch Office.** The results of socio-economic characteristics of the respondents are presented in Table 1. The research showed that fifty two point seventy three percent of the respondent were female, while fourtyseven point twentyseven percent were male. Thus female gender dominates the agribusiness entreprenuers in the research location. The female implies that they take the loan to increase their income by expanding their business. Although their business is landless in urban area but they can prove that female gender can easily having access to formal institution especially at Bank Rakyat Indonesia Unit Baron, Solo Branch Office. This agrees with the findings of (Taj et al., 2008) Generally access of microcredit proved the opportunity for the poor people specially the landless households and the female, to invest this in income generating activities. It also provides the self-employment opportunity to improve the economic condition of country. Table 1 showed that eighty (80) percent of the respondent had age ranges between 31-60 years. This research implies that majority of respondents are within the age bracket of productive, innovative and active in doing their business or their work. This research agrees with the findings of (Alabi et al., 2016) the implication of this result is that farming in the area enjoys higher patronage by active matured people who are energetic enough to withstand the stress involved in farm operations. Furthermore, fiftyfour point fiftyfive percent had formal education at senior high school level. This research implies that majority of respondents were literate.

**Credit Experience.** Table 1 shows that eighty five point forty five (85,45) percent respondent have a good previous credit experience from formal institution. In the otherside fourteen point fifty five (14,55) percent of respondent have a delay of credit payment and also respondent that have not credit experience include in this percentage.

**Net Income.** Table 1 also shows the distribution of respondent based on net income. Thirty eight point eighteen (38,18) percent of respondent have a net income 1 until 2 million rupiah and the second percentage has income less than and equal to 1 million rupiah (36,36
percent), thirth percentage has net income between 2 until 3 million rupiah (23,64 percent) and there is a net income of more than 3 million which is 1,82 percent.

**Credit Term.** Table 1 shows the distribution of respondents based on credit term. The most respondents have a credit term of 24 months (50,91%). The credit term affects the debtor's ability to pay, which must be calculated by the officer's BRI in assessing the installments paid monthly by the debtors. The second percentage of credit term was 36 months (25,45%), then 18 months (12,73%), 12 months (5,45%) and 60 months (3,64%) and the last was 48 months (1,82%). The credit term of 48 until 60 months is specifically for debtors with investment credit purposes while the credit term of 12 months up to 36 months is intended for the debtors with the aim of working capital credit.

**Business Experience.** Based on business experience, it can be seen that the most respondents have age of the business less than 5 years (38,18%) and the average respondent has a business for 1 year. Then the percentage of second, third, fourth and fifth is 5-10 years (36,36%), 10-20 years (14,55%), 20-30 years (9,09%), and more than 30 years (1,82%). This indicates that KUR program is provide convenience to access credit in BRI Unit Baron, Solo Branch Office.

Table 1 – Socio Economic Characteristics of the Samples of Debtors of People’s Business Credit (KUR) Agribusiness Sector at BRI Unit Baron, Solo Branch Office

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sex</td>
<td>Male</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Age</td>
<td>31-60</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>&lt; 30</td>
<td>8</td>
<td>14,55</td>
</tr>
<tr>
<td></td>
<td>&gt; 60</td>
<td>3</td>
<td>5,45</td>
</tr>
<tr>
<td>3</td>
<td>Education</td>
<td>Bachelor</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Senior High School</td>
<td>30</td>
<td>54,55</td>
</tr>
<tr>
<td></td>
<td>Junior High School</td>
<td>10</td>
<td>18,18</td>
</tr>
<tr>
<td></td>
<td>Primary School</td>
<td>13</td>
<td>23,64</td>
</tr>
<tr>
<td>4</td>
<td>Credit Experience</td>
<td>1:</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>0: Otherwise</td>
<td>8</td>
<td>14,55</td>
</tr>
<tr>
<td>5</td>
<td>Net Income</td>
<td>1 &lt; X &lt; 2 Juta</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>1 Juta</td>
<td>20</td>
<td>36,36</td>
</tr>
<tr>
<td></td>
<td>&gt; 2 - 3 Jt</td>
<td>13</td>
<td>23,64</td>
</tr>
<tr>
<td></td>
<td>&gt; 3 Jt</td>
<td>1</td>
<td>1,82</td>
</tr>
<tr>
<td>6</td>
<td>Credit Term</td>
<td>12 Month</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>18 Month</td>
<td>7</td>
<td>12,73</td>
</tr>
<tr>
<td></td>
<td>24 Month</td>
<td>28</td>
<td>50,91</td>
</tr>
<tr>
<td></td>
<td>36 Month</td>
<td>14</td>
<td>25,45</td>
</tr>
<tr>
<td></td>
<td>48 Month</td>
<td>1</td>
<td>1,82</td>
</tr>
<tr>
<td></td>
<td>60 Month</td>
<td>2</td>
<td>3,64</td>
</tr>
<tr>
<td>7</td>
<td>Business Experience</td>
<td>&lt; 5 Thn</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>5 - 10 Thn</td>
<td>20</td>
<td>36,36</td>
</tr>
<tr>
<td></td>
<td>&gt; 10 Thn - 20 Thn</td>
<td>8</td>
<td>14,55</td>
</tr>
<tr>
<td></td>
<td>&gt; 20 Thn - 30 Thn</td>
<td>5</td>
<td>9,09</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 Thn</td>
<td>1</td>
<td>1,82</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>55</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2017.*

**Normality Test.** First, to conduct a regression analysis it is advisable to test assumptions for the regression model before regressing the research variables (Ndungu, 2016). In this connection, normality test was conducted by Stata 12 Software. The data can be assumed to be normal if most of the data point tends to lie on a straight line. The normality test in this research uses Graph Test on the Stata . As shown in Figure 1, If the data point tends to lie on a straight line this means that the residuals in the research model are declared to be normally distributed.
Multicollinearity Test. The second test for regression classic assumption is multicollinearity. This was conducted by use of both tolerance and Variance Inflation Factor (VIF). There was no multicollinearity since the VIFs were less than 10 and none of the tolerance was less than 0.1 (Ndungu, 2016). Based on the results in Table 2, it is known that all of the VIF value of the independent variable is less than 10, this means there was no multicollinearity between independent variables so that the independent variables can be used in the model.

Table 2 – Table of Multicollinearity Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Experience</td>
<td>1.11</td>
<td>0.902676</td>
</tr>
<tr>
<td>Net Income</td>
<td>1.10</td>
<td>0.909322</td>
</tr>
<tr>
<td>Credit period</td>
<td>1.09</td>
<td>0.913587</td>
</tr>
<tr>
<td>Business Experience</td>
<td>1.12</td>
<td>0.895959</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.10</td>
<td></td>
</tr>
</tbody>
</table>

Source: Analysis (2017).

Heteroscedasticity Test. The third test for regression classic assumption is heteroscedasticity. Heteroskedasticity test in this research using Breusch-Pagan, if the value of "Prob> chi2" more than 0,05, this means that in the regression model there is no heteroskedasticity. Based on Table 3 the value of Prob> chi2 is 0.1299. This means that in the regression model there is no heteroscedasticity. So it can be said that the regression model used in this research is included in the criteria of a good regression model because it has a constant model error variance.

Table 3 – Table of Heteroscedasticity Test Result

<table>
<thead>
<tr>
<th>Breusch-Pagan / Cook-Weisberg test for heteroskedasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho</td>
</tr>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>chi2(1)</td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
</tr>
</tbody>
</table>

Source: Analysis (2017).
R Square ($R^2$). R-squared is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable. Table 4 shows the statistical value of R-squares is 0.5974. This means that all independent variables can explain the dependent variable by 59.74%, while the remaining 100% - 59.74% = 40.26% was explained by other variables outside the regression model.

**F-Test.** The F-test can assess multiple coefficients simultaneously. This test aims to determine whether all independent variables together or overall affect the dependent variable. Table 4 shows the estimation results of value of F-test is 0.0000. This means that all independent variables (credit experience, net income, credit period, business experience) together have a significant effect on the dependent variable (the number of realization of People's Business Credit in agribusiness sector) at a significant level of 1%.

**Table 4 – Table of Analysis Regression Result**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5.41391028</td>
<td>4</td>
<td>1.35347757</td>
</tr>
<tr>
<td>Residual</td>
<td>3.64820472</td>
<td>50</td>
<td>0.072964094</td>
</tr>
<tr>
<td>Total</td>
<td>9.38537164</td>
<td>54</td>
<td>0.167816945</td>
</tr>
<tr>
<td>Number of Obs</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F (4, 50)</td>
<td>18.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.5974</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj R-squared</td>
<td>0.5652</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSE root</td>
<td>0.27012</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**t-test.** This test aims to determine whether independent variables by individually affect the dependent variable. Estimation results with regression function transformed into the form of Natural Log (Ln) can be seen from the value of P > |t|. Based on Table 5, it can be seen that credit experience (X1), net income (X2), credit period (X3) and business experience variable (X4) proved to have a significant effect towards the amount of People's Business Credit in agribusiness sector at BRI Unit Baron, Solo Branch Office.

**Table 5 – Table of Regression Analysis (t-test)**

<table>
<thead>
<tr>
<th>Ln Total Credit</th>
<th>Coef.</th>
<th>Std.Err.</th>
<th>t</th>
<th>P &gt;</th>
<th>t</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ln Credit Experience</td>
<td>.2082352</td>
<td>.1087367</td>
<td>1.92</td>
<td>0.061</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>Ln Net Income</td>
<td>.6101381</td>
<td>.077187</td>
<td>7.90</td>
<td>0.000</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Ln Credit Period</td>
<td>.4111736</td>
<td>.1136751</td>
<td>3.62</td>
<td>0.001</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Ln Business Experience</td>
<td>.0773648</td>
<td>.0403604</td>
<td>1.92</td>
<td>0.061</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>_Cons</td>
<td>6.281585</td>
<td>1.23597</td>
<td>5.08</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Regression Analysis Results (2017)**

1): Significant level at 10%
2): Significant level at 5%
3): Significant level at 1%
ns): Not Significant

Credit Experience (X1). Credit experience variable (X1) are statistically have significant effect on the amount of People's Business Credit (KUR) at a 10% significance level with a significance probability value of 0.061. Credit experience coefficient shows the positive number 0.2082352. This means that there is a positive influence between credit experience and the amount of People's Business Credit for agribusiness sector at BRI Unit Baron. It is because before the loan application is realized, the bank has previously sought information on whether the character of debtor is good or not in credit payment and there is no arrears in other banks by seeking Information in Indonesian Bank (BI) by using System application that called "BI Checking". The People's Business Credit or KUR program is a Government program. The debtors should not receiving other program credits from the Government except KUR program as proved by the BI Checking results when a credit application is
submitted. Besides that, the debtors can receive a consumer credit and people's business credit (KUR) at BRI with a good collectability of 6 months.

The implication is if the respondent's credit experience previously was good, the BRI's officer would giving more amount of credit to them. Due to the fact, the good repayment of debtors, could be consideration for BRI's officer in taking credit approval decision. By knowing their credit history, the BRI's officer could assess how well they can manage their credit on a limited scale before taking on larger amounts of credit.

This research agrees with the findings of (Mensah & Agbekpornu, 2015) that other income, membership of business organization, firm size, borrower/credit experience, collateral security, and credit management skills were found to be statistically significant determinants of credit accessibility. Also the findings of (Lemessa & Gemechu, 2016) that experience in credit use from the formal sources is a significant variable that affects access to formal credit. They conclude that farmers experience in credit use from the formal financial institutions plays an important role in accessing credit from these institutions. In line with that (Nwaru et al., 2011) stated that the coefficient for experience in lending was significant at 10% and has a positive relationship with credit supply.

The results of this research are also in accordance with the research hypothesis. The BRI's officer feels more sure to give more amount of credits if the respondents have good character in terms of fulfilling their obligations to the Bank in paying installments. The better their credit experience, the higher the amount of People’s Business Credit (KUR) for agribusiness sector at BRI Unit Baron, Solo Branch Office.

Net Income ($X_2$). Net income are statistically have a significant effect on the amount of People's Business Credit (KUR) at 1% significance level with a significance probability value of 0.000. Net income coefficients indicates the positive number of 0.6101381. This means that there is a positive influence between net income and the amount of People's Business Credit for agribusiness sector at BRI Unit Baron. So it can be concluded that if net income is increases, the amount of People's Business Credit for agribusiness sector will further increase. Due to the fact, the higher of net income could be consideration for BRI's officer to measured their ability in making payments as a liability to the Bank. Income level is one of the criteria that shows the ability or capacity of the respondent's business feasibility. By knowing the level of income of debtors will affect the debtor's return on installment obligations that must be paid later.

The results of this study are also in line with (Cheng, 2007) the demand for micro-loans is positively related to the house- hold incomes, the opportunities for off-farm investment and the educational level of female borrowers. In line with the results of the study of (Nwaru et al., 2011) The co-efficient of farm income was statistically significant at 1% and, in conformity with a priori expectations, it was positively signed. Ceteris paribus, increase in farm income would lead to increased saving which could be re-invested leading to increased business activities and a concomitant increase in credit demand. Moreover, lenders would prefer to grant credit facilities to farmers whose income is high because they have higher chances of repaying the loan.

Therefore, it can be concluded that the analysis results of this study indicate conformity with previous studies and show support for the research hypothesis. The implication is that, the higher net income, the higher the amount of People’s Business Credit (KUR) for agribusiness sector at BRI Unit Baron, Solo Branch Office.

Credit Term ($X_3$)

Credit term are statistically have a significant effect on the amount of People's Business Credit (KUR) at 1% significance level with a significance probability value of 0.001. Credit term coefficients indicates the positive number of 0.4111736. This means that there is a positive influence between credit term and the amount of People's Business Credit for agribusiness sector at BRI Unit Baron.

According to Ajagbe et al., (2012) The period of obtaining credit is positively correlated with personal savings which shows that the longer the payback period the higher the amount of credit secured from the scheme and the higher the income generated.
The results of this study indicate suitability with research advance and support the hypothesis statement that credit term is significant effect on the amount of People’s Business Credit. The implication is that, the longer credit term, the higher the amount of People’s Business Credit (KUR) for agribusiness sector at BRI Unit Baron, Solo Branch Office.

Business Experience ($X_t$). Business Experience are statistically have a significant effect on the realization of People’s Business Credit (KUR) at 10 % significance level with a significance probability value of 0,061. Business Experience coefficients indicates the positive number of 0,0773648. This means that there is a positive influence between business experience and the amount of People’s Business Credit for agribusiness sector at BRI Unit Baron. So it can be concluded that if business experience is increases, the amount of People's Business Credit for agribusiness sector at BRI Unit Baron will further increase. This implies that the bank’s officer more sure giving more amount of credit to the business that much longer stand up. It means the business could be considered more stable and grow larger.

However, the results of these studies contradictive with previous studies by (Gbadebo et al., 2013) that business experience variables were positively marked but had no significant effect on credit. But this research agrees with the study of Munene & Guyo, (2013) that the business experience have a significant effect to the failure of micro-credit refund. So it can be concluded that the results of the research support the hypothesis statement that the experience business has a significant effect on the number of realization of People’s Business Credit for agribusiness sector in BRI Unit Baron, Solo Branch Office. The implication is that, the higher of business experience, the higher the number of realization of People’s Business Credit (KUR) for agribusiness sector at BRI Unit Baron, Solo Branch Office.

**CONCLUSION AND SUGGESTIONS**

The variable of credit experience has positive effect on the amount of People’s Business Credit. Due to the fact, the good repayment of debtors, could be consideration for BRI's officer in taking credit approval decision. By knowing their credit history, the BRI's officer could assess how well they can manage their credit on a limited scale before taking on larger amounts of credit. Net Income variable has positive effect on the amount of People’s Business Credit. One of the explanation is by knowing the level of debtors income will affect the debtor's return on installment obligations that must be paid later. Income level is one of the criteria of BRI’s officer that shows the ability or capacity of the respondent's business feasibility. Based on the credit term, it has a positive effect on the amount of People’s Business Credit. The longer credit term, the higher the amount of People’s Business Credit (KUR) for agribusiness sector at BRI Unit Baron, Solo Branch Office. This is partly explained by the fact that the patterns and regularity of repayment over longer periods of time will give more favorably in the assessment of credit by BRI’s officer. The longer credit term could be one of the consideration for BRI's officer in taking credit approval decision. The variable of business experience has positive effect on the amount of People’s Business Credit. This implies that the bank’s officer more sure giving more amount of credit to the business that much longer stand up. It means the business could be considered more stable and grow larger.

Based on the results of the research and the problems of MSEs in accessing credit, it can be suggested for development of MSMEs of agribusiness sector that they should having a repayment good record in a length of credit, increasing their business capacity so it can increase their income and measured their capability and willingness to repayment the credit, and increasing their age of the business by skill, knowledge and experience, so they can easier access to credit in formal institutions and also is simultaneously, the maker of policy can give an easier policy to access the credit in formal institution or they can give another credit program that can help the MSEs to increase their business scale.
REFERENCES


INFLUENCE OF TAX SOCIALIZATION AND LEVEL OF TRUST ON TAXPAYER COMPLIANCE AS A MICRO, SMALL AND MEDIUM BUSINESS ACTOR

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ABSTRACT
This research aims to analyze the effect of the socialization of taxation and taxpayer trust level to personal tax compliance. The population used in this research is a micro, small & medium business actor. The type of data used in this research is the primary data, the data obtained by questionnaires. There are 34 research samples to be tested. Data were analyzed using an analysis tool that consists of testing the quality of the data, descriptive statistics, test classic assumptions and hypothesis testing with SPSS. The results show that socialization taxation and taxpayer trust level effect on tax compliance.

KEY WORDS
Taxpayer, compliance, taxpayer, trust level, socialization, taxation.

Micro, Small and Medium Enterprises (MSMEs) are likened to a pioneer of a capable nation transformed as a savior god when the nation experienced a downturn. Economy in Indonesia is actually actually driven by MSME actors. Based on data from Ministry of Cooperatives and Small and Medium Enterprises as of June 2013, currently there are 55.2 million MSMEs or 99.98 percent of the total business units in Indonesia. In addition, this MSMEs absorbs 101.72 million people employment or 97.3 percent of the total Indonesian workforce. MSMEs also contributed 57.12 percent of gross domestic product (GDP) or Rp. 8,200 trillion. (Kompas, 28 June 2013). From the amount of state revenue coming from the MSME sector, it will have a large potential also the amount of tax revenue from the sector. The number of MSMEs that are increasing year by year increasing, providing opportunities for the government to target this sector in an effort tax extensation. However, this is not easy because there are various possibilities interpretation based on perceptions of MSMEs taxpayers.

Kurniawan, Kumadji and Yaningwati (2014) argue that taxation socialization is one program / activities implemented by the Directorate General of Taxes to improve understanding and knowledge of the community regarding taxes and to support implementation taxation services. Taxation socialization helps improve the perceptions of the perpetrators business about the importance of paying taxes. Lack of socialization may have an impact on low public knowledge about taxes that causes low awareness the community to report and pay taxes which might ultimately cause low level of taxpayer compliance (Winerungan, 2013). By giving understanding to Taxpayers regarding the tax function, indirectly giving awareness to Taxpayers on tax compliance. In addition to improving tax compliance, Tax socialization also affects taxation knowledge for taxpayers. Taxation knowledge is an impact caused by tax socialization and also potentially increases tax compliance.

In some developed countries that impose taxpayers, citizens get benefits from the State, such as benefits for the unemployed, free health benefits, free basic education, convenient transportation, etc. (Handayani et al, 2012). If Taxpayers perceive that the state can be trusted in managing finances and can utilizing a budget that comes from taxes well, then the level of trust is mandatory tax will increase, as well as the level of taxpayer compliance. This is in line with Handayani et al (2012) which state that the level of taxpayer trust affect taxpayer compliance and contrary to research Cahyonoawati (2011) who stated that taxpayer trust had no effect on Taxpayer compliance.
Tax compliance is the willingness of individuals and other taxable entities to act in accordance with the spirit and tax law and administration letters without application of enforcement activities (James, 2010). Tax compliance leads more to individual awareness in doing tax obligations which with tax will be able to develop the country well, while the Taxpayer is a subject who has the responsibility to fulfill tax obligations through its contribution to paying taxes (Widodo, 2010 in Nashrudin, Bashori and Mustikasari, 2014).

**Theory and Development of Hypotheses.** Slippery Slope proposed by Kirchler et al (2008) is a concept integrating economic and psychological determinants of tax compliance. This framework shows that the effectiveness of economic and non-economic factors depends on the relationship between payers' tax and tax authority. In a climate of trust, action builds confidence may be more important than in relationships based primarily on the power of authority, where prevention may be the right policy (Muehlbacher et al., 2011).

Taxation socialization according to Ananda et al (2015) is an DGT effort (Directorate General of Taxes) provides information and guidance to Taxpayers regarding everything something that is correlated with the taxation field. Or it could be said socialization taxation is an effort to improve public understanding and awareness about tax rights and obligations.

Taxpayers' level of trust is a measure of how much trust they have Taxpayers' ownership of the legal system and government in Indonesia has been carried out with fair and right. The main focus of the taxpayer's level of trust is how that relationship is there is currently between the state and its citizens. Trust is something that is expected from honesty and cooperative behavior based on sharing norms and values the same (Doney et al., 1998 in Handayani et al., 2012).

Taxpayer compliance according to Prihartanto and Pusposari (2014) is a mandatory condition Taxes carry out their obligations, in discipline, in accordance with the laws and regulations and the prevailing tax method. Whereas Rantung and Adi (2009) define it as a value someone is willing to contribute (which is determined by regulation) used to finance public expenditure by not receiving lead services (counterpart) directly. There are two kinds of compliance, namely (Rahayu and Lingga, 2009):

a. Formal Compliance is a condition in which a Taxpayer fulfills an obligation formal taxation in accordance with the provisions of the tax law.

b. Material Compliance is a condition in which substantive / substantive taxpayers fulfill all the provisions of the tax material, namely according to the contents and soul of the law taxation law.

**Previous research.** Kirchler et al. (2008) explain the use of frameworks that study factors coercive and voluntary tax compliance. The results of this study are the framework slippery slope promises a better understanding of taxpayer behavior and practices arrangements by highlighting the need to consider the power of authority, trust in their authority and dynamic interaction.

Primasari (2016) examines the factors that influence people's taxpayer compliance a person who does free work. The type of data used in this study is data primary, data obtained by distributing questionnaires. There are 74 research samples that can be obtained test. The results obtained that the understanding of taxpayers has an effect on taxpayer compliance, while tax policy, taxpayer awareness, taxpayer's level of trust, socialization Partial taxation does not affect taxpayer compliance.

Anwar and Syafiqurrahman (2016) analyze whether taxation knowledge mediates influence of taxation socialization on MSMEs Taxpayer compliance in Surakarta. Results this study proves that tax socialization has a significant positive effect on taxation knowledge and tax compliance. In addition, knowledge of taxation too significant positive influence on tax compliance while mediating influence tax socialization of MSMEs taxpayer tax compliance in Surakarta.

**Effect of Tax Socialization on Taxpayer Compliance.** Socialization is done by educating individuals about the culture that must be owned and he followed, so he became a good member of the various groups and communities specifically, socialization can be considered the same as education (Sudrajat and Ompusunggu, 2015). With the good socialization and acceptable to the community, it is suspected that they are capable increase the motivation of
taxpayers to comply with tax obligations. In line with the opinion of Sudrajat and Ompusunggu (2015) which states one factor that can emphasized by the authorities in improving tax compliance is by way of socializing tax regulations both through counseling, good moral calls with the media billboards, billboards, or opening tax regulation sites that can be accessed by Mandatory at any time Tax. So, the hypothesis in this study is:

H1: tax socialization affects taxpayer compliance.

The Influence of Trust in Tax Authorities on Taxpayer Compliance. In many developed countries that impose tax obligations, every citizen get adequate support, such as education, health benefits, transportation and others. These direct and indirect benefits encourage taxpayers to fulfill their obligations to pay taxes with awareness full that they will get rewards through facilities that have been designed by government. Automatically the desire to deny the obligation to pay taxes will be eroded. Kirchler et al. (2008) explain in the slippery slope framework that the level of trust taxpayers to the tax authorities affect voluntary tax compliance.

H2: Taxpayer's level of trust affects taxpayer compliance.

![Figure 1 – Conceptual Framework](image)

METHODS OF RESEARCH

This type of research is quantitative with an associative research approach. Associative research and correlational relationships and causal relationships between variables (Sulistyanto et al., 2006: 14). This research was conducted to the owners of SMEs in Surabaya.

Identify Variables:
- Dependent Variable in this research is tax compliance;
- Independent Variables used in this study are tax socialization and level of confidence.

Operational Definition of Variables:

Tax Compliance. Taxpayer compliance is measured using 5 Likert scales. Likert scale 1 for Strongly Disagree up to 5 Likert scale for Strongly Agree. Indicator for compliance taxpayers are compliance to register, compliance to deposit back, compliance in calculating and paying tax payable, and compliance in payment tax arrears (Rahayu and Lingga, 2009).

Tax Socialization. Tax socialization is measured using 5 Likert scales. Likert scale 1 for Very Disagree with the Likert 5 scale for Strongly Agree. Indicator for tax socialization according to Winerungan (2013) is direct counseling, discussions with taxpayers and community leaders, Information directly from officers to taxpayers, Installation of billboards, Web sites DG Tax.

Level of Confidence. Trust Levels are measured using 5 Likert scales. Likert scale 1 for Very Disagree with the Likert 5 scale for Strongly Agree. Indicator for level of trust according to Handayani et al. (2012) Trust in the system of government, trust in legal system, trust in politics, and trust in tax collection re-allocated to the people.

RESULTS AND DISCUSSION

Analysis was carried out on 60 MSME players who had fulfilled the criteria for further. However, only 34 questionnaires can be received by researchers. The results of processing data regarding Descriptive statistics from respondents are presented in Table 1.
Table 1 – General Description of Respondents

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Men</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>24</td>
</tr>
<tr>
<td>Turnover per Month</td>
<td>&lt; Rp. 3.000.000</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Rp. 3.000.000 s/d Rp. 5.000.000</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>&gt; Rp. 5.000.000</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 2 – One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Normal Parameters a,b</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Absolute Mean</th>
<th>Positive</th>
<th>Negative</th>
<th>Kolmogorov-Smirnov Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24,7059</td>
<td>3,99643</td>
<td>.165</td>
<td>.108</td>
<td>-.165</td>
<td>.963</td>
<td>.312</td>
</tr>
<tr>
<td></td>
<td>34,5882</td>
<td>3,76682</td>
<td>.132</td>
<td>.075</td>
<td>-.132</td>
<td>.768</td>
<td>.597</td>
</tr>
<tr>
<td></td>
<td>37,1176</td>
<td>5,52002</td>
<td>.198</td>
<td>.198</td>
<td>.198</td>
<td>1.154</td>
<td>.140</td>
</tr>
</tbody>
</table>

Normality Test Analysis is done by using one sample Kolmogorov Smirnov Test. In Table 2 it can be seen that the data in each variable is distributed normal. In table 2 it can be seen that the significance value for the tax socialization variable is 0.312; variable confidence level 0.597; and for the tax compliance variable 0.140. the data is said to be normally distributed if the significance value is greater than 0.05.

Table 3 – Validity and Reliability of Tax Socialization

<table>
<thead>
<tr>
<th>n/n</th>
<th>Pearson Correlation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>.774</td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>.908</td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>.811</td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>.787</td>
<td></td>
</tr>
<tr>
<td>S5</td>
<td>.811</td>
<td>.895</td>
</tr>
<tr>
<td>S6</td>
<td>.906</td>
<td></td>
</tr>
</tbody>
</table>

In table 3 above, the validity and reliability tests on the tax socialization variable are carried out. Test the validity states that the question item on tax socialization can be said to be valid because the Pearson correlation value > 0.3. Reliability test states question items on variables this can be said to be reliable.

Table 4 – Trust Level Validity and Reliability

<table>
<thead>
<tr>
<th>TK1</th>
<th>Pearson Correlation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>817</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.824</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.782</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.618</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.705</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.568</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.549</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.595</td>
<td>.828</td>
</tr>
</tbody>
</table>

In table 4 above, the validity and reliability tests are performed on the Level of Trust variable The validity test states that the item question on tax socialization can be said valid because the Pearson correlation value > 0.3. Reliability test states question items on variables this can be said to be reliable.

In Table 5 above, the validity and reliability tests on the Tax Compliance variable are carried out. Test the validity states that the question item on tax socialization can be said to
be valid because the Pearson correlation value > 0.3. Reliability test states question items on variables this can be said to be reliable.

Table 5 – Tax Compliance Validity and Reability

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2,456</td>
<td>5,695</td>
<td>470</td>
<td>.431</td>
</tr>
<tr>
<td>1_T_S</td>
<td>.649</td>
<td>.239</td>
<td>.254</td>
<td>2.709</td>
</tr>
<tr>
<td>T_TK</td>
<td>.539</td>
<td>.368</td>
<td>2.121</td>
<td>.042</td>
</tr>
</tbody>
</table>

Based on the partial test results the causality relationship between the dependent variable and independent variables are indicated by the significance value of the regression coefficients of each variable independent compared to the value of $\alpha = 0.05$. If the significance value < from $\alpha = 0.05$, then the research hypothesis will be accepted, on the contrary if the significance value > $\alpha = 0.05$, then the hypothesis research will be rejected. From table 6 shows that the significance value of the tax socialization variable and the confidence level is smaller than 0.05, meaning that for the two variables affect taxpayer compliance.

Table 7 – Test F

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>625,328</td>
<td>2</td>
<td>312,664</td>
<td>25,493</td>
<td>.000*</td>
</tr>
<tr>
<td>1 Residual</td>
<td>380,201</td>
<td>31</td>
<td>12,265</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1005,529</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F statistic test is used to indicate whether all independent variables are entered in this study, it is quite fit as a predictor of the dependent variable Taxpayer compliance. Results F test in table 7 is sufficiently independent variable as a predictor of the dependent variable. This can be seen from the calculated F value of 25,493 with a smaller probability of 0.010 from 0.05.

CONCLUSION

Based on the results of the regression equation test model can be seen that socialization taxation has a significant effect on MSME taxpayer tax compliance. Getting more positive taxation dissemination of tax compliance, the higher the level tax compliance. On the contrary, the tax socialization of compliance is increasingly negative taxation, the lower the level of tax compliance. This result rejects the findings Winerungan (2013) who said Taxation socialization had no effect on Personal Taxpayer Compliance and supports the findings of Kurniawan, Kumadji and Yaningwati (2014) which concluded taxation socialization partially had a significant effect on awareness of taxpayers in paying taxes. The results also state that level trust has a positive effect on taxpayer compliance with trust in the system law and taxation have an effect on personal taxpayer compliance. Results research is in line with
Handayani et al. (2012), but is not consistent with research Cahyonowati (2011), which states that trust in tax laws and regulations does not affect taxpayer compliance, it is due to external factors like fines are more dominant influential.

For further research, it is expected to be able to test factors outside the variable independent researches such as education level, tax sanction, tax audit, e-system and others. Expanding the research population, maybe it can be up to one island of Java or Indonesia as a whole, it is expected that the conclusions of this study can be generalized to Taxpayer population in Indonesia.

REFERENCES


DOI https://doi.org/10.18551/rjoas.2018-09.40

ANALYSIS OF FACTORS AFFECTING THE RISK OF FAILURE IN ACHIEVING THE PROJECT OBJECTIVES IN ACCURATE TIME AND QUALITY ON THE CONSTRUCTION PROJECT OF THE PAGERWOJO BRIDGE IN TULUNGAGUNG DISTRICT

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ABSTRACT
This research was conducted to determine the factors that directly or indirectly affect the risk of failure in achieving the project objectives in accurate time and quality on the construction project of the Pagerwojo Bridge in Tulungagung District and to get the most dominant factors affecting it. Data analysis method used is factor analysis and path analysis to the answers from the questionnaire distributed to 43 respondents consisting of the contractor, owner and supervisory consultant. Based on the findings of the research, all factors have an effect directly or indirectly and simultaneously on the failure in achieving the time target. Individually, the factors that have significant and direct effect on the failure in achieving the time target are human resources, equipment, and work environment. The factors that have significant and direct effect on the failure in achieving the quality target are time target factor, material, equipment, and work environment. The factors that have indirect and significant effect on the failure in achieving the time target and quality target are human resources, materials, equipment and work environment. The dominant factor that has direct or indirect effect on the failure in achieving of time target and quality target is the human resources factor. The strategy to overcome the problem is that the contractor must employ skilled and qualified human resources in their field in accordance with the needs of the construction project. It is expected that further research will add other variables such as skilled worker to get more varied research findings.

KEY WORDS
Objectives, project, time, quality.

The implementation of a project experiences three constraints, i.e. cost, time and quality. These three constraints are defined as project targets, which are defined as accurate cost, accurate time, and accurate quality (Chen et. al., 2009). The success of a project is related to the extent to which these three targets can be met. Project management is the process in managing the project through the management, allocation and scheduling of resources in the project in order to achieve these goals.

As part of the project management process, good planning and control do not guarantee the realization of project objectives. There is always the possibility of failure in achieving an objective or there is always the uncertainty about the decision that has been taken. A condition, which arises because of the uncertainty with all the consequences that might occur unfavorably, is called risk. Unfortunate consequences refer to the failure in achieving the project objectives, i.e. the accurate cost, accurate time, and accurate quality.

The project has unique characteristics so it requires a number of assumptions to estimate data and information that are not yet available during the process; from the planning stage to the implementation stage. These assumptions and estimates support the emergence of this uncertainty. The risks experienced by a project depend on these assumptions and estimates. The risks that will be experienced in a project are heavier because the nature of the project is that it only runs in a non-repetitive implementation period.

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Regarding to this matter, risk management is needed to look at the risks experienced by a project and to review its effects on project objectives. Furthermore, handling can be planned to minimize the adverse consequences so that it will support the realization of the project objectives.

Those that are included in the risk management stage are risk management planning, risk identification, risk analysis, risk handling and risk monitoring, (Marvin et al., 2009). Risk identification is the first step in implementing risk management and is an important step in project implementation. By identifying risks in the implementation process of a construction project, any risks that occur during the project implementation will be known; starting from the project begins until the project is handed over. Furthermore, it will find out how potential these risks are in influencing the failure to achieve project objectives.

It is not much different from the development of other projects in Indonesia. The construction projects in Tulungagung District also experienced many constrains in the time and quality accuracy. One of them is the construction project of the Pagerwojo Bridge in Tulungagung District which was built in the fiscal year of 2016 in which the project cannot be completed in accurate time and quality in its implementation. The failure in achieving time and quality targets is not yet known with certainty. Therefore, risk identification in the construction project of the Pagerwojo Bridge in Tulungagung District also needs to implement time and quality accuracy because it is one form of construction project that has a number of risks in its implementation. As in other construction projects, the risks involved have the same potential risks as other construction projects such as buildings.

Identifying risks earlier with an appropriate analysis is expected to support the increased possibility in achieving better project objectives, especially the time and quality accuracy.

In connection with the above background, it requires identification of any factors affecting the risk of failure in achieving the project objectives on the construction project of the Pagerwojo Bridge in Tulungagung District in accurate time and quality. Furthermore, research findings can be used for business owners in the construction sector, especially those engaged in road and bridge construction in analyzing risks and taking appropriate steps to deal with these risks.

**THEORETICAL FRAMEWORK**

According to Soeharto (2001), “project management is planning, organizing, leading, and controlling company resources to achieve predetermined short-term objectives. Furthermore, project management uses a vertical and horizontal system approach and hierarchy (activity flows)”.

A project is an activity that is unique and complex and includes all activities in it that have a purpose and must be completed in accurate time, accurate budget, and accurate specifications (Soeharto, 2001).

Parts of project operations that have a high risk indicate that the part is not handled properly due to lack of resource capabilities, both from the project manager and the project organization.

In the context of the project, the negative consequences of project risk that is defined as failure in achieving project objectives include:

- Realization of project costs that is not in accordance with the estimated costs;
- Realization of project implementation time that is not in accordance with the estimated schedule;
- Realization of the quality of work that does not meet the technical specifications.

Risk management is a very useful tool for project management in supporting project control to avoid situations that lead to cost overruns, delays in achieving schedules, or inability to meet the specified performance (Soeharto, 2001).

As explained in the previous section, construction projects are a high-risk business field (Barrie et. al., 1984). Risk can stop the project, lead to delays, and also lead to cost overruns. Risks that cause bad changes in project aspects are time estimate, cost estimate,
and design technology. The potential weight of the project risk is based on the frequency parameter of the occurrence of the risk to the project objectives. Thus, information on risks that have the potential to occur in water construction projects needs to be supported by information on how much effect these risks have on the failure in achieving project objectives.

To understand the concept of risk in construction projects, understanding the risks is required. The following describes the meaning of risk according to several sources. Risk is defined as uncertainty about the occurrence of an event. Another definition explains that risk is a condition where there are possible economic or financial gains/losses, physical damage or injury, and delays, as a consequence of uncertainty during an activity (Cooper and Emory, 1999).

Understanding risk in the context of a project is that the risk can be defined as a description of the consequences that are not profitable, financially and physically, as the results and decisions taken or due to environmental conditions in which a project is located. When it is associated with the concept of opportunity, risk is an opportunity for an unexpected condition to occur with all possible consequences which can cause project delays or failures. Kerzner (2006) described the concept of risk to a project as a measure of probability and consequences and failure in achieving predetermined project objectives.

From some of the above understanding, it can be concluded that risk is a condition that arises because of uncertainty with the chance of certain events. Its occurrence will have unfavorable consequences. Furthermore, the risk to the project is a condition in the project that arises due to uncertainty with certain event opportunities. Its occurrence will result in physical and financial consequences that are not profitable for the achievement of the project objectives, i.e. the cost, time and quality of the project.

Although the risk has a close relation with uncertainty but both have differences. Uncertainty is a condition where lack of knowledge, information, or understanding of a decision and its consequences occur. Risk arises because of uncertainty, in which uncertainty results in doubts in predicting the possibility of future results. It is said that the higher the level of uncertainty, the higher the risk (Kerzner, 2006).

Risk management is an activity carried out to respond to the risks (through a risk analysis plan or other form of observation) to minimize possible adverse consequences. Therefore, risk must be defined in the form of a relative plan or procedure. Kerzner (2006) suggested the notion of risk management as a series of activities related to risks, which includes risk planning, risk assessment (identification and analysis), risk handling and risk monitoring.

Schedule is the elaboration of project planning into a sequence of steps for the implementation of work that aims to achieve the objectives. The time factor has been included in the schedule. The schedule shows the estimated time required to complete each work package and the relationship between work packages (which work packages must be completed before the other packages start). The arrangement of this relationship is called a network. The project must be carried out within the limits of the specified time and deadline (Soeharto, 2001).

Lim and Niem (1995) mentioned that quality is a characteristic of a good or service that shows its ability in satisfying the needs of the owner/project owner; either expressed and implied. The quality needed will always follow the development of human thoughts and feelings.

What is meant by population is a collection of all individuals with a predetermined quality in which the quality or characteristics are called variables. What is meant by a sample is a collection of sampling units that are taken and are sub-populations (Sugiono, 2006).

Statistics is the science and art of development and the application of the most effective method to determine the possibility of error in drawing a conclusion in which the estimate can be predicted based on mathematical probability (Supranto, 2001).

Validity is a measure that shows the levels of validity of an instrument, (Green, 2004). An instrument is considered to be valid if it can reveal the data from variables that are examined appropriately. The high and low validity of the instrument shows the extent to
which the data that has been collected does not deviate from the description of the validity (Riduwan, 2005). Whether or not an instrument is valid, it can be known by comparing the correlation index of Product Moment Person with a significant level of 0.05 (5%) as its critical value by comparing $r_{\text{count}}$ with $r_{\text{table}}$. The validity of the instrument can be determined by the following criteria:

- $r_{\text{count}} > r_{\text{table}}$: valid, $r_{\text{count}} < r_{\text{table}}$: invalid

Reliability is an index that shows the extent to which an instrument can be trusted or reliable. In other words, reliability shows the consistency of an instrument in measuring the same things (Singarimubun and Effendi, 2006). In this research, reliability test is carried out by using the Cronbach’s Alpha approach. An instrument is considered to be reliable if the value of Cronbach’s Alpha is > 0.6.

Conceptually, a factor is an uncertain condition with a certain chance of an event in which—if it occurs—it will cause unfavorable consequences. The concept of factors is defined as independent variables (X1, X2, X3, etc). The definition of independent variable is a variable that is the cause of changes or the emergence of dependent variable (Sugiyono, 2006).

Factor analysis is an analysis commonly given to classes in multivariate statistical methods whose main purpose is to reduce data and summarize it. The aim is to analyze the interrelationships between a number of large variables (test, score, test item, questionnaire) and then explain these variables according to their size in the form of factors. In addition, factor analysis is a technique or method that connects the dependence of all simultaneous variables.

Mathematically, factor analysis has several similarities with multiple regression analysis in which each variable describes such a linear combination of principal factors. The covariance variable is term from a small number of shared factors plus a special factor from another variable.

The analysis technique used is Path Analysis which aims to examine the questions related to the factors affecting the risk of failure in achieving the project objectives in accurate time and quality on the construction project of the Pagerwojo Bridge in Tulungagung District and to determine the most dominant factors affecting it (Solimun and Rinaldo, 2008).

**METHODS OF RESEARCH**

Research is a scientific way to solve a problem and to penetrate the limits of human ignorance. Research activities are carried out by collecting and processing the existing facts so that they can be communicated by the researcher and the findings can be enjoyed and used for the benefit of humans. Based on the method, this research includes the type descriptive research which aims to get what factors affecting the risk of failure in achieving the project objectives in accurate time and quality in the construction project of the Pagerwojo Bridge in Tulungagung District and the most dominant factors affecting it.

This research applied survey method by collecting opinions, experiences and attitudes of respondents to find out the problems that have been experienced in the work of construction project of the Pagerwojo Bridge in Tulungagung District by taking primary data through questionnaires and secondary data from related institutions. To find out factors affecting the risk of failure in achieving the project objectives in accurate time and quality on the construction project of the Pagerwojo Bridge in Tulungagung District, the factors are then determined and then by determining the variables to be used as the items to be measured in the form of a questionnaire.

The setting of this research is the construction project of the Pagerwojo Bridge in Tulungagung District which was built in the fiscal year of 2016.

*Research Variables:*

- The independent variables (X) consist of: Finance (X1), Human Resources (X2), Material (X3), Equipment (X4), Work Implementation Method (X5), Design Changes (X6), and Work Environment (X7);
The dependent variables consist of (Y): Accurate Time (Y1) and Accurate Quality (Y2).

The questionnaire used for data collection contains statement items relating to any factors affecting the risk of failure in achieving the project objectives in accurate time and quality on the construction project of the Pagerwojo Bridge in Tulungagung District. In addition, to determine the most dominant factors affecting it, the Likert scale is used with a range of 1 to 5 (very not influential - very influential), so number one is the respondent's very negative response code to one of the questions, while the number five is the respondent's very positive code to one of the questions.

The data obtained from the results of the survey (questionnaire) will be processed to obtain information in the form of tables. The processed data results are used to answer questions in the research problems. The data processing should pay attention to the type of the data collected by concentrating on the objectives to be achieved. The accuracy in the analysis technique greatly influences the accuracy of the findings of the research. The data analysis technique applied is factor analysis and path analysis. The results of the questionnaire data with a range of 1 to 5 from each of these variables are then repeated, so that each variable containing several indicators will produce only one score which is then analyzed using factor analysis and Path analysis. Data processing is performed with the use of the Statistical Package and Service Solution (SPSS) 15 program for Windows.

RESULTS AND DISCUSSION

Finance Variable (X1) is formed by manifest variables consisting of: late payment by the contractor to the worker (X1.1), late payment by the contractor to supplier (X1.2), late payment by the owner to the contractor (X1.3), contractor’s financial capability (X1.4), and the use of contract down payment (X1.5).

Human Resources Variable (X2) is formed by manifest variables consisting of: availability of human resources (X2.1), the HR cannot coordinate well (X2.2), HR have no major responsibility (X2.3), HR do not have good expertise (X2.4), estimator behavior is less experienced (X2.5), and HR productivity is quite low (X2.6).

Material Variable (X3) is formed by manifest variables consisting of: material deficiency (X3.1), material damage and change (X3.2), delay in delivering the material (X3.3), material scarcity (X3.4), waiting for the results of the test by the owner (X3.5), the absence of material testing in the laboratory (X3.6), and the deviation of material usage from the specifications (X3.7).

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Beta</th>
<th>tcount</th>
<th>Sig. t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance (X1)</td>
<td>-0.149</td>
<td>-1.513</td>
<td>0.139</td>
</tr>
<tr>
<td>Human Resources (X2)</td>
<td>0.383</td>
<td>3.187</td>
<td>0.003</td>
</tr>
<tr>
<td>Material (X3)</td>
<td>0.276</td>
<td>2.626</td>
<td>0.013</td>
</tr>
<tr>
<td>Equipment (X4)</td>
<td>0.317</td>
<td>2.304</td>
<td>0.027</td>
</tr>
<tr>
<td>Work Implementation Method (X5)</td>
<td>-0.008</td>
<td>-0.080</td>
<td>0.937</td>
</tr>
<tr>
<td>Design Change (X6)</td>
<td>0.185</td>
<td>1.794</td>
<td>0.081</td>
</tr>
<tr>
<td>Work Environment (X7)</td>
<td>0.257</td>
<td>2.125</td>
<td>0.041</td>
</tr>
</tbody>
</table>

R² = 0.723

Equipment Variable (X4) is formed by manifest variables consisting of: inadequate force from the operator (X4.1), limited number of equipment (X4.2), equipment capability is not suitable to serve the volume of the work (X4.3), delay in delivering the equipment (X4.4), and the existing equipment is often damaged (X4.5).

Work Implementation Method Variable (X5) is formed by manifest variables consisting of: the work is not carried out based on its sequences and stages (X5.1), the implementation
of work is not according to the specifications (X5.2), and the work is carried out appropriately and correctly (X5.3).

Design Change Variable (X6) is formed by manifest variables consisting of: frequent changes in design by the owner (X6.1), delay in the process of change from planning (X6.2), and initial planning is not fulfilled (X6.3).

Work Environment Variable (X7) is formed by manifest variables consisting of: road safeguard of the bridge (X7.1), frequent rain (X7.2), bridge surrounding conditions (X7.3) and topographic circumstances (X7.4).

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Beta</th>
<th>tcount</th>
<th>Sig. t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance (X1)</td>
<td>0.041</td>
<td>0.392</td>
<td>0.698</td>
</tr>
<tr>
<td>Human Resources (X2)</td>
<td>0.384</td>
<td>2.617</td>
<td>0.015</td>
</tr>
<tr>
<td>Material (X3)</td>
<td>0.357</td>
<td>2.518</td>
<td>0.020</td>
</tr>
<tr>
<td>Equipment (X4)</td>
<td>0.372</td>
<td>2.601</td>
<td>0.019</td>
</tr>
<tr>
<td>Work Implementation Method (X5)</td>
<td>0.037</td>
<td>0.349</td>
<td>0.729</td>
</tr>
<tr>
<td>Design Change (X6)</td>
<td>0.104</td>
<td>0.937</td>
<td>0.355</td>
</tr>
<tr>
<td>Work Environment (X7)</td>
<td>0.323</td>
<td>2.431</td>
<td>0.020</td>
</tr>
<tr>
<td>Time Target (Y1)</td>
<td>0.363</td>
<td>2.081</td>
<td>0.045</td>
</tr>
</tbody>
</table>

R² = 0.714

Table 2 – The Results of OLS of the Second Equation

Dependent Variable = Quality Target (Y2)

CONCLUSION AND SUGGESTIONS

Based on the findings of the research and discussion described in the previous chapter, the following conclusions can be drawn:

Based on the F-test results, it was found that all (X1), (X2), (X3), (X4), (X5), (X6), and (X7) factors have an effect directly or indirectly and simultaneously on the failure in achieving the time target with $F_{\text{count}} = 13.057 > F_{\text{table}} = 2.365$, and quality target with $F_{\text{count}} = 10.590 > F_{\text{table}} = 2.306$. However, individually, the factors that have significant and direct effect on the failure in achieving the time target are human resources with $t_{\text{count}} = 2.187 > t_{\text{table}} = 2.030$, material with $t_{\text{count}} = 2.626 > t_{\text{table}} = 2.030$, equipment with $t_{\text{count}} = 2.304 > t_{\text{table}} = 2.030$, and work environment with $t_{\text{count}} = 2.125 > t_{\text{table}} = 2.030$. In addition, the factors that have significant and direct effect on the failure in achieving the quality target are time target factor with $t_{\text{count}} = 2.081 > t_{\text{table}} = 2.032$, human resources with $t_{\text{count}} = 2.617 > t_{\text{table}} = 2.032$, material with $t_{\text{count}} = 2.518 > t_{\text{table}} = 2.032$, equipment with $t_{\text{count}} = 2.601 > t_{\text{table}} = 2.032$, and work environment with $t_{\text{count}} = 2.431 > t_{\text{table}} = 2.032$. Moreover, the factors that have indirect and significant effect on the failure in achieving the time target and quality target are Human Resources (X2), Material (X3), Equipment (X4) and Work Environment (X7), respectively amounted to 0.139, 0.100, 0.115, and 0.093.

The dominant factor that has direct or indirect effect on the failure in achieving of time target and quality target is the human resources factor with $\beta$ standardized coefficients of 0.383 and 0.384 respectively.

Strategies to overcome the risk of failure in achieving the project objectives in accurate time and quality on the construction project of the Pagerwojo Bridge in Tulungagung District include:

- The contractor must use skilled human resources and experts in their respective field according to the needs of construction project of the Pagerwojo Bridge in Tulungagung District;
- The contractor must bring in rental equipment with good conditions at the work site;
- Before the implementation of the work, it is expected that the contractor conducts material testing in the laboratory so that the quality of the material used is in accordance with the applicable specifications and standards;
• Build the road safeguard of the bridge properly and in accordance with the needs of bridge construction.

Suggestions:
• Employing skilled human resources who have high productivity, responsibility in completing work, and experience accompanied by a certificate of skill. If skilled labor is limited, it is advisable to use skilled labor from other regions;
• Before starting the work, the contractor must ensure that all work equipment is in good condition;
• Conducting laboratory tests on material to be used in project implementation;
• Building the road safeguard of the bridge appropriately;
• Future research is expected to add other variables such as skilled labor and so forth to get more varied research results.

REFERENCES

DEVELOPMENT STRATEGY OF CIKRA 1 VOCATIONAL HIGH SCHOOL IN EAST JAKARTA

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*E-mail: chanissap@gmail.com

ABSTRACT
Education is very essential for the progress of a nation. School is a place for young people to get education, so they can compete in the world of work. Educational institutions, especially formal education, compete to be the best in terms of the quantity and quality of graduates, students, and educators. Schools receive excellent accreditation or "A" grades from measuring the quality of schools in providing public sector services and receiving excellent ratings from eight standards of accreditation instruments. Currently, Cikra 1 Vocational High School receives "B" accreditation score. Therefore, in this research, Cikra 1 Vocational High School must prepare appropriate strategies to improve school accreditation in the coming years. This research was conducted by using qualitative method through direct interviews with respondents with the use of questionnaires. The results of the questionnaires and interviews then became the expert considerations in analyzing internal and external factors which were then analyzed by using External Factor Evaluation (EFE), Internal Factor Evaluation (IFE) and IE (Internal/External) matrices to find out the condition of the school. Moreover, SWOT analysis (Strengths-Weaknesses-Opportunities-Threats) was applied to determine the choice of strategy and was continued with QSPM (Quantitative Strategic Planning Matrix).

KEY WORDS
Accreditation, development strategy, SWOT, vocational high school.

According to the data from Central Bureau of Statistics, education in Indonesia in 2014 was mostly dominated by graduates of High School as much as 36.99%. This has become a challenge for educational institutions to become schools that have the best quality and to produce graduates who are able to compete in the world of work and continue their education at higher education. A school has a very good accreditation or "A" score, because it is measured by the quality of the school in providing public sector services and getting a very good assessment of the eight standard accreditation instruments. Cikra 1 Vocational High School is a private school established by the Cikra 1 foundation to provide the best possible educational services which have been accredited with "B" score. Cikra 1 Vocational High School has one department, i.e. accounting that consists of business and management program.

Initially, Cikra 1 Vocational High School only had seven students in one class. However, a few years later, after 1994, there was an increase. In the academic year of 2017/2018, the number of students reached 97 students consisting of three classes, i.e. X, XI, and XII classes. Cikra 1 Vocational High School has 15 teachers and two employees which includes one administrative staff and one IT (Information Technology) staff who also serve as cleaning service staff. The Human Resources which includes educators and employees are considered not appropriate because the number of educators is still very lacking. With so many subjects in the accounting department, having 15 teachers does not make it works conducive.

In addition, some teachers teach subjects that are not in accordance with their fields so that the learning process that should have been in accordance with the curriculum has not been implemented. The learning media made by the teachers have not been implemented properly. School facilities and infrastructure are the determining factors for the success of teaching and learning activities to run well. The facilities and infrastructure of Cikra 1
Vocational High School are inadequate which includes classes, laboratories, teaching media, computers, yards, and business centers. Based on these problems, a research will be conducted at Cikra 1 Vocational High School entitled “Development Strategy of Cikra 1 Vocational High School in East Jakarta”.

The objectives of the research were: (1) evaluating school quality standards according to accreditation standards for vocational high school, (2) identifying internal and external factors affecting the development of Cikra 1 Vocational High School in East Jakarta, and (3) formulating selected alternative strategies and priorities which development can be applied to improve the performance in Cikra 1 Vocational High School in East Jakarta.

METHODS OF RESEARCH

The research was conducted at Cikra 1 Vocational High School located at Cipinang Kebembem No. 32, Pulogadung of East Jakarta. Research period was June 2018.

The data processing and data analysis of this research was carried out by applying stages from several matrices that contained David's concept (2015):

![Diagram showing the stages of matrix analysis](Image)

Figure 1 – Stages in Applying Several Matrix Analyses (Source: David, 2015)

The data type included primary and secondary data. Primary data were obtained through direct interviews with respondents using questionnaire and direct field observation. Secondary data were obtained through internal data from Cikra 1 Vocational High School of East Jakarta and literature studies from various research articles related to school development. The sampling technique of this study applied a purposive sampling or judgment sampling technique which was then used as the samples of the research with the consideration that the selected respondents had the ability to develop school quality, school accreditation, and ability to formulate development policies and strategies for Cikra 1 Vocational High School of East Jakarta. The respondents selected to fill out the questionnaire were the principal of SMK Cikra 1 East Jakarta, vice principal of the curriculum section, vice principal of the student-affairs section, senior teacher and school supervisor for East Jakarta Area.

RESULTS AND DISCUSSION

*Development History of Cikra 1 Vocational High School of East Jakarta.* The graduates of Cikra 1 Vocational High School are able to be independent and competitive in filling labor needs.

Missions:
- Increasing human resources who are cautious, faithful, virtuous, and are obedient in worship so that they are useful for the development sector;
• Equipping students with knowledge, skills, and professional attitudes by implementing effective teaching and learning activities in schools and industry and develop their potential in a sustainable manner;
• Improve teacher and employee professionals through training, seminars, internships, and formal education.

Cikra 1 Vocational High School of Jakarta is a private-owned vocational high school established in 1990 in which its status was recognized with a statistical number 342016402052. The initial location of Cikra 1 Vocational High School was at Jalan Cikini Raya, Central Jakarta but now it moved on Jalan Cipinang Kebembem No. 32 East Jakarta. Initially, Cikra 1 Vocational High School had an automotive and accounting department. However, due to the decline in the number of students each year in 1995, it currently only had one accounting department with business and management programs. Currently, the number of students is growing rapidly compared to 1995. Currently, it has 114 students with 15 teachers, 2 extracurricular teachers, and 2 employees.

<table>
<thead>
<tr>
<th>Academic Years</th>
<th>Number of Students</th>
<th>New Students</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/2014</td>
<td>127</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>2014/2015</td>
<td>122</td>
<td>44</td>
<td>20</td>
</tr>
<tr>
<td>2015/2016</td>
<td>121</td>
<td>27</td>
<td>50</td>
</tr>
<tr>
<td>2016/2017</td>
<td>94</td>
<td>38</td>
<td>35</td>
</tr>
<tr>
<td>2017/2018</td>
<td>97</td>
<td>41</td>
<td>21</td>
</tr>
</tbody>
</table>

The number of teachers in Cikra 1 Vocational High School was 15 people consisting of eight teachers who taught national content subjects and six teachers who taught specialization subjects and one teacher who served counseling guidance. The school staffs of Cikra 1 Vocational School consist of one administrative person and one IT staff. Vocational subjects in accounting program consisted of 8 national content subjects and 14 specialization subjects in which the number of time allocation per week was 48 hours. The following is data on the development of the number of teachers and school staffs.

<table>
<thead>
<tr>
<th>Academic Years</th>
<th>Teachers</th>
<th>School Staffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/2014</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>2014/2015</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>2015/2016</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>2016/2017</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>2017/2018</td>
<td>15</td>
<td>2</td>
</tr>
</tbody>
</table>

The Analysis of Strategic Factors. According to the National Accreditation Board for Schools / Madrasahs, there are eight accreditation standards in Accreditation Instruments for Vocational High School which are the benchmark of school accreditation. The eight standards are:
• Standards of Content, which contains the curriculum;
• Standards of Process, including lesson plan, subjects and learning processes;
• Standards of Graduates Competency, including the assessment of students and self-development activities;
• Standards of Teachers and Staffs, including qualifications of teachers and staffs;
• Standards of Facilities and Infrastructure, including assessments related to the provision of school facilities and infrastructure;
• Standards of Management, including infrastructure management, learning activities, student activities, and supervision;
• Standards of Assessment, covering the principle of assessing student learning outcomes.

Based on the results of the accreditation, the education quality standards that need to be improved must be evaluated. From these data, it was found that the lowest standard...
score was standards of teacher and staffs 76.23, standards of process 76.74, and standards of facilities and infrastructure 77.22.

Table 3 – Accreditation Results of Cikra 1 Vocational High School of East Jakarta

<table>
<thead>
<tr>
<th>No</th>
<th>Components</th>
<th>WEIGHT</th>
<th>STM</th>
<th>STP</th>
<th>NK</th>
<th>NSR</th>
<th>Appropriateness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standards of Content</td>
<td>12</td>
<td>216</td>
<td>181</td>
<td>10.06</td>
<td>83.8</td>
<td>Appropriate</td>
</tr>
<tr>
<td>2</td>
<td>Standards of Process</td>
<td>15</td>
<td>172</td>
<td>132</td>
<td>11.51</td>
<td>76.74</td>
<td>Appropriate</td>
</tr>
<tr>
<td>3</td>
<td>Standards of Graduates Competency</td>
<td>13</td>
<td>384</td>
<td>301</td>
<td>10.19</td>
<td>78.39</td>
<td>Appropriate</td>
</tr>
<tr>
<td>4</td>
<td>Standards of Teachers and Staffs</td>
<td>15</td>
<td>324</td>
<td>247</td>
<td>11.44</td>
<td>76.23</td>
<td>Appropriate</td>
</tr>
<tr>
<td>5</td>
<td>Standards of Facilities and Infrastructure</td>
<td>13</td>
<td>316</td>
<td>244</td>
<td>10.04</td>
<td>77.22</td>
<td>Appropriate</td>
</tr>
<tr>
<td>6</td>
<td>Standards of Management</td>
<td>10</td>
<td>320</td>
<td>272</td>
<td>8.5</td>
<td>85</td>
<td>Appropriate</td>
</tr>
<tr>
<td>7</td>
<td>Standards on Financing</td>
<td>11</td>
<td>332</td>
<td>296</td>
<td>9.81</td>
<td>89.16</td>
<td>Appropriate</td>
</tr>
<tr>
<td>8</td>
<td>Standards of Assessment</td>
<td>11</td>
<td>260</td>
<td>250</td>
<td>10.58</td>
<td>95.15</td>
<td>Appropriate</td>
</tr>
</tbody>
</table>

Final Score of Accreditation: 82.13
Accreditation Rate: B

Based on the data of the accreditation standard, the strategic factors in the development of Cikra 1 Vocational High School Jakarta were based on in-depth interviews with internal parties (from Cikra 1 Vocational High School Jakarta and external parties (school supervisors). Strategic factor analysis for the development of Cikra 1 Vocational High School Jakarta is as follows:

Strengths:

Utilization of information and communication technology. Cikra 1 Vocational High School has utilized technology in computer-based learning methods and examinations, i.e. by using software in accounting subjects, as well as using other devices such as in-focus and computers. In addition, some of the tasks given by the teacher are completed using e-mail and internet. In taking a national quality control test as well as a National Examination, Cikra 1 Vocational High School has also used online computer-based tests independently.

The curriculum has been implemented in accordance with the applicable standards. Education standards in Indonesia cannot be separated from the policies of the Government, especially the Ministry of Education and Culture. Cikra 1 Vocational High School has implemented the curriculum that applies in the 2017/2018 academic year; Grade X and Grade XI apply the 2013 Curriculum while Grade XII continues the Education Unit Level Curriculum. Based on government regulations, related to the curriculum, Cikra 1 Vocational High School applies learning media, student assignments, and assessment of student learning outcomes that are adapted to the curriculum structure.

Appropriateness of the implementation of activities with the work plans. Cikra 1 Vocational High School has implemented a work plan made by the vice principal. The work plan includes new student admission, introduction to school environment for new students, work meetings, determination of teaching hours, August 17 celebration, celebration of religious activities, midterm exams, final exams, student competency exams, computer standard national exams, school examinations in national standards, collection of student learning outcomes, distribution of report cards, student leadership basic training activities, year-end activities (study tours), industrial work practices in the business world/ industrial world, and industrial visit activities.

Financing school operational costs properly. Cikra 1 Vocational High School has made good financing and management arrangements for various needs it requires. It includes the budget for conducting examinations, school operational costs, activities for 3 years; as well as making financial budgets, reporting and accountability.

Weaknesses:

Limited student self-development activities. Cikra 1 Vocational High School has not been optimal in organizing student self-development activities which in which it never provides choral, basketball and accounting training activities. Although it is currently heading towards the provision of activities, i.e. applying the extracurricular program of karate, Cikra 1 Vocational High School also does not have a Paskibraka (National Flag Hoisting Troop) team. If there is an event that requires the Paskibraka team to appear in a complete...
formation, training will be carried out seasonally. Currently, the extracurricular includes only scouts and karate.

The average score of the National Examination in the last year is relatively low. National Examination is one of the final assessments that determine graduation in addition to the National Standard School Examination and School Examination. However, from the data of the last 3 years, there is a decrease in the national exam scores as well as the average score of the national examination. The following is the score data of Cikra 1 Vocational High School for the last three years starting from the 2015/2016 up to the 2017/2018 academic year.

The figure below shows that the average score of the national exam of Cikra 1 Vocational High School in the 2017/2018 academic year has decreased from the previous two years with the highest average acquisition score of 6.60 and the lowest average of 4.99, from 2016 / 2017 with the highest average score of 8.50 and the lowest average score of 5.70 which is almost the same as the average score of the National Examination for the 2015/2016 academic year with the highest acquisition score of 8.53 and the lowest of 5.70. Regarding to the assessment of learning outcomes according to Minister of Education and Culture Regulation No. 4 of 2018, assessment by the education unit is carried out through the School Examination and the National Standard School Examination. In addition, the final assessment from the government is carried out through the National Examination (UN).

Minister of Education and Culture Regulation No. 4 of 2018 Article 17 explains that the results of the National Examination are used as a basis for: a) mapping the quality of programs and/or Education Units, b) selection considerations to enter the next Education Level, and c) guidance and assistance to the Education Unit in an effort to improve quality education. Therefore, although it is not the only benchmark for graduating from vocational high school, it is still considered important because the National Examination score is part of the overall process of graduation score.

![Figure 2 – Scores of National Examination of Cikra 1 Vocational High School Jakarta in the 2015/2016 Academic Year up to 2017/2018 Academic Year (Source: Internal Data of Cikra 1 Vocational High School Jakarta)](image-url)
The learning process is not yet in accordance with the Lesson Plan. Cikra 1 Vocational High School Jakarta applies Education Unit Level Curriculum for XII Grade and 2013 Curriculum for X and XI Grades. There are several obstacles during the process of teaching and learning activities including the 2013 curriculum—as the reference—that requires students to be able to think high up to the creating level. Meanwhile, in Cikra 1 Vocational High School, it is still difficult to understand and do by students even it is only to analyzing level. Teachers need to develop learning media together so students can develop themselves in accordance with the applicable curriculum. The learning process is not yet in accordance with the learning media made by subject teachers. When the school principal or vice principal supervises the teacher of each subject, it is found that some they are teaching not in accordance with the basic competencies that it should be. In addition, the learning methods are still the same as the previous curriculum, i.e. lectures.

Lack of competency training activities for teachers. Cikra 1 Vocational High School has never held competency training for teachers either in teaching competencies, online grades processing, 2013 curriculum or accounting training. Then, it is rarely for Cikra 1 Vocational High School to send its teachers to some training in accordance with their fields at the East Jakarta education and training center. It is required to add some insights and competences of the teachers in teaching and add certificates that must be possessed by a productive teacher.

Facilities and infrastructure supporting educational activities are still limited. Facilities and infrastructure for Cikra 1 Vocational High School Jakarta are still limited. Among them are buildings that are not private property. Cikra 1 Vocational High School rented buildings annually to Srihandi Junior High School foundation. In addition, the condition of the room is not appropriate, in which the classrooms are rather dark and humid because when the rainy season comes the class leaks and floods. The computers provided in the laboratory are only 15 units and 1 operator unit without a backup server.

The printer provided is only 1 unit for students and 1 unit for operator in a computer laboratory and 1 pair unit of computer and printer for the IT staff as a school operator within the teacher’s room. Cikra 1 Vocational High School does not have an accounting laboratory where every business management vocational high school commonly has a vocational laboratory and also does not have a business unit such as a mini market. Cikra 1 Vocational High School does not have a student room or Student Health Room. The school does not have a business center, a place where students can carry out entrepreneurial activities in accordance with their skill competencies. The school does not have a good yard; the contour of the floor is not neat because there are holes that are not repaired in which the students might get injury during the exercise.

Opportunities:

Government policy regarding 12-year compulsory education. In the era of globalization, humans are now required to improve their ability to enhance the quality of human resources. Therefore, the government creates an education program of “Smart Indonesia”. The implementation of learning programs cannot be separated from government regulations that require the program to realize quality human resources. The legal basis of the 12-year compulsory education program is: (1) Law No. 20 of 2003, (2) Decree of the People’s Consultative Assembly No. 9 of 2007 concerning the education fund budget, (3) Law No. 32 of 2004 concerning Regional Autonomy, (4) Government Regulation Number 32 of 2007 concerning the division of authority between the Central Government and the Autonomous Region, (5) Government Regulation No. 19 of 2005 concerning National Education Standards, (6) Government Regulation No. 1 of 2004 concerning the Strategic Plan for Provincial Development, (7) Regional Regulation No. 1 of 2007 concerning the Provincial Regional Expenditure Budget. Based on those legal bases, the government made the Minister of Education and Culture Regulation of the Republic of Indonesia No. 19 of 2016 concerning the “Smart Indonesia” Program. The Smart Indonesia Program is one of the government’s efforts to support the implementation of universal secondary education or a 12-year compulsory education program.
The 12-year compulsory education program creates an opportunity for Cikra 1 Vocational High School to get prospective students who will study until they graduate in order to achieve government programs i.e. realizing quality human resources.

Utilizing the Smart Jakarta Card and other higher school tuition fees. The regional government of Jakarta establishes the Smart Jakarta Card Plus in 2018. The Smart Jakarta Card Plus funds can be used in cash and non-cash. Vocational High School earns IDR 450,000/ month which can be spent IDR 235,000 / month. In addition, other facilities provided by the Smart Jakarta Card are boarding free Trans Jakarta buses, shopping for six types of food at low prices, and free entry to Ancol.

Diponegoro 1 Vocational High School applies tuition fees with a total amount of IDR 10,995,000 and can be paid in full or paid in installments. Pelita Tiga Vocational High School applies a medium tuition fee of IDR 4,425,000. It is different to Tunas Markatin Vocational High School which has a tuition fee of IDR 2,000,000 for the entrance fees and IDR 260,000 for the school fee. The tuition fees offered by several schools around Cikra 1 Vocational High School are around IDR 2,000,000 to IDR 10,000,000. With the existence of KJP and other higher school tuition fees, it became an opportunity for Cikra 1 Vocational High School. Prospective students who do not have enough money can attend Cikra 1 Vocational High School. Cikra 1 Vocational High School offers accounting program at relatively affordable prices for middle to lower class people. Cikra 1 Vocational High School also proposes KJP funds for students who want to be helped in school payments. Currently Cikra 1 Vocational High School applies monthly school payments of IDR 175,000 and computer fees and Student Organization of IDR 150,000. If the students have the Smart Jakarta Card, monthly school fees can be auto debit from school. Therefore, the students are only required to pay IDR 150,000/ month. If the limit in the the Smart Jakarta Card account is still available then it can be debited directly.

Threats:

The existence of other schools with better facilities. Diponegoro 1 Vocational High School Rawamangun offers facilities and infrastructure that are fairly good and attractive; among them are the principal's and vice principal's office, teacher's room, administrative services, library, production unit room, shared room, toilet, warehouse, student dormitory, Counseling Guidance room, Student Organization room, cooperative room, Student Health Unit room, guard school room, futsal courts, basketball courts, air-conditioned classrooms, practice room/ workshop, computer and network practice rooms, multimedia rooms, office administration rooms, accounting rooms, marketing spaces, and very large mosques for places of worship. Diponegoro 1 Vocational High School library has been well managed compared to before. It has many books such as Indonesian Language, Mathematics, English Language, office administration, multimedia, and computer and network engineering

Pelita Tiga Vocational High School is located not far from Cikra 1 Vocational High School which is located on Jl. Rawajaya I, No. 43 Pisangan Timur which has a three-floor building, prayer room, production units, libraries, accounting laboratories, office administration laboratories, computer laboratories, language laboratories, full air-conditioned classrooms, free Wi-Fi, parking areas and sports yards. Tunas Markatin Vocational High School which is located in East Jakarta Klender has several self-owned building facilities, which consist of libraries, air-conditioned classrooms, office accounting and administration laboratories, and production units. School facilities and infrastructure facilities are supporting factors for the success of teaching and learning process. If other schools have complete and better facilities, it encourages prospective students to switch to schools with the best facilities.

Other larger school compensation. The school applies several provisions to provide compensation to teachers and employees. Diponegoro Vocational High School provides a teaching fee of IDR 40,000 per hour and an estimated transport fee of IDR 70,000. Pelita Tiga Vocational High School which is located not far from Cikra 1 Vocational High School provides compensation by calculating the teaching hours by providing compensation of IDR 25,000 and an estimated transport fee of IDR 20,000.
That is different from Tunas Markatin Vocational High School which is located in the Klender area of East Jakarta, which uses a life clock calculation. It means if a teacher has 20 teaching hours x 4 (number of weeks in one month) x IDR 30,000 (honorarium/ hour). In addition for arrivals transport is IDR 20,000 (Morning) and IDR 20,000 (Afternoon). If a teacher teaches from morning to the evening, he/she gets IDR 40,000.

Compensation is very important for teachers and employees. The amount of compensation for each school varies depending on the agreement of the principal and other management. Cikra 1 Vocational High School applies teacher fees per hour of IDR 15,000. So if a teacher has 10 hours of teaching, his/her honorarium is IDR 150,000. In addition to the teaching hour honorarium there is also a transport fee paid per arrival of IDR 30,000 in accordance with the teacher’s teaching schedule. So, if a teacher teaches 3 days in one week then he/she gets IDR 90,000. This can be multiplied by the number of days of arrival in one month.

Some teachers might compare compensation with other schools and choose to resign from Cikra 1 Vocational High School. Some have moved to other schools as well as to tutoring places to get better wages. The transfer of several teachers to other teaching places will have an impact on the quality of the teachers who are not conducive during the day. In addition, it has an impact on the teacher’s performance which has decreased due to having to divide the time between one school and another school, especially in making exam questions, meeting and recreation.

Other school competency skills that are more varied. Diponegoro Vocational High School offers expertise in accounting, marketing, office administration and multimedia skills. Meanwhile, Pelita Tiga Vocational High School offers expertise in accounting and office administration skills. It is similar to the competencies offered by Vocational High School in other business and management fields such as Tunas Markatin Vocational High School.

Cikra 1 Vocational High School Jakarta offers one skill competence, namely accounting with the field of business management expertise. Some schools around Cikra 1 Vocational High School Jakarta both state and private Vocational High Schools have at least three skills competencies, namely accounting, office administration, and marketing for business management expertise. Several other schools also extend to computer engineering with network computer engineering expertise. With the limited education program offered by Cikra 1 Vocational High School, it makes some prospective students choose another school because Cikra 1 Vocational High School is not in accordance with the interests and talents of prospective students.

IFE Matrix:

Internal environmental analysis was conducted through identification of internal factors of Cikra 1 Vocational High School to analyze the strengths and weaknesses of the school. After being identified, weighting and rating of each variable was carried out. Based on the results of weighting and rating using the IFE matrix, it was known that the total score of the IFE matrix is 2.4028.

An important factor from the biggest weight is the weight of Suitability of Implementation of Activities with a work plan of 0.14444 and score of 0.4333 and the supporting facilities and infrastructure of educational activities are still limited with a weight of 0.1236 and a score of 0.1236.

The highest rating strength factor (4) that must be increased by Cikra 1 Vocational High School is the use of information and communication technology (ICT) and curriculum implemented in accordance with applicable standards. The weakness factor that must also be considered by Cikra 1 Vocational High School East Jakarta was the average score of the National Examination in the last year which was relatively low, the learning process that is not yet in accordance with the Lesson Plan and limited supporting facilities and infrastructure of the educational activities, Purwandari (2015). In the internal factor evaluation matrix, the weight score ranged between 1.0 as the lowest point and 4.0 as the highest point, with an average score of 2.5. The total internal factor weight score is 2.4028 and is categorized in the medium rate and the value has sufficient weaknesses and distinctive strengths and also has sufficient prerequisites for further development.
**EFE Matrix:**

EFE matrix analysis is the result of the identification of external factors in the form of opportunities and threats affecting Cikra 1 Vocational High School. Based on the EFE matrix (Table 14), the total value of the external factor is 2.3600. An important factor that can be seen from the biggest weight is the utilization of Jakarta Smart Card and other school fees that are more expensive with a weight of 0.23500 and a score of 0.9400, and other school compensation that is greater with a weight of 0.20500 and score of 0.4100. The highest rating opportunity factor (4) that can be utilized by Cikra 1 Vocational High School of East Jakarta is the Utilization of Smart Jakarta Card and other higher school tuition fees. Cikra 1 Vocational High School must face external threats, namely the existence of other schools with better facilities and various other school skills competencies.

<table>
<thead>
<tr>
<th>Internal Critical Factors</th>
<th>Weight (a)</th>
<th>Rank (b)</th>
<th>Scores (a x b)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Use of ICT</td>
<td>0.12361</td>
<td>4</td>
<td>0.4944</td>
</tr>
<tr>
<td>2 The curriculum has been implemented according to applicable standards</td>
<td>0.1125</td>
<td>4</td>
<td>0.45</td>
</tr>
<tr>
<td>3 Suitability of the implementation of activities with the work plans</td>
<td>0.14444</td>
<td>3</td>
<td>0.4333</td>
</tr>
<tr>
<td>4 Financing school operational cost appropriately</td>
<td>0.10417</td>
<td>3</td>
<td>0.3125</td>
</tr>
<tr>
<td><strong>Total of Strengths</strong></td>
<td>0.48472</td>
<td></td>
<td>1.6903</td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Limited student self-development activities</td>
<td>0.1083</td>
<td>2</td>
<td>0.2167</td>
</tr>
<tr>
<td>2 The average score of the National Examination in the last year is relatively low</td>
<td>0.0986</td>
<td>1</td>
<td>0.0986</td>
</tr>
<tr>
<td>3 The learning process is not yet in accordance with the lesson plan</td>
<td>0.0958</td>
<td>1</td>
<td>0.0958</td>
</tr>
<tr>
<td>4 Lack of competency training activities for teachers</td>
<td>0.0889</td>
<td>2</td>
<td>0.1778</td>
</tr>
<tr>
<td>5 Limited facilities and infrastructure supporting educational activities</td>
<td>0.1236</td>
<td>1</td>
<td>0.1236</td>
</tr>
<tr>
<td><strong>Total of Weaknesses</strong></td>
<td>0.5153</td>
<td></td>
<td>0.7125</td>
</tr>
<tr>
<td><strong>Total Scores of Internal Factors</strong></td>
<td>1</td>
<td></td>
<td>2.4028</td>
</tr>
</tbody>
</table>

**Table 5 – External Factor Evaluation (EFE) Matrix**

<table>
<thead>
<tr>
<th>Internal Critical Factors</th>
<th>Weight</th>
<th>Rank</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Government policy regarding 12-year compulsory education</td>
<td>0.225</td>
<td>3</td>
<td>0.675</td>
</tr>
<tr>
<td>2 Utilization of Smart Jakarta Card and other school fees which are more expensive</td>
<td>0.235</td>
<td>4</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>Total of Opportunities</strong></td>
<td>0.46</td>
<td></td>
<td>1.615</td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 The existence of other schools with better facilities</td>
<td>0.195</td>
<td>1</td>
<td>0.195</td>
</tr>
<tr>
<td>2 Other higher school compensation</td>
<td>0.205</td>
<td>2</td>
<td>0.41</td>
</tr>
<tr>
<td>3 Other school competency skills that are varied</td>
<td>0.14</td>
<td>1</td>
<td>0.14</td>
</tr>
<tr>
<td><strong>Total of Threats</strong></td>
<td>0.54</td>
<td></td>
<td>0.745</td>
</tr>
<tr>
<td><strong>Total Scores of External Factors</strong></td>
<td>1</td>
<td></td>
<td>2.36</td>
</tr>
</tbody>
</table>

According to David (2015), the highest score an organization can achieve is 4.0 and the lowest score is 1.0 with an average of 2.5. According to Purwandari (2015), the total weight score of external factors is 2.3600 which are included in the medium category which indicates that the Cikra 1 Vocational High School strategy has sufficient opportunities and at the same time lower threats of possible opportunities and efforts to develop.

**Internal External Matrix (IE Matrix).** The weighted scores of internal and external factors that have been obtained are then presented in a matrix that can be seen in Figure 3.

After the IFE/ EFE Matrix analysis, the next is determining the current position of Cikra 1 Vocational High School East Jakarta by using IE Matrix. This matrix shows the position of Cikra 1 Vocational High School based on the results of IFE and EFE analysis which means that Cikra 1 Vocational High School is in V cell (stability) average position; it is neither strong nor weak, both internally and externally. According to Purwandari (2015), this stage is in holding and maintaining its position which means that Cikra 1 Vocational High School needs a strategy to be able to keep and maintain its position. The strategy that can be implemented by Cikra 1 Vocational High School is a strategy of market penetration and product
development. According to Usman and Taren (2013), a combination of internal and external factors of the company is arranged in a systematic and structured manner in order to produce four kinds of strategies. The strategies that are formed are S-O (Strength-Opportunity), S-T (Strength-Threat), W-O (Weakness-Opportunity), and W-T (Weakness-Threat) strategies. Based on the results of the Internal External analysis, the SWOT matrix created is the SO strategy (conducting promotional activities and tuition fees that can be paid in installments), WO strategies (conducting student and teacher self-development activities and optimizing the 2013 curriculum implementation), ST strategy (providing compensation comparable to other schools), and WT strategies (improving school facilities and infrastructure).

![Figure 3 – IE Matrix](image)

Quantitative Strategic Planning Matrix (QSPM). According to Umar (2010), the Quantitative Strategy Planning Matrix (QSPM) is a recommended tool for the strategists to evaluate alternative strategy choices objectively based on internal-external key success factors (KSF) that have been identified before. The final stage in the formulation and strategy selection is the preparation of the QSPM which will produce the priority sequence of the proposed strategy. The QSPM is made by providing an Attractiveness Score (AS) on each key external and internal factor for each proposed strategy. The AS assesses how the level of effect of a key factor on certain alternative strategies (Stefanus and Tarcisius, 2015).

The QSPM analysis produced five alternative strategies in the development of Cikra 1 Vocational High School East Jakarta; namely Strategy I: conduct promotional activities and tuition fees that can be paid in installments, Strategy II: conduct self-development activities of students and teachers, Strategy III: optimize the implementation of the 2013 curriculum, Strategy IV: improve school facilities and infrastructure, Strategy V: provide compensation comparable to another school. Furthermore, from the five strategies, the experts determined the relative attractiveness to indicate the main strategy in which it obtained Priority 1: optimize the implementation of the 2013 curriculum (TAS = 6.35), Priority II: improve school facilities and infrastructure (TAS = 6.20), Priority III: provide compensation that is comparable to other schools (TAS = 5.75), Priority IV: conduct self-development activities for students and teachers (TAS = 5.45), Priority V: conduct promotional activities and tuition fees that can be paid in installments (TAS = 4.64).

MANAGERIAL IMPLICATIONS

Managerial implications that can be performed by Cikra 1 Vocational High School to improve school accreditation based on the QSP Matrix analysis are:

First Strategy: optimizing the implementation of the 2013 curriculum. This strategy is used to improve the standards of teachers and school staffs and standards of process. The teacher must carry out teaching and learning activities in accordance with the learning media
made based on the curriculum development of each subject. It is also expected that the teachers can implement the 2013 curriculum appropriately.

The second strategy: improving school facilities and infrastructure. This strategy can be implied by managing school operational funds appropriately every year to improve school facilities and infrastructure and to work with third parties such as educational institutions or social institutions. To meet the financing needs of school facilities and infrastructure, Cikra 1 Vocational High School needs to add computers and props to each subject based on the needs.

Third strategy: providing compensation comparable to other schools. Compensation is the right of teachers and staffs who have completed their work properly. For this reason, it is necessary to increase the allowances of the homeroom teachers, counseling teacher, vice principal and hourly teacher salaries which are comparable to other schools in East Jakarta, as well as holiday allowances for teachers and staffs as applied to other schools, and the provision of Insurance Facilities of Social Security Agency.

The fourth strategy: conducting student and teacher self-development activities. This strategy can be applied by carrying out an activity that aims to train students, both in skills, attitudes, mental, and critical ways of thinking according to the demands of the 2013 curriculum and also for teachers about how to make learning methods or the making of questions that lead to high-order thinking skill. Such activities can be carried out in collaboration with State Vocational High School 48 East Jakarta or other parties such as educational institutions, motivational institutions, and education and training centers in East Jakarta. In addition to self-development in the academic field, several other things that need to be added are student extracurricular activities.

The fifth strategy: conducting promotional activities and tuition fees that can be paid in installments. Cikra 1 Vocational High School can apply financing that can be paid in installments and is relatively affordable for the middle to lower community class.

CONCLUSION

Accreditation data of Cikra 1 Vocational High School require improvement, especially at the lowest standard value consisting of standards of teacher and staffs of 76.23, standards of process 76.74, and standards of facilities and infrastructure of 77.22.

The results of internal factor analysis on the strength factor with the highest rating are the use of ICTs and curricula which have been implemented according to the applicable standards. The weakness factor that must also be considered by Cikra 1 Vocational High School East Jakarta is the average score of the National Examination in the last year which is relatively low. The learning process is not yet in accordance with the lesson plan and the supporting facilities and infrastructure of education activities are still limited. The results of the analysis of external factors on the highest rating opportunity factor (4) that can be utilized by Cikra 1 Vocational High School East Jakarta is the utilization of the Smart Jakarta Card and other higher school tuition fees. Cikra 1 Vocational High School must face external threats in the form of other schools with facilities better and varied school skills competencies. Based on the analysis of internal and external factors combined in IE Matrix, it can be stated that Cikra 1 Vocational High School East Jakarta is in cell V, namely Market Penetration and Product Development strategies.

The main strategy that must be carried out by Cikra 1 Vocational High School East Jakarta is to optimize the implementation of the 2013 curriculum; focus on developing the 2013 curriculum according to students’ backgrounds, subjects, learning methods and implementing the curriculum according to the learning media that have been created by the teacher. Another alternative strategy is to improve school facilities and infrastructure, provide compensation comparable to other schools, conduct student and teacher self-development activities, carry out promotional activities and provide tuition fees that can be paid in installments.
REFERENCES

COMPETENCY DEVELOPMENT MODEL FOR ENGLISH LANGUAGE LECTURER IN THE INDONESIAN NAVAL ACADEMY

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ABSTRACT
This research focused on one component, namely lecturer especially English language lecturer in the Indonesian Naval Academy who are at the forefront in determining the quality of education in order to create qualified Indonesian Navy Academy cadets as candidates for professional Navy Officers. The purpose of this research was to determine the competence of English language lecturer in the Indonesian Naval Academy and to plan the competency development model for English language lecturer in the Indonesian Naval Academy which is ideal for the world class Naval Academy. This research was a qualitative descriptive research with data collection methods through observation, interviews and documentation. Primary data were obtained through interviews with key informant Head of Lecturer Department and follow-up informants, namely Head of Science and Technology Department, 8 English Language lecturers, as well as 40 second grader and third grader Indonesian Naval Academy cadets. Based on the results of the analysis and discussion, the following conclusions can be drawn: in the professional aspect, there are gaps related to the education level of gadik lecturers who are still dominated by Bachelor degree education, from 8 English language lecturer, there are 3 people with Master degree education, and 5 people still have Bachelor degree education; in the pedagogic aspect in classroom management indicators and learning states that the lecturers stated that they realized that they were constrained by the use of teaching methods in the classroom to be more varied because they were faced with cadets who were physically exhausted in class so that cadets were always constrained by learning by holding drowsiness; in the personality aspect, in general all lecturers' personalities in the Indonesian Naval Academy do not have a fundamental problem, they have carried out their functions as a sympathetic, authoritative, empathetic and able to share the knowledge of giving teaching to cadets as well; on the social aspect, in general, English language lecturers at the Indonesian Naval Academy also did not find significant obstacles, in their social life; the English language lecturer competency development model in the Indonesian Naval Academy begins with an inventory of competency data of English language lecturer by Lecturer Department, then competency development is directed to achieve minimum competency in each of its competencies and then being developed again in the advanced stages to improve the professionalism of English language lecturer in the Indonesian Naval Academy.

KEY WORDS
Model, development, competency, lecturer, English, cadet.

Within the scope of the organization, Human Resources is a requirement in an organization. Competent human resources will always be the key to the success of achieving organizational goals. The Indonesian Navy as a national defense organization with a very important and complex task is supported by two main pillars. The first pillar is human resources and the second pillar is the main weaponry system. Both pillars must always be developed to be better in order to achieve dreams in the framework of the World Class Navy that is able to contribute in the military and non-military fields where not only local / national scale but also the global scale so that it is worthy of being equal with the developed countries Navy in this world. The New World Class Navy's New Paradigm was responded positively by the Indonesian Naval Academy by supporting the paradigm and following up by building a World Class Naval Academy, so as to be able to have equality with the Naval Academy.

DOI https://doi.org/10.18551/rjoas.2018-09.42
owned by developed countries in the world. In building the World Class Naval Academy, there are several components that must be considered, one of which is lecturer. This study focuses on one component, namely lecturer especially English Language lecturer in Indonesian Naval Academy who is at the forefront in determining the quality of education in order to create qualified Indonesian Naval Academy cadets as professional Navy Officer candidates. The purpose of this study was to determine the competence of English language lecturer at Indonesian Naval Academy and to plan the competency development model for English language lecturer at Indonesian Naval Academy which is ideal for the world class Naval Academy.

LITERATURE REVIEW

According to Muniarti and Isman (2009: 188) the model is a study carried out by gathering the advantages obtained and avoiding the weaknesses of the model that has been applied previously. While Masdar and Irianto (2009: 193) define the model as a mindset that is used to guide a particular activity. Then the model according to Simarmata (1983: 1) is defined as abstraction from reality by focusing only on some parts or characteristics of real life. Simarmata divides models based on functions, namely:

a. Descriptive model, which is a model that only describes the situation of a system without recommendations and forecasting as a miniature of the object being studied.

b. Predictive model, which is a model that describes what will happen when something happens.

c. The normative model, which is a model that provides the best answer to a problem. This model recommends actions that need to be taken. Also called a simulative model. The problem of normative models is usually the discovery of values from variables that can be controlled so that they will produce large benefits as measured by variations in results or criteria.

According to Spencer and Spencer (1993: 9) Competence is a characteristic that underlies a person and is related to the effectiveness of individual performance in his work (an individual characteristic that is causally related to criterion - referenced effective and superior performance in a job or situation). Underlying Characteristics means that competence is part of a deep personality and attached to a person and behavior that can be predicted in a variety of work conditions and tasks. Causally Related means that competence is something that causes or predicts behavior and performance. Criterion Referenced means that competency actually predicts who performs well, measured by the criteria or standards used.

Hornby (1982: 172) defines competence as person having ability, power, authority, skill, knowledge to do what is needed. Starting from this understanding, competence can be given meaning, people who have the ability, power, authority, skills, knowledge needed to perform a particular task.

In the Law of the Republic of Indonesia Number 14 / 2005 concerning Teacher and Lecturer explained that the competence of teacher or lecturer is a set of knowledge, skills and behaviors that must be possessed, lived, and mastered by the teacher or lecturer in carrying out professional tasks.

According to Atwi Suparman (2005), a lecturer should have three competencies, namely mastery of the field of science, curriculum skills and pedagogical skills (learning and developing ways to respond to the understanding of teaching material).

Now the dimensions of the competence of teachers and lecturers can be said to have been completed because In the Law of the Republic of Indonesia Number 14 / 2005 concerning Teacher and Lecturer explained that there are 4 dimensions of competence, namely: professional competence, pedagogic competence, personal competence and social competence.

According to Hasibuan (2001: 68) Development is an effort to improve the technical, theoretical, conceptual and moral capabilities of employees in accordance with the needs of work / occupation through education and training. Then according to Drs. Jan Bella in
Hasibuan (2001: 69) suggests that education and training are the same as development which is a process of improving both technical and managerial work skills. Education is theory oriented, is done in class, lasts a long time and usually answers why. Practice-oriented training, carried out in the field, is short and usually answers how. Then based on the Chief of Indonesian Navy Regulations Number Perkasal / 1 / I / 2011 concerning Guidance for the Development of Lecturer Personnel, it was stated that the development of the competence of the Indonesian Navy Lecturer was carried out through education and training of Lecturer. Education and training of the Indonesian Navy Lecturer is all planned, directed and continuing efforts, work and activities to shape and develop the quality of prospective lecturer and lecturer who have the spirit of Pancasila and Sapta Marga, have personality, intelligence, skills and physical acceptance, to be able to carry out tasks.

**METHODS OF RESEARCH**

This research was a qualitative descriptive research with data collection methods through observation, interviews and documentation. The location of this research at the Indonesian Naval Academy. Primary data were obtained through interviews with key informant Head of Lecturer Department and follow-up informants, namely Head of Science and Technology Department, 8 English Language lecturers, as well as 40 second grader and third grader Indonesian Naval Academy cadets. The research framework is presented in Figure 1.

![Figure 1 – Research Framework](image-url)
RESULTS AND DISCUSSION

This research was conducted at the Indonesian Naval Academy which is located at Bumimoro, Surabaya, East Java. This research was carried out in June-July 2018. Primary data were obtained through interviews with key informant Head of Lecturer Department and follow-up informants, namely Head of Science and Technology Department, 8 English Language lecturers, as well as 40 second grader and third grader Indonesian Naval Academy cadets.

From the description of the interview addressed to English language lecturers there are several points that can be highlighted, in which the real practice of the field must be addressed immediately. First, there are some lecturers who do not meet the qualifications, this is something substantial because it should be in accordance with the Law (UURI) No. 14 / 2005 requires that university lecturers have at least S2 (Master Degree). In the law mentioned, educators at the primary and secondary education levels are the minimum requirements for an S1 (Bachelor degree). Meanwhile, to educate at the S1 (Bachelor degree) academic level, at least a S2 (Master Degree), while for postgraduate programs are doctoral (S3) and professors. In addition, the competencies that must be possessed and developed by the lecturer include; pedagogic competence, social competence, personality competence and professional competence through the implementation of research, learning, community service and the preservation of moral values.

Second, English language lecturers have problems with involvement in scientific activities, based on the results of the interview showed that the involvement of English language lectures in scientific activities of professional organizations is very low, from 8 lecturers interviewed, 7 said they did not participate in any professional organization, while 1 the lecturer stated that he still attended several scientific activities of professional organizations. The scientific forum is a demand and need for every lecturer to update information and gain new experience. Through scientific forums will be presented and examined various problems, root problems, positions, and problem-solving strategies from various perspectives. Activities in scientific forums are carried out in a programmed, directed and sustainable manner, not only to stop at the presentation or study, but to the level of design, development, implementation and impact assessment. By participating in a variety of scientific and scientific forums that are always up to date, this will make the lecturers have many references and variations to teach and improve the quality of cadets. The lack of lecturer involvement in scientific activities actually has its own impact, where the use of the most recent research results is rarely done, even though it is able to improve the quality of lectures.

Third, the low level of scientific publication activities, even though this activity has a very strategic role for lecturers in socializing their abilities, experiences, skills and work scientifically. The ability and willingness of lecturers to publish their work must always be developed as a form of responsibility in carrying out their main tasks. Scientific publications can be carried out through various forms of activities, such as; presentation in scientific forums, dissemination of research results, writing of scientific articles, writing of journal articles, scientific magazines, writing of books, dictates, writing in the mass media, uploading on the internet, and so on. The more scientific publications that are presented to the public, will give a positive image to the lecturers concerned as professional lecturers. To increase the number and quality of scientific publications, it is necessary to form a forum or scientific institution that is responsible for program assessment, model development, cooperation networks (partners), scientific publications carried out in a programmed, periodic, directed and sustainable manner.

Based on the results of the interview, there are several points that can be highlighted: 1). In the professional aspect, there are gaps related to the education level of gadik lecturers who are still dominated by Bachelor degree education, from 8 English language lecturer, there are 3 people with Master degree education, and 5 people still have Bachelor degree education, 2). In the pedagogic aspect in classroom management indicators and learning states that the lecturers stated that they realized that they were constrained by the use of
teaching methods in the classroom to be more varied because they were faced with cadets who were physically exhausted in class so that cadets were always constrained by learning by holding drowsiness, 3) In the personality aspect, in general all lecturers' personalities in the Indonesian Naval Academy do not have a fundamental problem, they have carried out their functions as a sympathetic, authoritative, empathetic and able to share the knowledge of giving teaching to cadets as well, 4) On the social aspect, in general, English language lecturers at the Indonesian Naval Academy also did not find significant obstacles, in their social life.

After knowing the real conditions of the field and the weaknesses and competency development needs of the lecturers, the design model for the development of professional lecturers' competencies is tailored to the needs of lecturers using depth interview interviews. So that from the results of interviews that have been tabulated and carried out the graph, the competency development model is made as follows:

![Competency Development Model]

**CONCLUSION**

Based on the results of the analysis and discussion, the following conclusions can be drawn: 1) In the professional aspect, there are gaps related to the education level of gadik lecturers who are still dominated by Bachelor degree education, from 8 English language lecturer, there are 3 people with Master degree education, and 5 people still have Bachelor degree education, 2) In the pedagogic aspect in classroom management indicators and learning states that the lecturers stated that they realized that they were constrained by the use of teaching methods in the classroom to be more varied because they were faced with
cadets who were physically exhausted in class so that cadets were always constrained by learning by holding drowsiness, 3) In the personality aspect, in general all lecturers' personalities in the Indonesian Naval Academy do not have a fundamental problem, they have carried out their functions as a sympathetic, authoritative, empathetic and able to share the knowledge of giving teaching to cadets as well, 4). On the social aspect, in general, English language lecturers at the Indonesian Naval Academy also did not find significant obstacles, in their social life, 5). The English language lecturer competency development model in the Indonesian Naval Academy begins with an inventory of competency data of English language lecturer by Lecturer Department, then competency development is directed to achieve minimum competency in each of its competencies and then being developed again in the advanced stages to improve the professionalism of English language lecturer in the Indonesian Naval Academy.

REFERENCES

20. Undang-undang Republik Indonesia Nomor 14 Tahun 2005 tentang Guru dan Dosen
21. Undang-undang Republik Indonesia No. 34 Tahun 2004 tentang TNI
BUSINESS STRATEGY ANALYSIS OF ODIS HOME CARE IN THE FIELD OF HUMAN RESOURCES

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ABSTRACT
One of the degenerative diseases that require prolonged treatment is stroke in which the hospital has limitations in providing care for stroke so that other health facilities such as Home Care are required. Professionally managed Home Care is a new business in Indonesia that requires development. Many things have contributed to the company development such as analyzing the business environment, developing business strategies, business model canvas, operational strategies, marketing, human resources (HR) and finance. Good management and strategy on human resources also affect business development, especially for new companies. ODIS Home Care is a company engaged in health care services so that the role of HR is required to improve the company’s operations. To analyze and improve the effectiveness of the company, the McKinsey 7S framework management model was used. This model consists of Strategy, Skills, Shared Values, Staffing, Structure, Systems and Style. The seven concepts are interconnected and some affect each other directly or indirectly. The seven concepts were described in detail and implemented into the ODIS Home Care Company in its business development.

KEY WORDS
Strategy, business, development, home care, McKinsey 7S Framework.

The increasingly advanced technology development can indirectly lead to an increase in life expectancy. The increase in life expectancy results in an increasing number of elderly people which is related to the increasing number of degenerative or disease sufferers due to the deterioration of body cell function. One of the degenerative diseases that require long-term treatment is stroke. Health facilities that can provide health services include hospitals and Home Care. However, hospitals find it difficult if they have to take care of patients for a long time, such as the limitations of health workers and beds. Therefore, there is need for other health facilities that can provide services for a long time, such as Home Care. Generally, not all patients continue health care at home after receiving hospital treatment. It may be due to lack of information about Home Care or not knowing the existence of health facilities that can provide follow-up services after returning from the hospital. There are also patients who consider that their diseases are not serious but after their health condition is getting more serious they just look for Home Care. It provides an opportunity for Home Care to provide an explanation of the importance of advanced care at home.

Currently, Home Care has several weaknesses such as lack of flexibility in services by hospitals that have Home Care services as well as by the existing Home Care, difficulties in accessing Home Care because the information about its whereabouts is still lacking, and some of them cannot be accessed online. Limitations on the number of Home Care make prospective clients have difficulty to find it. Home Care also does not have clear service standards, so the success rate of the service is difficult to measure. It makes patients and families need better Home Care. Home Care definition by Thomé et al., (2003) is a service
that suits the needs of the individual of patients and families which are planned, coordinated and provided by service providers who are organized to provide services at home through staff or arrangements based on work agreements (contracts) (Farrero, 2001).

RESULTS AND DISCUSSION

Before making a decision to make a business, an analysis of the business environment, business strategy, business model canvas, operational strategies, marketing, human resources (HR) and finance need to be made in advance. In a new business, location plays an important role because the strategic location influences whether or not the company will be well-known quickly. By having a strategic location and easy access to reach, a business will make the company grow faster; in addition, it also requires good management to manage it. This Home Care was located in a quite strategic location in Tangerang City. Analysis of the business environment carried out on Home Care was based on general trends, Porter's Five Forces, industry analysis, and market analysis.

Based on the analysis results of general trends in terms of demand and supply, it was found that the number of patients with degenerative diseases such as strokes was increasing but not comparable with the number of the available Home Care. In terms of demography, the population was quite dense which was necessary to assist government programs in improving the quality of health. The socio-cultural aspect found a problem whether or not the sick elderly people were treated at nursing home or at home in which home care was the family choice. In terms of politics/ law, the Home Care licensing process was facilitated because it helped government programs to improve public health. In terms of technology, Home Care applied online-based applications that could be downloaded for free in the gadgets of prospective patient and their families to see what Home Care had provided so that they could follow the instructions easily. In addition, in terms of macroeconomics, it was found that these matters were related to the existence of the ASEAN Economic Community (AEC) policy and the National Health Insurance program (JKN) or Social Security Organizing Agency (BPJS). The AEC policy required that Home Care had quality human resources and always be innovative in order to compete and provide the best service in accordance with the needs of service users. Regarding to BPJS program that had many limitations and members, it was an opportunity for Home Care Company to assist patients in continuing their home care.

Based on the analysis of Porter’s Five Forces theory, the pressure from newcomers was in a position with high pressure because it required a small capital and easy licensing process. The bargaining pressure of the buyer for this business was in moderate pressure due to competitive costs and the clients did not have much information. Bargaining pressure from suppliers was in moderate pressure due to cooperativeness with hospitals and health colleges with rigorous selection. The pressure of the replacement product was in low pressure because the clients felt uncomfortable in the hospital and some alternative products were less flexible. Competition from the existing competitors put it in a low pressure position because of the low number of Home Care and the differentiation of online services and service options.

Based on the analysis results, the development of the Home Care industry is in a growth position. Meanwhile, according to market analysis, Home Care was the type of consumer market and business market. As a consumer market, Home Care provided health services such as home visits, home stays and renting and selling medical devices. Moreover, in the business market, Home Care did partnerships with health workers. Thus, based on the analysis above, it was decided to create a Home Care business called ODIS Home Care. In summary, the description could be seen in the picture below.
Based on the SWOT analysis, the following results were obtained:

**Table 1 – Business Opportunities and Threats**

<table>
<thead>
<tr>
<th>OPPORTUNITIES (O)</th>
<th>Threats (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1. The patients do not feel comfortable to be treated in hospitals and the families cannot afford to treat them at home.</td>
<td>T1. Home Care business does not need big capital so that it is easy to follow.</td>
</tr>
<tr>
<td>O2. There is no Home Care managed by private agency outside the hospitals in Tangerang City.</td>
<td>T2. ACE policy (establishing free trade).</td>
</tr>
<tr>
<td>O3. The increasing number of the sufferers of degenerative disease.</td>
<td>T3. There are various substitute products (hospitals, doctors, and acupuncturists).</td>
</tr>
<tr>
<td>O4. The location is near to the housing of the prospective clients and hospital as the supplier.</td>
<td>T4. The termination of cooperation with HR before the completion of contract period.</td>
</tr>
<tr>
<td>O5. The regulation of easy licensing for Home Care establishment in Tangerang City.</td>
<td>T5. There are hackers that interfere with service.</td>
</tr>
<tr>
<td>O6. The existing Home Care has not optimally implemented health service standards.</td>
<td></td>
</tr>
<tr>
<td>O7. The existing Home Care has not optimally applied technological development</td>
<td></td>
</tr>
<tr>
<td>O8. The large number of BPJS members.</td>
<td></td>
</tr>
</tbody>
</table>

The EFE matrix analysis of ODIS Home Care showed the findings that the opportunities were greater than the threats. Similarly in the IFE matrix, ODIS Home Care’s strength calculation results were greater than its weaknesses. In CPM analysis, ODIS Home Care conducted a differentiation strategy by providing service options according to patient
needs, namely home visits or home stays, providing easy access through online applications, providing communities related to client illnesses, and facilitating training for health workers.

Table 2 – Business Strengths and Weaknesses

<table>
<thead>
<tr>
<th>STRENGTHS (S)</th>
<th>WEAKNESSES (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1. Use online-based services.</td>
<td>W1. It is a start-up business.</td>
</tr>
<tr>
<td>S2. Have competent and certified human resources.</td>
<td>W2. Home Care services are quite expensive.</td>
</tr>
<tr>
<td>S3. Have an informed consent so that both partied will be protected.</td>
<td>W3. Home Care industry is not yet familiar to the public.</td>
</tr>
<tr>
<td>S4. Provide various health care facilities (such as home visit, home stay, etc.)</td>
<td>W4. Having limitations in service when an emergency case occurs.</td>
</tr>
<tr>
<td>S5. Provide excellent services.</td>
<td>W5. Technology limitation when it is used by many people in the same time (server down).</td>
</tr>
<tr>
<td>S6. Provide free medical consultation.</td>
<td></td>
</tr>
<tr>
<td>S7. Join a community that has the same type of illness.</td>
<td></td>
</tr>
<tr>
<td>S8. Conduct seminar and training.</td>
<td></td>
</tr>
<tr>
<td>S9. Have health service standards.</td>
<td></td>
</tr>
<tr>
<td>S10. Apply patient safety standards.</td>
<td></td>
</tr>
<tr>
<td>S11. Have a medical record to monitor the condition of the patient.</td>
<td></td>
</tr>
</tbody>
</table>

SWOT Matrix in ODIS Home Care was based on four types of strategies, namely SO (Strengths - Opportunities), WO (Weaknesses - Opportunities), ST (Strengths - Threats) and WT (Weaknesses - Threats). SO strategies included recruiting and training more people, providing protection for Home Care and patients, and developing online and offline services, (Jackson et al., 2003). WO strategies consisted of seeking information about patients in need and offering services and collaborating with hospitals. ST strategies included continually innovating and providing training for HR. Meanwhile, WT strategies included socializing and educating as well as developing competence in its services.

Based on SPACE matrix analysis, the calculation results found that ODIS Home Care was in quadrant I position which meant that it was in business development, ODIS Home Care would use aggressive way to achieve its success. Meanwhile, on a large strategy matrix, ODIS Home Care applied a backward integration strategy by setting up a training center, forward integration with establishing nursing home or convalescent hospital and developing markets by opening branches and partnering with health workforce. In the QSPM, there as an option to recruit and train human resources or develop online services (SO strategies). The calculation results presented the choices in developing online services.

ODIS Home Care applied SIPOC (Suppliers Inputs Process Outputs Customer) analysis to provide an overview of customer service processes.

Table 3 – SIPOC Analysis

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Input</th>
<th>Process</th>
<th>Output</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>Patient</td>
<td>Healthcare workers who provide services</td>
<td>Reduce morbidity/ disability</td>
<td>Patient or client</td>
</tr>
</tbody>
</table>

Business Model Canvas on ODIS Home Care described the people involved in activities, facilities and resources, and activities in providing services to patients. This model made the company to run its business with structured steps in order to work optimally and provide satisfaction to customers.

HR Strategy. ODIS Home Care provided health services to the patients in conducting its business so that the role of human resources was required to improve the company’s operations. To have more effective company’s operations, the McKinsey 7S framework management model was used in which it was a model for analyzing the organization and its effectiveness. The basic scope of this model contained seven internal aspects of the organization that must be aligned to achieve organizational success. This model was used to look at the interrelations between formulation and strategy implementation and helped the managers to focus on the importance of linking selected strategies to diverse activities that
might affect the implementation of the strategy. McKinsey’s 7-S Concept, comprising: The Hard S’s, which were feasible and easily identifiable factors, such as Structure, Strategy & Systems, and The Soft S’s or factors that were difficult to define, i.e. Shared Values, Skills, Staff and Style, (Hanafizadeh and Ravasan, 2011). The seven concepts were interconnected and some affected each other directly or indirectly. To be able to provide optimal service, ODIS Home Care required competent and professional human resources in providing services to patients.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers</td>
<td>Recruiting qualified and competent human resources</td>
<td>Application-based health services in patient’s home</td>
<td>Service through the application</td>
<td>Elderly patients with degenerative diseases (stroke) in the upper middle class</td>
</tr>
<tr>
<td>Company of medical equipment</td>
<td>Introducing Home Care</td>
<td>Communities that have the same type of illness</td>
<td>Information from the hospital</td>
<td></td>
</tr>
<tr>
<td>Hospital Health college</td>
<td>Determining the type of the service</td>
<td>Free consultation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Providing services based on the needs of the patients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Key Resources Technology Competent and certified human resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Channels Smartphone (electronic media) External Marketing Website</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Cost Structure</td>
<td>5. Revenue Streams</td>
<td>Through the patients and the families (customers)</td>
<td>Through advertisement</td>
<td></td>
</tr>
<tr>
<td>Permanent and non-permanent employees</td>
<td>The use of application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The office does not need to be spacious</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 – The Business Model Canvas of ODIS Home Care

![Business Model Canvas](image1)

Figure 4 – McKinsey 7S Framework (Source: Harvard Business School, Management Consulting Club, Case Interview Guide)

Strategy is an organizational formula used to maintain and build sustainable competitive advantage in competition (Kho, 2016). ODIS Home Care was a health service in a patient’s home headquartered in Tangerang City. In carrying out the company’s strategy, ODIS Home Care applied differentiation strategies, namely home visit (HV) services and home stay (HS). In addition, ODIS Home Care had the advantage of using online-based services that could be downloaded for free so that the potential customers could easily get information according to their needs. ODIS Home Care had competent and certified human resources (doctors and nurses) to provide excellent or best service (service excellence) as well as service delivery in accordance with the Standard Operating Procedure (SOP) starting from the registration of the patient until the completion of health care.
ODIS Home Care had a goal to manage human resources in serving the patients directly and indirectly. The HR management objective of ODIS Home Care was to provide assurance that the management had performed its duties well in recruiting and selecting competent human resources according to the company’s needs. ODIS Home Care ran the activity of HR recruitment by explaining in detail the SMART patterns (Specific, Measurable, Attainable, Result-oriented, and Time bound) (Wibowo, 2014).

Table 4 – Short-Term HR SMART

<table>
<thead>
<tr>
<th>NO</th>
<th>S</th>
<th>M</th>
<th>A</th>
<th>R</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Recruiting competent and certified health workers</td>
<td>100%</td>
<td>Conducting evaluation of health personnel service twice a year</td>
<td>Cooperating with college health</td>
<td>First year</td>
</tr>
<tr>
<td>2</td>
<td>Lowering employee turnover</td>
<td>10%</td>
<td>Holding an event of togetherness once a year</td>
<td>Increasing the sense of engagement</td>
<td>Second year</td>
</tr>
</tbody>
</table>

Table 5 – Medium-Term HR SMART

<table>
<thead>
<tr>
<th>NO</th>
<th>S</th>
<th>M</th>
<th>A</th>
<th>R</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increasing the knowledge of health workers</td>
<td>100%</td>
<td>Conducting training twice a year</td>
<td>Conducting training for health workers</td>
<td>Fifth year</td>
</tr>
<tr>
<td>2</td>
<td>Lowering employee turnover</td>
<td>10%</td>
<td>Making stay-the-night event, 3 days 2 nights, once a year for outstanding employees</td>
<td>Increasing the sense of engagement</td>
<td>Fifth year</td>
</tr>
</tbody>
</table>

Table 6 – Long-Term HR SMART

<table>
<thead>
<tr>
<th>NO</th>
<th>S</th>
<th>M</th>
<th>A</th>
<th>R</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lowering employee turnover</td>
<td>10%</td>
<td>Developing partnerships with health workers (the person in charge from the branch office)</td>
<td>Increasing the sense of engagement</td>
<td>Tenth year</td>
</tr>
</tbody>
</table>

ODIS Home Care, in achieving its company goals, provided a competent and certified workforce, provided continuous training, opened opportunities for self-actualization, and provided employee protection. Its functional objective was to provide appropriate training both technically and non-technically to employees in order to develop themselves and to provide the best service to the community. Its social goal was to meet the patient’s need for their follow-up care at home. Ease of access provided through online applications helped the people to get optimal health services. Personal goals of ODIS Home Care employees were to pay attention to the needs of their employees in achieving their goals while still prioritizing company goals.

Skill is the ability of the employees needed by the company in order to perform their work appropriately in accordance with what was expected so that it could assist the company in achieving its goals (Kho, 2016). ODIS Home Care employed competent and experienced employees in their field to provide quality services. According to Kotler and Keller (2008), there were five indicators of service quality i.e. reliability, tangible, assurance, responsiveness, and empathy. ODIS Home Care conducted training according to the needs of health workers who were involved in patient services. The training aimed to improve performance, provide the latest knowledge in patient services, and provide management skills.

Shared values are standards or norms that guide behavior for all employees and company management (Kho, 2016). Shared values are also called culture. Edgar H. Schein (Tika, 2014) defined the culture as follows: “culture is a pattern of basic assumption invented, discovered, or develop by given group as it learns to cope with is problem of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way perceive, think and fill in relation to those problems”. 
ODIS Home Care had a corporate culture in serving with empathy and effective communication. Empathy is a mental state that makes a person feel or identify themselves in the same state of feeling or mind as other people or groups (Setiawan, 2016). Meanwhile, effective communication means that the information conveyed can be understood and gives a positive response.

Table 6 – Employee Training Plans

<table>
<thead>
<tr>
<th>No</th>
<th>Type of Training</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation for new employees</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Effective communication</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Basic Life Assistance</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Patient safety</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Time management</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Team building</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Empathetic character</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>IT Innovation</td>
<td></td>
</tr>
</tbody>
</table>

ODIS Home Care, in carrying out its business, needed to apply ethics in HR because its employees were mostly non-permanent status where they were more likely to move out of the company so they were required a code of ethics in their work. ODIS Home Care was required to enforce the application of the code so that employees could provide the best service.

Staffs are employees needed by the company (Kho, 2016). ODIS Home Care required skilled and professional employees. For the short term, ODIS Home Care planned to employ six employees consisting of directors, marketing, finance, general affairs and human resources. Meanwhile, for the medium and long term, the company would increase its employees gradually. For the head office, which was responsible for managing and developing all the branches, it took about 25 employees whereas the branch office took six people.

ODIS Home Care also had non-permanent employees i.e. doctors and nurses who worked in accordance with the needs. ODIS Home Care, especially in serving stroke patients, would work with neurologists, internists, cardiologists and medical rehabilitation from the closest partner hospitals as consultant physicians if necessary.

Human resource planning is a systematic process to forecast employee needs (supply) and supply in the future, both in number and type, so that the human resources department can plan the implementation of recruitment, selection, training, and other activities more appropriately (Sunnyoto, 2015). ODIS Home Care was a business engaged in the field of health care services that required enough health workers to serve patients. Health workers who were needed a lot, especially nurses, were required to organize nursing staff in planning, organizing, staffing, coordinating and controlling. Planning the amount of required human resources must be in accordance with the target of the patient by employing permanent and non-permanent employees so that the burden of HR costs was not too large because of the flexibility of the number of active employees. Permanent employees were employees who worked in the office and did the operational tasks of the company and performed home visit services. Meanwhile, non-permanent employees were employees who worked at patient’s home and served both home visit and home stay.

ODIS Home Care required competent and professional employees in conducting business in the field of health care services so that it required detailed planning to meet the needs of human resources. A well-planned and well-programmed recruitment system would help the management get the labors according to company criteria. Recruitment could come from inside of the company/ internal and outside of the company/ external. Internal recruitment prioritized existing employees to fill new positions. Meanwhile, external recruitment was looking for new people from outside of the company with certain requirements. ODIS Home Care was a new company so that employee recruitment methods
mostly came from external recruitment. Every candidate who met the requirements would continue at the next stage.

Selection is the process of screening employees to occupy a position at all levels and promotion. The selection process aimed to obtain employees in accordance with the specified requirements in which it chose the best candidates through the competence test. The selection steps were the selection of curriculum vitae, selection test, interview, reference check, medical check-up and job offering (Aprinto and Jacob, 2013). From the selection process, it could be determined whether the prospective employees would be accepted or rejected. ODIS Home Care had some steps in the selection process of prospective employees. The selection process used is as the following:

![Employee Selection Flow of ODIS Home Care](image)

Figure 5 – Employee Selection Flow of ODIS Home Care

If a job applicant was accepted by the company to be an employee then he/she would be placed in the planned position. Similarly, the employees who got mutations, transfers or demotions, they would occupy a new position in accordance with company regulations. However, the new employee would firstly undergo an orientation. The new employee orientation program at ODIS Home Care aimed to introduce the vision, mission, culture, policy and workplace environment so that they had the right perception and could do their job well.

Compensation is the total remuneration received by an employee as a result of their performance of work to the organization in the form of money or other, which might include salaries, wages, bonuses, incentives and other benefits such as medical benefits, holiday allowance, meal allowance, and others. Direct compensation was in the form of wages or salaries, bonuses, and commissions, while indirect compensation was an effort to increase employee comfort and satisfaction such as benefits (Sunyoto, 2015). The aim of providing compensation and payroll was to create employee loyalty and retention, especially non-permanent employees who easily switched the jobs. ODIS Home Care would provide appropriate compensation and payroll for employee performance to improve their work motivation and minimize employee turnover. The rewards were in the form of financial and non-financial rewards.

A structure regulates the work system, communication, authority and responsibility and delegation of tasks to certain work units or people to achieve organizational goals (Kho, 2016). ODIS Home Care applied a functional organizational structure in carrying out HR functions in which the division was based on management functions such as marketing, finance, general and human resources at the first establishment of the company which would then develop based on the needs. This organizational structure could be applied in small companies because it was easy to monitor. In addition, this form could reduce the company’s operating costs and run more effectively. At the beginning of the business, ODIS Home Care applied a simple organizational structure to reduce waste. However, due to the business development and the establishment of branches in various strategic areas, it required a wider structure in order to better manage its business.

The organizational structure of ODIS Home Care, at the beginning of its business, used a simple functional structure to work optimally. This structure was applied to permanent
employees working in the office of ODIS Home Care. Meanwhile, non-permanent employees were outside the structure because they worked in a patient’s home. The development of organizational structure would take effect when ODIS Home Care opened a branch in a designated place. This structure would make the management worked better and well-organized in accordance with its function.

The system is the company’s processes and procedures that contain daily operational activities and decision making within the company (Kho, 2016). ODIS Home Care applied a lean system and blueprint service to run its business with the aim of reducing excessive things such as registration and payment which could be done online to save time. To support this, ODIS Home Care employed a Customer Relationship Management (CRM) marketing system that aimed to build a close relationship between Home Care and its patients, (Knox et al., 2007). Thus, the planning, implementation, control, evaluation and budget could be applied optimally. ODIS Home Care used performance assessments related to reward-punishment and work systems or industrial relations.

Performance appraisal/ performance appraisal is the process by which an organization evaluates or assesses employee performance (Sunyoto, 2015). ODIS Home Care conducted performance appraisal once every six months to determine salary increases or incentives annually. Performance appraisal was useful for establishing policies to be taken by the company. This performance appraisal was required to be carried out carefully and thoroughly so that the employees did their job appropriately so that it provided satisfaction for patients who received health services. The assessed aspects were knowledge of their work, leadership, initiative, work quality, cooperation, decision making, creativity, reliability, planning, communication, intelligence, problem solving, delegation, attitude, effort, motivation and organization (Rivai and Sagala, 2009). They were grouped into technical, conceptual, and interpersonal skills.

Industrial relation is the relationship between the three parties consisting of employers, employees, and government. Industrial relation is a system of relationships formed between actors in the process of producing goods/services including the employers, workers and the government based on the values of Pancasila and the 1945 Constitution (Aprinto and Jacob, 2013). The companies needed to implement harmonious industrial relations especially between the employers and employees in order to create a working atmosphere conducive to work.

Company rules are regulations that are made and written by the employer regarding the terms of employment and corporate rules. The applicable company regulation in ODIS Home Care was a guide for the employer in doing business. The regulation provided direction to employees in performing their obligations and knowing their rights which ultimately would improve their performance and welfare.

Work violations are any speech, writings, and deeds of the employees who violate company regulations. Work violation sanctions are disciplinary penalties applied by the employer to the employees who violate it (Rivai and Sagala, 2009). There are three levels of work violations, namely minor, moderate and severe violations. Employees who violated ODIS Home Care regulations would be sanctioned according to their level of violation. It meant that the heavier the violation, the more heavily the sanctions that were going to be received even the disrespectful dismissal.

Style is a management leadership style used by an organization to achieve its company goals (Kho, 2016). The leadership style used by ODIS Home Care was based on situational leadership theory. This theory was developed by Paul Hersey and Kenneth H. Blanchard at the Center for Leadership Study in the 1970s. This theory was developed several times; last developed by Paul Hersey and Kenneth H. Blanchard and Dewey E. Johnson in 1996. Effective leadership behavior was determined by the interaction of 3 factors consisting of task behavior, relationship behavior and follower readiness. Situational leadership theory described the task behavior on the horizontal part and relationship behavior in the vertical part.

Style 1 (S1) or situational leadership style is a telling leadership style in which the task behavior is above the average while the relationship behavior is below the average. The
head of ODIS Home Care provided direction and training needed by permanent and non-permanent employees in order to provide optimal health services in accordance with the vision and mission.

Style 2 (S2) is a selling leadership style in which the task behavior and relationship behavior is above average. Employees at ODIS Home Care required ongoing direction in order to better serve the patients.

Style 3 (S3) or participating leadership style shows the characteristics that the relationship behavior is above the average and the task behavior is below average. Employees were equipped with various skills through provided the training but they were still hesitant to apply that knowledge so that the leader’s role was needed to give them the motivation to implement the knowledge.

Style 4 (S4) or a delegating leadership style finds that task behavior and relationship behavior are below the average. The role of leaders begins to diminish as the employees are able to do their work and apply their knowledge they have gained so they can provide service independently.

ODIS Home Care implemented a gradual situational leadership style in accordance to the company’s conditions, in which firstly the leader’s role actively affected employee behavior. However, it would slowly make the employees played a role in solving the problem and could even provide input for the company.

CONCLUSION

Technological developments in the field of health have an impact on increasing life expectancy in which it leads to an increase in the number of people with degenerative diseases that require special care. The hospital has limitations in providing long-term care so it requires other health facilities such as Home Care to care for these patients further. It provides an opportunity for the entrepreneurs to do business in the field of health such as establishing a Home Care company. Based on the business environment analysis on Home Care in terms of general trends, Porter’s Five Forces theory, industry analysis and market analysis, it could be concluded that there was still a great opportunity to establish this business.

ODIS Home Care provided online application-based care services at the patient’s home or hospitals if the patient was still being treated and needed assistance in which the family was busy. Therefore, it played a role in solving the problems of the family. Patients and their families could download Home Care application and directly use them in accordance with the patient needs. They could follow directions easily so they could determine what they need immediately.

ODIS Home Care applied the management model of McKinsey 7S framework in implementing human resource strategies to analyze the organization and its effectiveness. The seven “S”s were strategy, skills, shared values, staffing, structure, systems and style. ODIS Home Care, as the business planning discussed in this article, provided a lucrative business opportunity. Support from qualified health workers would make the company grow well.

REFERENCES


ABSTRACT
This study aims to analyze the effect of Soft Competency and Hard competency on the performance given by nurses and analyze the effect of Soft competency and Hard competency together to the performance given by the nurse. Respondents in this research are some of the nurses in General Hospital of Sidoarjo are 120 people, with details of 24 people on 4 inpatient rooms (Tulip, Teratai, Mawar Kuning, Mawar Merah) and 1 outpatient room. Respondents were asked to complete the questionnaire to be given and give scores (assessments) on each item of question that had been made before. The results of the questionnaire were then analyzed statistically to assess the correlation of Soft Competency and Hard Competency on performance.

Research on the influence of Soft Competency and Hard Competency on the performance of nurses at Sidoarjo Regional General Hospital was done by giving questionnaires to some 120 nurses to assess Soft Competency (Communication, Concern), and Motive, Hard Competency (Knowledge), Skill (Skill, Abilities) as well as nurse performance of Sidoarjo Regional General Hospital. The questionnaires given to nurses were then tested for validity and reliability with the help of computer statistics software (SPSS), as well as the partial or simultaneous relationship between Soft Competency (X1), and Hard Competency (X2), on nurses performance (Y). The results showed that there is a significant relationship between Soft Competency (X1), and Hard competency (X2), on nurse's performance (Y). This is seen from the F test and it is known that the sig F Count is 0,000 smaller than α = 0.05, then H0 is rejected and H1 is accepted. The result of multiple linear regression analysis shows the coefficient of determination (R2) the influence of Soft Competency and Hard Competency on the performance of nurse equal to 0,823 where there is 82,3% influence of independent variable to bound, For t-test of Soft Competency influence to nurse performance resulted sig 0,030 bigger (<) than α = 0.50, which means no significant effect of Soft Competency on nurse performance. While for the t-test the influence of Hard Competency on the performance of nurses produced sig 0.000 smaller (<) than α = 0.50, which means there is a significant Hard Competency influence on the performance of nurses, so it can be said that H0 rejected and H1 accepted simultaneously show Soft Competency and Hard Competency have a significant influence on nurse performance.

KEY WORDS
Soft competency, hard competency, performance, nurse, hospital, health service.
The increasing life needs of the community at this time, the higher the public demand for the quality of health services provided by the government. In the midst of community efforts in the demands to improve the quality of health services that are increasingly high, hospitals must also begin to clean up. Medical services in hospitals are required to be more accountable, transparent, efficient, and also performance-based. So that there can be an increase in professionalism in the working environment. The hospital is no longer enough to only serve from the medical side, but must be able to provide comfort to patients and communities who need help.

Hospitals as professional health service organizations must be able to provide the best and quality services to consumers. In this case the community is the user of health services, whether as a patient or a family of patients. Building facilities are magnificent and accompanied by sophisticated medical equipment is not enough at this time to provide services that are expected by the community, in terms of performance to provide health services for the people authorized here are all medical personnel (doctors and nurses) who work in hospitals, services health that is more important now is to maintain patient safety consistently. The needs and expectations of the community for the service of skilled, good and friendly medical personnel are the expectations of the community and patients.

In providing quality service, every employee, both medical and non-medical, must show a friendly, polite and responsive attitude in realizing good service, and ready to help anyone without discrimination in the process of providing health services.

Health services in Indonesia provided by hospitals as government health service organizations to the public have not been maximized. There is still a lot of experience from a number of Indonesian people about the lack of good hospitals in that shows that so far hospitals in Indonesia have not been able to provide good health services, such as some real problems or reports from the public about the poor health services from hospitals in Indonesia. The authors compiled from mass media and the internet, many topics related to medical personnel or non-medical personnel in hospitals, for the example:

"However, not infrequently complaints are heard from RSUD patients in West Java regarding their medical services. These five hospitals that are summarized by PR have reaped the complaints of patients from 2016-2017".

"Dr. Soekardjo Tasikmalaya, the financial crisis of this hospital revealed, after the patient who was canceled, last January 14, 2017. Apparently, the Soekardjo Regional General Hospital experienced a drug vacuum, including anesthesia for surgery, due to debt arrears to drug distributors. Patients who canceled the surgery also complained about the cancellation of the operation so Zaihan (the patient) had to move to a private hospital - where treatment payments using the Health BPJS could not be served. Until the beginning of February 2017, Soekardjo Regional Hospital was still looking for a solution to the financial crisis experienced by the hospital that had been initiated since the 1920s".

"Soreang Regional Hospital, last February 2016, an introduction to the patient complained about the use of the hallway of the Soreang District Hospital in Bandung Regency, for hospitalization of patients. In addition, doctor visits to patients complained do not take place according to the applicable schedule.

"Cibabat Hospital, shocking news came from the Maternity Room in Cibabat Hospital, Cimahi City, 12 September 2016 early morning. Baby warmers suddenly explode before a patient will give birth. The patient was transferred to another room for childbirth. This year, at the age of 68, Cibabat Regional General Hospital continued to improve the quality of services and succeeded in achieving a certificate of graduation from the Five Star Plenary Accreditation from the Hospital Accreditation Committee.

"Bekasi City Hospital, Information is still not optimal service Bekasi City Hospital is not only obtained from patients who seek treatment there. But also from the mouth of the Mayor of Bekasi Rahmat Effendi, during a visit, October 18, 2016. Rahmat watched the queue of patients in the laboratory and the polyclinic was not well served due to the officers arriving too late.

"Karawang Hospital, last October 2016, two patients’ families claimed to have been abandoned when registering for treatment at Karawang Hospital. Although he admitted that..."
the patient’s condition continued to decline, the patient was sent home under the pretext of "the condition is okay". Not long after, January 31, 2017 yesterday the bad news came back from the corridor of Karawang Hospital. Rosman, an introductory patient claimed that his relative Titih was sent away by security guards when he was going to seek treatment. Despite being evicted on the grounds that the room was full, Rosman continued to take Titih into the emergency room, which did not receive treatment until midnight. Titih died in waiting for the handling of medical personnel" (Source: http://www.pikiran-rakyat.com/jawa-barat/2017/02/01/pelayanan-5-rsud-di-jabar-ini-pernah-dikomplain-pasien-392271).

Looking at the example of public complaints about the government health organization above, it could be that the community demanded better quality of health services, especially in hospitals as one of the government organizations that provide health services.

Hospitals are the main supporting facilities for providing health services to the community. In this case the hospital as one of the public service institutions in the health sector is required to be able to provide satisfying services for the community. In addition, hospitals are also required to improve the quality of their services continuously and continuously. Health care problems are often the main concern of the organization's management ranks. But if there is an attitude or behavior of hospital medical personnel who are less willing to patients, then this condition will create the impression that the hospital is still unable to meet the demands of the community. The quality of the hospital's health service to its patients is a very important thing, which in the end will be able to increase the level of satisfaction to the patients or the community, so that the function and goals of the hospital are expected to be achieved.

Identification of Problems. The role of human resources towards organizational development is more related to the performance displayed in carrying out their duties, obligations, and also the responsibility to manage the organization to be able to develop. Sidoarjo Regional General Hospital in Sidoarjo Regency as one of the government public service agencies seeks to achieve good public health services in the health sector, Sidoarjo Regional General Hospital is a reference from various regional hospitals in East Java with B accreditation or it can be said as a backup reference if Dr. Soetomo Surabaya General Hospital which is accredited A as the main reference for various hospitals in East Java is full or unable to accommodate patients, then patients will be immediately referred to Sidoarjo Regional General Hospital.

In addition, the Sidoarjo Regional General Hospital is the main organization of health service providers in Sidoarjo Regency, East Java. To realize these values, the hospital management will strive to implement the basic values of public services into improving the quality of health services so that health services can be realized as expected by the people in need and also from hospital management, medical personnel or non-medical as a government organization in the health sector.

Table 1 – of Customer Satisfaction on the Performance of Sidoarjo Regional General Hospital in 2016

<table>
<thead>
<tr>
<th>No</th>
<th>Performance</th>
<th>Very Dissatisfied</th>
<th>Not Satisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Suitability of action with a diagnosis (Communication)</td>
<td>0%</td>
<td>7.5%</td>
<td>57.5%</td>
<td>35.0%</td>
<td>100%</td>
</tr>
<tr>
<td>2.</td>
<td>Concern for patient's condition (Concern)</td>
<td>0%</td>
<td>2.7%</td>
<td>73.0%</td>
<td>24.3%</td>
<td>100%</td>
</tr>
<tr>
<td>3.</td>
<td>Hospitality of service providers (motive)</td>
<td>0%</td>
<td>2.5%</td>
<td>65.0%</td>
<td>32.5%</td>
<td>100%</td>
</tr>
<tr>
<td>4.</td>
<td>Conformity information of medicines with disease indications (Knowledge)</td>
<td>4.3%</td>
<td>4.3%</td>
<td>73.9%</td>
<td>17.4%</td>
<td>100%</td>
</tr>
<tr>
<td>5.</td>
<td>Alertness when performing medical actions (Skills)</td>
<td>0%</td>
<td>12.5%</td>
<td>75.0%</td>
<td>12.5%</td>
<td>100%</td>
</tr>
<tr>
<td>6.</td>
<td>Speed of Responding to Customer Complaints (Ability)</td>
<td>0%</td>
<td>4.8%</td>
<td>85.7%</td>
<td>9.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>


In the table above, there are some percentages that state that the community is not satisfied with some of the performance of the Sidoarjo Regional General Hospital, including
the category of Soft Competency values and also Hard Competency. In the category of Soft Competency there are some percentages that show the community is very dissatisfied, for example in the case of Communication (Concern), and Motive (Motive) conducted by medical and non-medical officers who work in Sidoarjo Hospital.

While in the Hard Competency category, there are only a few percentages that show that the community feels very dissatisfied and dissatisfied with the values of the Skill, Knowledge and Ability categories owned by medical or non-medical staff. medical in carrying out health services to the community.

Competence is an individual's ability based on his knowledge and skills which are shown in thinking and acting in accordance with his field of work. Some employees, despite having high motivation, do not always have the ability or skills to play an important role in individual behavior and performance. (Gibson, Ivancevich, and Donnelly, 2003) explain that there are three factors that affect performance, namely: a) individual factors, including abilities, skills, family background, work experience, social level, and demographic, b). psychological factors, including perception, role, attitude, personality, and job satisfaction, and c) organizational factors, including organizational structure, job design, leadership and reward systems.

Competence is an individual's ability based on his knowledge and skills which are shown in thinking and acting in accordance with his field of work. Some employees, despite having high motivation, do not always have the ability or skills to play an important role in individual behavior and performance. Along with the development of science and technology, there is also a change in the characteristics of society from a passive traditional attitude or an attitude of accepting what is changed to a demanding, opposing and parsiitive attitude. Likewise with the demands of service by medical personnel in this case doctors and nurses who work in hospitals. The increasing number of patients who multiply over an unpredictable period of time causes the services of doctors and nurses to not be maximal all the time so the need for medical personnel in this case nurses to be able to master Soft competency and Hard competency properly, so that they are better able to deal with patients who need help every time and can be handled well and calmly. Based on the description above, this study will examine the problem of the influence of Soft Competency and Hard Competency on the performance of nurses at the Sidoarjo Regional General Hospital, East Java.

The formulation of the problem in this study are (1) Are Soft Competency and Hard Competency influential separately (partial) on the performance of nurses in Sidoarjo Regional General Hospital? (2) Does Soft Competency and Hard Competency together (simultaneously) affect the performance of nurses in Sidoarjo Regional General Hospital?

The purpose of this study was to analyze the influence of Soft Competency and Hard Competency on the performance of nurses at the Sidoarjo Regional General Hospital.

This research is expected to provide scientific information about the factors that affect the performance of nurses, namely: Soft Competency for example: Communication (Communication), Concern (Concern), and Motive (Motive). As well as Hard Competency for example: Knowledge, skills and abilities.

**LITERATURE REVIEW**

Competence is defined by Spencer & Spencer, (1993) as the underlying characteristics of a person and is related to the effectiveness of individual performance in a job or in certain situations. (Individual underlying characteristic of an which is causally related to criterion-referenced effective and superior performance in a job or situation).

According to the Dharma S; (2002) in his book entitled "The New Paradigm of Human Resource Management" defines the words of Spencer & Spencer (1993) above. that the underlying characteristics contain the meaning of competence which is a part of the personality that is profound and attached to a person and behavior that can be predicted in various circumstances and work assignments. While the word 'causally related' means that competence is something that causes or predicts behavior and performance.
While the word 'criterion-referenced' means that the competency actually predicts who performs well and poorly, measured by the criteria or standards used. The determination of the required competency threshold will certainly be used as a basis for the selection process, succession of planning, performance evaluation and human resource development.

(Spencer & Spencer, 1993) also explained that competencies that refer to characteristics in underlying behavior and describe motives, personal characteristics (characteristics), self-concept, values, knowledge or expertise brought by someone with superior performance (superior performer) at workplace.

Competency levels have practical implications for human resources planning. In The Iceberg and Central and Surface Competencies theory proposed by (Spencer & Spencer, 1993) illustrates that the competencies of the aspects of knowledge (knowledge competency) and expertise (skill competency) tend to be more visible and relatively on the surface as one characteristics possessed by humans. While self-concept (self-concept), trait (character / trait / nature) and motives (motives) competencies are hidden in and are at the central point of a person's personality so that it is more difficult to develop.

According to (Spencer & Spencer, 1993), that competence can be divided into two categories, namely 'threshold' and 'differentiating' according to criteria used to predict the performance of a job. Threshold competency is the main characteristic (usually in the form of knowledge or basic skills such as the ability to read) that must be possessed by someone in order to carry out their work, for example again is the average threshold competency for a salesperson is the product knowledge or ability to fill out forms.

"These are the essential characteristics (usually knowledge or basic skills, such as the ability to read) that everyone in a job needs to be minimally effective but not superior superior from average performers. A minimum competency for a salesperson is knowledge of the product or ability to fill out invoices."

While differentiating competency are the factors that distinguish high-performing individuals and low-performing individuals. Someone who has a motivational orientation is usually considered in setting goals that exceed what the organization has set. For example, the competence of a highly motivated salesperson can set far more targets than a sales person whose performance is at an average level.

Based on the substance, competence is divided into two major groups, namely Soft Competency (general competence) and Hard Competency (field competence) (Masdar, Asmorowati, & Irianto, 2009). Soft Competency is a competence that is closely related to the ability to manage work, relationships between people and also build interaction with others in the work environment and outside the work environment. Examples include leadership, communication, interpersonal relationships, and others. Basically, Soft Competency is a part that influences the development of one's Hard Competency and its performance. Like motives, innate factors and self-concept produce skills of expertise, then can produce performance and experience.

Based on the substance, competence is divided into two major groups, namely Soft Competency (general competence) and Hard Competency (field competence) (Masdar, Asmorowati, & Irianto, 2009). Hard competency is a type of competency that is related to the functional or technical abilities of a job. Examples of understanding of the disease in health workers, the ability to diagnose / diagnose the disease being suffered by patients and others. Hard Competency is generally obtained during the education level, every employee who will or has just entered is always given certain education and training whose purpose is to improve skills and knowledge to suit the needs of the organization.

The increase in skill and knowledge is not enough, because many workers have above-average knowledge, but their behavior is not acceptable to their work environment, therefore more attention is needed to Soft Competency as a counterweight to be able to improve performance in organization.

Performance comes from the word "performance" which means achievement in the field of work, or the results of work performance shown to the organization where the individual works, according to (Mangkunegara AAP, 2006), performance is the work quality
and quantity achieved by an employee in carrying out the assignment is in accordance with the responsibilities given.

In general, it can be said that performance is a measure of the success of an organization in achieving its goals. Individual performance (institutional performance) with institutional performance with corporate performance has a close relationship. In other words, if the employee's performance (individual performance) is good, then the probability of a corporate performance is also good. An employee's performance will be good if the individual has high skills, is willing to work due to salary or is paid according to the agreement when applying for a job and also has expectations (expectation) for a better future for himself and for the organization where he work.

Performance is the result of work achieved by a person or group of people in the organization in accordance with the authority and responsibility of each employee in an effort to achieve the goals of the organization legally, not violating the law and in accordance with morals and ethics.

In this study, what will be explained is the influence of Soft Competency and Hard Competency on the performance of nurses in Sidoarjo District Hospital. Based on theoretical studies and literature reviews that have been explained in the previous chapter, regarding Soft Competency, Hard Competency, and its effect on nurse performance, the following conceptual framework can be presented that serves as a guide, while reflecting the mindset for formulating hypotheses that will be researched and made. The conceptual framework of this research can be described as follows:

![Conceptual Framework]

The conceptual framework on the this page explains that the performance of nurses in hospitals that represent one of the government agencies in terms of public services in the field of health, cannot be separated from the elements of human resources, namely nurses as the subject of health care providers. The end result of a job will be good if it is in accordance with the standards set for a job. Every nurse as an individual has a different performance, this is most likely due to differences in situations and differences in competency characteristics (Soft Competency and Hard Competency) owned by each individual nurse.

Based on the description above, the following hypothesis can be proposed:

H1: Free Variables (Dependent), Soft Competency (X1) and Hard Competency (X2) have partial or separate effects on the dependent variable (Independent) of the performance of nurses (Y) at Sidoarjo Regional General Hospital.

H2: Free variable (Dependent), Soft Competency (X1) and Hard Competency (X2) simultaneously or jointly affect the dependent variable (Independent) performance of nurse (Y) in Sidoarjo Regional General Hospital.
METHODS OF RESEARCH

In accordance with the objectives to be achieved in this study is to explain the effect of several variables that have been determined, then this type of research is explanatory research (explanation research) that is looking at the influence between research variables and testing the hypotheses that have been formulated in the previous chapter.

Based on the formulation of the problem and the research hypothesis, the data collected in this study will be analyzed using Multiple Rank Regression by applying the following formula:

\[ Y = a + b_1X_1 + b_2X_2 + \ldots \]

Where: \( Y \) = Nurse Performance; \( a \) = constant; \( X_1 \) = Soft Competency; \( X_2 \) = Hard Competency; \( b_1, b_2 \) = coefficient.

This statistical test is used to analyze and calculate the effect of several independent variables on one dependent variable with ordinal scale data. The software used to manage the data that has been answered by the respondent is IBM SPSS Statistics Version 23.

In this research will be carried out the sampling method because the population is too much or the range is too broad so it is not possible to take data on the entire population, therefore the sampling method used is random sample method, which is sampling technique that mixes subjects in in the population so that all subjects are considered equal. The population in this study were nurses at Sidoarjo Regional General Hospital. Currently Sidoarjo Regional General Hospital has a total of 635 nurses (as of June 2018) and the nurses are spread from 4 parts of the Inpatient Room and 1 poly room. outpatient, according to the research offices of the Sidoarjo Regional General Hospital totaling 120 nurses, consisting of 24 nurses in Tulip, Teratai, Mawar Kuning, Mawar Merah inpatient rooms, and also outpatient poly rooms.

Data collection in this study was carried out in the following ways: (a). Questionnaire, which is data collection by giving questionnaires to objects studied in Sidoarjo Hospital to obtain data about all variables to be studied. Namely: nurse discipline, nurse competency and nurse performance in accordance with the items in the questionnaire, (b). review the report / document published by Sidoarjo District Hospital in relation to the variables to be studied.

Each research variable each has 25 questions which include all variable members from Soft Competency (X1) 25 items, Hard Competency (X2) 25 items, and also Performance (Y) 25 items so the total questions in the questionnaire total 75 questions.

Determination of scores on each variable using a Likert scale model, with five answer choices, where each answer gets a score between 1-5, the choice of answers strongly disagree (STS) get a score of 1, and very agree (SS) answer choices get a score of 5. Increasingly the high score obtained by the subject, the higher the variables answered by the nurse.

To further clarify what variables will be examined, the concept and definition of each variable can be explained briefly as follows:

- **Soft Competency (X1)**, namely the general ability to manage the work process between fellow human beings (Empathy) and use skills outside technical and academic skills, and prioritize intra and inter personal skills. Intra-personal skills include self-awareness (self-confidence, self-assessment, traits and preferences, and emotional awareness) and self-skills (self-control, resource management, proactive behavior). In this research thesis the high and low general competencies of nurses in this study are measured by their ability to complete the work / tasks they carry out, both technical and non-technical by using the variables of Communication (Concern), and Motive (Motive ) The more competent a nurse is, the higher the score he gets, and vice versa.

- **Hard Competency (X1)**, is the ability of individual basic fields in mastering or carrying out a job and the ability to analyze work or work regulations. The high and low
competencies that nurses have in this study are measured by their ability to complete the work / tasks they carry out, both technical and non-technical, both by using their skills, knowledge and abilities. The more competent a nurse is, the higher the score he gets, and vice versa.

- Nurse Performance (Y), is the achievement of work or the work of nurses in carrying out the tasks given in accordance with predetermined work standards. The dimensions of nurse performance in this study include: work quality, work quantity and timeliness in completing work. The higher the nurse's performance is shown the higher the quality, quantity, and accuracy of the nurse's work time. Conversely, low yeng scores also show low performance.

Validity test on Soft Competency variable (X1) there are 2 questions that are invalid or invalid because it has a number r less than > 0.30 (Sugiyono, 2011), while the validity test on Hard Competency variable (X2) and Nurse Performance Variable (Y) is not There is a question item that is dropped and declared valid. For Reliability Test with SPSS Software version 23, Soft Competency variable (X1) gets Cronbach Alpha number of 0.926, Hard Competency variable (X2) gets Cronbach Alpha number of 0.950, and Nurse Performance Variable (Y) gets Cronbach Alpha number of 0.946, then it can be concluded that the items that measure the research variables are reliable because the Cronbach Alpha numbers obtained by these three variables are more than the size of the reliability test criteria > 0.60 (Sugiyono, 2011).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Item</th>
<th>Cronbach Alpha</th>
<th>Information</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Competency (X1)</td>
<td>23 / 25</td>
<td>0.926</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>Hard Competency (X2)</td>
<td>25 / 25</td>
<td>0.950</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>Kinerja (Y)</td>
<td>25 / 25</td>
<td>0.946</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

To find out whether the resulting regression model is a regression model that produces a linear estimator is not the best bias, it is necessary to test the classical deviation symptoms.

Before testing the hypothesis using multiple linear regression, it is necessary to test the classical assumption as a requirement in the analysis so that the data can be meaningful and useful. According to Lubis et.al (2007) in making a classic assumption test must use the data to be used in the regression test. The Classic Assumption test used includes normality test, multicollinearity test, autocorrelation test, and heterokesdasticity test.

Multiple linear regression analysis is used to answer the third hypothesis knowing the effect simultaneously between the independent variables (X1 and X2) with the dependent variable (Y) using the t-test (Partial) and F Test (Simultaneous). The multiple linear regression analysis equation is as follows:

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 \]

Criteria for acceptance and rejection of hypotheses if:

- Value of F count > F table, or significant F ≤ 0.05, then the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted;
- Value of F counts ≤ Ftable, or significant F> 0.05, then the null hypothesis (H0) is accepted and the alternative hypothesis (Ha) is rejected.

Umar (2000) states that the coefficient of determination (R2) essentially measures the extent of the ability of the regression model to explain the variation of the dependent variable.

**RESULTS AND DISCUSSION**

This research was conducted at Sidoarjo Regional General Hospital which is located at Jl. Mojopahit No.667, Celep, Kec. Sidoarjo, Sidoarjo Regency, East Java. This research was carried out in June-July 2018. The nurses were spread from 4 parts of the Inpatient Room.
and 1 outpatient poly room, according to the research offices of the Sidoarjo Regional General Hospital (attachment) totaling 120 nurses consisting , with details of 24 nurses in Tulip, Teratai, Mawar Kuning, Mawar Merah, and also outpatient poly rooms.

Data in the form of perception of the answers of nurses as research respondents regarding Soft Competency factors (X1), Hard Competency (X2), and Nurse Performance (Y) collected from questionnaires, are then tabulated in the attachment. From the data that has been collected then the average value of each item (item) is sought to find out the actual situation in the field.

With a class interval of 0.8, then the average assessment criteria for respondents' answers are presented in the table below:

<table>
<thead>
<tr>
<th>Interval</th>
<th>Kategori</th>
<th>Nilai</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.20 – 5.00</td>
<td>Very Good</td>
<td>5</td>
</tr>
<tr>
<td>3.41 – 4.20</td>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>2.81 – 3.40</td>
<td>Pretty Good</td>
<td>3</td>
</tr>
<tr>
<td>1.81 – 2.60</td>
<td>Not Good</td>
<td>2</td>
</tr>
<tr>
<td>1.00 – 1.80</td>
<td>Not Very Good</td>
<td>1</td>
</tr>
</tbody>
</table>

After conducting a series of tabulation and coding activities on the answers of the questionnaires distributed, the results showed that the respondents' assessment of all questions and the mean mean were categorized as very good, found in the table below:

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Item Pertanyaan</th>
<th>Mean Value</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Soft Competency</td>
<td>25</td>
<td>4.40</td>
<td>Very Good</td>
</tr>
<tr>
<td>2</td>
<td>Hard Competency</td>
<td>25</td>
<td>4.53</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>Kinerja (Y)</td>
<td>25</td>
<td>4.43</td>
<td>Very Good</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

Multicollinearity shows the occurrence of a strong correlation between the independent variables in the model. A good model must be free of multicollinearity. To detect multicollinearity tolerance and VIF values are used, if the tolerance value is> 0.10 or VIF <10 (Nugroho, 2005), then the model is free from multicollinearity. The following is a multicollinearity test on the regression model:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Competency</td>
<td></td>
<td>0.177</td>
<td>5.641</td>
</tr>
<tr>
<td>Hard Competency</td>
<td></td>
<td>0.177</td>
<td>5.641</td>
</tr>
</tbody>
</table>

Figure 2 – Heterocedasticity test
Based on the table above, it is known that the independent variable in the regression equation model has a tolerance value > 0.10 and VIF <10, thus concluded that the two independent variables in the regression model are free of multicollinearity problems.

Heteroscedasticity test is done to find out homogeneous or not research sample variables, it can be seen in the scatter plot image below which shows that the items of questions have spread irregularly and also indicates that the regression model can be free from the assumption of heteroscedasticity.

A good model must have a residual that is normally distributed. To test the residual normality, test is used with a normal graph of probability plot. If the normal probability graph of the plot has spread around the diagonal line, then the regression model generated has a normal distribution, the following is the result of the normality test in the regression equation model:

![Normal P-P Plot of Regression Standardized Residual](image)

In the normal probability plot graph for the regression equation model, it appears that it has spread around the diagonal line, so it can be concluded that the residual regression equation model has been normally distributed.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Durbin Watson Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Du</td>
</tr>
<tr>
<td>Residual Regression Model</td>
<td>1.736</td>
</tr>
</tbody>
</table>

Based on table test-t can be seen that the results of the durbin watson autocorrelation test obtained from the residual regression have been in the range du to (4-du) no more and less which means that the regression equation produced is free from the assumption of autocorrelation.
DISCUSSION OF RESULTS

Table 8 – Table of Results of Multiple Linear Regression Analysis of Free Variables to Variables Bound to Nurse Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Regression Coefficient</th>
<th>t</th>
<th>Sig. t</th>
<th>Correlations Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Konstanta (α)</td>
<td>5.256</td>
<td>1.161</td>
<td>0.248</td>
<td></td>
</tr>
<tr>
<td>Soft Competency (X₁)</td>
<td>0.185</td>
<td>2.200</td>
<td>0.030</td>
<td>0.199</td>
</tr>
<tr>
<td>Hard Competency (X₂)</td>
<td>0.932</td>
<td>23.402</td>
<td>0.000</td>
<td>0.840</td>
</tr>
<tr>
<td>R</td>
<td>0.987</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R.Square</td>
<td>0.823</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Calculate</td>
<td>547,648</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig F Calculate</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model of Multiple Linear Regression in this study:

\[ Y = 5.256 + 0.185X₁ + 0.932X₂ \]

Hypothesis of the influence of independent variables partially on the bound variable. To prove the effect of partially independent variables on the dependent variable, see the statistical value in the table above the multiple linear regression model, it is known that the value of t counts as follows:

- Effect of Soft Competency (X₁) on performance (Y) is known that the value of t count is known that the calculated value is 2.200, thus because the significance value of 0.030 is greater than 0.05, it can be concluded that Soft Competency does not have a significant positive effect towards performance.

- The influence of Hard Competency (X₂) on performance (Y) is known that the calculated t value is 0.932 with a significance value of 0.000. thus because the significance value of 0.000 is less than 0.05, it can be concluded that Hard Competency has a significant positive effect on performance.

From the results of the t test for each influence of the independent variables (Soft competency and Hard Competency) the significant effect is only Hard Competency variables (X₂).

So it can be concluded that the hypothesis I which states the Hard Competency variable which consists of factors Skill, Knowledge, and Ability partially only Hard Competency variables (X₂) which have a significant effect on the performance of nurses in Sidoarjo Regional General Hospital can be verified.

From the results of table 5.16 the correlation coefficient on variable X₂ is Hard Competency which has the highest partial correlation value of 0.840 when compared to other independent variables, namely Soft Competency (X₁) of 0.199, the Hard Competency variable is the most dominant independent variable affecting the dependent variable partial, namely the performance of nurses in Sidoarjo Regional General Hospital.

Hypothesis of the influence of Free Variables (X₁ & X₂) Together Against the Bound Variables (Test F). Based on the statistical values in the table above the results of multiple linear regression analysis, to prove the effect of Soft Competency and Hard Competency on performance is known that the calculated F value is 547,648 with a significance value of 0.000. Thus because the significance value of 0.000 is smaller than 0.50, it can be concluded that Soft Competency (X₁) and Hard Competency (X₂) have a significant influence on the performance of nurses.

From the results of the F test above, it can be concluded that H₀ is rejected and H₁ is accepted, thus the first hypothesis of the research is shouted, in other words the variable Soft Competency and Hard Competency simultaneously have a significant effect. So it can be concluded that hypothesis II which states Soft Competency and Hard Competency simultaneously or together can have a significant effect on the performance of nurses in Sidoarjo Regional General Hospital can be proven true.
CONCLUSION

Based on the results of the analysis and testing hypotheses, some conclusions can be drawn as follows:

The results of the analysis on the regression testing of the influence of Soft Competency on the performance of nurses at Sidoarjo Regional General Hospital showed that there was no significant influence on the performance of nurses. This is known from the results of the analysis where between Soft Competency and nurse performance obtained the regression coefficient number of 0.185 with sig: 0.030 (P> 0.50).

The results of the analysis on the regression testing of Hard Competency influence on the performance of nurses in Sidoarjo Regional General Hospital shows that there is a very significant influence on the performance of nurses. This is known from the results of the analysis where between Hard Competency and nurse performance obtained the regression coefficient number of 0.932 with sig: 0.000 (P> 0.50).

The results of regression analysis show that the two independent variables X1 (Soft Competency) and X2 (Hard Competency) simultaneously / together have a very significant influence on the dependent variable Y (Nurse Performance) with a multi correlation coefficient R = 0.932. The coefficient of determination R2 = 0.932 explains that 93.2% of the variance in nurse performance is explained by the variables of Soft Competency and Hard Competency. While 6.8% is explained by error variance, or by other variables not observed in this study. Partially the Hard Competency variable (X2) has the most dominant influence of the two independent variables on the performance of nurses, with a partial coefficient of 0.932. On the other hand, the variable Soft Competency (X1) is because the correlation coefficient is small, statistically it does not give significant influence, so the effect on the nurse's performance is not taken into account.

SUGGESTIONS

The researcher realizes that the results of this study still cannot provide an adequate picture of the influence of Soft Competency and Hard Competency on the performance of nurses at Sidoarjo Regional General Hospital, due to the limitations of researchers. The suggestions for related parties as well as for further research are as follows:

- Development of human resources in a hospital that focuses primarily on health services, desperately needs resources that have adequate competence. For this reason the author hopes that the hospital will always develop competence for its employees, both technical, administrative and social, which is expected to help make employees’ performance even better in providing health services to the public.
- Hospitals as public organizations in the field of health-based services that serve, it will require human resources who have adequate competence for each level. Therefore, it is hoped that the hospital can develop the competence of its human resources in the hope that it can provide quality health services and always be proactive towards people who need help.
- Even though the Society pays for treatment or health services using BPJS (Health Social Security Administering Agency) and is willing to queue with other patients. It does not mean that health services can be overextended, it is better to complete the service quickly and well with hope even though the assumption that government-owned hospitals can be considered capable of working professionally is like a private hospital that tends to be expensive, but fast.

REFERENCES


ABSTRACT
This research is conducted to determine the factors directly or indirectly affecting the performance of supervision consultant on the time and quality of market revitalization work in Tulungagung District and to get the most dominant factors affecting it. Data analysis method used is factor analysis and Path analysis of the answers from questionnaires distributed to 41 respondents including the contractor and the owner involved in the market revitalization work. Based on the findings of the research, all factors have an effect directly or indirectly and simultaneously on the time target. Individually, the factors that have significant effect on the time target are Interaction and Coordination Skills, Adequacy of Resources, and Capability. The factors that have significant effect on the quality target are Interaction and Coordination Skills, Adequacy of Resources, Capability, and Time Target on the Quality target; either directly and indirectly through Time Target. The most dominant factor affecting the failure in achieving the time target and quality target is the Adequacy of Resources. The strategy to overcome this is that the consultant must immediately increase the number of personnel so that the project can be implemented in accurate time and accurate quality. Further research is expected to add other variables such as discipline, quality control, and supervision variables and pay more attention to those indicators.

KEY WORDS
Performance, consultant, time, quality.

The construction of traditional markets is one of the priorities for infrastructure development promoted by the Government. This is in line with the Nawa Cita Program promoted by the President of the Republic of Indonesia, Joko Widodo, who will conduct the construction of 1000 markets per year. The revitalization of traditional market is carried out thoroughly in each district and city in 33 provinces in a gradual and sustainable manner based on the priority scale and needs of each region. Similarly, in Tulungagung District, in the fiscal year of 2015, it allocated a budget of 30 billion rupiah which was divided into 12 activity packages in which each year plans to increase the budget for the revitalization of the traditional market.

The market revitalization in Tulungagung District, which was built in the fiscal year of 2015, is expected to produce buildings that are in accordance with the planning in accurate time, accurate quality, and accurate cost. Certainly, it is also inseparable from the role and performance of the contractors and supervision consultants who provide expert services to the owner or assignor; in this case represented by the Commitment Making Officer and assisted by the Technical Development Team.

However, in its implementation, many problems occur in the field. For example, the owner has entrusted the full responsibility for supervision in the field to the supervision consultant. However, the supervision consultant has not carried out the duties and responsibilities of the supervision as well as possible. There are several packages of activities that experience delays or get less than expected quality due to less than optimal supervision.
The main indicator of the success of a project is the completion of the project in accurate time and accurate quality based on the predetermined planning (Chan and Chan, 2004). Failure in achieving accurate time and quality can be considered as a failure of a construction project, so the supervision consultant plays a very important role in the success of the project in accurate time and quality (Arditi and Patel, 1989).

To improve the professionalism of the supervision consultants, the handling of course cannot be conducted partially. However, this process requires a thorough improvement. These improvement efforts must be based on the right vision, mission and strategy. Therefore, monitoring the performance of the supervision consultant is very important.

The factors assumed to be affecting the performance of the supervision consultant on the time and quality of market revitalization in Tulungagung District are an Understanding of Contract Documents and Understanding of Technical Specifications, Interaction and Coordination Skills, Commitment and Flexibility, Adequacy of Resources, Experience, Capability And Motivation.

THEORETICAL FRAMEWORK

The project is a non-repetitive activity with limited time and resources to achieve a predetermined end result, for example a product or production facility. Project activities can be interpreted as a temporary activity that lasts for a limited period of time, with the allocation of certain resources which are intended to produce products or deliverables whose quality criteria have been clearly outlined (Suharto, 2001).

Project management is an effort to achieve goals that have been clearly defined and determined as efficiently and effectively as possible. To achieve these goals, it requires resources including human resources which are the key to everything (Nugraha, 1985).

Supervision is an examination of the use of governance that applies in the execution of tasks to avoid deviations. Another understanding of supervision is an attempt to evaluate project data/ facts accompanied by authority in implementing SOPs in providing the Instruction to Take Actions (PT3).

The Materials to Take Actions are the follow-up of the Instruction to Take Actions, among others, about the discipline of the project progress both in terms of financial, time, and physical, and giving rewards/ sanctions to the executors based on the prevailing laws and regulations.

In addition, the implementation of supervision is the realization of the planning and delegation of the existing authority systems so that the work patterns and organizational structure will be tested in the implementation.

The scope of supervision consultant task provide expert services to the owner or assignor; in this case represented by the Commitment Making Officer and assisted by the Technical Development Team in carrying out the tasks of coordination and control of all development technical activities starting from the design stage to the construction implementation stage and the maintenance period; either concerning the aspects of management, technology, and engineering.

The basic objective of supervision is to obtain work results that are able to achieve the objectives, including: Accurate quality; Accurate time; Accurate cost; Accurate benefit.

The results of the recording of all inspections are compiled for the purpose of reporting and taking corrective actions, i.e. actions that need to be taken and if necessary, doing improvements and accommodating unexpected situations immediately, and correcting irregularities in the work.

Some principles of supervision include:

- Principle of the objectives. The objective of the supervision function is to facilitate the achievement of organizational objectives. Supervision is not a fictitious activity, but it is directly concerned with efforts to meet the demands of a predetermined standard.
- Principle of standard setting. In order to make the supervision function to be effective, an objective, careful, and harmonious standard with specific circumstances must be established.
• Principle of determining the points of strategic supervision. The purpose of determining the main points of strategic supervision is to monitor the work activities that are carried out.
• Principle of corrective action. Supervision can be economically justified when measurements are taken to correct actual deviations or potential irregularities that come from the plan.
• Principle of management with the exception. The most important supervisor’s task is to trace and find potential and real deviations from the plan that has been formulated at the right time so that corrective actions can be taken.
• Principle of supervision flexibility. Supervision, similar to the plan, the basis of supervision must be designed with high flexibility to deal with the changing conditions and circumstances.
• Principle of organizational harmony. Efficiently designed supervision must be in harmony with the organizational structure.
• Principle of supervision suitability. The supervision function must reflect the position—that must be carried out in which it must be in accordance with the needs of each manager.
• Principle of supervision responsibility. Since the main responsibility for carrying out the supervision lies with the supervisor, then logically, it can be concluded that supervision of the work is under supervisor’s control.
• Principle of supervision accountability. Various types of management supervision centers are ways to maintain the assumption that managers remain responsible for the results of implementation.

It covers activities of supervision tasks carried out by project owners and consultants in carrying out work related to construction which consists of:
• Examine and study contract documents that will be used as the basis for supervision tasks.
• Supervise the implementation of material usage, the use of equipment and method of implementation and supervise the time and financing accuracy of the construction.
• Supervise the implementation of construction from the aspects of quality, quantity and rate in achieving work volume.
• Conduct the inventory of changes and adjustments that must be carried out in the field according to the arising problems.
• Conduct regular field meetings and make weekly and monthly periodic supervision work reports made by the contractor.
• Draw up the official report of the progress for the approval of installment payments, maintenance of work, as well as handing over of the results of the first and second jobs.
• Check the work preparation/ field administration (reports, pictures, schedules and so on).
• Observe images that are in accordance with the work carried out in the field (as built drawing) before the first handover.
• Draft the damage to maintenance and supervise its repairs.
• Conduct mutual checks that have been agreed upon in the field.
• Supervise procedures/ work rules during the implementation of construction.
• Coordinate during construction.
• Conduct supervision guidance at each site, collect work progress reports, and make notes to control progress.

The performance of consultant is a result of work achieved by a consultant in carrying out tasks that are charged to him/her which are based on skills, experience, sincerity, and time.

Performance is a condition that must be known and confirmed to certain parties to determine the level of achievement of an agency which is linked to the vision carried out by
an organization or company and to know the positive and negative impacts of an operational policy (Suharto, 2001).

Market is a place where buyers and sellers meet to make a sale and purchase transaction of goods or services. According to Economics, the definition of market relates to its activities not its place (Slater et. al., 2010). One characteristic of a market is the existence of transaction or buying and selling activities (Churchill and Iacobucci, 2006). Consumers come to the market to shop with money to pay the specified price. Stanton expressed a broader definition of the market (Cowan et. al., 2013)

Stanton mentioned that markets are people who have desire to be satisfied, money to shop, and willingness to spend it. Thus, based on this definition, there are factors supporting the occurrence of the market, i.e. desire, purchasing power, and behavior in the purchase (Chang, 2000).

Revitalization is an attempt to revitalize an area or part of a city that once lived but experienced a decline and degradation.

Factor analysis used in this research aims to reduce and analyze the factors that are used as an illustration of the factors affecting the performance of the supervision consultant on the time and quality of market revitalization work in Tulungagung District. This analysis produces information about the data structure of the performance of the supervision consultant on the time and quality of market revitalization work in Tulungagung District. The results of factor analysis on the 7 variables will be tested for its variables' feasibility to determine the correlation between variables or indicators. If the MSA value is < 0.5, then it will be removed then recalculated until it has an MSA value > 0.5 so that the factor of the value is worth to be analyzed further. Then, it will be extracted into several main factors that are smaller than the total number of indicators (Ghozali, 2006).

It aims to examine the questions relating to the factors affecting the performance of the supervision consultant on the time and quality of market revitalization work in Tulungagung District and to determine the most dominant factors affecting it. Thus, the analysis technique used is Path Analysis (Solimun and Rinaldo, 2006).

**METHODS OF RESEARCH**

Research is a scientific way to solve a problem and to penetrate the limits of human ignorance. Research activities are carried out by collecting and processing the existing facts so that they can be communicated by the researcher and the findings can be enjoyed and used for the benefit of humans.

Based on the method, this research includes the type of descriptive research which aims to obtain any factors affecting the performance of the supervision consultant on the time and quality of market revitalization work in Tulungagung District and to determine the most dominant factors affecting it.

This research applied survey method by collecting respondents’ opinions, experiences and attitudes about the existing problems by taking primary data through questionnaires and secondary data from related institutions. Based on the factors affecting the performance of supervision consultant on the time and quality of market revitalization work in Tulungagung District, the factors that are assumed to affect the performance of the supervision consultant on the time and quality will be determined further by determining the indicators to be used as questions in which it will be measured in the form of a questionnaire.

The research setting is a market revitalization project in Tulungagung District in the fiscal year of 2015.

**Research Variables:**

- **Independent Variables (X) consist of:** Understanding of Contract Documents and Understanding of Technical Specifications (X1), Interaction and Coordination Skills (X2), Commitment and Flexibility (X3), Adequacy of Resources (X4), Experience (X5), Capability (X6) and Motivation (X7).
- **Dependent Variables (Y) consist of:** Accurate Time (Y1) and Accurate Quality (Y2).
RESULTS AND DISCUSSION

Validity Test Results. The validity test results explained that the Variables of Understanding of Contract Document and Understanding of Technical Specifications (X1), Interaction and Coordination Skills (X2), Commitment and Flexibility (X3), Adequacy of Resources (X4), Experience (X5), Capability (X6), and Motivation (X7) with the significance level $\alpha = 0.05$ obtain a critical value $r_{table}$ of 0.308 (attachment 3) which means that the values of correlation coefficient of each factor are greater than $r_{table}$. In addition, the p-value of each factor is smaller than $\alpha = 0.05$. Therefore, it can be concluded that the items in the instrument on the Variables of Understanding of Contract Documents and Understanding of Technical Specifications (X1), Interaction and Coordination Skills (X2), Commitment and Flexibility (X3), Adequacy of Resources (X4), Experience (X5), Capability (X6), Motivation (X7) in this research are valid.

Reliability Test Results. The reliability test results produce the Cronbach's Alpha coefficient for each variable. All Cronbach's Alpha coefficients are greater than 0.6. Thus, based on this test, it can be concluded that the instrument used to measure the Variables of Understanding of Contract Document and Understanding of Technical Specifications (X1), Interaction and Coordination Skills (X2), Commitment and Flexibility (X3), Adequacy of Resources (X4), Experience (X5), Capability (X6), Motivation (X7) is reliable.

Table 1 – The Results of OLS of the First Equation

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Beta</th>
<th>$t_{count}$</th>
<th>Sig. t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of Contract Documents and Understanding of Technical Specifications (X1)</td>
<td>0.054</td>
<td>0.232</td>
<td>0.825</td>
</tr>
<tr>
<td>Interaction and Coordination Skills (X2)</td>
<td>0.235</td>
<td>2.338</td>
<td>0.026</td>
</tr>
<tr>
<td>Commitment and Flexibility (X3)</td>
<td>0.022</td>
<td>0.102</td>
<td>0.919</td>
</tr>
<tr>
<td>Adequacy of Resources (X4)</td>
<td>0.452</td>
<td>2.601</td>
<td>0.014</td>
</tr>
<tr>
<td>Experience (X5)</td>
<td>0.172</td>
<td>0.997</td>
<td>0.326</td>
</tr>
<tr>
<td>Capability (X6)</td>
<td>0.307</td>
<td>2.183</td>
<td>0.036</td>
</tr>
<tr>
<td>Motivation (X7)</td>
<td>-0.033</td>
<td>-0.033</td>
<td>0.974</td>
</tr>
</tbody>
</table>

$R^2 = 0.700$
$t_{table} = 2.035$, $F_{table} = 2.365$
$F_{table} = 2.365$
Dependent Variable = Time Target (Y1)


Factor Analysis Results:

- The Variable of Understanding of Contract Documents and Understanding of Technical Specifications (X1) is formed by manifest variables consisting of: Lack of understanding on the contents of the contract documents (X1.1), Not studying the contents of the contract documents (X1.2), Lack of understanding on the contract documents (X1.3), and Lack of understanding on the shortcomings and advantages of the contract documents (X1.4).
- The Variable of Interaction and Coordination Skills (X2) is formed by manifest variables consisting of: Lack of Coordination (X2.1), the Absence of Coordination (X2.2), and Lack of Interaction (X2.3).
- The Variable of Commitment and Flexibility (X3) is formed by manifest variables consisting of: the Consultants do not work in accordance with the commitment (X3.1), the Commitment is not matched to the ability (X3.2), and It is frequent that the commitment is not fulfilled (X3.3).
- The Variable of Adequacy of Resources (X4) is formed by manifest variables consisting of: Limitations of the number of resources (X4.1), Limitations of the number of resources that have special skills (X4.2), frequent absence of the resources from the work site (X4.3), and lack of good coordination (X4.4).
- The Variable of Experience (X5) is formed by manifest variables consisting of: Lack of consultant experience (X5.1), Many workers have no work experience (X5.2), and experience of consultants is not balanced with the experience of the workers (X5.3).
• The Variable of Capability (X6) is formed by manifest variables consisting of: Consultant labor with low educational background (X6.1), the workers are not equipped with SKA (X6.2), and SOP preparation is not optimal (X6.3).

• The Variable of Motivation (X7) is formed by manifest variables consisting of: Desire to get a large wage (X7.1) and Desire to get recognition (X7.2).

Path Analysis Results. The results of the OLS estimation of the first equation can be seen in Table 1.

The results of the OLS estimation of the second equation can be seen in Table 2.

Table 2 – The Results of OLS of the Second Equation

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Beta</th>
<th>tcount</th>
<th>Sig. t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of Contract Documents and Understanding of Technical Specifications (X1)</td>
<td>-0.234</td>
<td>-1.408</td>
<td>0.169</td>
</tr>
<tr>
<td>Interaction and Coordination Skills (X2)</td>
<td>0.240</td>
<td>2.144</td>
<td>0.037</td>
</tr>
<tr>
<td>Commitment and Flexibility (X3)</td>
<td>0.114</td>
<td>0.759</td>
<td>0.453</td>
</tr>
<tr>
<td>Adequacy of Resources (X4)</td>
<td>0.528</td>
<td>4.024</td>
<td>0.000</td>
</tr>
<tr>
<td>Experience (X5)</td>
<td>-0.107</td>
<td>-0.891</td>
<td>0.380</td>
</tr>
<tr>
<td>Capability (X6)</td>
<td>0.390</td>
<td>2.385</td>
<td>0.023</td>
</tr>
<tr>
<td>Motivation (X7)</td>
<td>0.104</td>
<td>1.157</td>
<td>0.256</td>
</tr>
<tr>
<td>Time Target (Y1)</td>
<td>0.390</td>
<td>2.257</td>
<td>0.003</td>
</tr>
</tbody>
</table>

R² = 0.862

\[ t_{\text{count}} = 2.037, F_{\text{count}} = 2.306 \]
Dependent Variable = Quality Target (Y2)


CONCLUSION AND SUGGESTIONS

Based on the findings of the research and discussion described in the previous chapter, the following conclusions can be drawn:

Based on the F-test results, it was found that all factors of Understanding of Contract Document and Understanding of Technical Specifications (X1), Interaction and Coordination Skills (X2), Commitment and Flexibility (X3), Adequacy of Resources (X4), Experience (X5), Capability (X6), Motivation (X7) have an effect directly or indirectly and simultaneously on the time target with \( F_{\text{count}} = 10.986 > F_{\text{table}} = 2.365 \) and quality target with \( F_{\text{count}} = 25.032 > F_{\text{table}} = 2.306 \). However, individually, the factors that have significant effect on the time target are Interaction and Coordination Skills (X2) with \( t_{\text{count}} = 2.338 > t_{\text{table}} = 2.035 \), Adequacy of Resources (X4) with \( t_{\text{count}} = 2.601 > t_{\text{table}} = 2.035 \), and Capability (X6) with \( t_{\text{count}} = 2.183 > t_{\text{table}} = 2.035 \). In addition, the factors that have significant effect on the quality target are Interaction and Coordination Skills (X2) with \( t_{\text{count}} = 2.144 > t_{\text{table}} = 2.037 \), Adequacy of Resources (X4) with \( t_{\text{count}} = 2.538 > t_{\text{table}} = 4.024 \), Capability (X6) with \( t_{\text{count}} = 2.385 > t_{\text{table}} = 2.037 \), and Time Target (Y1) with \( t_{\text{count}} = 3.257 > t_{\text{table}} = 2.013 \) on the Quality target (Y2); either directly and indirectly through Time Target (Y1).

The most dominant factor affecting the failure in achieving the time target and quality target directly or indirectly is the Adequacy of Resources (X4) with the value of the Standardized Coefficient \( \beta \) of 0.452 and 0.528 respectively.

Strategies to improve the performance of supervision consultants so that the time and quality of the project can be met are:

The consultant must immediately increase the number of personnel, so that the project can be carried out in accurate time and quality.

The consultant must employ supervisors who have higher education, so they can carry out their duties in accordance with the provisions.

Before starting the implementation of the work, the consultant must be able to ensure that all personnel stationed in the field can coordinate well in order to achieve the time and quality targets.

Suggestions:

To improve the performance of the supervision consultant on the time and quality of project implementation, the consultant must employ experts who are proportional in carrying out their duties in the field.
The supervision consultant must establish good communication with the executors from the contractor party in order to achieve good work results and time and quality of the implementation based on the schedule.

The owner must give an admonition to the consultant who does not carry out the duties properly and in accordance with the provisions of the contract.

Further research is expected to add other variables such as the variables of discipline, quality control, and supervision and pay more attention to those indicators.

REFERENCES

ANALYSIS OF POT MEETS POP’S MARKETING STRATEGY WITH PERCEPTUAL MAPPING APPROACH: A STUDY ON MEN’S JEANS CONSUMERS IN JAKARTA

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ABSTRACT
This study aimed to explain the customer perception on male jeans market and use the data from the research to formulate marketing strategy for Pot Meets Pop jeans brand in order to compete with its competitors in especially in Jakarta. The type of this study is descriptive research with quantitative approach. Data were gathered from a survey of 150 male respondents aged between 17-40 in Jakarta. The sampling technique for this research was using convenience sampling and the data collecting method by distributing offline questionnaire. Data analysis used descriptive analysis and multidimensional scaling (MDS).

KEY WORDS
Perceptual mapping, marketing, strategy, men’s fashion.

The development of the fashion industry has been growing very rapidly. This can be seen from the increasing number of sales of each manufacturer and supported by a change in the social minds of fashion that is worn not only as a body cover and ornaments, more than that also become a means of communication as a determinant of attitudes, values, wealth, and social position. So the demand for the needs and diversity of fashion becomes increase from year to year. The increasing economic condition of the society is also a factor triggering the rise in the numbers.

Based on The Indonesian Textiles and Apparel Community reference, the market value offered by the industry can be very tempting. It is reasonable considering that the textile and fashion industries are the primary needs of Indonesian society, although the purchasing power is not as big as Singapore. The market value of textile and fashion products industry in 2015 is estimated to reach US $ 15.19 billion.

In 2016, Indonesian Central Bureau of Statistics indicated that the Creative Economy sector contributed 7.38% to the total national economy in 2016, which dominated by three subsectors (culinary, fashion, and craft). Further, the fashion sector contributed as much as 18.15% or number two after culinary. Disclosure of the results, indicating that fashion has become one of the drivers of Indonesia’s creative economy.

One of the fashion attributes that are popular all over the world is denim. At first jeans is a trouser for the purposes of the navy, but as the age of jeans developed into a fashion product that can be worn by everyone (Hegarty, 2012). Cause of jeans is one of the fashion attributes that always favored from various circles and timeless, a trend pants always grow, unique, and enthused in the society, and easy to find in stores that make interested in the world of fashion industry competition. Thus making the author's reason to takes the topic of jeans as a topic in fashion marketing research.

The city of Jakarta, as the capital of the State of Indonesia and a business center in Indonesia which became a barometer of competition in the creative industry. Small to large scale local brands are popping up day by day. Various innovations and alternatives from different fields are combined to produce the best quality to enhance market advantage. In Jakarta, customer can easily find the famous jeans brand from local to international brand and also can found most of the jeans store easily, thus providing many alternatives for consumers to be able to choose the desired product according to taste, purchasing power and of course put the quality. It certainly requires every entrepreneur to give more value than any product creates to win the competition in the industry. Thus making Jakarta as a city for the development of a fashion including jeans industry. As the jeans industry grew, local
entrepreneurs began to develop their own brands. Not only oriented to domestic market, but also began to build an international brand. Many local brands emerge and create new kind of product that can differentiate themselves from the others, in order to compete with renowned global brands, namely: Mischief denim divisions, Pot Meets Pop, Elhaus, Aye denim, Old Blue co, etc.

This research focus on Pot Meets Pop as an object, in order to get a local jeans brand perspective to survive in the industry which mostly held by international brand such as; Levis, Wrangler, Lee Cooper, and others. Pot Meets Pop known as the originator of local jeans brands that use raw materials denim as a new thing in the jeans market in Indonesia, but its existence did not show a very significant progress during the 10 years this brand stands. It was first launched into the market in March 2009. Since then, they consistantly support local underground communities as a brand collaboration strategies.

Seeing above the phenomenon as the rapid development and the enthusiasm of fashion especially jeans in Indonesia. Company need to think strategically and understand more about their consumers and competitors. In this study researcher use perceptual mapping in order to understand consumer perception of its brand among its current competitors. According to Gower et al. (2010), perceptual mapping are often used in marketing to visually study the relationship between two or more attributes and represent a visual representation of the respondent's perception of an object in two or more dimensions. Meanwhile, according to vigner and Iskandar (2014) states positioning maps are defined as a diagram that is used to try to show a perception of consumers or potential consumers of a brand and its competitors. Where positioning map will show consumer perception in important purchasing dimension. One that can be used to measure perception is the product attribute. Attributes in perceptual mapping are dimensions of a product that define a given purchasing experience and represent consumer ratings of product and purchase decisions.

**LITERATURE REVIEW**

*Marketing Strategy.* According to Kotler and Armstrong (2004: 45) marketing strategy is the marketing logic where the business unit hopes to create value and benefit from its relationship with consumers. Before designing a marketing strategy, a review of the future business situation needs to be undertaken. The SME concept is known as 4C Diamond consisting of Change, Customer, Company and Competitor (Kartajaya, 2014). The first of three factors are the main elements of the business landscape that is an external factor that must be continuously observed because as it is formulated in its marketing philosophy. Marketing is an "outside-in" approach, rather than "inside out". While the last factor of the Company, is the internal factors of the company that are very critical of its position in strategy development. The Change (environment), Customer, and Competitor studies generate an outlook on the future business landscape. Insight gained from external changes are things that can threat and also bring new opportunities for internal company. After analyzing the three of “C”, then marketers look inside the company, various aspects related to weaknesses and strengths in the midst of landscape changes.

*Positioning in Strategic Marketing.* Positioning are known as how customers compare a specific product, service, or brand in relation to competitors. Ries and Trout (1981) explained that the concept of positioning is essentially positioning the product in the customer’s mind. For many years marketers understand that a way to successfully do that through a clear and consistent image-building campaign. Based on the evidence, many studies (Gardner and Levy, 1955; Park et al., 1986) have recommended that developing, communicating, and maintaining a brand’s image is important to its long-term success.

*Brand Image.* Brand image is generally identified all things related to the brand that is in the minds of consumer memory. According to Kotler and Keller (2009:259) Brand Image as the total number of brand associations that consumers have as a memory that leads to brand perceptions. According to Schiffman and Kanuk (2010), brand image is a long-lasting perception, shaped through experience, and has a relatively consistent nature, and therefore consumer attitudes and actions toward a brand image is an important element which
encourages consumers to buy a product. Based on the description can be concluded that a
good brand image will have a positive impact on consumer behavior on the brand, such as
the opportunity to obtain more loyal buyers.

Brand Awareness. According to Assael and Day (1968) Brand Awareness is the level
at which customers are aware of the brand and become part of the brand. Brand awareness
has four levels of unaware brand, brand recognition, brand recall, and top of mind. According
to Macdonald and Sharp (2003), Brand Awareness is the point of view of how consumers
associate brands with specific products that they aim to have, brand awareness is
indispensable for communication as a process to raise awareness of top of the mind.

METHODS OF RESEARCH

The analytic techniques for the study were descriptive statistics and multidimensional
scaling (MDS). Descriptive statistics where used to profile the respondent including brand
most buying frequency, brand top of mind and brand recall. MDS where use to create a
perceptual mapping of male jeans consumer. MDS is “a procedure that allows a researcher
to determine the perceived relative image of a set of objects” (Hair et al., 1998). Through
MDS, this study can portrait how consumer perceive the brands from one an another based
on specific attributes.

There are 14 attribute that were used in multidimensional scalling, adapted from BLI
scale that developed by Vigneron and Johnson (2004) to identify components of consumer
luxury brand perceptions. The BLI scale are also known as an instrument to address
concerns about luxury brands mentioned by Cailleux et al. (2009), Wiedmann et al. (2007),
Keller (2009) and Doss and Robinson (2013).

This research was conducted in Jakarta, using a convenience sampling of male jeans
users. A total of 150 questionnaires were completed; four were discarded because they were
incomplete. Each respondent completed a separate modified BLI scale for the male jeans
brand, and the counterfeits of that brand.

RESULTS AND DISCUSSION

In this study, researchers collected 52 brands, and compressed the results into 10
jeans brands in Jakarta with the most frequently purchased. Pot Meets Pop brand where
placed in the ninth order between them all. The result of this research is then processed
using multidimensional scale in the form of perceptual mapping. Perceptual Mapping is the
basis of reference researchers in analyzing the brand positioning of Pot Meets Pop with its
competitors.

Multidimensional Scalling data processing results in the form of map position 10 brands
of men's jeans show the position of the brand of Pot Meets Pop with its competitors are
different. Perceptual mapping also shows that each of the dominant attributes of a brand is
based on the ecludian distance on each attribute and brand. Pot meets pop is in first
quadrant with negative value on dimension 1 and positive value in dimension 2. In the same
quadrant one, there are H&M and Wrangler jeans that perception of consumer as the nearest
competitor from Pot Meets Pop with the proximity attribute of unique, young, and cool.

The result shows the closest competitor of Pot Meets Pop is H&M brand in the same
quadrant 1 with the same attribute. Followed by Wrangler, Lee Cooper, Lois, Lea, Nevada,
Zara, Pull&Bear and Levi's. Pot Meets Pop has a unique attribute that is very dominant
according to consumer perception with the distance of euclidean distance of 0.9 and
perceived very close to this attribute in one quadrant followed by H&M jeans. Then for the
other closest attributes of the brand Pot Meets Pop are young attributes and cool attributes,
although Pot Meets Pop still lost behind the H&M jeans. H&M jeans brands are perceived to
be very close to the young and cool attributes because they have the closest Euclidean
Distance compared to other brands. Therefore it can be concluded that the unique attributes
on Pot Meets Pop jeans are the most powerful compared to other jeans brands.
H&M jeans brand is the closest competitor of the Pot Meets Pop based on consumer perceptions and euclidean distance values. It can be called as the head to head brand from Pot Meets Pop competitors. H&M jeans brand are competing with Pot Meets Pop that occupies the top spot in unique, young and cool attributes that are in fact very close to H&M and Pot Meets Pop, but have slightly different target markets. Pot Meets Pop is more targeted to the market for consumers who like raw jeans, while H&M is targeting consumers who like ordinary washed jeans that easily found in shopping centers. This is also evident from frequent brand frequencies in respondents where Pot Meet Pop is ranked 9th and H&M are ranked 4th. Strategies that can be applied is strengthen the characteristics of the cool and young image, but still put forward the power of the character Pot Meets Pop that is attached that a unique attribute.

After knowing the position of Pot Meets Pop brand in perceptual mapping by looking at attributes and its closest competitors, researchers conducted market analysis through the frequency of selling the most commonly purchased jeans by consumers (most buying) in the city of Jakarta.

![Figure 2](image)

**Figure 2 – Frequently Purchased Jeans Brand In Jakarta (Source: primary data processed, 2018)**

Researcher find out the number of product purchases from the top ten brands of jeans based on indicators. So it can facilitate researchers in analyzing the number of items sold in each product to determine the level of competition and grouping of each zone to the brand inside.

![Figure 3](image)

**Figure 3 – Sales jeans map based on perceptual mapping (Source: processed by researcher, 2018)**
Figure 3 shows a sales map of jeans brands that match the top ten brands perceptual mapping results based on frequent brand frequencies and indicators. These results provide an appropriate strategy analysis according to the researchers to the brand of Pot Meets Pop jeans against its competitors and grab another zone as a new market. These brands are scattered in several groups of brands and attributes that are close together in a zone using the closest competitor of each brand.

In zone 1 it appears that there are only Levi's jeans with original, elegant and exclusive attributes with the total sales of thirty-two items of jeans sold. Zone 1 is a testament to the strength of the brand that is very embedded in the minds of consumers of jeans in Indonesia, especially in the city of Jakarta that brand levi's always excel in the category of Top of Mind, Most Buying, Most Favorite and is on the order of brand recall. Similarly, the closest competitor Levi's brand Wrangler is located in zone 2 with the total sales of thirty items. In fact in the market, indeed Levi's and Wrangler is very superior to the jeans industry in the world because it is Levi's and Wrangler as a brand originator of jeans and can survive until today. So Levi's and Wrangler can be a role model by other brand jeans to learn them strategy with the proximity of original attributes, elegant, sporty, and exclusive how to superior in jeans industry in Indonesia.

While the third zone there are jeans brand Lois, Nevada, Lea and Lee Cooper with the attributes of Sporty, Durable, and Vintage with the number of sales of jeans as many as fourteen items. In the fourth zone there are Zara and Pull & Bear jeans that have luxurious, popular, elegant, and captivating attributes with a total of thirteen items valued by both zones as a safe zone.

Pot Meets Pop jeans is in the fifth zone where there are only Pot Meets Pop and H&M jeans with unique, young, and cool attributes in this group with a total of ten items. This shows that Pot Meets Pop jeans are in an unsafe zone in Indonesian jeans industry in Jakarta market, when juxtaposed with top ten brands of top jeans based on consumer perception with the number of Pot Meets Pop jeans sales in this fifth zone only as many as three items or can with the smallest contribution. Pot Meets Pop is a new jeans brand for jeans users in Indonesia, just a local indie brand by using unusual materials on the market such as international brands such as Levi's, Wrangler, Lois, H&M, Zara and others.

Looking from perceptual mapping, the position of Pot Meets Pop zone farthest away from the crowded jeans market and very different from other mass jeans market. With the concept of selling a limited product that will not release the same product in the following season's articles, highly segmented jeans come from jeans with raw denim materials lover that close to the darahkubiru community, and the product focuses on raw denim materials, making Pot Meets Pop into a niche market. Kotler (2003) defines a niche as a more narrowly defined group seeking a distinctive mix of benefits. He states that niche markets are usually identified by dividing a segment into subsegments and that the key issue in niche marketing is specialization, and also explains the main reason why a niche market strategy is so profitable is that the specializing firm ends up knowing the customers so well that it is able to better meet their needs. As a result, the firm can charge a substantial price over costs and achieves high margins, whereas the mass-market firm achieves high volume (Kotler, 2003). Besides profits, there are other reasons firms implement a niche market strategy. By focusing on the customer, the firm is better able to respond faster to demand changes.

Based on the researchers data, theory, and market reality. Pot Meets Pop needs to apply niche market strategy with a focus on segmented consumers by spoiling them with the superiority of using raw denim materials. So it is able to better meet their needs and can charge a substantial price over costs and achieves high margins as the result. So Pot Meets Pop does not need to get out of the zone and take the already crowded jeans market, but still focus in its own market. Once it is felt the market is saturated and achieve maximum sales on the target, and also force Pot Meets Pop to be ready to take a crowded jeans market zone. Pot Meets Pop needs to prepare larger capital for mass products, wider distribution channels, and be ready to compete with big competitors. The first step to take a more crowded market is to see the head to head competitors that are in the same zone that is H&M.
The good things that Pot Meets Pop can consider to market expand in other jeans market zone that is seen from consumer perception. Data of consumer perceptions shows that Pot Meets Pop has a good position among other jeans competitors that is ninth ranked on the basis of the indicators that have been researched. To further strengthen the strategy that Pot Meets Pop should apply first, the researchers will analyze the characteristics of Pot Meets Pop consumers that compare with H&M as head to head competitors and all jeans brands in Jakarta based on sales data from most buying categories. Characteristics of consumer jeans Pot Meets Pop in the city of Jakarta can be seen in Table 1.

Table 1 – Characteristics of Pot Meets Pop Consumers with Competitors

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristic</th>
<th>Amount of Jeans Sales in Jakarta</th>
<th>H&amp;M Consumers</th>
<th>Pot Meets Pop Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Item (%)</td>
<td>(%)</td>
<td>Item (%)</td>
</tr>
<tr>
<td>1.</td>
<td>Age:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 - 21</td>
<td></td>
<td>86</td>
<td>4  2.6</td>
<td>3  2</td>
</tr>
<tr>
<td>22 - 26</td>
<td></td>
<td>44</td>
<td>3  2</td>
<td>0  0</td>
</tr>
<tr>
<td>27 - 31</td>
<td></td>
<td>13</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>32 - 40</td>
<td></td>
<td>7</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>150</td>
<td>7  4.6</td>
<td>3  2</td>
</tr>
<tr>
<td>2.</td>
<td>Marital Status:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
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<td>25</td>
<td>1  0.6</td>
<td>0  0</td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td>125</td>
<td>6  4</td>
<td>3  2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>150</td>
<td>7  4.6</td>
<td>3  2</td>
</tr>
<tr>
<td>3.</td>
<td>Profession:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td></td>
<td>99</td>
<td>6  4</td>
<td>3  2</td>
</tr>
<tr>
<td>Employees</td>
<td></td>
<td>34</td>
<td>1  0.6</td>
<td>0  0</td>
</tr>
<tr>
<td>Professional</td>
<td></td>
<td>11</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Unemployed</td>
<td></td>
<td>6</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>150</td>
<td>7  4.6</td>
<td>3  2</td>
</tr>
<tr>
<td>4.</td>
<td>Household Income:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 2 million</td>
<td></td>
<td>76</td>
<td>4  2.6</td>
<td>3  2</td>
</tr>
<tr>
<td>2-4 million</td>
<td></td>
<td>39</td>
<td>3  2</td>
<td>0  0</td>
</tr>
<tr>
<td>4-6 million</td>
<td></td>
<td>18</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>6-8 million</td>
<td></td>
<td>7</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>&gt; 8 million</td>
<td></td>
<td>10</td>
<td>0  0</td>
<td>0  0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>150</td>
<td>7  4.6</td>
<td>3  2</td>
</tr>
</tbody>
</table>

Source: processed by researcher, 2018.

Table 1 above shows that the characteristics of jeans consumers in the city of Jakarta are dominated by young age between 17 to 21 years old who status as unmarried students from highschool and college that only have income less than two million rupiah. This shows that the jeans market in Jakarta is in great demand by young people or students. The results of consumer characteristics in table 1 shows that the jeans market in the city of Jakarta is the young age is very in accordance with consumers of the brand Pot Meets Pop with the characteristics of brand attributes are unique, young, and cool. Young consumers choose Pot Meets Pop because of the unique superiority of attributes offered, where the use of raw denim material that can evolve based on activity usage becomes a trend at the moment and is perfect with the style of young people who want to look different and look more cool than others. The attributes offered are also considered to have different social values for younger consumers. If you have been using a product especially jeans that are considered in accordance with the fashion trends and social values that exist then the consumer will be more confident or feel a jeans brand feel able to show their identity. Then coupled with the marriage status that is not married is likely to make a young consumer is more literate to fashion and still in the process of looking for a style or fashion that has the attributes in accordance with his want.

According to Jegatheesan et al. (2016) that young consumers consider purchasing decisions because of the appropriate attribute ethics offered on a product. According to Dickson in the same journal mentioned that social value is also a consideration in making purchasing decisions of fashion products on young consumers. This opinion reinforces the
reason that unique attributes represent more value in the Pot Meets Pop jeans that match the characteristics of young consumers at the moment.

Other consumer characteristics of Pot Meets Pop's jeans consumers are job status dominated by students and household income dominated by a range of numbers under two million rupiah. This shows that Pot Meets Pop jeans match the needs of students who are not required to wear formal trousers for a day's work a day and in accordance with the current student style where the design and cut the model of jeans that suit and have student ethics because it can be used at any time, both at college and at other moments. The price of Pot Meets Pop with a range of five hundred and fifty thousand to one million rupiah is also in accordance with the household income seen in Pot Meets Pop consumers. This shows that the price of Pot Meets Pop jeans is still in the price category that can be reached by consumers, as well as seeing the period of the use of jeans long enough shows that with household income under two million rupiah is very possible consumer Pot Meets Pop to buy it.

Looking from H&M as head to head brand of the closest competitor from Pot Meets Pop is not much different. H&M has gained a market among adult married age and has a formal job. So Pot Meets Pop needs to introduce its brand to other market not only among young people but also the mature age and middle class, larger capital for mass products, and wider the distribution channels. Besides of improve the product quality and closer the characteristics of other brand attributes or product value offered to consumers. Pot Meets Pop need to increase brand awareness with the campaign to introduce the superiority of materials used to increase the sales and dominate the market to grab the crowded jeans market zone.

Pot Meets Pop needs to do a strategy in introducing its brand to jeans consumers in Indonesia in order to achieve category top of mind, most buying, most favorite, and brand recall like Levi's and Wrangler. The most effective strategy for Pot Meets Pop is to further improve the marketing through communication channels, such as mobile phones through online marketing in website and social media that are on the rise nowadays and seen the jeans consumers characteristics that dominated by young age people to get a positioning in the minds of consumers of jeans in Indonesia. This strategy is consistent with Sasmita and Suki (2015) that consumers receive brand awareness through effective marketing channels such as telecommunications, mobile telephones and online advertising that provide quality assurance and product credibility where it will reduce the risk to products selected when performing a product.

This strategy is also supported by items on buying preference that need to be considered and highlighted by the company to support marketing activities in the market competition. In the data it appears that consumer preference prioritize are prices, product quality and brand. This consumer priority should also be prioritized by Pot Meets Pop jeans to win the market. This is believed by researchers as a long-term strategy that will impact on direct and indirect profits with the company. Besides of Pot Meets Pop have to learn the characteristics of each brand contained from each zone attributes such as original, elegant, charming, luxury, exclusive, popular, vintage, durable, and sporty. But still based on the characteristics of the brand Pot Meets Pop itself with unique, young, and cool attribute. So Pot Meets Pop can slowly enter each zone to expand the market and increase the sales.

**CONCLUSION AND SUGGESTIONS**

Pot Meets Pop (PMP) brand on the perceptual mapping is at coordinate 15 in dimension 1 and coordinates 49 in dimension 2. This brand is in quadrant 1 along with H&M and Wrangler jeans. These three brands are perceived by consumers to have similarities or similar product attributes and have no significant difference compared to other brands.

Consumers consider PMP as unique brand, they were also perceive as young and cool. The closest competitor for them in this attribute is H&M, where the brand perceived as younger and cooler. It can be said that H&M is the closest competitors to PMP.
Based on the perceptual mapping, PMP where placed farthest from the other jeans brand. That make this brand very unique with a niche market selection. With the the concept of selling a limited product and focuses more on raw denim materials, PMP doesn’t need to get out of the zone and take the already crowded jeans market. The brand should stay focused on working on their own selected market in order to be able to meet their customer needs, and charge a substantial price over costs and achieves high margins as the result.

The characteristics of jeans consumers in Jakarta city in this research is dominated by young age as a student who has unmarried status and has household income under two million rupiah. The results shows that consumers of Pot Meets Pop is very suitable with the characteristics of jeans consumers who are young age with the proximity attributes of unique, cool, and young. H&M as the head to head brand of the nearest competitor Pot Meets Pop shows the results are not much different. H&M has gained a market among adult married age and has a formal job. So Pot Meets Pop needs to introduce its brand to other market markets not only young age but middle-class, larger capital for mass products, and wider the distribution channels, as well as improving product quality and bringing together other brand attribute characteristics or product value offered to consumers. So as to increase the sales and dominate the market to grab the crowded jeans market zone.

Suggestions:
Researcher suggest to further researcher to more explore for reference in determining the attributes and adjust to the existing conditions in the object of research, so that the expected results will be better research and consumer perceptions will be more diverse.

To further illustrate the jeans brand competition, it is advisable that further researcher more expand the scope of the study. Not only limited to product attributes, so that it can describe the competition nationally and internationally by involving respondents in big cities and involve more brands, both domestic and international.

REFERENCES

THE EFFORTS BY STARBUCKS COFFEE GRAHA PENA TO IMPROVE THE QUALITY OF EMPLOYEE PERFORMANCE

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ABSTRACT
Research aims to understand the attempt of starbucks coffee to increase the quality of employee performance. The data used is primary and secondary data. Primary data through questioner deployed in Starbucks Coffee, while secondary data was sourced from the text, journals containing research and and the theory is still relevant to the about training and performance and also through website online based on the research, conducted by researchers it can be concluded that efforts attempts to Starbucks Coffee Graha Pena Surabaya to increase the quality of factors of employee performance through viewed through education and also training, the results show the size of the relationship in general. So as to get labor or employees and strong in character, so human resources in company must recruiting employees work in a selective manner to fit to the job description and job specification. The company is also must be able to build leaders, coordinates and directs consistent with the objectives of the company employees. In addition to the age of the education and training is also very much to be considered, since the education level of also determines in patterns of thought and the decision making of a problem. Improving the performance of training will employees can be transferred to very good. So the conclusion is from his factor performance, that the training was needed to improve the quality of employee performance however, must also needs to be improved also other factors, the education to increase optimal performance to improve the quality of performance employees Starbucks Coffee Graha Pena Surabaya.

KEY WORDS
Training, education, quality, employee, performance.

One factor is a success the company employees. Any organization or institution in implementing the program directed always efficiently to accomplish a purpose companies. One way is to improve employee performance. Performance is basically nothing done or not done employees so that they affect how much they contribute to offices and organizations including service quality of being served. Strategy the increase in the performance is the way the company to improve their performance our employees to the purpose company can be achieved. Understanding other performance put forward by Payaman Simanjuntak (2005:1)suggested performance is the attainment of results for the implementation of the particular task. The company performance is the level of achievement of results in an effort to create the purpose company. Performance management is the whole activities undertaken to increase the company performance or organization, including performance each individual and working group in the company. So as to get labor or tens of thousands of workers who has the capability, you the ruling should a shortage of human resources in an enterprise must convene the work or tens of thousands of workers in a selective manner in order to comply with job which included description and job which included specification. The leaders of various Starbucks Coffee is also must be able to create character building of, coordinates and directs tens of thousands of workers consistent with the objectives of the company. It is really needed concerning this is because not all tens of thousands of workers event of new can directly in accordance with their needs. They need to be trained so as to be able to do the while their hearts tremble with effective to enhance the performance of the employees, the leaders of various necessary to hold an exercises and the development of tens of
thousands of workers because it also is the is a way of effective for faced with a number of the barriers faced by many of the firms.

Starbucks was a company coffee and coffee shop global network from the united states headquartered in seattle, washington. Starbucks sell liquor hot and cold, coffee beans, salad, hot and cold sandwich, pastries sweet, a snack, glass and tumbler. Through division starbucks entertainment and brand hear music, the firm also has market books, music, and movie. Many of a company product seasonal nature or specific to the region where tavern stand. Ice cream and Starbucks Coffee also sold in grocery store performance problems this has happened to Starbucks Coffee Graha Pena Surabaya company in food and beverage from the united states open one branch in Indonesia precisely in surabaya. Pre when researchers conducted the study by means of direct observation or to Starbucks Coffee Graha Pena Surabaya on 15 february 2016, look a lot of workers who are doing human error when working in the operational example:

- There are still many taking order error to customers Starbucks;
- Lack of awareness of working in a co worker or team in a neighborhood in Starbucks Coffee Graha Pena Surabaya;
- Look employees could not run standard operational work which has been Starbucks Coffee Graha Pena Surabaya.

Strategy improving the quality of employee performance in Starbucks Coffee Graha Pena Surabaya is giving motives to an employee, when there is an increase of work so employees should be given the task to follow learning and development the program and if after participate in training employees there is an increase of performance so employees will be given promotion. Training and development in Starbucks Surabaya one of them in the form of learning and development program advantageous career long-term will help employees to more responsibility for large the time to come. Hence, part hrd need to design activities the activity of organizing and utilization of human resources for follow the developments operations in the company due to technological innovations. For example: developments in the use of system online or offline in an enterprise change needs type human resources. The training programs must be changed to conform to the program.

**METHODS OF RESEARCH**

So that research activities accomplished and in accordance with what is expected writer, then required data is objective and relevant data must be submitted with a headline writer because it is very important. The data obtained from Shendy Shagita HRD Starbucks Coffee Surabaya, consisting of 16 employees and 3 pic (partner in charge) 1 store manager, 2 Supervisors and 13 employees or barista. Data is the results of the research, nor number of facts. The decree of the Minister of the P and K no. 0259/u/1977 on 11 july 1977 stated that data is all the facts and figures that could be material to assemble information, while the results of data processing information is used to a need (Suharsimi Arikunto , 2002: 96). As for the kind of data that is used by a writer in research: A. Primary data and Secondary data.

As for technique data collection used by an author in research that is: Technique interview; Technique documentation; Technique observation.

Field data or raw data is the data collected when collecting data. Raw data to research this is in the form of oral, data written and photos. Verbal and written data were obtained by interviewing the sources or subject of study. Data of photo is data that serve described a thing, objects, and scene when observation and when collecting data. Data oral documented into the form of recording of sound, written on document into the shape of the or note research. Data the second is a raw data (field data) who been subjected to the process selection data.

In writing this report, the use writers technique descriptive analysis namely in collecting data with containing about the discussion, exposure to about something objects as the at a time. The use writers technique descriptive analysis is intended so as to obtain the image and data is systematic pertaining to strategy the increase in the performance employees so writer
can process and provides the data a systematic, accurate and can be responsibilities the truth.

RESULTS AND DISCUSSION

The Efforts by Starbucks Coffee Graha Pena to Improve The Quality of Employee Performance. Basically a clerk in implementing the tasks that are imposed on expected to show a performance the best can indicated by the employee, in addition performance indicated by a clerk of course are influenced by various factor who important for an increase in piece of work, be the goal of the organization or agencies where the employee work.

Increasing the quality of employee performance against store is reflected in all its forms of maintenance activity, the programs of guidance and facility provision, services and other sources depending on which has been carried out a traffic congestion due to Starbucks Graha Pena Surabaya. By the support of the utilization of facilities and infrastructure that with information technology to alamoth probably the treble as well as human resources the court members around him and dedicated high it is hoped will able to realize some of the form stores the delivered to their satisfaction. For that reason it is, in their effort to increase the quality of employee performance to customers of two private the traffic congestion due to a Starbucks Graha Pena Surabaya implemented a variety of programs running environment based programs.

Important for employees and it is an asset. Employees of quality will strongly support the success of an enterprise. As described above, that in order to create a high quality performance, the resources should be accompanied by employees who qualified also. For that reason, basic steps taken Starbucks Coffee Graha Pena Surabaya to increase the quality of performance is the human resources.

Improve the quality Employee of workers steps of which were the traffic congestion due to be taken in this event Starbucks Graha Pena Surabaya in order to improve the quality of the employees is through training, and capacity improvement of the tens of thousands of workers. Education and learning and development has the goal with taking care of, raising the standard of living to these very works of tens of thousands of workers, essentially and perfectly morally good tens of thousands of workers as well as for a long time for a new entry worke. For more details of the type of programs actually training, learning and development that is in a Starbucks the traffic congestion due to Graha Pena Surabaya, is as follows:

Table 1 – Learning and Development Starbucks Coffee Graha Pena, July 2016

<table>
<thead>
<tr>
<th>NO</th>
<th>Learning and Development</th>
<th>Jumlah peserta</th>
<th>Time (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>District Manager Training Program</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Retail Management Training Program</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Shift Supervisor Training Program</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Barista Basic Training Program</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>District Coffee Master</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>District Coffee Meeting (DCM)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Coffee Class</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data base Basic Training Starbucks Coffee Graha Pena 2016.

The implementation of the program learning and development a Starbucks Coffee Graha Pena has been an outspoken critic of previous a scheduled. The sense that they were learning and development scheduled to be held every education needed by store is considered to be they are also required to. Parts of the participants learning and development also had already been determined so that all tens of thousands of workers have been able to take learning and development. By the presence of learning and development it is hoped that such could operate to augment insight into the subject of, those experiences within those years, knowledge and skills tens of thousands of workers. In addition, it was also hoped they by the presence of learning and development tens of thousands of workers a Starbucks Graha Pena will be able to reflect or have they taken in an irrational manner,
innovative, having broad horizons in carrying out jobs and be able to address of problems that emerged in a Starbucks Graha Pena Surabaya.

Provide guidance on the formulation discipline tens of thousands of workers discipline of employees did is one of the keys to encourage other parties to the success of a company in the quality of of employee performance. When tens of thousands of workers do not have higher rates of a good disciplin, so the operational costs of the store also do not go well. For that reason it is, on work safety all companies the people knew now now their drinking place to always keep the discipline of the employees. But even though has no regulations that would provide rules designed to weed out the saying that is written, still few minor offenses that occurs, for example some who were late with a wide range of think of any reply, furthermore there are also various were officials that is produced from it during working hours. But such as the late there are still tolerance origin lateness no more 5 - 10 minutes of an enthralling first, while for tens of thousands of workers that is produced from it during working hours also, with the exception of to affairs of duties without prior permission declared the company.

The welfare of labors is a very important thing. For when the welfare of labors fulfilled, expected that this will can help grow working spirit high on the employees.

In Starbucks Coffee Graha Pena Surabaya on a monthly basis. The amount of salary in each employee not depending on the level of the and his position. The application of salary in Starbucks Coffee Graha Pena Surabaya different from the provision on civil servant. The amount of salary employees determined by formulation: basic salary x the coefficients salary + intensive. While the coefficients salary that determines is Starbucks Coffee Graha Pena Surabaya.

The assessment of the provision of appraisial it was distributed among tens of thousands of workers for the purpose of appreciate the handiwork of and services as well as of devotion and a feat that had been given to a Starbucks Graha Pena Surabaya. Award or a judgment rendered to an employee who is have always possessed the features of devotion and fidelity only one long enough to company.

Value of the allowance hang it up and retire besides giving basic salary and of the award presenting ceremony, Starbucks Graha Pena Surabaya also has given allowance hang it up and retire to his servants. Starbucks Graha Pena Surabaya revision in order to provide care of its employees who has reached the age of 55 years. But as for stipulations on the amount of a retirement of 75% x the base of traders civil servants and employees of the principal amount. This applies to the when civil servants at the office who retires has reached more than 25 years. While for the civil servants who are while industry sector contributes 25 years of sick leave then the size of the presentasenya less than 75%.

BPJS Kesehatan dan BPJS Ketenagakerjaan

is not simply about the allowance for the employees, but also provided grants BPJS Kesehatan dan BPJS Ketenagakerjaan. BPJS Kesehatan said that health and employment does not only given to officials employee of Starbucks coffee graha Pena Surabaya, but to the rest of the family, because the employment are first of all personal for employees. The shape of bpjs to finance health treatment for concerned hospital, all cover by the company. While BPJS Ketenagakerjaan it is more to personal employees there are 3 program that was submitted by Starbucks Coffee Graha Pena Surabaya to cover employees if a result of various obstacles during travel to come home from work, namely JKM (death benefit schemes), worker injury (guarantee of safety work) and retirement benefits are days of old).

Allowance the program on Starbucks Coffee Graha Pena Surabaya based in performance store concerned so the size of the additional incentives it is based on the achievement store, there are two categories that is in Starbucks Coffee Graha Pena Surabaya namely, customer voice and sales store and when basic salary out on dated 28 in month, salary intensive is out in the 15th of month.

The Efforts by Strabucks Coffee Graha Pena to Improve The Quality of Employee Performance. Increasing the quality of employee performance by strabucks coffee graha a pen surabaya started with the field of where by the employee human resources are the main elements of the process some of the form store. Hence, competence of employee
performance to be set by precise knowledge based, expertise, skill, the attitudes and which needed. According to the existing data shows that the number of permanent workers at the factory owned by Strabucks Coffee Graha Pena Surabaya as much as 16 employees consisting of 3 PIC (partner in charge) such as 1 store manager, 2 supervisor and 13 an employee or a barista in the outlet of the. Of course by the number of employees owned would be an asset to a Starbucks Coffee Graha Pena Surabaya to be able to provide maximum service to each client.

Efforts Starbucks Coffee Graha Pena Surabaya improve the quality of them through learning and development is by sending employees to follow learning and development held by Starbucks Coffee Indonesia. Starbucks Coffee Graha Pena Surabaya do learning and development every 3 months and employees who will join the learning and development also is scheduled every employees will be able to attend training to increase and improve devotion, ability and skills service well technically and non technique to customers. Be evaluated by looking at the level of education tens of thousands of workers that is in a starbucks Graha Pena Surabaya on table built with the sweat, the number of tens of thousands of workers will be issued at a senior high school education for (senior high school is considered) is 1 civil servants that they employ, was followed by civil servants who have the education level of Bachelor Degree (S1) as many as 7 civil servants that they employ and the least number was is that the master degree (S2) that the others were twice 1 civil servants that they employ. According to this condition, it seems that the local employee who there still is quite adequate sumatra plantation tbk to manage companies of various fields such provision of this service. Because will be mostly employees still have higher rates of senior high school education for that the others were twice 40 tens of thousands of workers. An example of this was indirectly would hold up progress Starbucks Graha Pena Surabaya in the event that give the speed of services and in resolving a task as well as resolve the problems of the existence of what problems in the company.

Efforts have been done by Starbucks Graha Pena Surabaya to improve the quality of the source of its power tens of thousands of workers the process may only lead to be balanced. The level of education because they did not actually give full measure and weight give them a guarantee that support for violent attacks had skill more, that he has done and on the other hand. This is the reason why would be done learning and development to enhance the capacity of tens of thousands of workers technically and knowledge purposes. The uninhibited movement of that which is given by Starbucks Graha Pena Surabaya to an employee who is want to went on to study also is a business to improve the quality of tens of thousands of workers, as through the level of education also affect knowledge and way of thinking someone in taking decide for he is the same kind of trouble. So in other words, between their knowledge and skills also has to make it capable in do their duty.

Besides the ability and quality of employees being developed by Starbucks Coffee Graha Pena Surabaya, discipline employees also needs to be enhanced if employees Starbucks Coffee Graha Pena Surabaya has a low discipline will can affect the company. In order to create behavior and an employee supporting the creation of quality of service, and Starbucks Coffee Graha Pena Surabaya trying to continue to maintain discipline employees. The results of which have so far has been done suggests that the discipline employees would be good, especially with respect work hours office and hours home office. As well beside effort held also them through enforcement absentee and working hours so that employees all of which is really can take responsibilities all his actions. There was a limit of the boundaries that between the rights and obligations of our employees that had to met make the employees more disciplined in doing the work of their trusts. Through the discipline that high implementing a rules can be felt its benefit by all parties with the provisions that the rules it was made after taking into account the principle of justice and is beneficial to the interests of the public.

Other than an effort to improve the quality of services and discipline employees, other effort who also exercised is maintain the welfare of labors. To support the achievement company business created working conditions that can be make employee feel calm and take comfort in working is to provide welfare to employees. Given to officials of welfare
should be based on on the quality of and according to government regulation and on the basis of the company capacit. However the form of a company, definitely not will ignore the well being of employees, because the welfare of labors would serve as a means of can increase a motivation in worked so as to be more productive and gives rise to loyalty employees of the company. Starbucks Coffee Graha Pena Surabaya in their bid to improve the welfare of employees did give various kinds of facilities for the employees that is salary, retirement benefit, BPJS Kesehatan.

CONCLUSION

So as to get labor or employees who capable, should a human resources in an enterprise must held the recruitment of labor or employees selectively to fit to the job description and job specification. Leaders the companies must be can build, coordinates and directs employees consistent with the objectives of company. Problems performance this has happened to Starbucks Coffee Graha Pena Surabaya is company in food and beverage from the united states opening of one its branches in Indonesia precisely in Surabaya. The improvement in the quality of employee performance in Starbucks Coffee Graha Pena Surabaya is motivating employees, if there is an increase in employees work and be assigned to follow learning and development program and if after an increase in employees participate in training performance so employees will be given a promotion. Training and development in Starbucks Surabaya one of learning and development programs that greatly benefits long term career that will help employees to greater responsibility in time to come.

Increasing the quality of employee performance against store is reflected in all its forms of maintenance activity, the programs of guidance and facility provision, services and other sources depending on which has been carried out Starbucks Graha Pena Surabaya. By the support of the utilization facilities and infrastructure that with information technology to alamoth probably the treble as well as human resources the court members around him and dedicated hoped will able to realize some of the form stores the delivered to their satisfaction. For that reason it is, in their effort to increase the quality of of employee performance to customers of Starbucks Graha Pena Surabaya implemented a variety of programs running environment based programs like:

Starbucks Coffee Graha Pena Surabaya in developing services and especially in human resources include increasing the quality of them through learning and development. An increase in discipline employees, and working the welfare of labors. It was done for encourages the creation of productivity employees. Step traveled Starbucks Coffee Graha Pena Surabaya to improve the quality of the employees is through training, and capacity building employees. Education and learning and development have aims to maintain, increase skill employees, even for old and new employees.

Discipline employees did is one of the keys to support the success of a company in the quality of employee performance. When employees not to have a good discipline, so operational store also cannot go with smooth. Hence, each company had rules its own to keep discipline the employees

In an organization, the welfare of employee is a very important thing. For when the welfare of labors fulfilled, expected that this will can help grow working spirit high on the employees, namely: the provision of salary; the provision of appraisal; allowance pension; BPJS Kesehatan and BPJS Ketenagakerjaan; allowance incentives. 

Suggestions:
- To the process of recruitment employees shall put in standart high, to fit the criteria that is not only the process interview, but with test for example, potential academic, psychological test, etc.
- Used to minimize errors to customer, Starbuck not only supported a theory but will also done customer connection in continue against the employee got to know further taste customers will dating to store.
- The problem of education the past also should be in restrict, as most mindset children aged young especially fresh graduate and vocational senior high schools still not
reflect in open minded. At least D3 or on it, can also graduates hospitality or experience in the field of coffee shop because this is concerning good services in the field of hospitality especially

- The process of learning and development have to be in have put a barrier it should also be noted continue so that when your words come true the regeneration of or at the time of turn over employee high to come to pass as back up to be carried out efficiently, paramedics are distributed to every disparities between senior to junior.
- Always be updated by waking early and going trying to agree schedule program of employee performance mostly street so that it may not left behind with a starbucks which were outside aboard.

REFERENCES

COMPETITIVE STRATEGY DEVELOPMENT OF AUDIA HOUSE OF BEAUTY

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ABSTRACT
This research aimed to: identify industry attractiveness of salon and spa in Bekasi to know in what position the company can compete with other competitors, analyze the competition capability of Audia House of Beauty with other competitors, and formulate appropriate business strategy plan for Audia House of Beauty in enhancing competition in Bekasi. To answer the research questions of this research, a descriptive study using case study, survey, and observation method were conducted. In conclusion, the policy of Audia House of Beauty business strategy had good competition strategy and high competitiveness as it could be seen that Audia House of Beauty could be competitive to other salons in its area. At the same time, since it was in the medium market development and competition, selective infestation was needed. The steps to do were to develop its business, to increase market as well as business activities, to formulate product specialization, and to consider customers’ needs.

KEY WORDS
Management, strategy, industry attractiveness, beauty industry.

Currently, beauty industry in Indonesia rapidly develops as it is shown by the increasing number of salon and spa beauty industry. The needs to be beautiful and attractive make women willing to spend amount of money only to do treatment for their body. Besides, high mobility and crowded activities among a group of business women in metropolitan city influence the increase of awareness and needs to always perform beautifully. As a result, many women always visit beauty salon and spa service. Even though there are a lot of new entrants in this business, the market share is still widely open and in demand by people from all classes from upper to middle-lower class.

However, the challenge of this business is on the uniqueness of salon and spa in order to attract consumers as the continuous of excellent competition. Regarding to data compiled from Global Beauty Industry, in the world, this industry achieves 7% each year (cited from The Economiest). The data also shows the whole value of world trade for each type of beauty business, such as USD 24 billion for face treatment, USD 18 billion for make-up, USD 38 billion for hair treatment, and USD 18 billion for perfume and fragrances. According to Azzuro (2015), high customer satisfaction is on the uniqueness and excellent of company which are determined by customers.

Audia House of Beauty is one of the examples of salon and spa business in Bekasi which can be potentially developed. This business depends on the availability of expert human resources. The quality of its therapists and products has been recognized by customers. Another challenge for the company is producing expert and loyal human resources toward the company. In beauty industry, Audia House of Beauty might be a new comer included in small scale business, but it has skill and knowledge to produce beauty service products which have loyal customers. It is offered by Audia House of Beauty to maintain loyal customers because the business competition is getting tighter that demands salon to have its own excellence from other salons and spas.

The competition among companies with the same business commonly relates to obtaining and maintaining customers. However, currently, it is more difficult to satisfy customers because they are getting smarter in choosing products and other needs. Once they are not satisfied with a service offered by a salon and spa, they will not come back and
tend to say negative comment about the service to other customers. Therefore, it is crucial to attract customers to remain loyal.

However, to be successful, combination of some variable decisions contributing to the success of beauty service industry is needed, such as service, comfort, product, and time. Knowing the effects of those variables, the success and the development of salon and spa service can be achieved. Therefore, from the strategic factors, formulating a strategy for the development of salon and spa service in Bekasi is also needed. Regarding to the literature review, this research was aimed to: 1) identify industry attractiveness of salon and spa in Bekasi to know in what position the company can compete with others; 2) analyze the competitive ability of Audia House of Beauty with others; 3) formulate appropriate business strategy plan for Audia House of Beauty in enhancing competitiveness in Bekasi.

METHODS OF RESEARCH

This research was conducted on February-November 2017 in Audia House of Beauty in Bekasi. This research was conducted using descriptive research with case study, survey, and observation as the research methods. Moreover, the scope of descriptive study focuses on information of external and internal organization. Case study method is a research method demanding detailed, deep, and holistic information about a particular object in a particular time, including environment and situation in the past which factors can be related to each other (Umar, 2005).

The main focus of this research was a case study with salon and spa business as the object that develops its concept into new business in offering service for facial, body, hair, and nails. In addition, survey and observation method are used to support the results of case study analysis. Survey was conducted in the external of the company, such as salon and spa customers and employees to identify and analyze the condition of a business company. The result of business analysis supported the formulation and choice of alternative strategy in planning strategy to run the new reformation concept of the company. The scopes of the research were identifying and analyzing competition, preference of consumer needs, quantity and quality of suppliers, and competence of organization and how to utilize it in facing the business competition. For the observation conducted to some popular salons and spas, the aim of using the method was to sharpen researcher’s analysis in understanding the competition condition and needs between suppliers and consumers.

RESULTS AND DISCUSSION

Industry attractiveness is an opportunity offering potential profit for a business. Based on the result of analysis using a theory by GE-McKinsey, salon and spa beauty industry in Bekasi was an industry with high existence. The industry attractiveness included: 1) service quality for customers; 2) market share; 3) company image; 4) production capacity; 5) production location; 6) potential consumer spending.

Table 1 – Salon and Spa Industry Attractiveness

<table>
<thead>
<tr>
<th>Strategic Factor</th>
<th>Average</th>
<th>Quality</th>
<th>Rating</th>
<th>BnR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market growth rate</td>
<td>4.35</td>
<td>.163</td>
<td>3</td>
<td>.49</td>
</tr>
<tr>
<td>Market share</td>
<td>4.16</td>
<td>.156</td>
<td>4</td>
<td>.62</td>
</tr>
<tr>
<td>Intensity of rivalry</td>
<td>4.44</td>
<td>.166</td>
<td>2</td>
<td>.33</td>
</tr>
<tr>
<td>Production location</td>
<td>4.70</td>
<td>.176</td>
<td>1</td>
<td>.18</td>
</tr>
<tr>
<td>Production capacity</td>
<td>4.63</td>
<td>.174</td>
<td>2</td>
<td>.35</td>
</tr>
<tr>
<td>Potential consumer spending</td>
<td>4.39</td>
<td>.165</td>
<td>3</td>
<td>.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26.67</strong></td>
<td><strong>1.00</strong></td>
<td><strong>3</strong></td>
<td><strong>2.8</strong></td>
</tr>
</tbody>
</table>

Source: processed data (2017).

In common, business in this industry focuses on market share. Although market share and competition of salon and spa beauty industry is wide and a lot, the opportunity to do the
business is getting wider too. The existence of many new competitors in salon industry also becomes a challenge for Audia House of Beauty. However, by giving service and making customers loyal, customers will not go to another salon.

Moreover, the increase number of business women with high mobility is likely to increase the needs of being beautiful every time. One of the ways to make them beautiful is by pampering themselves with salon and spa service. Regarding to this reason, salon will be located in some accessible places for students and employees. In other words, the increase of women’s purchasing power becomes one of supporting factors to open salon and spa service.

In this case, Audia House of Beauty is quite successful in gaining profit by looking at the opportunity in this industry. The capability of Audia House of Beauty in taking the opportunity of salon and spa industry attractiveness is quite good by seeing some factors having high quality and rating which is called market share. It means that Audia House of Beauty is capable for competing with others. One of the factors utilized by Audia House of Beauty is the inexistence of dominating salons around it. As a result, Audia can take the opportunity to be the most complete and up to date salon dominating the area. Moreover, offering variations of beauty service (i.e. treatment cream bath, facial, spa and sauna) for wide range of age customers from children to adults, Audia House of Beauty can increase the number of its loyal customers.

Company will also have good competition ability if the quality of work is considered good by customers. When the company competes in public market segment, the company is able to produce regular customers who are loyal to company products although the opportunity of market share achieved is limited. Then, the competition structure of a company is important in order to determine what strategy used to defend and win the competition. Although there are many salon and spa businesses in Bekasi, the development of market is increasing as it is shown that the customers of Audia House of Beauty are not only from Bekasi, but also from Bogor.

Analysis of Company Business Strength Factor. Company business strength is identified based on internal strategic factor of company. Batubara (2004), Siagaan (2008), and Azzuhro (2015) state that the identified business strength is on the company itself, such as: 1) quality of service; 2) productivity in technology utilization; 3) company image; 4) controlled market share; 5) competitiveness; 6) competitive position; 7) consumer behavior and preferences; 8) technological excellence; 9) business capability of owner’s company; 10) the ability of company to provide customers’ various demand; 11) price.

Based on the internal analysis, there are strengths owned by Audia House of Beauty, i.e. giving the best service and always being up to date for devices and products used and beauty trend knowledge. Moreover, natural ingredients for beauty products makes customers believe Audia House of Beauty. As a result, the advantages offered to customers can maintain their satisfaction and loyalty. In other words, if customers are satisfied, they tend to be loyal to the salon. Then, having loyal customers will maintain the salon in salon and spa industry.

Shows the power of company is on how capable the business owner is in responding various demand and how to create good image for the company in consumers’ point of view because the concerns of salon and spa service performance can be seen from its reputation that determine the success of salon and spa service. Recently, although the market share opportunity of salon and spa service is limited, Audia House of Beauty is able to maintain customers because of the hospitality service given by therapists. It can be concluded that dexterity of therapists in giving service to customers is essential so that its image in customers’ point of view remains good. In addition, the capability of doing business becomes the attention of internal parties in which the skill of human resources in treating customers can be seen. Although Audia House of Beauty is considered as new entrant, it has hired six people because the customers visiting it every day is not that many. Therefore, it should give the best service utilizing up to date technology to fulfill customers’ satisfaction in order to compete with other new competitors in salon and spa industry.
In this case, the company is on the competitive environment position where other salons and spas are near it. However, Audia House of Beauty utilizes technology and reiki power which are different from others. Besides, Audia House of Beauty has good, creative, innovative, and high motivation internal environment in trading the products.

It is shown that the price influences customer attractiveness. For instance, if the price is expensive, customers tend to choose salon and spa offering lower price. In other words, price determines how customers take parts in customer decision in choosing salon and spa.

*Evaluation of Industry Attractiveness Analysis*. Analysis of salon and spa industry attractiveness in Bekasi is analyzed using GE-McKinsey. Furthermore, this device is used to analyze competitiveness and the position of product of a business. The result of analysis in Figure 1 shows that the company is on cell 2 and column 2 showing that salon and spa industry has fairly high attractiveness and the company has power to compete. Therefore, it is important to implement differentiation strategy. However, each industry has different differentiation strategy, such as doing marketing strategy approach and hiring more skilled employees or therapists. When a company can achieve and maintain its differentiation, it will be a company with high performance in its industry. For Audia House of Beauty, the marketing and customer approach strategy are used to create intimate situation so that it will not create gap between customers and Audia House of Beauty. Moreover, femininity and unique design with affordable price for all classes makes Audia House of Beauty different from other salons in its area.

*The Findings of Porter's Five Forces Analysis*. The competition of similar company in salon and spa industry is high with average 67% (the recapitulation of calculation is attached on the appendix) because the competition in salon and spa industry recently develops rapidly in Indonesia causing many companies interested to get into this industry. In this condition, Audia House of Beauty has good prospect in the future although it is included in new entrant in this industry. Currently, Audia House of Beauty has been well-known salon among people, especially people in Bekasi. As a result, the total of sale increases every month because Audia House of Beauty can develop its market share. If market share continuously increases, those who try to develop similar business will find its challenge. Therefore, salon and spa companies require good and appropriate communication strategy that can follow rapid changes of era in order to create positive image among people.

In fact, threat of new entrant is high with 67% of average value (the recapitulation of calculation is attached on the appendix) because to be involved in salon and spa industry, high modal is needed to fulfill consumers’ needs. The new comer threat in this industry is influenced by some factors. The first factor is wide market share requiring salon to give the best available service and products so that customers remain loyal. The second is support from government in giving product license. The products offered to customers have to get license from National Agency of Drug and Food Control (NADFC) in order to ensure the customers to use the product. The third factor is the success of company of salon and spa industry in developing business and willingness to widen its market share in all cities in Indonesia.

The bargaining power of supplier is considered low with 20% of total average (the recapitulation of calculation is attached on the appendix) occurs because Audia House of Beauty does not depend too much on to the main supplier, but Audia House of Beauty has its own products offered to customers. However, the supplier of Audia House of Beauty becomes the main factor for the success of it although it does not have high dependence. Because salon and spa products of the suppliers currently have been sold in market, it will not be difficult to get suppliers in salon and spa service.

The product threat is considered low with 33% of average value (the recapitulation of calculation is attached on the appendix). Substitution products are used when the stock of main product is none. However, in fact, substitution product threat is free-sold products in market with lower price. Thus, the excellent products of salon can be drifted with the free-sold products. To handle that challenge, Audia House of Beauty has some strategies. First, it increases services to keep the consumer loyalty. Second, the products used are different
from those sold in market and cannot be copied by other products. Third, the additional quality should be increased to create differentiated products.

Consumer bargaining power is high with 67% of average value (the recapitulation of calculation is attached in appendix) because the needs of customers which are getting more and various should be provided and fulfilled by salon. To face the consumer bargaining power, Audia House of Beauty provides the best service in a form of free treatment or discount for the customers. It is done to create consumer loyalty so that they come back to Audia House of Beauty.

Stakeholder Engagement Analysis. Business process mapping describes the business process occurred in Audia House of Beauty. Stakeholders involved in Audia House of Beauty business process have their own role. Therefore, deeper analysis toward each stakeholder to know the role of each stakeholder in the business process is needed. Then, the analysis method used in this research is stakeholder management.

Stakeholder Analysis. Stakeholder analysis is a systematic process to analyze information obtained from some stakeholders to determine whose concerns that should be considered in developing and implementing a program.

From the supplier stakeholder questionnaire, it is found that there are five attributes used, i.e. contribution, legitimacy, availability to be involved, influence, and the importance of involvement attribute. The contribution attribute describes how far stakeholders know information, suggestion, and expertise about issues related to the goal of the company. As it is discussed previously, the goal of the company is to increase the company competitiveness with other salons and to increase sale. Legitimacy attribute describes how legal the cooperation occurred. It is shown by the written agreement between Audia House of Beauty and stakeholder.

The availability to be involved attribute is how far the stakeholder wills to get involved, whether the stakeholders need Audia House of Beauty as their partner. Influence attribute shows how far the influence or role of the stakeholders on the business unit of Audia House of Beauty. The influence can also refer to the cost, social effect, and the holistic influence. The importance of involvement attribute is an opportunity of how influence stakeholders can inhibit the continuity of Audia House of Beauty business unit if they are not involved in the business process.

L’oreal as the hair treatment suppliers has the highest contribution among other suppliers. It shows that L’oreal knows what products to offer to Audia House of Beauty. By the cooperation, Audia get an easy way to sell L’oreal products to customers. Based on the result of questionnaire of the five attributes, the scale is 5 meaning that the communication and cooperation between L’oreal and Audia House of Beauty is very high. Because of good cooperation, L’oreal commonly gives high discount to Audia House of Beauty.

Pevonia as the facial treatment supplier has high value on legitimacy and availability to involve attribute are high as it can be seen in Table 7. It is also shown that the cooperation with Pevonia has been stated in MoU or legal agreement. Thus, when Audia House of Beauty wants to order some products, the service given by Pevonia is through clear and complete invoice. In this case, the cooperation between Audia House and Beauty and Pevonia is not only limited to trading, but also the help to sell products from Audia House of Beauty to consumers.

Beauty Cottage is the supplier for facial mask products. Availability of involvement which is high shows that Beauty Cottage wants to do cooperation for long term period. The communication from each stakeholder is very good because Audia House of Beauty does not stop the communication with other stakeholders. However, the value of legitimacy attribute is 3 meaning that it is involved in the category of medium because at the beginning of cooperation, the cooperation does not involve MoU. Instead, it is because other stakeholders know the supplier.

Griya Warna is the supplier of body products. The availability of involvement shows that it will have long term cooperation. Because the supplier is from Bali, good communication is necessary to prevent from miss communication during the transaction. However, the value of influence and importance of involvement attribute is 3 because Griya
Warna will not influence the income of Audia House of Beauty if the salon does not use the products from it. In other words, products from Griya Warna are only additional products.

Dr. Hervita is the supplier of face and hand and feet products which has high value of legitimacy, availability to involve, and influence attribute. It is shown that there is legal agreement at the beginning of agreement because Dr. Hervita has her own certain standard of product that should be followed by Audia House of Beauty. However, the value of contribution attribute is 2 because of limited communication and products that will be ordered.

Cuccio is the supplier of hand and feet products which have low value in contribution attribute because not all employees from Cuccio know what to offer to Audia House of Beauty. However, based on the result of questionnaire, the value of legitimacy and availability to be involved is 4 showing that it will influence the income of Audia House of Beauty if it does not purchase products from Cuccio.

Beauty Word is the supplier of beauty devices in salon. In this case, the devices are the primary needs of Audia House of Beauty. Based on the result of questionnaire from 30 consumers as the stakeholders, it is found that the value range of attributes is from very low to very high. Furthermore, the five attributes (contribution, legitimacy, availability to involve, influence, and the importance of involvement attribute) are reclassified into three attributes, i.e. willingness, expertise, and value. Expertise comes from the average value of contribution and legitimacy attribute. Value is the combination of the value of influence and availability to involve attribute. Willingness is the value of involvement availability.

The next step is to make scatter diagram of the three attributes (willingness, expertise, and value) using XLStat software. The software can visualize data on Microsoft Excel software. On scatter diagram, willingness attribute becomes the horizontal axis, whereas expertise attribute becomes the horizontal axis. The value attribute describes the size of stakeholder circle. The following figure is the map of SM (Stakeholder Mapping) for supplier stakeholder.

![Figure 1 – Supplier Stakeholder Mapping](image)

Figure 1 shows supplier stakeholder mapping consisting of quadrants I, II, III, and IV. Based on the figure, it can be seen that the values of willingness and expertise attribute in quadrant I, II, and III is low. On the other hand, the value of willingness and expertise attribute in quadrant IV is high.

Based on scatter diagram in Figure 4, Pevonia, Beauty Cottage, Griya Warna, Dr. Hervita, Cuccio, and Beauty World are categorized into quadrant I, II, III, and IV. The value of willingness and expertise attribute of Dr. Hervita in quadrant I is 3.5 showing that the value is low. It occurs because the communication does not run smoothly between Audia House of Beauty and the supplier. The supplier has not known the goal of the salon that makes them
lack of understanding the vision and mission of Audia House of Beauty. The low willingness value is also shown by stakeholders from dr. Hervita who know little about what products to offer to Audia House of Beauty.

Figure 4 shows that stakeholder Beauty Cottage is on quadrant II with value of value attribute is 1. In quadrant II, the expertise value is low, meaning that the supplier knows little about the details of Audia House of Beauty. In other words, the supplier of Beauty Cottage know little about vision and mission of Audia House of Beauty because they only want to do long term cooperation.

Stakeholder Cuccio is in quadrant III in which both willingness and expertise value attribute are 2.5 categorized into low. It means that Cuccio supplier has little good communication during the cooperation with Audia House of Beauty. On the other hand, quadrant IV shows good quadrant because both willingness and expertise attributes are high. In this case, Griya Warna supplier, Beauty World supplier, and Pevonia supplier are on quadrant IV with different values of attribute. Among those suppliers, Pevonia is the highest which value of attribute is 4.5 because Pevonia products are the excellent products in the salon. Customers do not only enjoy the treatment, but they also purchase the products. As a result, the loyalty of the supplier to customers of the salon is good. Besides, the knowledge of the supplier about products offered to Audia House of Beauty and the willingness to do cooperation with the salon is high.

![Figure 2 – Consumer Stakeholders Mapping](image)

Figure 2 is the consumer stakeholder mapping. The consumers who take part as the respondents are 30 people. From the 30 respondents, 28 respondents are in quadrant IV while 2 respondents are in quadrant I. It can be concluded that the customers’ will to come back to Audia House of Beauty is very high. It also indicates that the loyalty of customers not to move to another salon in very high.

**Engagement Strategy.** Based on the result of stakeholder engagement mapping, there are 31 stakeholders who are categorized into engage. From those stakeholders, 3 people are supplier stakeholders and 28 people are consumers. The supplier stakeholders categorized into engage are Griya Warna, Beauty World, and Pevonia. The 28 consumer stakeholders are respondents who already know the types and price of products offered by Audia House of Beauty. The respondent knowledge about types and price of products is obtained from consumers’ frequency of visiting the salon. In other words, consumers categorized into engage are those who frequently come or who are loyal customers of Audia House of Beauty. Prahalad (2008) states engagement refers to any ways or activities done by a party to create interaction between both parties. The interaction is reciprocal relationship.
in which both parties actively begin communicating and exchanging information. It is expected that Audia House Beauty can do cooperation with its main stakeholders.

The stakeholders categorized into communicate consist of 4 stakeholders: 2 supplier stakeholders from dr. Hervita and Cuccio and 2 consumer stakeholders. In this category, both values of expertise and willingness are low. On inform category, there is 1 supplier stakeholder which is from Beauty Cottage. The classification of stakeholders aims to ease Audia House of Beauty in planning the competitiveness strategy. Later on, the strategy is expected to increase the competition among salons in the same area which is considered as a new salon in Bekasi.

Managerial Implications. Result of the analysis from this research studies some ways in formulating new strategy. Factors of strategy in a form of opportunity and program can be the basic of recommendation strategy making for the company to develop the business of Audia House of Beauty.

Recently, service offered by salons and spas are various, such as haircut, hair treatment, rebounding and hair extension, face and body treatment, whitening program, and nail treatment. The various services are influenced by the development of trend or life style influencing the demand of people who already aware of the importance of treating their body. As a result, the development of beauty salon business influences the competition among business people in its field of business. The tighter the competition is the more services that marketing manager should offer to be able to compete with others. The competition can be in a form of price and service offered to customers. Therefore, they should not only provide sufficient facilities, but also implement appropriate strategies following the change and development of market.

It is important to have management which is capable to see and be responsive to any changes occur in market, especially in salon and beauty service. Besides being responsive, the management should be brave to take any risks made. Moreover, marketing management should believe that taking high risks will be also followed by high profit.

The change of trend and life style is the factors that should be concerned. If salon and spa cannot provide service based on customer needs which always change in this modern era, it will lose its loyal customers. Therefore, short term and long term working plan are needed. The plans should be implemented by making a working procedure which is arranged as one of parts of regulations during the work. By having arranged working procedure, all elements, both manager and employees, will be able to understand and do the procedure effectively.

In addition, because Audia House of Beauty provides various beauty products with different excellent, it should implement the strategy of differentiation products indicating by the attractive design can attract customers to buy them. Besides, lower the price can be a solution to compete with other competitors having the same composition of products.

CONCLUSION

Regarding to the findings of this research, it could be concluded that the policy of Audia House of Beauty business strategy had good competition strategy and high competitiveness. It was found that Audia House of Beauty was able to compete with other salons close to it. The medium development sometimes referred to identification of growing segment. At the same time, due to the development of market and competitiveness are medium, selective infestation was essentially needed. In this case, they strategy to do was to develop the salon and increase market as well as business activities, and then to make product specialization and consider customers. Then, based on industry attractiveness analysis, it was found that Audia House of Beauty strategic position had medium attractiveness.

Because of the development of beauty salon and spa service currently was significantly increasing, the opportunity to open the same business was widely open for other business units. New comer threat in salon and spa industry was influenced by some factors; one of them was the easiness of finding salon and spa. Therefore, it was necessary to make differentiation product that differentiates a product from others. However, the threat did not
only come from other competitors, but also from suppliers or customers. Then, the involvement of suppliers and consumers in developing salon and spa business was required so that the attractiveness needed by market currently could be identified. In addition, high competition of similar company becomes threat for companies in order to be able to increase the performance and quality of service in attracting consumers who have not visited Audia House of Beauty.

SUGGESTIONS

The findings of this research in obtaining the company business strategy was still general; therefore, some suggestions are needed to discover deeper business strategies, such as:

- Focusing more on competitor characteristics in order to be precise and appropriate;
- Analyzing customer engagement in the future research can answer management path to develop a kind of business.

REFERENCES

ABSTRACT
Coffee is a type of drink that is popular with the public. Consumers buy coffee is usually due to customs and bigotry consumers with coffee that they often consume daily. Various product brands offer their respective advantages embodied in the attributes inherent in a product such as flavor, aroma, color, packaging, fill capacity, price, etc. thus generating differences between brands. Coffee is one product that has many competitors. This study aims to analyze the operational strategies undertaken by PT. Four Jaffee Indonesia. Implementation of operational strategy is needed in running the company in order to continue to run against business competition. Companies are required to set annual goals, create policies, motivate employees, and allocate resources, so strategy strategies that have been formulated can be run. The implementation of the strategy includes the development of a supportive culture in the strategy of creating an effective organizational structure, redirection of marketing efforts, budget preparation, development and utilization of information systems and association of employee competency with organizational performance.

KEY WORDS
Operational strategy, coffee, business, company.

Coffee is a type of drink that is popular with the public. Consumers buy coffee is usually due to customs and bigotry consumers with coffee that they often consume daily. In attracting the attention of consumers, manufacturers strive to produce quality products. Different brands of products offer their respective advantages embodied in the attributes embedded in a product such as flavor, aroma, color, packaging, fill capacity, price, and so as to create a distinction between brands. Coffee is one product that has many competitors.

There are several coffee products with various brands and variety of packaging forms sold in traditional markets. Coffee brands are widely circulated in the market, among others brands Ship Fire, Top, ABC and many more brands of coffee sold in modern and traditional markets. The number of brands of coffee that exist in the market will bring consumer behavior to the differences between brands. There are many consumers consuming coffee for various reasons based on the attributes that exist in the coffee itself. Coffee attributes include (i) a sense of pleasure for the consumer; (ii) aroma, not all coffee has an aroma, coffee consumers are usually happy to consume coffee that has a fragrant aroma because it can increase the pleasure when consuming it; (iii) packaging and packaging design, coffee packaging made of aluminum foil is considered to be easy to open if it is to be consumed and the design of packaging with various design colors makes its own interest for coffee consumers, and (iv) the relatively affordable price, the tendency of low involvement (low involvement) consumer behavior, characterized by decision making that does not require much consideration, meaning the consumer without having to think long to buy because of the cheap price of coffee, (Hashimoto, et al., 2004).

However, it is not automatically possible for consumer behavior in purchasing Coffee low involvement (low involvement). David (2012) suggests that strategy is a common tool
with a long-term goal to be achieved. Business strategy includes geographic expansion, diversification, acquisition, product development, market penetration, knowledge, divestiture, liquidation and joint venture. Strategy is the implementation plan of a company. The plan provides a framework for managerial decisions. And the main aspect of the corporate environment is industry. A company must strive to achieve sustainable competitive advantage in the form of (i) continue to adapt to change in external trends and internal capacity, capabilities and resources; and (ii) effective planning, implementation, and evaluation of strategies that play a major role (Teece, 2010).

According to David (2012) also suggests that the strategy management consists of three stages, namely: Strategy formulation, Implementation strategy, and assessment strategy. Strategy formulation includes vision and mission development, identification of external opportunities and threats, awareness of internal strengths and weaknesses, setting long-term goals, searching for alternative strategy strategies, and selecting specific strategies to achieve goals.

Implementing a strategy requires companies to set annual goals, create policies, motivate employees, and allocate resources, so strategy strategies that have been formulated can be run. The implementation of the strategy includes the development of a supportive culture in the strategy of creating an effective organizational structure, redirection of marketing efforts, budget preparation, development and utilization of information systems and association of employee competency with organizational performance.

Strategy assessment is the last step in strategic management, where a good manager should know whether the strategy is effective or not. Strategy assessment is the main way to know this kind of information. All open strategies to be modified in the future can then be adapted to various factors, whether internal or external factors constantly changing, (Bröder and Schiffer, 2003). In carrying out its operational strategy, management establishes some of the company's values that will be the spirit in all activities and that must be undertaken by all components within the organization. The values are: (i) customer centric "meet customer expectation", (ii) integrity "walk the talk", (iii) behave discipline and obedience, (iv) nationalism "national pride", (v) continue to grow and compete, (vi) togetherness and respect for others, (Allayannis, et al., 2001).

Framework of study. Operation is a function or system that transforms the input into output with a higher value. The operation process is a series of value chain activities that extend from suppliers to distributors. The operational strategy of converting inputs to outputs by using physical resources, so as to satisfy customers' satisfaction while meeting organizational goals related to effectiveness, efficiency and adaptability to business needs.

The operational function will pay particular attention to the conversion process using physical resources, and can be translated into several activities in the operations management function ie product design, site selection, layout selection, poses design, inventory, maintenance, scheduling, quality planning, purchasing. At the operational strategy, the frame work to be used, adapted to combine the theory and needs of the business plan, by combining it with lean six sigma approach, to improve operational acuity.

Product design. Product design is a process whereby converting from idea to idea, so in this process every business organization should be able to design, develop and introduce new products as a strategy to survive, grow and develop new products. The product to be launched is the biggest handset faced by the organization / company. So the whole process of identifying the need to physically produce must be considered, from design and marketing, product, development and manufacturing process. Product development will be translated from customer needs given by the marketing team, then this becomes a technical specification and design a variety of features. Manufacturer has the responsibility to choose the process in which the product can be produced.

PT Four Jaffee Indonesia in Business start-up phase will focus on 1 type of product preparation that is effervescent coffee. Effervescent coffee is a type of product preparation that offers, a unique type of presentation, as well as can improve the taste. For coffee beans used, it is standardized SNI 01-2907-2008 and meet the general requirements and special requirements as stated in the SNI. In designing the product is not required three phases
according to Prasetya and Lukiastuti (2009), namely: Functional design, Industrial design, Design for manufacturability.

Six main functions of packaging that should be met by a packaging material, namely: First, Keep food products or agricultural products to stay clean and protected from dirt and contamination. Second, protect food from physical damage, changes in water content and irradiation. Third, it has the ease of opening or closing, and also facilitates in the stages of handling, transportation and distribution. The four have functions that are both efficient and economical, safe for the environment. Fifth has the size, shape and weight according to existing norms or standards, easy to dispose and easily molded or molded. Sixth, show identification, information, attractiveness and clear appearance so as to help the promotion or sale.

Packaging should also be friendly to the environment, whether viewed from the packaging materials used, the way of packing materials, the operation and packaging waste. ISO 14000 guidelines concerning the environment are closely related to packaging. The benefits of food storage include 3 main things, namely: Maintaining or reducing quantitative loss or loss of weight (volume), Maintaining a qualitative shrinkage or maintaining the quality of food to meet the existing quality standards, have good nutritional value, safe to eat and does not cause any acute or chronic health problems. As well as Maintaining the economic value of stored food products.

Preparation of business establishment. In the establishment of Coffee Effervescent business, starting with the establishment of PT Four Jaffee Indonesia, and of course in the process of establishing this company, will follow the applicable regulations, as stated in the Indonesian republic law no. 40 of 2007 concerning limited liability company. The filing of this company name is registered by a notary through Ministry Of Law And Human Rights Legal Entity Administration System (Sisminbakum) through online online system. The making of the deed of establishment is conducted by a notary authorized in all regions of the Republic of Indonesia to further obtain approval from the Ministry Of Law And Human Rights.

Furthermore, in the process of making the deed of establishment of the company, the prospective founder of the company is asked to name the founder of the company which minimum consists of 2 people. Basically, Permenkumham no. 4/2014 stipulates that any approval or rejection by Ministry Of Law And Human Rights is submitted electronically to the request. To that end, the notary can print his own decision from the Ministry Of Law And Human Rights. In the event that the applicant is obliged to submit supporting documents in submitting a request, the applicant is required to submit an electronic statement declaring that the supporting documentation is complete.

However, such documents in the physical form shall be deposited by a notary. This is different from Permenkumham no. 01/2011, which requires the applicant to physically submit a letter of application accompanied by supporting documents. The new regulation will speed up the issuance of the Decree of PT Four Jaffee Indonesia Incorporation Deed Establishment from the Minister of Law and Human Rights of the Republic of Indonesia. Certificate of Business Domicile or in short SKDP is a Letter explaining Domicile of a business entity, in this case Small and Medium Enterprises (SMEs).

SMEs here is a term that refers to the type of Small Business with a maximum net worth of Rp 200,000,000, excluding land and building business premises. While classified as small business itself, according to Presidential Decree No. RI. 99 Year 1998, is a small-scale economic activity with a business field that the majority are small business activities and need to be protected to prevent unfair business competition. Other things that need to be prepared in the establishment are: business company domicile certificate, company NPWP, permit of disturbance, trade license, trademark registration, brand registration, environmental clearance process, brand and logo.

Selection of company location. PT Four Jaffee Indonesia is located in Bizlink warehousing and industry area, located in the administrative area of Sukamulya Urban Village, Cikupa Subdistrict, Tangerang Regency, Banten Province. The selection of this location to pay attention to the factors that affect the determination of the location for the company to operate smoothly, efficiently and effectively.
BizLink Tigaraksa, Tangerang which is an integrated business center area with warehouses, offices, shophouses and residential presidential residential areas. It is part of the BizLink development of integrated areas in which there are residential projects, multi-purpose and commercial buildings with total development area covering 100 hectares. PT Four Jaffee Indonesia location does not disturb the existence of the surrounding community because by the developer, PT Ciputra has been arranged in such a way and integrated well. Company locations are selected based on several considerations, including: (i) a supportive community environment; (ii) close to the market; (iii) ease of obtaining raw materials, (iv) supportive transport facilities, (v) skilled labor; (vi) Energy Source; (vii) an easy source of water; (viii) non-extreme climate, (ix) favorable investment situation.

Operational management. The selection of management systems with Lean Six Sigma is a distinct advantage over other industries. Achieving good production process by applying good and correct industrial hygiene to achieve profit and operational spirit with Process excellence. After preparing pre operational then PT Four Jaffee Indonesia will prepare the operational process to run efficiently, effectively and generate profit for the company.

Lean Six Sigma is a continuous improvement methodology that combines DMAIC (Define, Measure, Analyze, Improve, Control) processes and statistical analysis tools from Six Sigma and combines it with lean manufacturing tools to significantly eliminate or reduce 8 types of waste (as losses (looses) in the value stream, trying to cause the loss to zero. Lean Six Sigma is a process that aims to process 6σ (sigma).

The six sigma process is a process in which 3.4 defects occur per million opportunities / Defects per Million Opportunities (DPMO). Two important steps in Lean Six Sigma to measure variation are mean and standard deviation. One of the most important measures in Lean Six Sigma is Sigma, or standard deviation. Sigma is used as a metric to measure variations in processes. The tighter the variation, the higher the quality of the process.

Lean's main principle is the down-line improvement through waste elimination in value streams, waste as identified by the customer. Value-added activities are activities that customers are willing to pay for all other activities, classified as non- Value added is a waste of money. What customers want to pay for a work is a plus on a product, service, or unit. Activities that turn raw goods into finished goods. Non-value added activities consist of eight types of waste, which can be abbreviated as DOWNTIME: Defects, Over-production, Waiting, Non-utilized Resources / Talent, Transportation, Inventory, Motion, Excess Processing.

Lean Six Sigma is a continuous improvement methodology that combines DMAIC (Define, Measure, Analyze, Improve, Control) processes and statistical analysis tools from Six Sigma and combines it with lean manufacturing tools to significantly eliminate or reduce 8 types of waste (as losses (looses) in the value stream, trying to cause the loss to zero. Lean Six Sigma is a process that aims to process 6σ (sigma).

Table 1 – Six Sigma Level

<table>
<thead>
<tr>
<th>Tingkat sigma</th>
<th>DPMO</th>
<th>Cpk</th>
<th>% Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>6σ</td>
<td>3.4</td>
<td>2.0</td>
<td>99.99966</td>
</tr>
<tr>
<td>5σ</td>
<td>23.3</td>
<td>1.67</td>
<td>99.98</td>
</tr>
<tr>
<td>4σ</td>
<td>6.210</td>
<td>1.33</td>
<td>99.38</td>
</tr>
<tr>
<td>3σ</td>
<td>66.807</td>
<td>1.00</td>
<td>93.3</td>
</tr>
<tr>
<td>2σ</td>
<td>308.537</td>
<td>0.67</td>
<td>69</td>
</tr>
<tr>
<td>1σ</td>
<td>690.000</td>
<td>0.33</td>
<td>31</td>
</tr>
</tbody>
</table>

The six sigma process is a process in which 3.4 defects occur per million opportunities / Defects per Million Opportunities (DPMO). Two important steps in Lean Six Sigma to measure variation are mean and standard deviation. One of the most important measures in Lean Six Sigma is Sigma, or standard deviation. Sigma is used as a metric to
measure variations in processes. The tighter the variation, the higher the quality of the process. A process is said to be a Six Sigma process if six standard deviations can fit between each of the process mean sides and customer specifications. This is equivalent to 
\[ Cpk = 2.0. \]

Lean's main principle is the down-line improvement through waste eradication in the value stream, waste as identified by the customer. Value-added activities are activities that customers are willing to pay for all other activities, classified as non- Value added is a waste of money. What customers want to pay for a work is a plus on a product, service, or unit. Activities that turn raw goods into finished goods. Non-value added activities consist of eight types of waste, which can be abbreviated as DOWNTIME: Defects, Over-production, Waiting, Non-utilized Resources / Talent, Transportation, Inventory, Motion, Excess Processing.

The define stage is the step in determining the problem and giving the restriction of the improvement activity. At this stage, identification of production process and identification from value chain to customer value by using SIPOC (Supplier-Input-Process-Output-Customer) analysis. Pt Four Jaffee Indonesia understands well and fully understands that the process (throughput) and its Improvement activity (improvement) as it is very important to understand the process in totality, Sipoc will help the owners or investors and stakeholders as well as business process actors to set the boundaries- limitations of what will be done.

There are three uses of SIPOC: (i) to provide thorough knowledge to team members unfamiliar with the related process; (ii) to reconnect the process with the people involved, (iii) to help the team define the new process. Supply chain management plays a very important role in delivering products to consumers, ranging from raw material sources to final product distribution. In this case PT Four Jaffee Indonesia leads the excellence of innovation and technology. In the supply chain process PT Four Jaffee Indonesia utilizes eight disciplines. Namely, engineering, Manufacturer, procurement, logistics, customer service, planning, quality and safety.

This stage aims to measure the production process as a whole by measuring the standard time step of each process activity by creating value stream mapping, displaying seven waste that occurs along the value stream, determining critical to waste for the most influential waste in each waste using Pareto Diagram determine DPMO and sigma level in waste defect. Value streams are all activities (both value added and non value-added) that are currently required to bring a product through the main stream that is important for each product: (i) the flow of production from raw materials to customers, and design flow from concept to launch (Rother and Shook, 2003). Value stream mapping is the goal is to throw or reduce activities which not provide added value, or so-called waste or you. The use of waste disposal methods to increase the company's competitive advantage was first initiated by Toyota's chief engineer Taiichi Ohno and sensei Shigeo Shingo. There are seven wastes generally accepted within the Toyota Production System: (i) overproduction, (ii) waiting, (iii) transporting, (iv) improper processing, (v) unnecessary Inventory, (vi) unnecessary motion, (vii) defects.

In the production context, there are three types of operations that work. These three operations can be categorized into (i) non-value adding; (ii) necessary but not providing necessary (non-value adding) value; (iii) provide value-adding (Hines and Rich, 1997).

In doing this VSM, literature from several sources is used as current state and then future state is the ideal condition expected. So in the discussion of this Chapter will only be discussed on the operational side of the company alone In using VSM a production system is not seen from one side only but viewed as a whole production system. VSM is useful for improving the running system. So it can be said the principal purpose of the VSM is to identify all waste in the production flow and try to eliminate the waste (Rother and Shook, 1999).

The production process strategy becomes the spirit of the production process that will run as well as the core of the business being developed. Because in determining the strategy of this production process will berimpact directly to the sustainability of the business, including the determination of the type of process that will be used.
In ensuring the quality of the products produced then good quality production material that will be accepted by PT Four Jaffee Indonesia such as coffee, maltodextrin, refined sugar, PEG, milk creamer, citric acid and sodium bicarbonate. From the incoming process, afterwards will be sent to dispensing that is the initial process of making batch material in accordance with the production work order that has been given by the planner team. After that will enter the drying area (wet granulation and dry granulation) the output of this process is the material into a small branular granule which will then go into the process of mixing with acid base before the process of tableting, the process of tableting, granule material will be printed in accordance with size and size of the desired product, before then going through the packing process.

The purpose of the analysis stage is to verify the causes that affect key inputs and key outputs. Stages of analysis:

- Determine the critical input. Determining where problems occur in a process;
- Conducting data analysis and process analysis. At this stage an analysis of the data has been obtained and the process that occurs in more detail. This stage aims to know what the root cause of the actual problem;
- Determining the root cause of the problem. Determining the root causes of problems that occur in the process is done for every problem that occurs;
- Prepare the root cause priority of the problem. One problem can have several causes of problems. At this stage the selection of root causes that will be the target of improvement;
- Perform a review of the Analyze stage. Tools used in the Analyze stages are Failure Modes and Effects Analysis (FMEA).

Improvement is a phase in the DMAIC cycle to fix the problems that have been done define process, measure and analyze based on the data obtained. The next step is to make recommendation improvement which continued to choose the priority of improvement recommendation using Form analysis and consequence of process failure (Failure Mode and Effects Analysis) which shortened to FMEA. Phase improvement in the field is done to determine which waste will be the priorities to be given improvement recommendations. Proposed improvements to minimize waste that occurs in the production process using seven types of waste.

Lean Manufacturing is a concept of streamlining production from Japan. This concept is the concept of adoption of Toyota’s production system. The concept of this approach is oriented to waste elimination (waste) that occurs in the production system. Elimination of this waste is done for the production system to run effectively and efficiently. The concept of this approach is pioneered by Taichi Ohno and Shigeo Shingo where the implementation of this concept is based on 5 principles: (i) understand the customer value; (ii) value Stream Analysis; (iii) flow; (iv) pull; (v) perfection. In lean application, waste must be eliminated. Waste is an activity that has no added value. Therefore, waste must be eliminated because it can cause the production process to be more efficient.

At control stage PT Four Jaffee Indonesia will continue to make continuous improvements by applying, Lean Six Sigma in which there are FMEA, 7 QC Tools, and so on. All of these methods will be very powerful in the field, and will greatly affect the stability of the process, so it is considered necessary to make SOP.

CONCLUSION

Operational Strategy applied to PT. Four Jaffee Indonesia starts from making product design. Before the product is designed first determine the product design and packaging design. In the establishment of Coffee Effervescent business, starting with the establishment of PT Four Jaffee Indonesia, and of course in the process of establishing this company, will follow the applicable regulations, as stated in the Indonesian republic law no. 40 of 2007 concerning limited liability company. Furthermore, in the process of making the deed of establishment of the company, the prospective founder of the company is asked to name the founder of the company which minimum consists of 2 people. Other things that need to be
prepared in the establishment are: business company domicile certificate, company NPWP, permit of disturbance, trade license, trademark registration, brand registration, environmental clearance process, brand and logo.

Company locations are selected based on several considerations, including: (i) a supportive community environment; (ii) close to the market; (iii) easiness in obtaining raw materials; (iv) supportive transport facilities; (v) skilled labor; (vi) Energy Source; (vii) an easy source of water; (viii) the climate is not extreme; (ix) favorable investment situation. Lean Six Sigma is a continuous improvement methodology that combines DMAIC (Define, Measure, Analyze, Improve, Control) processes and statistical analysis tools from Six Sigma and combines it with lean manufacturing tools to significantly eliminate or reduce 8 types of waste as losses (looses) in the value stream, trying to cause the loss to zero.

Measure aims to measure the production process as a whole by measuring the standard time step of each process activity by creating value stream mapping, displaying seven waste that occurs along the value stream, determining critical to waste for the most influential waste in each waste using Pareto Diagram and determining DPMO and sigma level in waste defect. The purpose of the Analyze stage is to verify the causes that affect key inputs and key outputs. Stages in Analyze: (i) determine critical input; (ii) perform data analysis and process analysis; (iii) determine the root cause of the problem; (iv) prioritizing the root cause of the problem.

Improve is a phase in the DMAIC cycle to fix the problems that have been done define process, measure and analyze based on the data obtained. The next step is to make recommendation improvement which continued to choose the priority of improvement recommendation using Form analysis and consequence of process failure (Failure Mode and Effects Analysis) which shortened to FMEA. At the control stage PT Four Jaffee Indonesia will continue to make continuous improvements by applying, Lean Six Sigma in which there is FMEA, 7 QC Tools, and so on. All these methods will be very powerful in the field, and will greatly affect the stability of the process, so it is considered necessary to make SOP or standard work.

REFERENCES

EFFICIENCY ANALYSIS OF PRODUCTION FACTORS OF WETLAND PADDY FARMING IN WEST ACEH REGENCY

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Syiah Kuala University, Indonesia
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ABSTRACT
Appropriate and efficient production management is able to maximize yield continuously in rice farming. Efficiency of production factor one of the effort to increase the ability in farming management especially the use of production factor gives opportunity to increase income for rice commodity. The purpose of this study is to determine the level of efficiency of production factors allocated for wet land paddy farming in West Aceh regency from the economic aspect as well as the amount of income received by rice farmers in the research area. The analysis model used is Cobb Douglas Production Function Analysis, where the result of efficiency analysis found that seed factor, compost fertilizer, and NPK fertilizer are inefficient, while Urea, Pesticide and labor are not efficient yet.

KEY WORDS
Production function, management, wetland rice farming, efficiency, income, West Aceh.

Rice is the most important crop and continues to be cultivated intensively by farmers. This, rice is a staple crop so the availability of rice affects food security, which ensures the availability of food for all people throughout the year on a sustainable basis. Appropriate and efficient production management is able to maximize yield continuously in rice farming.

Farmers in their farms are not only interested in increasing their production, but able to increase income which in turn also increases the benefits for rice farmers. Efforts to increase productivity by using the means of agricultural production, which initially gives a positive effect that is the increase in productivity, but over time decreased productivity and the impact on increasing pest and weeds due to the increasing resistance to pesticides provided by farmers.

The efforts to increase the productivity level of agricultural products have many ways done by the government both directly with integrated agricultural programs and indirectly through research institutions from both universities and independent institutions. In the implementation not all things planned to run, this condition is seen in the field which in the ratio of planning with the results obtained is much different. This difference is in addition to technical aspects of implementation and also due to non-technical factors such as socioeconomic community.

Production development conditions in Kaway XVI Subdistrict and Woyla Subdistrict, which in 2014 the production reached 12,916.00 tons in the Kaway XVI and 10,121.00 tons in the Woyla, while in 2015 in the Kaway XVI Subdistrict increased to 36,322.07 tons and Woyla Subdistrict increased to 22,797.00 tons, while in 2016 decreased in production so that the Kaway XVI subdistrict became 29,353.80 tons as well as the sub-district of Woyla dropped to 19,722.00 tons. This condition illustrates that the fluctuations in the production of lowland rice planted by farmers, the conditions caused are still many farmers have not been able to use production facilities both in terms of quality and quantity which is affect the amount of production.

METHODS OF RESEARCH
The research location in West Aceh regency was deliberately chosen based on the consideration which Aceh Barat regency was the central of paddy farming in Aceh Province. The location of research conducted in the Kaway XIV subdistrict and Woyla subdistrict.
The sampling method was a Stratified Random Sampling which was samples grouping into a more homogeneous group.

The population size in this research was 1,587 people, which was divided into 4 Villages in each Subdistrict namely Kaway XIV Subdistrict and Woyla Subdistrict. The total population of Kaway XIV Subdistrict reached 730 people with the total sample reached 73 people or 10% of the total population. While for Woyla subdistrict, the total population reached 857 people with the total sample reached 86 people or 10% of the total population.

The analysis tool used in this research is Cobb-Douglas Production Function. The equation can be written as follows:

\[
\text{Log } Y = \text{Loga} + \beta_1 \text{Log}X_1 + \beta_2 \text{Log}X_2 + \beta_3 \text{Log}X_3 + \beta_4 \text{Log}X_4 + \beta_5 \text{Log}X_5 + e
\]

Where: \( Y = \) Paddy production (kg/ha/mt); \( X_1 = \) land area (ha/mt); \( X_2 = \) seed (kg/mt); \( X_3 = \) fertilizer (kg/mt); \( X_4 = \) pesticide (liter/mt); \( X_5 = \) labor (HKP/mt).

Calculating the level of production input efficiency in wetland paddy farming in West Aceh regency, the economic efficiency condition requires NPM to be equal to the factor production price:

\[
\frac{a.Y.P_y}{X} = P_x
\]

Farmers profit is net income of farmers after deducted by production cost and investment cost. According to Suratiyah (2009) the formula for calculating profits as follows:

\[
\text{TR} = P_y \cdot Y
\]

The calculation of \( R / C \) can be written as follows:

\[
R / C = \frac{\text{Total Revenue}}{\text{Total Cost}} = \frac{Y \cdot P_y}{TC}
\]

RESULTS AND DISCUSSION

The efforts to increase yields on farms is to increase the use of production facilities that will increase the income of local farmers. The magnitude of the factors production influence on paddy production in the analysis by using Cobb Douglas function that has been transformed into the regression equation in the logarithm so that the following results are obtained:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient</th>
<th>T(DF=158)</th>
<th>Prob</th>
<th>Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constants</td>
<td>1,953</td>
<td>4,631</td>
<td>0.00</td>
<td>0.05=2,44</td>
</tr>
<tr>
<td>( X_1 )</td>
<td>-0.098</td>
<td>-2.925</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>( X_2 )</td>
<td>-0.008</td>
<td>-0.133</td>
<td>0.894</td>
<td></td>
</tr>
<tr>
<td>( X_3 )</td>
<td>-0.288</td>
<td>-2.800</td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>( X_4 )</td>
<td>1.073</td>
<td>6.609</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>( X_5 )</td>
<td>0.101</td>
<td>4.119</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>( X_6 )</td>
<td>0.502</td>
<td>5.453</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

\[
R^2 = 0.867 
\]

\[
F \text{ search} = 172.650
\]

Source: Data Primer (dilolah), 2018.

\[
\text{Ln } Y = \text{Ln } 1,953 + \text{Ln } -0.098 \text{ } X_1 + \text{Ln } -0.008 \text{ } X_2 + \text{Ln } -0.288 \text{ } X_3 + \text{Ln } 1.073 \text{ } X_4 + \text{Ln } 0.101 \text{ } X_5 + \text{Ln } 0.502 \text{ } X_6
\]

\[
Y = 7.050 + 0.907 \text{ } X_1 + 0.992 \text{ } X_2 + 0.750 \text{ } X_3 + 2.924 \text{ } X_4 + 1.106 \text{ } X_5 + 1.652 \text{ } X_6
\]
The above calculation results show that each addition of seed ($X_1$) of 1 Kg will cause a production increase of 0.907 Kg / Ha if the factors ($X_2$, $X_3$, $X_4$, $X_5$, and $X_6$) are considered fixed, the hypothesis accepted $H_A$ and rejected $H_0$. For seed variables ($X_1$) obtained $t_{\text{find}} = 2.925$, while $t_{\text{table}} (\alpha = 0.05) = 2.44$. Then $t_{\text{find}} > t_{\text{table}}$ which means the null hypothesis is rejected and the alternative hypothesis is accepted at 95% level.

Each addition of compost ($X_2$) of 1 Kg will result in increased production of 0.992 Kg / Ha if the production factors ($X_1$, $X_3$, $X_4$, $X_5$, and $X_6$) are considered fixed, the hypothesis accepted $H_A$ and rejected $H_0$. For variable of compost fertilizer ($X_2$), $t_{\text{find}} = -0.133$, while $t_{\text{table}} (\alpha = 0.05) = 2.44$. Then $t_{\text{find}} < t_{\text{table}}$ which means the null hypothesis is accepted and the alternative hypothesis is rejected at 95% level.

Any addition of NPK fertilizer ($X_3$) of 1 Kg will result increased production of 0.750 Kg / Ha if the production factors ($X_1$, $X_2$, $X_4$, $X_5$, and $X_6$) are considered fixed, the hypothesis accepted $H_A$ and rejected $H_0$. For the NPK fertilizer variable ($X_3$) obtained $t_{\text{find}} = -2,800$, whereas $t_{\text{table}} (\alpha = 0.05) = 2.44$. Then $t_{\text{find}} < t_{\text{table}}$ which means the null hypothesis is rejected and the alternative hypothesis is accepted at 95% level.

Any addition of Urea fertilizer ($X_4$) of 1 Kg will result in increased production of 2,924 Kg / Ha if the production factors ($X_1$, $X_2$, $X_3$, $X_5$, and $X_6$) are considered fixed, the hypothesis accepted $H_A$ and rejected $H_0$. For the Urea fertilizer variable ($X_4$) obtained $t_{\text{find}} = 6,609$, whereas $t_{\text{table}} (\alpha = 0.05) = 2.44$. Then $t_{\text{find}} > t_{\text{table}}$ which means the null hypothesis is rejected and the alternative hypothesis is accepted at 95% level.

Any addition of pesticide ($X_5$) of 100 ml will result increased production of 1,106 Kg / Ha if the production factors ($X_1$, $X_2$, $X_3$, $X_4$, and $X_6$) are considered fixed, the hypothesis accepted $H_A$ and rejected $H_0$. For the pesticide variable ($X_5$) obtained $t_{\text{find}} = 4,119$, while $t_{\text{table}} (\alpha = 0.05) = 2.44$. Then $t_{\text{find}} > t_{\text{table}}$ which means the null hypothesis is rejected and the alternative hypothesis is accepted at 95% level.

Any additional labor ($X_6$) of 1 HKP will result in a production increase of 1,652 Kg / Ha if the production factors ($X_1$, $X_2$, $X_3$, $X_4$, and $X_5$) are considered fixed, the hypothesis accepted $H_A$ and rejected $H_0$. For the labor variable ($X_6$) obtained $t_{\text{find}} = 5,453$, while $t_{\text{table}} (\alpha = 0.05) = 2.44$. Then $t_{\text{find}} > t_{\text{table}}$ which means the null hypothesis is rejected and the alternative hypothesis is accepted at 95% level.

The simultaneous test results obtained by F test obtained $F_{\text{find}}$ of 172,650 and $F_{\text{table}} (0.01)$ on the confidence level of 95 percent of 2.88 with other words $F_{\text{find}} > F_{\text{table}}$, this means seed ($X_i$), compost ($X_2$), NPK fertilizer ($X_3$), Urea fertilizer ($X_4$), Pesticide ($X_5$) and Labor ($X_6$) have a very significant effect on rice production.

Furthermore, to see the relation of efficiency of production factor (Y) with seed ($X_i$), compost fertilizer ($X_2$), NPK fertilizer ($X_3$), Urea fertilizer ($X_4$), Pesticide ($X_5$) and Labor ($X_6$) is used determination coefficient ($R^2$). The results show that $R^2$ = 867, it means that 86.70 percent of the Y variable can be explained by the $X_1$, $X_2$, $X_3$, $X_4$, $X_5$, and $X_6$ variables, while the other 13.30 percent is explained by other factors out the research.

<table>
<thead>
<tr>
<th>Production Factor</th>
<th>Regression Coefficient (a)</th>
<th>Average Production (Y) (Kg/Farmers)</th>
<th>Production Price, $P_Y$ (Rp/Kg)</th>
<th>Production Factor Average (X) (Sat/Petani)</th>
<th>Production Factor Price, $P_X$ (Rp/Kg)</th>
<th>Efficiency Ratio (aYP/XP)</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>-0.09780</td>
<td>4.621</td>
<td>4.500</td>
<td>62.41</td>
<td>5.500</td>
<td>-5.92</td>
<td>No</td>
</tr>
<tr>
<td>Compost</td>
<td>-0.00771</td>
<td>4.621</td>
<td>4.500</td>
<td>775.69</td>
<td>500</td>
<td>-0.41</td>
<td>No</td>
</tr>
<tr>
<td>NPK</td>
<td>-0.28768</td>
<td>4.621</td>
<td>4.500</td>
<td>139.36</td>
<td>2.500</td>
<td>-17.17</td>
<td>No</td>
</tr>
<tr>
<td>Urea</td>
<td>1.07261</td>
<td>4.621</td>
<td>4.500</td>
<td>168.51</td>
<td>2.000</td>
<td>66.18</td>
<td>Not yet</td>
</tr>
<tr>
<td>Pesticide</td>
<td>0.10140</td>
<td>4.621</td>
<td>4.500</td>
<td>698.40</td>
<td>500</td>
<td>6.04</td>
<td>Not yet</td>
</tr>
<tr>
<td>Labor</td>
<td>0.50223</td>
<td>4.621</td>
<td>4.500</td>
<td>118.56</td>
<td>35.000</td>
<td>2.52</td>
<td>Note yet</td>
</tr>
</tbody>
</table>

The ratio between the Marginal Product Value (NPM) of the seed production input and the price ($P_s$) of seed purchase is greater than one (-5.92). It shows that economically the allocation of seed input at the level of 62.41 Kg was inefficient.
The ratio between the Marginal Product Value (NPM) of the compost fertilizer input ($X_d$) with the compost fertilizer price per kilogram is less than one (-0.41). It shows that economically the allocation of composted fertilizer production input at the level of 775.69 kilogram per Ha was inefficient.

The ratio between the Marginal Product Value (NPM) from the production input of NPK fertilizer ($X_g$) and the fertilizer price per kilogram is greater than one (-17.17). It shows that economically the allocation of NPK fertilizer production input at the level of 168.51 kilograms per farm was inefficient.

The ratio between the Marginal Product Value (NPM) of the Urea fertilizer production input ($X_h$) with the Urea fertilizer price per kilogram is greater than one (66.18). It shows that economically the allocation of urea fertilizer input at the level of 143.83 kilograms per Ha was inefficient yet.

The ratio between the Marginal Product Value (NPM) of the pesticide production input ($X_s$) at the pesticide price per milligram is less than one (6.04). It shows that economically allocation from pesticide production input at level 698.40 ml per Ha that pesticide production factor ($X_s$) was inefficient yet.

The ratio between the Marginal Product Value (NPM) of the labor production input to the labor price per HKP is greater than one (2.52). It shows that economically the allocation of labor input at the level of 118.56 HKP thus the labor production factor ($X_e$) was inefficient yet.

The amount of farm income earned by rice farmers reached Rp.18.280.533 per Ha, which the amount of dried grain production reached 5.389 kg per Ha, with the selling price of dried grain Rp.4.500 per kg and the amount of production value reached Rp 24.248.258 per Ha. The cost of production reached Rp.5.968.258 per Ha. With an R / C value of 4.063, which means that paddy farming will provide income of 4.063 times from the total cost incurred by farmers.

**CONCLUSION**

From Cobb Douglas analysis, it can be concluded that seed production, NPK fertilizer, Urea fertilizer, Pesticide and labor have a significant effect on wetland paddy production, while compost fertilizer production factor has not significant effect on wetland paddy production. Whereas based on the results of the efficiency analysis it was found that the seed factors, compost fertilizer, and NPK fertilizer were inefficient, while Urea, Pesticides and Labor were inefficient yet.

The amount of paddy farming profits earned by the farmers worth, which the benefits are seen from the Revenue Cost Ratio (R / C) of 4.063.

**SUGGESTIONS**

As a suggestion can be given by author which there were several factors of inefficient production of seed factors, compost fertilizer, NPK fertilizer, and labor, so it can be said the saprodi used was excessive and the need to reduce it, in addition to the inefficient yet factors consisting of Urea fertilizer and pesticides, so that the amount of the application can be added. The effort to achieve efficiency in rice farming in terms of technical efficiency, price efficiency and economic efficiency of the need for action in the farming obtained from various sources one of them is from extension workers in order to be able to obtain maximum production. And also the participation of farmers in farmer groups which in the farmer group is a forum to exchange information among farmers.

The effort to increase the income is expected that the farmers can make the addition or reduction of production factors in accordance with the efficiency calculation by doing these activities will provide optimal results, in addition the appropriate types used of production facilities will provide the right results as well.
REFERENCES


INFORMATION, COMMUNICATION TECHNOLOGY AND WOMEN'S PRODUCTIVITY AT COASTAL AREA

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ABSTRACT
Information and Communication Technology (ICT) is growing rapidly in Indonesia, especially the internet. Data Association of Indonesian Internet Network Providers (APJII) revealed that 132.7 million Indonesians have used the internet. This data shows almost all people using the internet. Not only in the city, but also in the countryside and in the coastal areas, many residents use the Internet by using a smartphone. Data also shows that the internet user is still dominated by men. Women are considered incapable and less capable in utilizing ICT especially internet. However, many research results emphasize that information technology or the Internet can help spread in improving social and economic processes. This paper examines about how ICT could empower women at coastal area where women have their productivity by produce fish production. The method is by interviewing women at coastal area who have productivity to help family income. A case from Indramayu District of West Java province becomes a sample for this study. It revealed that women are not significantly using internet in their productivity even though they know about it and women are willing to be empowered through utilizing ICT; also there is a gender biased or it is called gender digital divide.

KEY WORDS
Internet, women, coastal area, productivity, empowerment.

Information communication technology or ICT especially the internet is growing rapidly in Indonesia. From old generation to young ages use the internet. The Internet is used for various things, ranging from the use of email as a means of communication to the utilization of the internet in e-commerce and market the product.

Along with the development of ICT or internet, it is expected to have a significant role. Especially with the participation of women in utilizing ICT for development. Many literatures stated that the development of ICT especially the internet could improve people’s quality of life including women. However, the reality is women's access to the internet is still behind compared with men. Women are seen as lacking in ICT skills and lack of literacy towards ICT. Most women do not have access to the internet. Yet if women are also given the opportunity to access the internet, the gender gap will shrink and women can also use the internet to increase women's capacity and ability to contribute in development.

It is interesting to underline that women should have an equal access to the internet. The Beijing Declaration of 1995 also highlighted the need for women's empowerment to improve knowledge, skills and access to communication technology; as well as in its strategic objectives of increasing women's participation and access to express and decision-

DOI https://doi.org/10.18551/rjoas.2018-09.51
making through new media and communications technologies (the internet). Poverty, lack of access and opportunities, illiteracy and language barriers are a factor for women not to access communications technologies including the internet (United Nations Division for the Advancement of Women 2005).

Consequently women could enlarge their activity by utilizing ICT especially when they have produced some things. Coastal area becomes the attention of this study. It is because women at coastal area have a significant role in income generating. They will work any kind of occupation in helping the family income. It is because the coastal area is famous as the slum area where the rate of poor is high. Literatures say that coastal women not only manage financial resources to meet all the needs of their families, but also take responsibility for preparing funds if their husbands as fishermen do not bring home income (Kusnadi 2015).

This study investigates women in Indramayu District, a coastal area that is located in West Java. Indramayu is one of the biggest fish production district in West Java and women normally take part in economic activity to increase the family income by produce the fish product. They produce shredded fish, fish meatball and other fish consumption. Then they sell this product widely from local community to national market; but some of are still using a traditional way of marketing the product. They should be empowered in using a sophisticated technology such as the internet.

Based on the background above, this study is to explore on how women at coastal area use and utilize ICT especially in Indramayu district productivity, thus it benefits in development and women empowerment. This study aims to determine on how the ICT could improve women’s life and their productivity.

METHODS OF RESEARCH

To answer the problems described, the method of research is based on observations and interview. The observation and interview are done with women in Indramayu district, a coastal area, the north coast of Java, who have a production in helping the family income. There are about 20 women interviewed and being observed. They are interviewed to find out how their productivity is run and how the ICT could assist it. The research is conducted from December 2017 to January 2018. The literature study or literature review is also used by analyzing theoretically about ICT, women's productivity at coastal area and how ICT and women could be assisted. Literature study is done by collecting reading materials related to the topic and the case will be discussed in the form of books, journals and other readings related to the theme of the paper.

RESULTS AND DISCUSSION

It is interesting that many scholars noted ICT could improve the quality of life. Reddi and Vemraju (2006) underlines that there are some effects of ICT ranging from the economic, political and social system. Thus, some people have the expectation that ICT will commendably dismiss inequality of social structure.

Therefore, the significant infrastructure of the ICT has to be developed well in order to fulfill women's needs. A research conducted by Kwapong (2007) in his research "Problems of policy formulation and implementation: the case of ICT use in rural women's empowerment in Ghana", recognizes that there is good allocation and cooperation between regional and local authorities as well as appropriate approaches to women's empowerment can improve women's capacity and empower women. In reality, however, women use less ICT than men in rural areas. This research underlines that women is still lack behind in utilizing the ICT. Other researches have the same results that women are still left behind in using technology (Hilbert 2011, Nath 2001, Metha and Metha 2014, and Satapathy 2012). Jensen (2006) emphasizes that ICT were clearly diagnosed to create discrimination:

"[W]omen have been slow to enter ICTs-based professions worldwide and have been largely excluded from designing and shaping information technologies... As a result, women have benefited less from, and been disadvantaged more by, technological advances.
Women, therefore, need to be actively involved in the definition, design and development of new technologies. Otherwise, the information revolution might bypass women or produce adverse effects on their lives" (Jensen 2006).

The statement above clearly says that women should have opportunity in accessing ICT or the internet. Women should have an equal access and opportunity in order to improve their quality of life and their productivity in any kind sectors. Most women are less in using ICT, it is because of some factors affected women such as education, low rate income, language barriers. Women’s productivity cannot be run well if they do not recognize the benefit of ICT, mainly the internet.

In fact, women play an important role in food production and distribution. The implications of women’s ability to access price and product information, market chains and others related to information or knowledge will be helpful in improving welfare and economic development. Increased capacity for ICT use by women can extend the range of actions they previously could not have done. This is because ICT conceptually connects every woman in the world.

From several research above, it is interesting to be noted that in some opinion, ICT specifically the internet could assist the development and women’s empowerment and productivity, but for some cases it needs to be reviewed on its’ implementation for women and rural area. Thus, ICT or the internet is needed in a new ways of communication throughout the society and community in improving the participation of development. Women should have access and gain the benefit from ICT. Let women be involved in making decision of development program and goal. If there is women’s participation, women will be empowered and they have ‘voice’ in improving women’s capacity in development. Finally women’s productivity can rise.

In the case of Indramayu, a district in West Java province, where most of the villagers are the fishermen and the women mostly help the family by working or producing the fish production; the researcher could say that women do not empowered yet by using ICT. The researcher select Indramayu, it is because the rate of fish produced at this area is quiet high. In 2017, the total fish landed in Indramayu increased by 15% compared to 2016. Fish production from Indramayu is the highest in West Java. In fact, every year Indramayu's contribution to fisheries production in West Java continues to grow. In the previous year, Indramayu's contribution was only around 50 percent (mediaindonesia.com 2017).

Having a high number of fish productions, and supporting the life, many women in Indramayu have their own productivity from small to large scale, but yet the ICT becomes an important way in distributing their product. The fish production that they produce is shredded fish, fish meatball, fish crackers, anchovy, and others fish consumption. From the interviewing of 20 women and they have fish production to help family income; it revealed that most of women know about the internet but some of them do not know how to operate and utilize it. Women who know about the internet and also use it is only 2 women out of 20. Interestingly, they confess that their children told them about the internet. These 2 women have a fish production and sell it into national scale. So that is why they also use a sophisticated mobile phone that can connect to the internet. What they mostly use is Facebook and Watsapp; so they can share their fish production into everywhere else by posting a new picture on their walls. They said that it could enlarge their market and sometimes other people who just knew the product also order to buy their product directly. They receive a regular order from their market.

What all women know about the internet is the internet connects to the mobile phone and they need credit for charging the internet. One of women say that she does not have a sophisticated mobile phone and she cannot afford the internet credit. Therefore, her husband has it. Because of she does not have mobile phone, then she produce her fish production at local level and sell in a near neighborhoods. Even though she does not have mobile phone, she is willing to know more about the internet and how it works. In fact, there is no empowerment for women to utilizing the internet.

Further about the internet, women who did not know about the internet say that they did not have a sophisticated mobile phone which is connected by the internet or other
resources or internet facilities. While women who know about the internet, they also have a little time to get connected. What they do is only using popular application such as Facebook and Whatsapp on smartphone. It can be say that the internet they use is a common one. They revealed that selling their product by words of mouth and other traditional ways are more convenience for them at the moment.

The fact and based on previous research above show that women do not touched yet by the internet infrastructure. Most women still doubt in using internet due to their ability and opportunity in getting skills in using it. Further to these problems, the local government does not take it as one of women’s program to be empowered. There some programs from local government but they are mostly for men or in group. There is no a specific program to empower women by utilizing ICT or the internet.

Most of the program from government or other institution do not appreciate ICT can be one of significant development change for women. Women’s productivity cannot be reached significantly by utilizing the internet. They still prefer using the traditional ways or media because they have their own market. The woman who use the internet has enlarge her knowledge of marketing and area of production.

In line with some researches have been conducted in several developing countries state that the internet and other resources of ICT, cannot be indeed reach by women. Thus it becomes gender digital divide. When it comes to coastal area which is known as slum or poor area, the experts clearly emphasize that the poor need access to local networks of knowledge (Sundararajan 2006). In other literature. Consequently, the development of ICT should be questioned further especially in developing country. As highlighted by May (2012 in Obijiofor 2015) “access to information through new technologies must be seen as ‘a question not only of connectivity, but also of other deprivations that influence the capability of individuals and communities to access and use the technology.” This statement refers to the existing of competency and knowledge of people or the poor in accessing and taking benefit from the technology.

Answering the problems above, there should be empowerment for communities and women especially in adopting and making sense of the benefit of ICT. When people start to gain the understanding and accessing the ICT, it could impact their quality of life. It is described from a respondent above that when she understands and uses the technology, it helps her in enlarging her market and productivity. However, if women do not understand about it, they will still left behind and use traditional way in marketing their product.

CONCLUSION

It is clear that ICT could be benefit for women in terms of development and productivity. However, there is still lack women’s empowerment program through ICT. Government should be aware that women have to be heard and participated in determining the development goal. By this participation, women’s capacity will improve and it is expected that increasing the prosperity as well.

REFERENCES


ABSTRACT

This study aims to determine the determinants of the high and low capital structure of the Indonesian Stock Exchange consumer goods companies with the pecking order theory approach. There are five variables tested, namely asset structure, growth opportunity, firm size, profitability, and business risk. The population of this study was consumer goods companies listed on the Stock Exchange during 2012-2016. This study used a total census method of the population, namely 30 companies. Data analysis techniques used are using logistic regression. The results of the study found that there are two variables that significantly influence the high and low capital structure, namely asset structure and growth opportunity. Other variables, namely firm size, profitability, and business risk do not significantly influence the high capital structure.

KEYWORDS

High determinant variable, capital structure, pecking order theory, goods.

The company is faced with increasingly fierce competition in the era of globalization. Firm competition is oriented towards achieving profits and maximizing company value as reflected in stock prices. Maximize the value of the company and profit. One way that is used to achieve the goal is by utilizing financial management functions that can help companies maximize the value of the company, because by increasing the value of the company, the decision of corporate funding is classified based on the source of funds, namely debt and equity Sutrisno (2012: 5). The composition of debt and equity in the structure of long-term funding in a company is called the company's capital structure.

Capital structure is one indicator of the company's financial strength. Optimal capital structure that is if the minimum capital costs and company value will be maximum. The high and low capital structure is seen from the average capital structure, if the value above the average is said to be a high capital structure, if the value is below the average said the capital structure is low.

There are several theories of capital structure according to Bringham & Houston (2011) including, trade-off theory, and pecking order theory. This research focuses on packing order theory according to Myers (1984), pecking order theory explains that companies prioritize internal equity funding (using retained earnings) rather than external equity funding (issuing new shares).

These factors will be the basis of the manager's consideration in determining the capital structure decision according to Myers (1984) in the pecking order theory which includes asset structure, growth opportunity, firm size, profitability, and business risk. The study uses these variables because the results of previous studies there are still differences in results.

This study uses objects in the manufacturing sector, namely the consumer goods sub-sector listed on the Indonesia Stock Exchange. This study uses the object of the Consumer Goods industrial company listed on the Indonesia Stock Exchange because the capital structure of consumer goods companies in the five years of research has fluctuated which means competition between companies is getting tighter so that the capital structure varies.

This research was conducted because it wanted to see what factors influenced the high and low use of capital structure in a company, where previous research only carried out research related to capital structure directly. Based on the description in the background, the main topics of discussion in this study are as follows. Is the asset structure, growth opportunity,
firm size, profitability, and business risk able to determine the company's capital structure? The purpose of the study is to determine the significant effect of asset structure on the company's capital structure. the benefits of this research are: 1) Theoretical Usability: this research is expected to be useful and can provide empirical evidence about variables that affect the capital structure of the consumer goods sector. 2) Practical Uses of this research are expected to provide information for companies as a basis for determining funding decisions.

LITERATURE REVIEW

The asset structure in the pecking order theory is to describe a portion of the amount of assets that can be guaranteed by the company. Debt is positively related to asset structure because companies whose assets are mostly tangible assets tend to use more debt because the tangible assets that the company has can be used as collateral to creditors to obtain debt, the opposite is true for companies that are mostly assets in the form of intangible assets. The results of previous studies conducted by Yuliani and Candraningrat (2014), Kumar, et al (2012), Alipour et al (2015), Jemmi (2013), Werner (2013), Bertha (2013), Nasser and Krassimir (2011), Supawadee et al (2014), Mota at el (2017), Rita (2014) states that asset structure has a significant positive effect on capital structure.

Growth opportunity based on pecking order theory is that companies that are growing or developing have greater internal funding needs. The consequence is that companies with high growth rates tend to use external funds to finance new projects, but the choice of external funds has a sequence, starting from the safest option and then high-risk options. Myers (1997) found that companies with high growth rates use more debt. Based on the pecking order theory, the relationship between the rate of growth and corporate debt is a positive relationship. The results of previous studies conducted by Alipour et al. (2015), Bayrakdaroglu (2013), Ticoalu (2013), Bharuddin et al. (2011) Santika and Sudiyatno (2011), Jemmi (2013), Werner (2013), Bertha (2013), Friska (2013), Songul (2015), Sangeeta (2015) stated that growth opportunity has a significant positive effect on capital structure.

Firm size determines the company's capital structure decision, according to the pecking order theory, there is a negative relationship between the size of the company and debt that is used because small companies have limited access to equity capital markets so that to obtain company funds depends on loans or debt, therefore according to Pecking order theory The theory of small companies tends to use debt more than large companies. Results of research conducted by Jemmi (2013), Werner (2013), Bertha (2013), Fuady (2014), Ticoalu (2013), Winston and Ventje (2013), Mota at el (2017), Rita (2014) Friska (2013) states that firm size has a negative effect on the capital structure.

Profitability reflects a measure of ability in earning power from a company in the future. In pecking order theory profitability has a negative effect because companies tend to use as much internal funding as possible before deciding to use external funding. Thus companies with high rates of return use relatively small debt. A high level of profitability also means that the company's profit is high, this will make the company's retained earnings which will be used for investment and production activities are also high. Results of research by Haryanto (2010), Seftianne and Handayani (2011), Santika and Sudiyatno (2011), Priyono (2010), Winahyuningsih, et al (2010), Tuncer (2014), Nadeem et al (2011), Hossain and Hossain (2015), Wijaya and Utama (2014), Aulova and Hlavsa (2013) state that the profitability factor negatively affects the capital structure.

Business risk is one of the risks faced when a company is unable to fund its operational activities. Business risk can also occur if the company has too high debt. This is because the company needs to provide funds for repayment of debt and interest expense borne by the company. According to the pecking order theory, the high business risk of a company makes creditors uncomfortable to provide debt because of the high risk of the company so that the possibility of default is very high, so the business risk relationship to the capital structure is negative. The results of previous research conducted by Nuswandari (2013), Shibru et al
(2015), Friska (2013) states that business risk has a significant negative effect on capital structure.

**Hypotheses:**
- H1: Asset structure has a positive and significant effect on the capital structure;
- H2: Growth opportunity has a positive and significant effect on the capital structure;
- H3: Firm size has a significant negative effect on capital structure;
- H4: Profitability has a negative and significant effect on the capital structure;
- H5: Business risk has a significant negative effect on the capital structure.

**METHODS OF RESEARCH**

This study aims to determine the effect of independent variables, namely asset structure, growth opportunity, firm size, profitability, and business risk on the dependent variable, namely the capital structure. The research location in this research is IDX by accessing data on the official IDX website at www.idx.co.id. The research time is 5 years, namely 2012 - 2016. The sample in this study is the consumer goods sector company. Determination of the sample in this study using census method that is by using the entire population. The analysis technique used in this study is logit regression analysis.

**RESULTS OF STUDY**

Based on Table 1, it is known that the coefficient of asset structure has a positive value of 0.130 with a significance value of 0.000 < 0.05. This means that H1 is accepted. This shows that the asset structure has a significant positive effect on the capital structure. The empirical results of the study support the hypothesis based on the assumption of the pecking order theory which describes some of the amount of assets that can be guaranteed by the company in running its business. One of the funding decisions for companies is to use external party or debt funds that are used to increase company assets so that the addition of the amount of assets owned by the company can be used as collateral by the company. Intangible assets that are increasingly large will show the company's ability to provide a higher guarantee so that the company will increase debt to benefit from the use of debt. The results of this study correspond to the results of Yuliani and Candraningrat's research (2014), Kumar, et al (2012), Alipour et al (2015), Indrajaya (2011), in their research stated that asset structure has a positive and significant effect on the low capital structure.

**Table 1 – Logit Regression Analysis**

<table>
<thead>
<tr>
<th>Variable in the Equation</th>
<th>B</th>
<th>S.E</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step X1</td>
<td>0.130</td>
<td>0.029</td>
<td>19.517</td>
<td>1</td>
<td>0.000</td>
<td>1.139</td>
</tr>
<tr>
<td>1 X2</td>
<td>0.020</td>
<td>0.010</td>
<td>4.096</td>
<td>1</td>
<td>0.043</td>
<td>1.020</td>
</tr>
<tr>
<td>X3</td>
<td>0.404</td>
<td>0.204</td>
<td>3.911</td>
<td>1</td>
<td>0.048</td>
<td>1.498</td>
</tr>
<tr>
<td>X4</td>
<td>0.004</td>
<td>0.028</td>
<td>0.017</td>
<td>1</td>
<td>0.895</td>
<td>1.004</td>
</tr>
<tr>
<td>X5</td>
<td>0.053</td>
<td>0.052</td>
<td>1.036</td>
<td>1</td>
<td>0.309</td>
<td>1.055</td>
</tr>
<tr>
<td>Constant</td>
<td>-12.683</td>
<td>3.992</td>
<td>10.096</td>
<td>1</td>
<td>0.001</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on Table 1 it is known that the coefficient of growth opportunity has a positive value of 0.020 with a significance value of 0.043 < 0.05. This means that H2 is accepted. This shows that growth opportunity has a significant positive effect on the capital structure. The empirical results of the research support the hypothesis based on the assumption that pecking order theory increases the growth opportunity of companies will increase the company's capital structure because companies that have rapid growth often have to increase their investment in assets, besides companies with high growth rates and more retained earnings will more need for funds in the future. Retained earnings from companies with high growth rates will increase and companies will use more debt to finance company operations. The results of this study are in line with the results of Jemmi (2013), Werner
(2013), Bertha (2013), Friska (2013), Songul (2015), Sangeeta (2015) says growth opportunity has a significant positive effect on capital structure. Based on Table 1 it is known that the firm size coefficient is positive at 0.404 with a significance value of 0.048 <0.05. This means that H3 is rejected. This shows that growth opportunity has a significant positive effect on the capital structure. The results of the study do not support the hypothesis that the larger a company, the easier it is for the company to obtain debt. Large companies have easy access so that the flexibility of large companies is also greater. The creditor or creditor certainly believes more in giving credit to large companies so that large companies have wider opportunities and easy to get credit. The results of this study are in line with the results of research conducted by Zerriaa and Noubbgh (2015), Bayrakdaroglu (2013), Aulova and Hlavsa (2013), Nadeem et al (2011) Nasser and Krassimir (2011), Songul (2015), Basil (2011), Sangeeta (2015) which states that firm size has a positive and significant effect on capital structure.

Based on Table 1, it is known that the profitability coefficient is positive at 0.004 with a significance value of 0.895> 0.05. This means that H4 is rejected. This shows that profitability has no significant positive effect on the capital structure. The results of the study do not support the hypothesis that high profit should have more debt service capacity and more taxable profits protected therefore must provide a higher debt ratio. This means that companies will use more debt to get greater profits. In addition, the company earns a profit which is more likely that the company shares more profits with shareholders as dividends. The results of this study are in line with the results of research conducted by Alipour et al (2015), Zerriaa and Noubbgh (2014), Patterekonga and Napompech (2014), Songul (2014), Govika (2017).

Based on Table 1, it is known that the business risk coefficient is positive for 0.053 with a significance value of 0.309> 0.05. This means that H5 is rejected. This indicates that business risk has a positive and not significant effect on the capital structure. These results indicate that the size of a company's business risk does not affect its capital structure, because the use of corporate debt has not been maximized so the company does not have a high risk. The results of this study are consistent with research conducted by Saidi (2002) and Harjanti and Tandelilin (2007), Nuswandari (2013), Shibru et al (2015), and Friska (2013).

CONCLUSION AND SUGESTIONS

Based on the results of the analysis carried out, it can be concluded that the asset structure and growth opportunity variables affect the capital structure. Asset structure affects the high and low capital structure because of the increase in debt used to increase company assets so that the addition of the amount of assets owned by the company can be used as collateral by the company. Growth opportunity affects the high and low capital structure because companies that have rapid growth often have to increase their investment in the form of assets, so that the company's funding needs will be filled with debt which results in an increase in the company's capital structure. Firm variable size, profitability, and business risk are not able to influence the high and low capital structure. Suggestions that can be put forward in research for company issuers should pay attention to asset structure variables and opportunity growth in determining capital structure so that companies know the extent of optimal debt levels. For academics and subsequent researchers it is recommended to use other variables as determinants of high and low capital structures such as liquidity, taxes, interest rates with different proxies such as the amount of profit held, and interest rates on loans.

REFERENCES


HUMAN RESOURCE SCORECARD: A MODEL OF HUMAN RESOURCE PERFORMANCE MEASUREMENT

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ABSTRACT
Professionals in the field of human resource always face external and internal challenges so that they need a strategic perspective that is in accordance with their role in the organization. As professionals, they need to answer the challenges through one approach of human resource performance measurement and are required to know the contribution of human resource to organizational performance. In this matter, this approach is the theme concerned in human resource scorecard.

KEY WORDS
Human resource, scorecard, performance, challenge.

The concept of "Balance Scorecard" for organizational performance measurement was introduced in one of the books written by Kaplan and Norton in 1992. Since that, Kaplan and Norton have developed the concept of "Balance Scorecard" for ±200 companies in America. One of the questions that were always asked when they were designing the concept is "what is your organizational strategy?" Through such question, Kaplan and Norton were inspired to understand how the leaders of the organization think about his/her organization. In most cases, the leaders of the organization have similarities especially in focusing the financial strategy and in delivering the priority to the operational improvement process. It is believed that organizational leaders do not pay attention to customer strategy (who the target is; the values applied in the organization). They do not seem to realize and understand the importance of strategy for human resource development (Human Capital).

In the current organization and new economic development, particularly in value creation, an organization is strongly dominated by "human capital" and other "intangible capital". Therefore, it is necessary to measure the HR strategy. One of the concepts introduced in this measurement is "HR scorecard" which offers several important steps to be used in HR strategy management.

However, the concept is not easy to apply considering that HR is the main driver of company strategy. In connection with that, the framework of this study is: the second part will describe the HR architecture as a strategic capital while the third part will review the steps to realized HR scorecard and then, in the fourth part, the dimensions of HR performance measurement will be explained with HR scorecard. The cover will be presented in the last part of this study.

**HR Architecture as Strategic Capital.** According to Becker, Huselid and Ulrich (2001), an effective system of HR measurement has 2 (two) important objectives namely: (1) providing instructions for decision-making in the organization, and (2) serving as a basis for HR performance evaluation. The concept developed in the HR Scorecard is aimed at the important roles of HR professionals henceforward.

If the focus of the company's strategy is to create a sustainable "competitive advantage", then the focus of the HR strategy must be adjusted. This is to maximize the HR contribution towards organizational goals which further creates a value for the organization. The basis of HR strategic role consists of a 3-dimensional value chain developed by a company's HR Architecture such as function, system, and behavior of the employees.

In detail, the term "Architecture" explains HR profession within the function and system of HR related to its policies and practices through competence, motivation, and behavior.
This following Figure 1 illustrates the process of HR strategy architecture (Becker, Huselid and Ulrich, 2001).

![HR Strategy Architecture](image)

**Human Resources Function.** The basis for the creation of HR strategy values is managing the infrastructure to understand and implement company strategies. Usually, HR professionals are expected to direct this effort. Huselid, Jackson, and Randal (in Becker, Huselid & Ulrich, 2001) revealed that the effective human resources management consists of 2 important dimensions, namely:

- Technical HR Management, including recruitment, compensation, and benefits;
- Strategic HR Management, including delivering the service of Technical HR management in a direct effort which supports the implementation of company strategies.

Huselid *et al.*, (2001) found that most HR managers tend to focus on traditional delivery activities or technical HR Management activities and pay less attention to the dimension of strategic HR management. The competencies that need to be developed for the future HR Managers which have a huge influence on organizational performance is Strategic and Business HR Management Competencies.

**Human Resources System.** The HR system is the main element that is influential in strategic human resources. This system model is called ‘High-Performance Work System’ (HPWS). In HPWS, every element in the HR system is designed to maximize all human capital quality through such an organization. The function of HPWS to build and maintain the supply of human capital quality is:

- To connect the selection and promotion to validate the competency model;
- To develop the strategy which provides effective time and support for the skill demanded in the implementation of organizational strategy;
- To carry out an interesting compensation policy and performance management as well as to maintain and motivate high employee performance.

Those are the important steps in the decision-making of employee quality improvement so that the organization will be possible to make a good organizational performance. To make an HR able to create a value, the organization needs to create a structure for every element of the HR system by emphasizing, supporting, and reinforcing HPWS. However, it will be not enough if only adopting a performance which focuses on HR policies and practices. In an essence, it needs a system that emphasizes the "interrelationship" between HR system components as well as the relationship between HR and wider strategy implementation.

HPWS directly creates ‘customer-value’ and other related value. In this case, the alignment process starts when the HR clearly understand the chain of company value; a solid understanding of the company's values and how it was created. The key to this matter is that the characteristics of HPWS not only adopt the right HR policies and practices but also the way to manage HR practices. In HPWS, HR policies and practices show a strong alignment (partnership) with operational goals and competitive strategies of the organization. Each HPWS in an organization is different from one another so that it can be adjusted with its own uniqueness, strengths, and needs of each organization.

**Strategic Employee Behavior.** The strategic role of HR or the “human capital” might focus on the productivity of employee behavior in the organization. Strategic behavior is a
productive behavior implementing organizational strategies at the same time. This strategy consists of 2 (two) general categories such as:

- Core behavior is a plot that comes directly from core behavior competencies defined by the organization. This is very fundamental for organizational success;
- Situational specific behavior that is essential as a key point in an organization or as a value chain in a business. For example, it can be in the form of cross-selling skills needed by a branch of a bank.

Integrating the attention on behavior into the whole business to influence and measure HR contribution to the organization is a challenge. Which one is the important thing? And how do they manage it? First, the importance of the behavior will be defined by the interests of organizational strategy implementation. Secondly, it is important to remember that we do not influence the strategic behavior directly but that the behavior is a result of the HR architecture broad.

**Several Steps to Implement the HR Scorecard.** In the implementation of an HR scorecard, there are 7 (seven) steps to transform the HR architecture into a strategic model. The question in this matter is about how the HR can be formalized into a strategic role. According to Becker, Huselid, and Ulrich (2001), how they connect their functions into the strategic organizational implementation needs to be illustrated. The steps taken in the strategic HR implementation are described in the following section:

- Clearly Define the Business Strategy. It is suggested to also focus on the strategy implementation rather than just focusing on the content of the strategy so that the senior HR leaders can facilitate the discussion about how to communicate the company goals through an organization. The strategic goal should not be vague meaning that it is able to increase operational cost efficiency, increase international market presence, and improve productivity. If not formulated clearly and firmly, this strategy will be confusing for the employees making them unable to find out the action that needs to be done in reaching the goal. Consequently, the organizational strategy must be clear and formed in detail terms so that it can be implemented.

Build a Business Case for HR as A Strategic Asset). After the company clarifies the strategy, HR professionals need to build a business case to find out why and how HR can support organizational strategy. In making business cases, they need to conduct a research to support the recommendation in such case formulation: The results showed that the success or failure of a company is determined by the way they implement its effective strategy and not the content of the strategy.

Create a Strategy Map. A company needs to have a clear organizational strategy in establishing the steps of strategy implementation. In most organization, customer value included in the products and services is seen as a complex result and cumulative process that is called as “value chain” by Michael Porter. All organizations have “value chain” even though it has not been articulated yet. Every system of organizational performance measurement must pay attention to every relationship in the chain.

To define the process of “value creation” in an organization, it is recommended that the top and medium managers, who will implement the company strategy, build a strategy map which represents the value chain of the organization. To start the mapping process, the company needs to analyze the objectives of the company strategy by asking these following questions:

- Which is the important strategic objectives/target/outcome?
- What is the Performance Driver of each objective?
- How do we measure each progress to guarantee that we achieve the objective?
- What are the obstacles to achieving each objective?
- What efforts that employees need to do to achieve this objective?
- Does the HR provide competent employees and behavior to achieve that objective?
- If not, does it need a change?

The above questions can provide information on how far the HR contributes to the success of the company. It is recommended that the question is also equipped with other
information such as making a questionnaire to test whether the employees understand the company goals or not and having a survey to ask about Performance Drivers and company capability.

Identify HR Deliverables within the Strategy Map. As mentioned in the previous description, HR created its values at the meeting point between the systems of strategy implementation. Maximizing the value requires an understanding from various interconnected sides. If the HR Manager does not understand the business aspects, the other managers will not appreciate the HR section. Therefore, the HR Manager is responsible to establish HR Deliverables which are: HR Performance Driver and HR Enabler on the Strategy Map.

In this case, HR Manager is required to set the suitable HR Deliverables which can support the company performance as specified in the Strategy Map and focus on the strategic behavior to enhance the competency, reward, and task of the organization. As for examples: the company decided that employee stability or low turnover (enables) can increase the life cycle of the R&D section (high-performance driver). With this relationship, company policies can be formed such as increasing salaries and bonuses which can retain experienced R&D employees.

Align the HR Architecture with HR Deliverables. The next step is to design an HR system (rewards, competencies, organizational tasks, and so on) which can support HR Deliverables. The misalignment between the HR system and the implementation of the strategy can destroy the value which has been set.

Design the Strategic HR Measurement System. In this stage, it does not only need a new perspective on HR performance measurement, but also resolutions from some technical things that are not known by many HR professionals. To measure HR relations with company performance, valid HR Deliverable measurements are needed, such as:

Make sure that the right HR Performance Driver and HR Enabler are chosen. This requires a clear understanding on the chain of causes of effective company strategy implementation.

Choose the right measurement to measure the HR Deliverable. As for examples: HR Deliverable is the stability of senior employees, but there are several ways to measure this concept. The measurement development requires the right definition of who became the senior staff (employees who have 5 to 15 years of experience) and what is meant by employee stability. Is the stability include all employee turnover or only partially? Is it including the individual employees who have been promoted before?

After the HR Scorecard was developed based on the principles described in the model, it generates a “powerful” management tool. In fact, implementing this tool is nothing more than “keeping the score” of HR influence on performance company. If the HR Scorecard is aligned with the importance of the company's strategy, HR professionals will find new insights about what to do to manage HR as strategic assets. Performing the new management process that based on step 1 until step 6 requires a change and flexibility. Furthermore, this process is not only done once. HR professionals must regularly review the HR Deliverables to ensure that the driver and enabler are still considered significant.

The important elements of the HR Scorecard are HR Deliverable identification, HPWS use, HR System Alignment, and HR Efficiency. It reflects the balance between cost control and value creation. Cost control comes from HR Efficiency measurement while value creation comes from HR Deliverable measurement, external HR system alignment, and High-Performance Work System. The last three things above are the important elements of HR Architecture which tracks the value chain from function to the system then into employee behavior.

Because the focus of strategic HR role is creating a value, then thinking about HR Architecture means expanding the views about HR value chain. This is similar with Balanced Scorecard which contains the leading indicators and lagging indicators. HR Scorecard also has the same thing where HPWS and HR System Alignment are the leading indicators and HR Efficiency and HR Deliverables are the lagging indicators.

_The Dimensions of HR Performance Measurement using HR Scorecard._ The stages of designing the HR measurement system through the HR Scorecard approach are as follows:
Identifying HR Competency. What is meant by competency, in this case, is in the form of knowledge, skills, ability, and personality characteristics which affect the performance directly? The results of a study on HR competency from Perrin (1990) (in Becker, Huselid & Ulrich) show that HR competency is identified as:

- Having computer skills (executive line);
- Having an extensive knowledge on the vision for HR (Academic);
- Having the ability to anticipate the effects of change (Consultant);
- Having the ability to provide education about human resources and to influence the line manager (HR Executive).

The measurement of a High-Performance Work System (HPWS) puts the basis to build human resources into strategic assets. It is believed that HPWS can maximize employee performance. Every measurement of HR system must enter a collection of indications which reflects on the ‘focus on performance’ from each element of the HR system. HPWS measurement focuses more on how the organization works through every HR function starting from a macro level and emphasizes on the performance orientation at each activity.

Measuring HR System Alignment means assessing the extent of the HR system in meeting the needs of company strategy implementation which is known as external alignment. In contrast, what is meant by internal alignment is how each element can work together and not experiencing a conflict. In this case, the internal alignment does not need to be measured because if the HR system is focused on the strategy implementation (external alignment) or able to manage external alignment, the internal alignment tends to not occur. Focusing on internal alignment is appropriate if the company measurement does not adopt strategic HR perspective. The selection of the right alignment measurement will help to understand which HR Deliverable that is needed to create value in the organization. This also determines the elements of leading indicators which must be mutually reinforced to produce HR Deliverable. Certain alignment measurement will be connected directly with certain deliverables in the Scorecard. Connecting this two things will emphasize the cause-and-effect relationship to support HR contributions to company performance. To have the right alignment measurement, a company must focus on the elements in the HR system which have a significant contribution to certain HR Deliverables. It is important to note that this will be different for each company. The identification of this measurement requires a combination of HR professional understanding with knowledge on value creation process. The alignment measurement process is a ‘top-down’ process (based on the Strategy Map) which will be able to identify the HR Deliverables as well as determining which elements of HR system that needs such alignment (no exact standards). It can be in the form of HPWS measurement. The measurement of external HR alignment system is designed to be used in the HR Department.

HR Efficiency portrays the function of HR to help the company in achieving the required competence with an effective cost. It does not mean that the HR must minimize the costs without paying attention to the results or outcome; they reflect the balance. The HR Efficiency measurement consists of two types of categories:

Core efficiency measurement which represents significant HR expenditure and does not contribute directly to the company strategy implementation. This consists of:

- Benefit-cost as a percentage of payroll;
- Worker compensation;
- Right income percentage on the HR information system;
- Strategic efficiency measurement which measures the efficiency of HR activities and processes designed to produce HR Deliverables;
- The cost per person hired;
- The cost per hour of training;
- HR expenditure for employees;
- HR Deliverable.

To integrate HR into a business performance measurement system, managers must identify the things which connect the HR and the strategy implementation plan. It is called
“Strategic HR Deliverable” that is the outcome of HR Architecture which will implement a company strategy. This is contrary to HR Doables which focuses on HR efficiency and a number of activities.

HR Deliverable consists of:

- HR Performance Driver: the capability or assets related to people (core people-related) which can in the form of employee productivity and job satisfaction.
- Enables Performance Driver: it strengthens the Performance Driver and can be in the form of changes in reward structure allowing the presence of prevention rather than reactive. If a company identifies employee productivity as the core of Performance Driver, it can change into Enabler Performance Driver by doing a re-skilling.

Therefore, the company should focus on the two things above fairly. The company should not only think about the HR which focuses on the matter of enabler in the organization but also on a particular HR Enabler which can strengthen the Performance Drivers in operational terms, customers, and financial segment (non-HR).

HR Deliverable is an important contribution in human capital to implement the company's strategy. Strategically, it focuses on employee behavior like the low turnover. HR Deliverable measurement helps to identify unique causal relationship where the HR system creates value in a company. The right selection of HR Deliverable measurement depends on the place of HR to display the strategy implementation. HR Deliverable can be in the form of organization capability. This capability will combine individual competencies with an organizational system that is able to add value through the company's value chain. Another approach is by focusing on understanding the people-related capabilities such as leadership and organizational flexibility. It is easy to imagine that capability can affect the success of an organization in general.

Ideally, HR Deliverable in HR scorecard includes several measurements of strategic influence from the defined HR Deliverable. This includes estimating the relationship between each HR deliverable with the performance drivers in the Strategy Map. Therefore, it can connect the influence of deliverables through performance drivers and then company performance. The examples of Performance Driver Measurement are the access to business information to speed up the decision-making, the effectiveness of sharing information within departments, the effectiveness of the PA to deal with poor performance, and so on.

CONCLUSION

HR Scorecard is a new approach in HR performance measurement to improve organizational performance. This measurement model is very important for HR managers to face challenges in the future due to the fact that the environment is always changing.

After learning the HR Scorecard, it is expected that the company provides benefits for HR professionals to understand the differences between HR Doables (HR performance that does not affect company strategy implementation) and HR Deliverable (HR performance which affects the implementation of company strategy). Besides that, it is anticipated to find and measure the Leading Indicator and Lagging Indicator where a strategic HR model can give a contribution and connect HR decisions and HR systems with HR Deliverable. Later, it will affect the key performance driver in the strategy implementation. Most importantly, HR professionals can effectively manage the strategic responsibility such as focusing on the right decision-making which will affect the implementation of organizational strategy.

For the organizations, this measurement might help to control the cost of value creation in a company. Furthermore, it can be used to assess the HR contributions in strategy implementation as well as to support organizational changes and flexibility.

REFERENCES

PRIORITY SCALE ANALYSIS TO DETERMINE PERIODIC MAINTENANCE OF ROADS USING ANALYTICAL HIERARCHY PROCESS IN TULUNGAGUNG DISTRICT

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ABSTRACT
Local governments are required to optimize the limited budget. The road, as one of the infrastructures supporting the economy, requires the right allocation of funds. The community proposal through development planning consultations and proposals is a means that has been carried out by the Government of Tulungagung District in allocating road maintenance funds by considering technical and non-technical aspects even though they are not yet optimal and measurable. This research was conducted to obtain the weight of the aspects and criteria, obtain the ranking order of alternative road sections in Tulungagung District which need maintenance, and obtain priority in determining the road sections that will get maintenance according to the highest available budget. The data analysis method applies Analytic Hierarchy Process (AHP) which is used to process answers from the questionnaires distributed to 25 respondents who know and are involved in the allocation of road maintenance funds in Tulungagung District. Based on the research findings and data analysis, it obtains the order of aspects as a priority consideration of maintenance of road sections which includes regional development aspect (A), cost aspect (D), accessibility aspect (B), and technical aspect (C) which have their weights respectively 0.394, 0.344, 0.179 and 0.083. In addition, the weight of A1 A2, A3, A4, A5, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3, and D4 criteria have weights of 0.311, 0.166, 0.087, 0.159, 0.277, 0.401, 0.297, 0.160, 0.141, 0.427, 0.158, 0.091, 0.324, 0.379, 0.125, 0.244, and 0.251 respectively. Moreover, the order of alternative road sections in Tulungagung District which need to be maintained is Tamanan-Boyolangu (E4) with weight of 0.313, Cuwiri-Karangrejo (E2) with weight of 0.227, Boyolangu-Campudarat (E5) with weight of 0.198, Campudarat-Sodo (E6) with weight of 0.131, Karangrejo-Sendang (E3) with weight of 0.086, and Cuwiri-Pagerwojo (E1) with weight of 0.045. In addition, the priority order of roads that will be maintained according to the highest available budget is Tamanan-Boyolangu (E4), Cuwiri-Karangrejo (E2), Boyolangu-Campudarat (E5), and Campudarat-Sodo (E6). Further research can be developed by using other application programs, such as web-based applications, so that it can be accessed from anywhere and can be processed quickly.

KEY WORDS
Priority, periodic maintenance, roads.

The road, as part of infrastructure, has an important role in the national transportation system because it serves 92% of land transportation for passengers and 90% of land transportation for goods on the existing road network. In addition, the strategic benefits of the road include creating large-scale employment, increasing domestic resources, and improving the real sector by creating a multiplier effect on national and regional economies.

Road construction is something that is needed as a major support in economic activities both in urban and rural areas and the development of other strategic areas. With the increase in economic growth and the development of traffic, the type and tonnage of vehicles, and government policies in the field of land transportation, the need for road facilities and infrastructure has also increased so that development in the road infrastructure sector must be able to support these conditions, (Glendon and Litherland, 2001).
The construction of road infrastructure must always pay attention to good quality so that the vehicle users passing through the road feel safe and comfortable. However, road characteristics are always experiencing a decrease in quality, so to maintain the quality of the road, to keep it good or at least reduce quality degradation, routine and periodic maintenance needs to be carried out, (Banerjee et. al., 2012).

In its implementation, to achieve the goal of effective and efficient road maintenance, boundaries must be determined which includes the amount of budget/costs needed/allocated, schedule/time, location of activities, and quality/performance to be achieved. However, in reality, budget/cost constraints become a major factor in carrying out road maintenance activities, (Huang et. al., 2009). Funds are the most important part of the success of a construction project, in which without the right funds it is impossible for the project to be implemented properly. As in other regions, the allocation of funds devoted to the construction projects in Tulungagung District is uncertain and is still very minimal every year.

The biggest challenge in the problem of infrastructure in Tulungagung District is that it requires a large budget but the available funds are very minimal. In 2017, the availability of funds in the management of road infrastructure development amounted to only 111 billion rupiah, which was divided into 4 programs, namely Road and Bridge Development Program, Drainage/Sewer Channel Development Program, Gabion Development Program, and Rehabilitation Program/Maintenance of Roads and Bridges. Meanwhile, the budget allocation for the Road and Bridge Rehabilitation/Maintenance Program is only around 25% of the total available budget. Thus, there are only around 27 billion rupiah that can be ascertained. Therefore, it can be seen that the road to be handled is not balanced with the funds available for road maintenance activities. Therefore, it is necessary to prioritize the selection/determination of roads that will be carried out prior maintenance. This election certainly requires the right criteria and methods so that the policies taken can be accounted for.

Selection of alternatives that use several criteria can be performed by a variety of methods including the Dominance method, Feasible Ranges, Lexicography, Effectiveness Index or Analytical Hierarchy Process, (Handfield et. al., 2002). Each method has its own strengths and weaknesses. Therefore, taking which method will be applied should be matched with the problem at hand.

All this time, the determination of the priority sequence for road maintenance in Tulungagung District was based on the community’s proposal through the Development Planning Consultation (Musrenbang) mechanism with Development Planning Agency at Sub-National Level (BAPPEDA) or through direct proposals from each region starting from the Village to the District level to the Regent and related technical services; in this case, the Department of Public Works Bina Marga, Housing, and Cipta Karya of Tulungagung District with the criteria for budget and technical road. However, the criteria that affect the order of priority have not been based on any method that can be accounted for scientifically, so that the problem of the priority sequence of road maintenance is always a polemic.

The polemic is generally focused on which alternatives should be chosen, considering that many stakeholders will choose an alternative and not what aspects and criteria determine the choice of an alternative. It needs to be realized that aspects and criteria that are in accordance with the wishes of stakeholders have no the same weight. Furthermore, after determining the weight of aspects and criteria, the polling process that needs to be present in the alternative selection process is an inter-alternative assessment process from all stakeholders on the considered aspects and criteria.

The selection of alternatives is carried out on the road that is the authority of the Government of Tulungagung District (District Road) according to the East Java Governor Decree No. 188/139/SK/014/1998 concerning the determination of the status of road sections as district roads in East Java Province. This alternative selection category is emphasized on roads that function as strategic routes connecting sub-districts, agricultural centers, markets and tourist attractions. The road segments included the Cuwiri-Pagerwojo Road Section, Cuwiri-Karangrejo Road Section, Karangrejo-Sendang Road Section,
Tamanan-Boyolangu Road Section, Boyolangu-Campurdarat Road Section, and Campurdarat-Sodo Road Section.

THEORETICAL FRAMEWORK

In a project construction, the total cost of the project consists of two types of costs, which relate to the time of project implementation, namely direct costs and indirect costs. Direct costs are costs intended for everything that will become a permanent component of the final project outcome, (Josephson and Hammarlund, 1999). Meanwhile, indirect costs are costs for everything that is not a permanent component of the final project results, but is needed in the framework of the project development process.

The definitions of the road according to Law No.38 of 2004 include:

- Roads are land transportation infrastructure that includes all parts of the road, including complementary buildings and equipment that are intended for traffic, which is on the surface of the ground, above ground level, below ground level, and or water, and above the water surface, except railroad tracks, lorry roads and cable roads.
- The road as one of the transportation infrastructure is an important element in the development of national and state life, fostering the unity and integrity of the nation, the territory of the state, and the function of society and in advancing public welfare as referred to in the Preamble of the 1945 Constitution of the Republic of Indonesia.
- The road as part of the national transportation system has an important role, especially in supporting the economic, social and cultural and environmental fields and is developed through regional development approaches in order to achieve equilibrium and equitable development among regions, establish and strengthen national unity to strengthen national defense and security, and build structures space in order to realize national development goals. To fulfill the role of the road as it should be, the government has the right and obligation to run the road management and so that it can be carried out efficiently and successfully which requires community involvement.

Road construction projects in various regions continue to be developed. In its implementation, it must go through planning that is adjusted to the level of development of road transportation in the area, especially the suitability between the load and traffic density of the vehicle with the capacity of the road carrying capacity, the road network in the center of growth, the production center, and which connects the production center with the marketing regions, (Mahamid, 2011).

Road construction is a construction that is made in such a way in which it can carry the burden of traffic (vehicles) passing over it without undergoing structural changes to the road surface, (Kaliba, 2009). With the development of land transportation, especially motorized vehicles which include the type of size and number, the problem of the smooth flow of traffic, security, comfort and carrying capacity of road pavement must be a concern. The road is a land transportation infrastructure that connects between two or more locations. The road consists of several parts with certain objectives and functions that are formed in a construction. Road construction generally consists of different layers of material, according to the nature used. Broadly speaking, there are three types of pavement construction, namely flexible, rigid, and composite pavement.

In accordance with its characteristics, the road will always tend to experience a decrease in conditions indicated by the occurrence of damage to the pavement. Therefore, to slow down the rate of decrease in conditions and maintain conditions at a reasonable level, the road network needs to be managed properly so that the road can still function at all times. Road maintenance is an effort or action to extend/maintain road service age (timeline) by optimizing limited funds and empowering adequate human resources, materials and equipment so that the road can function properly.

Routine maintenance is carried out since the opening of a road section that has been completed for traffic, carried out continuously throughout the year, found a level of minor damage, carried out to restore the strength, comfort, safety and protection of the road from
water seepage, carried out in accordance with the conditions field with limited damage area coverage/several places, type of repair work starting from subgrade to surface layer, channel cleaning, roadside maintenance and street space.

Periodic maintenance is carried out periodically with mild to moderate damage which is a maintenance work performed on structural damage, where the pavement conditions on the road surface appear to show symptoms of mild damage (wear out) to moderate damage in the form of then loose of aggregate granules evenly, smooth cracks, rough cracks, wavy surfaces (curly) and bleeding in a wide area of damage coverage. Periodic maintenance activities are carried out to maintain the strength of the road structure, level of safety and comfort, road surface tightness and smooth flow of water so that it does not affect the strength of the subgrade structure and the main road, this activity is carried out periodically, so that the maintenance work is called Periodic Maintenance work.

What is meant by population is a collection of all individuals with a predetermined quality in which the quality or characteristics are called variables. What is meant by a sample is a collection of sampling units that are taken and are sub-populations (Sugiyono, 2006).

In order to get an objective priority weight, opinions from the concerned parties were obtained for each criterion. These opinions are collected through a questionnaire filled by respondents with several criteria of answer (Sugiyono, 2006).

Selection of alternatives is often found in all fields of life and decision making to choose which alternative is best is often a problem, especially for alternatives that have many things to consider. Some alternative selection methods that have been developed include the Dominance method, the Feasible Ranges method, the Lexicography method, the Effectiveness Index, Bayes method, Exponential comparison method, Delphi method (Marimin, 2004), and Analytical Hierarchy Process (AHP)

Basically, alternative selection methods with many criteria, such as Effectiveness Index, Comparative Index, MPE, AHP, and others, are applied by giving a score on each criterion for each alternative, in which this score is the result of multiplication the weight of each criterion and performance appraisal of each alternative in each of the criteria concerned. However, the AHP method has advantages compared to other methods, namely in determining the weight of each criterion carried out more objectively than the other methods, namely by using pairwise comparisons. In addition, it is also in the performance evaluation of each alternative, namely in quantifying qualitative matters. Regarding that road maintenance issues involve many interested parties who all need to be treated fairly and transparently—then for this problem—the research was carried out using AHP.

This AHP method has been tried to be applied by Utomo et al. (2004) to make a decision in the selection of airport development sites in Banyuwangi District with four alternatives, based on criteria in the aspect of flight safety, technical aspects, economic aspects, and environmental aspects. The research makes a sequence of these aspects based on opinions from relevant parties and obtains the safety aspects of flight operations as the most important aspect among others. Meanwhile, economic aspects occupy the third order aspect.

AHP is used to examine problems that begin by defining the problem carefully then compile it into a hierarchy that consists of several levels, i.e. the level of objectives, criteria and alternatives. After arranging the hierarchy, the next is to give a numerical value on subjective considerations about the level of preference at each level of the hierarchy. The final result of AHP is the priority for the existing alternatives aiming to meet the objectives of the problem at hand (Saaty, 1993).

The working principle of AHP (Marimin, 2004) is a simplification of a complex problem that is not structured, strategic, and dynamic into several parts which are then arranged in a hierarchy. Then, the level of importance of each variable is given a subjective numerical value about the relative importance of the variable compared to other variables. From these various considerations, they are then synthesized to determine variables that have high priority and play a role to influence the results of the system. Graphically, AHP decision issues can be constructed as multilevel diagrams, starting with goals, then first level, criteria and finally alternative aspects.
Some of the advantages obtained in solving problems and making decisions using AHP are (Marimin, 2004):

- **Complexity**: AHP combines deductive steps and system-based steps in solving complex problems.
- **Dependence**: AHP can handle the interdependence of elements in a system and does not impose linear thinking.
- **Hierarchy Arrangement**: AHP reflects the natural tendency of the mind to sort out the elements of a system at different levels and classify similar elements in each level.
- **Consistency**: AHP tracks the logical consistency of considerations that are used to set priorities.
- **Assessment & Consensus**: AHP does not impose consensus by synthesizes a representative result from a variety of different assessments.
- **Process Repetition**: AHP allows organizations to refine their definition on a problem and improve their judgment and understanding through repetition.

**METHODS OF RESEARCH**

*Definition of Research*. Research is a scientific way to solve a problem and to penetrate the limits of human ignorance. Research activities are carried out by collecting and processing the existing facts so that they can be communicated by the researcher and the findings can be enjoyed and used for the benefit of humans. Based on the method, this research includes the type descriptive research which is to get the aspect weight, criteria weight, and alternatives considered in determining alternatives for road maintenance in Tulungagung District.

The findings of this study are expected to be used as a reference in determining aspects and criteria considered in determining the alternatives of road maintenance in Tulungagung District. This research applied survey method by collecting opinions, experiences and attitudes of respondents to find out the problems that have been experienced in determining the alternatives of road maintenance in Tulungagung District, by taking primary data through a questionnaire. Based on the aspects and criteria that are prioritized in handling the road maintenance in Tulungagung District, the aspects, criteria, and alternatives will be determined to be used as points of the questions to be measured in the form of questionnaires. Furthermore, the results of the questionnaire will be processed by using the Expert Choice 21 tool.

*Research Setting*. The research setting is road maintenance projects in Tulungagung District which serve as a strategic pathway that connects between sub-districts, agricultural centers, markets, and tourist attractions that are planned to be built in the fiscal year of 2017, such as:

- Cuwiri – Pagerwojo Road Section;
- Cuwiri – Karangrejo Road Section;
- Karangrejo – Sendang Road Section;
- Tamanan – Boyolangu Road Section;
- Boyolangu – Campurdarat Road Section;
- Campurdarat – Sodo Road Section.

*Research Aspects and Criteria*:

- Regional Development Aspect: Economic Activities (A1), Geographical Setting (A2), Tourist Attractions (A3), Natural Resource Results (A4), Access Expansion to Public Services (A6);
- Accessibility Aspect: Population Number and Distribution (B1), Characteristics and Distribution of the Land Use (B2), Functional Classification of the Road Network (B3), Average Travel Time of the Vehicles (B4);
- Technical Aspect: Traffic Density Level (LHR) (C1), Road Damage Level (C2), Tonnage Load Level of the Vehicles (C3), Road Function (C4);
Cost Aspect: The Amount of Material Cost (E1), The Amount of Equipment Cost (E2), The Amount of Transportation Cost (E3), The Amount of Labor Cost (E4).

Data Collection. The data collection was carried out through questionnaires containing statement items relating to the assessment of each aspect and criteria and alternatives using a pairwise comparison of 9-1-9 in which number 1 is the respondent’s response code stating that the two elements are equally important, while number 9 is the respondent’s response code stating that an element is absolutely more important than other elements.

Data Processing and Analysis. The data obtained from the results of the survey (questionnaire) will be processed to obtain information in the form of tables. The processed data results are used to answer questions in the research problems. The data processing should pay attention to the type of the data collected by concentrating on the objectives to be achieved.

The accuracy in the analysis technique greatly influences the accuracy of the findings of the research. The data analysis technique applied is the AHP method using Expert Choice 21.

RESULTS AND DISCUSSION

General Description of the Research. This research data were obtained from the results of questionnaires distributed to 25 respondents. After that, it was continued with an analysis to find aspects and criteria that were prioritized for handling in the road maintenance projects requiring the allocation of funds in the Department of Public Works Bina Marga, Housing, and Cipta Karya of Tulungagung District. Next, the Aspects, Criteria and Alternatives, will be determined as the points of the question to be measured in the form of a questionnaire. Furthermore, questionnaire results will be analyzed to get the weights of aspects, criteria and alternatives.

Determination of the Overall Priority Alternatives. The determination of the overall priority alternatives is the final conclusion of some of the main priorities obtained based on the aspects and criteria. The weighting results for the overall local and global priorities are presented in the following Table 1:

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuwiri-Pagerwojo (E1)</td>
<td>0.045</td>
</tr>
<tr>
<td>Cuwiri-Karangrejo (E2)</td>
<td>0.227</td>
</tr>
<tr>
<td>Karangrejo-Sendang (E3)</td>
<td>0.086</td>
</tr>
<tr>
<td>Tamanan-Boyolangu (E4)</td>
<td>0.313</td>
</tr>
<tr>
<td>Boyolangu-Campudarat (E5)</td>
<td>0.198</td>
</tr>
<tr>
<td>Campudarat-Sodo (E6)</td>
<td>0.131</td>
</tr>
</tbody>
</table>

Source: Analysis, 2017.

Based on Table 4.1, it can be seen that overall, the Cuwiri-Pagerwojo (E1) alternative road has a total weight of 0.045, Cuwiri-Karangrejo (E2) alternative road has a total weight of 0.227, Karangrejo-Sendang (E3) alternative road has a total weight of 0.086, Tamanan-Boyolangu (E4) alternative road has a total weight of 0.313, Boyolangu-Campudarat (E5) alternative road has a total weight of 0.198, and Campudarat-Sodo (E6) alternative road has a total weight of 0.131.

Determination of Priority Alternatives Based on the Highest Available Budget. Determination of priority allocation of development funds for road sections that will carry out the maintenance based on the highest available budget can be seen in the following Table 2.

Based on the above table, it can be seen the order of priority alternatives and the required cumulative costs. Thus, only with the available budget of 27 billion rupiahs, the road sections that get full handling are rank 1 to 4. Meanwhile, the remaining road sections that cannot be handled because of limited funds can be allocated to the Changes to Regional
Expenditure Budget (PAPBD) of Tulungagung District for the fiscal year of 2017 or the next fiscal year.

Table 2 – Priority Alternatives Based on the Highest Available Budget

<table>
<thead>
<tr>
<th>Rank Number</th>
<th>Alternatives</th>
<th>Costs</th>
<th>Cumulative Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tamanan-Boyolangu</td>
<td>IDR 4,500,000,000</td>
<td>IDR 4,500,000,000</td>
</tr>
<tr>
<td>2</td>
<td>Cuwiri-Karangrejo</td>
<td>IDR 5,300,000,000</td>
<td>IDR 9,800,000,000</td>
</tr>
<tr>
<td>3</td>
<td>Boyolangu-Campurdarat</td>
<td>IDR 6,500,000,000</td>
<td>IDR 16,300,000,000</td>
</tr>
<tr>
<td>4</td>
<td>Campurdarat-Sodo</td>
<td>IDR 5,500,000,000</td>
<td>IDR 21,800,000,000</td>
</tr>
<tr>
<td>5</td>
<td>Karangrejo-Sendang</td>
<td>IDR 11,000,000,000</td>
<td>IDR 32,800,000,000</td>
</tr>
<tr>
<td>6</td>
<td>Cuwiri-Pagerwojo</td>
<td>IDR 12,500,000,000</td>
<td>IDR 45,300,000,000</td>
</tr>
</tbody>
</table>

Source: Analysis, 2017.

CONCLUSION

From the results of the analysis and discussion in the previous chapter, the following conclusions can be drawn:

The order of the aspect weights used in determining the allocation of road maintenance funds in Tulungagung District are regional development aspect (A), cost aspect (D), accessibility aspect (B), and technical aspect (C) with the weights respectively 0.394, 0.344, 0.179 and 0.083. In addition, the criteria weights for A1 A2, A3, A4, A5, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3 and D4 respectively are 0.311, 0.166, 0.087, 0.159, 0.277, 0.401, 0.297, 0.160, 0.141, 0.427, 0.158, 0.091, 0.324, 0.379, 0.125, 0.244, and 0.251.

The order of alternative ranks of road sections in Tulungagung District which needs to be maintained are Tamanan-Boyolangu (E4) with weight of 0.313, Cuwiri-Karangrejo (E2) with weight of 0.227, Boyolangu-Campurdarat (E5) with weight of 0.198, Campurdarat-Sodo (E6) with weight of 0.131, Karangrejo-Sendang (E3) with weight of 0.086, and Cuwiri-Pagerwojo (E1) with weight of 0.045.

The priority for determining the road sections that needs to be adjusted according to the highest available budget is Tamanan-Boyolangu (E4), Cuwiri-Karangrejo (E2), Boyolangu-Campurdarat (E5) and Campurdarat-Sodo (E6).

SUGGESTIONS

Based on the results of the analysis in this research, the followings are the suggestions for the related parties (policy makers):

The preparation of plans for allocating road maintenance funds in Tulungagung District needs to be carried out with clear and measurable mechanisms. One of them is using the Analytic Hierarchy Process (AHP) method as described above.

Local governments need to think about mechanisms in determining aspects and criteria. The mechanism can be carried out by conducting socialization through official meetings involving all elements of government and community representatives such as the population used in this research.

It is necessary to hold discussions between the stakeholders in determining proposals from all the criteria proposed by stakeholders. Thus, all the interests in the form of criteria can be accommodated because political factors also determine priorities. For the community, with the clarity of the mechanism as mentioned above, it will make it easier for the public to understand the direction of the development of the local government so that it is expected that there will be no conflict of interest when submitting proposals for handling the road between the concerned parties.

Future research can be carried out by using aspects, criteria and other alternatives to obtain more applicable research results.
REFERENCES

DOI https://doi.org/10.18551/rjoas.2018-09.55

THE DEVELOPMENT OF FISHING COMMUNITIES IN CONDITIONS
OF POST-IMPLEMENTATION OF MARITIME AND FISHERY MINISTER REGULATION
NUMBER 02 YEAR 2015 IN TUBAN REGENCY

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ABSTRACT
This study aims to determine and describe why the violation of the use of fishing gear that is not friendly to the environment still occurs and whether the empowerment of fishing community is already running according to expectation. From the research results obtained the overall picture of empowerment of the fishing through training held by the government’s representatives.

KEY WORDS
Maritime, fishery, minister regulation, violation, development, fishing communities.

The minister of marine and fisheries Susi Pudjiatuti today concerned the realization of the Nawacita program that was initiated by President Jokowi is proven to be the achievement accomplished in managing and regulating fisheries and marine resources in Indonesia. Has already become popular if in the government related sphere of marine fisheries and very strict in enforcing the existing regulations in accordance with the mandate of law No.45 year 2009 regarding fisheries. In addition to tight against the foreign party the ministry of fisheries and marine resources are also tight on the society in the country. One of the proofs is the presence of the Minister of Marine and Fishery regulation No.2 year 2015 on the prohibition of the use of some fishing gears in the fisheries management area of Republic of Indonesia.

Many fishing communities that still use the capture tool is not eco-friendly indicate that regulation of the minister of marine and fishery no.2 year 2015 is not yet socialized evenly to all element of the fishing community in particular in Tuban regency. It is no wonder if there are still many fishing communities who do not know about these regulations so that the still remain use fishing gear that are not environmentally friendly in carrying out the activity of catching fish. The reason of the policy is to increase fish resources (SDI) and the preservation of the waters of the sea.

Some research this regulation does not impact the economy significantly but there are some obstacles such as the high cost of switching capture tool and community for this highly dependent on the use of fishing gear Cantrang conducted by Suhendra, Hendrik, & Hamid (2016). Furthermore, a study conducted by Ermawati & Zuliyati (2015), the result of research on the policy impact 1st. Social: unemployment is rising, the welfare of the fishing communities is declining and high of crime, 2nd economic: the decline in the catch, income fell, with the economic conditions of fishermen: took the day off (30%), switch to the other business (40%), and work part time (30%). However after the training program and grant-making gear environmentally friendly (Gill Net) with the aim that the fishing community is powerless or has the ability for self in fact, there are still violations of fishing the recipient of a grant from the ministry of marine affairs and fisheries, namely by selling fishing gear and switch to tools that are not eco-friendly more (trawl).

The purpose of this study is to know the background of the fishing communities of program beneficiaries is still doing violations using fishing gear that are not environmentally friendly and whether community empowerment is already running according to expectation.

LITERATURE REVIEW
Community empowerment is an effort to the utilization and management of community resources more effectively and efficiently better than (a aspects of the input namely human
resources, funds, equipment, data, plans and technology, (b) aspect of processes namely the implementation, monitoring and supervision, (c) aspect of output the achievement of objectives, effectiveness and efficiency (Rahardjo Adisasmita, 2006).

Rivai & Sagala (2009:233-235) explain that there are criteria that are effectively used to evaluate the training activities that focused on the outcome. The managers and instructors need to pay attention to the following:

- The reaction of the participants to the process and content of the training activities;
- Knowledge or the process of learning acquired through the training experience;
- Behavior change due to training activities;
- The result or improvement both for individuals and organizations.

METHODS OF RESEARCH

The approach used in this research is descriptive qualitative approach. This research was conducted at the three places, i.e. subdistricts of Bancar, Tambakboyo and Jenu in Tuban Regency, East Java, Indonesia. Informants in this study were seven persons selected to randomly to the community who has experience with the focus of this research, expected to provide correct information and clear among other things from the fishermen of grant recipients capture tool and training, the department of fisheries and animal husbandry district of Tuban and the instructors from the institute for development training of fisheries (BP3) Banyuwangi.

RESULTS AND DISCUSSION

Based on the results of interviews and the collection of data obtained from information about the empowerment of fishing communities through the provision of grant of fishing gear environmentally friendly as well as training to fishermen in order to support the implementation of the ministerial regulation no.2 year 2015 is as follows:

In an effort utilization and resource management fishing communities in order to more effectively and efficiently i.e. the input consist of several factors, among others, human resources, fund, equipment, data, plans and technology, but for the factor of technology is not used due to replacement of fishing gear in this operation are still traditionally there has been no addition technology to catch fish.

Policy actors or stakeholder are from the government regards this instructor training, the department of fisheries and animal husbandry of Tuban regency and the fishermen affected by the impact of the policy, namely the fishermen of grant recipient capture tool and training program.

Since the issuance of regulation of minister of marine and fishery no.2 of the year 2015 as the governments’ efforts in the process of empowerment of fishing communities that have fishing gear that is banned then the government in this case ministry of marine affairs and fisheries grants fishing gear to the fishermen with small vessel size < 10 GT (Gross Tonage) as much 293 units at 22 of the group.

As the narrative of the informant Priyo Anggodo from the department of fisheries and animal husbandry Tuban Regency is as follows: “Delivery of fishing gear grant from the ministry of marine affairs and fisheries, not all members of the group get the fishing gear due to the customized with the fishermen “A3” or Trawl and “B0” of the ship is not engine wear, “B1” size vessels less than 10 Gross Tonnage, fishing gear donated is a Gill Net basic and Gill Net mid with a total of 22 groups (Priyo Anggodo, interview, May 6th, 2018)”. 

In the grant program fishing gear and training completely using the budget of the ministry of marine affairs and fisheries year 2016 and 2017 as said by the speaker the following: “The budget comes from the central government in the form of fishing gear eco-friendly and the training program in 2016 and 2017 (Priyo Anggodo, interview, May 6th, 2018)”.
Similarly, informants Nyoman Budiarta of the training center development of fisheries as: "The cost of training, materials, practice, be borne by the fund of state APBN in 2017 as many as 90 people (Nyoman Budiarta, interview, May 6th, 2018)".

In the year 2016 Ministry of Maritime affairs and Fisheries distribute fishing equipment in the form of a catcher of fish fat in accordance with the proposals submitted by the fishermen of candidates to the Ministry of Marine affairs and Fisheries of the grinding tool is a new Bangkinang who use fishing gear which is not environmentally friendly i.e. trawling then it needs to be given knowledge in the form of training so that at the time of the transition from fishing gear the old to the new can already operate well, in this case the researchers want to assess how much knowledge has been gained through the training.

This was stated informant Nyoman Budiarta of the Training center development of fisheries Banyuwangi as follows: "In the training of the 293 people who receive fishing gear gill net only 90 people who follow the training program for 4 days in 3 districts covering the theory and practice of how to use the capture tool of a new and deliver the knowledge content of the policy of the minister of marine and fisheries, but it is expected of members who participate in the training can channel their knowledge to the members who did not attend the training so that the new tool can be used properly (Nyoman Budiarta, interview, May 7th, 2018).

There are two factors in the process of community empowerment for effective and efficient implementation and monitoring in the process of implementation of the Regulation of the Minister of Marine and Fisheries in the described there is some fishing gear that are prohibited in article 4 of the regulation of the minister of marine and fishery no. 2 of the year 2015.

The implementation of this research was conducted by interviewing 5 fishermen who get a grant capture tool and follow the training for 4 days with the material that describes the contents and purpose of the policy of the minister of marine and fisheries. This regulation has been implemented to fishing after following the training, such as explanation of the informants as follows: "To know well over the regulation of the material presented during the training with the goal of keeping the ecosystem of the waters of the sea will be preserved, (Sudik, fishermen, interview May 5th, 2018).

It is also disclosed by the informant fishermen other as follows: "More detailed information about the policy at the time of training held by the training center of development of fisheries Banyuwangi (Zaenal Abidin, fishermen, interview, May 7th, 2018).

In the needs assessment can be aware of the problems and future challenges that must be faced by training and development, disclosed by the informant Sudik as a fisherman as follows: "There are some people from the fishing grantees fishing gear but did not get a training program sell the tool to additional buy a boat because the boat used did not allow to operate in a far distance because it is feared will be damaged by the waves and if the new tools are in use in short distance then the fishermen do not get fish, it needed a push or an opportunity for members who have not attended training to be included in the next training" sudik, fisherman, interview, May 5th, 2018".

It is also expressed by the informants other fishermen as follows: "Production decline of catching fish unless the arrest is done around coral reefs but if you operate in a place around coral reefs new tool or gill net snagged and damaged, it is not given the knowledge at the time of training (Saniman, fisherman, interview, May 7th, 2018)".

After the passage of the grant program fishing gear and training necessary process monitoring with the aim to determine the extent to which the program is running whether in accordance with the target or not, so that the program can contribute and change the welfare of the fishermen, especially fishermen who were adversely affected by the policy. as stated by the informants as follows: "After the training which was held June 2017 no one ever came to ask development about grant and what obstacles faced during this time (Saefudin, fisherman, interview, May 5th, 2018)"

It is also stated by the informant from the fishermen as follows: "The department of fisheries and animal husbandry Tuban regency and the training center for development of
fisheries Banyuwangi never asked the constraints faced by the fishermen beneficiaries of the program (Kosip, fisherman, interview May 7th 2018).

Phrase from the department of fisheries and animal husbandry Tuban regency, Priyo Anggodo as follows: "Asked if the grant is already operated with better yet, how the catch from the fishing gear gill net and been informed that the tool capture the grant May not be sold (Priyo Anggodo, interview May 10th, 2018)".

The same thing also expressed by Nyoman Budiarta instructor training center development of fisheries: "Monitoring in writing has not been done the plan 2018 will be training by the extension workers of the ministry of marine affairs and fisheries, who served in the regency of Tuban (Nyoman Budiarta, interview May 7th 2018)

Changes in the knowledge and skills obtained by the fishermen recipient of grants and training programs still can't push fully the fishermen to change fishing habits on the day, such as the expression conveyed by the informant below: "The members of the fishermen never using fishing gear gill net in the daytime and the result is zero, to switch the habit of catching fish at night need encouragement from the relevant agencies to do the practice the night so the fishermen do not feel fear and worry so that some of the tools are still stored not come with sale (sudik, fisherman, interview May 5th, 2018).

As for the constraints faced by the training providers in the practical session in the sea is strongly influenced by the weather as conveyed by the informant Nyoman Budiarta as follows: "In the implementation of fishing practices we are already planning for the night due to weather that does not support and a very limited time then held on during the day and also the tool gill net is a passive (Nyoman Budiarta, interview May 7th 2018)"

CONCLUSION

According to the analysis, it can be concluded as follows:
- The fishermen recipient of the grant and training program already has knowledge about this regulation;
- The fishermen beneficiaries of the program cannot change the habit in catching fish by using fishing gear Gill Net is effective carried out at night so that the tool submitted could not be maximized in its use;
- The absence of periodic monitoring and written after the program is implemented;
- Uneven training, which was held only a part or a representative of a group included because of limited budget from the government.

ACKNOWLEDGEMENTS

The author would like to thank Dr. Sutinah Dra as the supervisor for this research.

REFERENCES

FATTY ACID AND AMINO ACID PROFILE OF LOCAL SQUID FLOUR (LOLIGO SP.), SHELLFISH FLOUR (OSTREA SP.), SEA WORM FLOUR (NEREIS SP.) AS ARTIFICIAL FEED FOR DOMESTICATED VANAMEI BROODSTOCK

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ABSTRACT
Natural feed such as Sea Worms (Nereis sp), Shellfish, Squid, and Earthworms are often used for penaeid shrimps reproductive growth. These include vanamei shrimp because they have sufficient nutritional content. However, the use of natural food has many disadvantages, as its availability is very limited and depends on the season. Sea worms are a vector of disease carriers, especially viruses and bacteria. Nutrients needed for reproductive growth and development are protein, fat, carbohydrates, vitamins and minerals other than water. Squid flour, sea worm flour, and shellfish flour are used in artificial feed. It contains nutrients in accordance with shrimp brood stock reproductive growth. It is an alternative substitute for fresh feed which has limitations and disadvantages. Consequently, the protein content of squid flour (Loligo. Sp), shellfish flour (Ostrea. Sp) and sea worm flour (Nereis. Sp) was 73.87%, 59.97%, and 54.35%. The total amino acid content was 69.20%, 56.66%, 50.75% respectively. The total fatty acid content was 35.22%, 44.65%, and 22.87% respectively.

KEY WORDS
Reproduction, Vannamei Shrimp, nutrition, amino acid, fatty acids.

Squid, shellfish, sea worms and earthworms are feed possessing good nutrition components such as protein and fat. These are needed for fish and shrimp reproductive growth. Feed containing organic compounds, such as proteins, amino acids, and fatty acids encourage shrimp to approach feed source. (Kordi, 2007).

Natural food eligible to be used as feed are those sustainably available, possess high nutritional content, and does not carry disease. Nevertheless, sea worms availability are dependent on nature. Sea worms usage could be suppressed by combining sea worms with other natural feeds to produce high quality larval production (Sabrina et al., 2014). The provision of high protein nutrition is more widely used in natural foods such as worms, squid, and shellfish. Nevertheless, there's difficulty in regulating protein levels, therefore this technique still has limitations in its application. The disadvantages of these fresh food organisms are expensive costs, fluctuations in availability, inconsistent nutritional value, require a freezer, water contamination, lack of potential improvements, and an increased risk of transmission of pathogenic bacteria and viruses.

Squid is the most widely used food for vannamei shrimp gonads development (Ogle, 1991a). In a study conducted by Ogle (1991b), the squid was not favored and was placed under two artificial feeds for gonad maturation.

Important nutrients needed for shrimp growth are carbohydrates, fats, proteins, minerals and vitamins other than water. The most crucial component is proteins because the growth rate directly depends on the quality and quantity of the protein given.

Protein is a nutrient required for animals growth and survival. Aside from being used in body cell formation, it is also energy source the body lacks in carbohydrates and fats (Suprayitno and Titik, 2017). Proteins are composed of simple amino acid acids that form...
polypeptide bonds. During the process of gonadal maturation and reproduction, there is an increase in the biosynthesis process. Therefore the protein requirement is assumed to peak when compared to the non-reproductive stage. The maturation process is a period of strong protein synthesis and increases protein requirements (Harrison, 1997).

**MATERIALS AND METHODS OF RESEARCH**

The tools used in this research are closed weigh bottles, desiccators, ovens, analytical balance, filter paper, 100 ml fat flask, soxhlet tools, fat-free cotton, 500 mL Kjeldahl flask, distillation equipment, electric heaters or bunsen burners, test tubes, spectrophotometers visible light, vortex, and hot plate.

The materials used in this study are Squid flour (Loligo sp), Shellfish Flour (Ostrea. Sp), Sea Worm Flour (Nereis sp), Petroleum Ether: 30-60°C, Ethyl ether, peroxide free, 95% Ethanol, Ammonium hydroxide, phenolphthalein indicator: 0.5% (w / v) in alcohol, selenium mixture; A mixture of 2.5 g of SeO2 powder, 100 g of K2SO4, and 20 g of CuSO4.5H2O or Selenium Mixture are ready to use specifically for the determination of N (from Merck), a mixed indicator; 0.1% bromocresol green solution and 0.1% methyl red solution in 95% alcohol separately. 10 mL bromocresol green with 2 mL of methyl red. The boric acid solution, H3BO3 2% b / v; 10 g H3BO3 solution in 500 mL of distilled water. The hydrochloric acid solution, 0.1 N. HCl NaOH sodium hydroxide solution 30% w / v; A solution of 150 g NaOH in 350 mL of water, stored in a rubber-lined bottle. The squid was procured from the waters of the northern coast of Java. Shellfish was procured from northern coastal areas of East Java. the Sea Worms were procured the southern coast of Bali island. On the other hand, Earthworms were procured from a cultivation facility in the Malang area.

The research method in this study was conducted in several stages. The first step was to determine the water content using the Oven method referring to SNI 01-2891-1992, Item 5.1; AOAC (2005) 930.15 (Temperature 135°C); Water Content Based on AOAC (2005) 930.15 (Temperature 135°C). The following is a work procedure for determining water content:

- Weigh the 2-gram sample on solder container which was measured beforehand
- Dry in an oven at 135°C for 2 hours
- Cool in a desiccator
- Repeat the work until a fixed weight was obtained, then the calculation was carried out using the following formula:

  \[
  \text{Water content} = \frac{W_1}{W} \times 100\%
  \]

  Where:
  
  \[W = \text{sample right before drying, in grams; }\]
  \[W_1 = \text{weight loss after drying, in grams.}\]

  The next step was to calculate fat content using direct extraction method (Soxhlet) with reference to SNI 01-2891-1992, Item 5.1; AOAC (2012) 930.15 (temperature 135 ° C); SNI 01-2891-1992. The procedure is described as follows:

- Weigh 7-10 g dry sample then put it into a paper sleeve covered with cotton.
- Insert into the Soxhlet device which has been connected with a fat flask containing dried boiling stones. Its weight was measured beforehand.
- Extract using hexane or other fat solvents for approximately 6 hours.
- Refine hexane and dry the fat extract in a drying oven at 105°C.
- Cool the sample and weigh it.
- Repeat drying process until a fixed weight is obtained.
- Calculate the fat content using the following formula:

  \[
  \text{Fat content (\%) = } \frac{W_2 - W_1}{W} \times 100\%
  \]
Where:
- \( W \) = sample weight, in grams;
- \( W_1 \) = weight before extraction, in grams;
- \( W_2 \) = weight after extraction, in grams.

The third stage measured crude protein level using the Kjeldahl method with reference to AOAC (2005) 960.52; SNI 01-2891-1992. The procedure is described as follows:
- Weighing a 0.1 g sample, then put it in a 500 mL Kjeldahl flask.
- Add 2 g of selen mixture and 10 mL of concentrated H2SO4.
- Boil it and the solution’s color become clear and greenish (about 2 hours). Left the solution to cool.
- Insert the solution into the distiller and add 150 ml of distilled water, add 50 mL 40% NaOH, immediately close the distillation flask.
- Distill for 10 minutes, as a container use 10 mL of 2% boric acid solution (during the distillation process, the tip of the condenser pipe must always be immersed in boric solution).
- Rinse the ends of the pipe using distilled water.
- Titer with 0.01 N HCl solution
- Conduct blank determination. The protein content was calculated using the following formula:

\[
\text{Protein Content (\%) = \left( \frac{V_1 - V_2}{W} \right) \times N \times 0.014 \times f_k \times f_p \times 100}\%
\]

Where:
- \( W_{\text{Example}} \) = weight of sample (g);
- \( V_1 \) = Volume HCl 0.1 N example (mL);
- \( V_2 \) = Volume of HCl 0.1 N blank;
- \( N_{\text{HCl}} \) = normality of HCl;
- \( f_k \) = conversion factor;
- \( f_p \) = dilution factor.

The fourth step was to calculate the content of carbohydrates using the phenol-sulfuric acid method referring to Anal. Chem. 28 (1956) 350-356 (In-House Method). The following was a work procedure in calculating carbohydrate content: the first step was to produce a standard curve by dissolving standard starch 1000 mg / L pipetted to get the concentration of the standard series 10; 20; 30; 40; 50 and 60 ppm to a 50 mL flask. Take a 1 mL pipette of each standard solution to the test tube and add 1 mL of distilled water. Prepare a 2 mL blank solution of distilled water. Each solution was added with 1 mL of phenol solution 55% and did vortex. Add 5 mL of concentrated sulfuric acid quickly (dispenser). Left it for 10 minutes then measure absorbance at a wavelength of 490 nm². The following procedure described sample analysis after creating a standard curve:
- Weigh 0.05-0.1 g of the sample into the test tube.
- Add 10 ml of concentrated H2SO4 and leave it.
- Dissolve it into 100 ml flask then filter it.
- Take as much as 1 mL of the sample solution and add 1 mL of distilled water
- Add 1 mL of 5% phenol solution and conduct vortex
- Add 5 mL of concentrated sulfuric acid quickly (dispenser)
- Leave the solution for 10 minutes
- Measure absorbance at a wavelength of 490 nm.
- Carbohydrate content was measured using the following formula:

\[
\text{Carbohydrate (\%) = \left( \frac{c}{W} \right) \times \text{Vol}_{\text{Lar}} \times W \times 100}\%
\]

Where:
- \( c \) = carbohydrate concentration as glucose from the standard curve (\( \mu g / g \)).
Vol. \_\text{lab.} = \text{sample dissolution volume (mL)}; \ w = \text{sample weight (g)}.

Use of the amino acid profile of each ingredient using HPLC (a reference to the Inhouse method / ICI Instrument Method, 1988) and the fatty acid profile of ingredients using GC.

**RESULTS AND DISCUSSION**

Based on the results of the proximate analysis, the amino acid and fatty acid profiles of each ingredient are exhibited in Table 1.

Table 1 – Results of proximate analysis, amino acids and fatty acids of each ingredient

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Result</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Squid flour</td>
<td>Shellfish flour</td>
</tr>
<tr>
<td>Water Content</td>
<td>3.46</td>
<td>5.20</td>
</tr>
<tr>
<td>Ash Content</td>
<td>2.49</td>
<td>6.89</td>
</tr>
<tr>
<td>Protein Content</td>
<td>73.87</td>
<td>59.97</td>
</tr>
<tr>
<td>Fat Content</td>
<td>5.99</td>
<td>14.94</td>
</tr>
<tr>
<td>Crude Fiber</td>
<td>3.17</td>
<td>2.69</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>11</td>
<td>10.31</td>
</tr>
<tr>
<td>Amino Acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspartic acid</td>
<td>7.96</td>
<td>6.59</td>
</tr>
<tr>
<td>Glutamic acid</td>
<td>13.15</td>
<td>9.56</td>
</tr>
<tr>
<td>Serine</td>
<td>2.56</td>
<td>2.62</td>
</tr>
<tr>
<td>Histidine</td>
<td>1.38</td>
<td>1.14</td>
</tr>
<tr>
<td>Glycine</td>
<td>3.21</td>
<td>3.18</td>
</tr>
<tr>
<td>Threonine</td>
<td>3.06</td>
<td>2.89</td>
</tr>
<tr>
<td>Arginine</td>
<td>5.91</td>
<td>4.18</td>
</tr>
<tr>
<td>Alanine</td>
<td>4.06</td>
<td>3.75</td>
</tr>
<tr>
<td>Tyrosine</td>
<td>2.71</td>
<td>2.54</td>
</tr>
<tr>
<td>Methionine</td>
<td>2.67</td>
<td>1.63</td>
</tr>
<tr>
<td>Valine</td>
<td>3.34</td>
<td>3.37</td>
</tr>
<tr>
<td>Phenylalanine</td>
<td>3.12</td>
<td>2.76</td>
</tr>
<tr>
<td>I-leucine</td>
<td>3.93</td>
<td>3.37</td>
</tr>
<tr>
<td>Leucine</td>
<td>6.33</td>
<td>4.87</td>
</tr>
<tr>
<td>Lysine</td>
<td>5.80</td>
<td>4.21</td>
</tr>
<tr>
<td>Amino Acid Total</td>
<td>69.20</td>
<td>56.66</td>
</tr>
<tr>
<td>Fatty Acid**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undecanoic acid, C11:0</td>
<td>0.02</td>
<td>-</td>
</tr>
<tr>
<td>Capric acid, C10:0</td>
<td>0.39</td>
<td>0.04</td>
</tr>
<tr>
<td>Lauric acid, C12:0</td>
<td>0.11</td>
<td>0.03</td>
</tr>
<tr>
<td>Tridecanoic acid, C13:0</td>
<td>0.61</td>
<td>2.51</td>
</tr>
<tr>
<td>Myristic acid, C14:0</td>
<td>0.09</td>
<td>0.07</td>
</tr>
<tr>
<td>Myristoleic acid, C14:1</td>
<td>0.18</td>
<td>0.32</td>
</tr>
<tr>
<td>Pentadecanoic acid, C15:0</td>
<td>0.18</td>
<td>-</td>
</tr>
<tr>
<td>Palmitic acid, C16:0</td>
<td>8.11</td>
<td>11.88</td>
</tr>
<tr>
<td>Palmitoleic acid, C16:1</td>
<td>0.25</td>
<td>3.94</td>
</tr>
<tr>
<td>Heptadecanoic acid, C17:0</td>
<td>0.39</td>
<td>0.98</td>
</tr>
<tr>
<td>Cis-10-Heptadecanoic acid, C17:1</td>
<td>0.02</td>
<td>0.10</td>
</tr>
<tr>
<td>Stearic Acid, C18:0</td>
<td>2.83</td>
<td>4.15</td>
</tr>
<tr>
<td>Elaidic Acid, C18:1n9t</td>
<td>0.03</td>
<td>0.11</td>
</tr>
<tr>
<td>Oleic Acid, C18:1n9c</td>
<td>1.16</td>
<td>2.94</td>
</tr>
<tr>
<td>Linoleic Acid, C18:2n6c</td>
<td>0.26</td>
<td>0.58</td>
</tr>
<tr>
<td>Arachidic acid, C20:0</td>
<td>0.09</td>
<td>0.10</td>
</tr>
<tr>
<td>Cis-11-Eicosenoic Acid, C20:1</td>
<td>0.47</td>
<td>0.14</td>
</tr>
<tr>
<td>Linolenic Acid, C18:3n6</td>
<td>0.14</td>
<td>0.14</td>
</tr>
<tr>
<td>Linolenic Acid, C18:3n3</td>
<td>-</td>
<td>0.25</td>
</tr>
<tr>
<td>Cis-11,14-Eicosadienoic Acid, C20:2</td>
<td>0.14</td>
<td>0.36</td>
</tr>
<tr>
<td>Heneicosanoic Acid, C21:0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Behenic Acid, C22:0</td>
<td>0.11</td>
<td>0.06</td>
</tr>
<tr>
<td>Cis-8,11,14-Eicosatrienoic Acid, C20:3n6</td>
<td>0.05</td>
<td>0.21</td>
</tr>
<tr>
<td>Arachidononic Acid, C20:4n6</td>
<td>2.19</td>
<td>1.93</td>
</tr>
<tr>
<td>Tricosanoic Acid, C23:0</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Cis-13,16-Docosadienoic Acid, C22:2</td>
<td>0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>Lignoceric Acid, C24:0</td>
<td>0.11</td>
<td>0.14</td>
</tr>
<tr>
<td>Cis-5,8,11,14,17-Eicosapentaenoic Acid, C20:5n3</td>
<td>3.49</td>
<td>9.02</td>
</tr>
<tr>
<td>Nervonic Acid, C24:1</td>
<td>0.08</td>
<td>-</td>
</tr>
<tr>
<td>Cis-4,7,10,13,16,19-Docosahexaenoic Acid, C22:6n3</td>
<td>13.96</td>
<td>4.81</td>
</tr>
<tr>
<td>Fatty Acid Total</td>
<td>35.22</td>
<td>44.65</td>
</tr>
</tbody>
</table>
DISCUSSION OF RESULTS

The shrimp gonads growth can be improved by increasing the quality and quantity of feed, by providing feed containing high protein. Fresh feed capable to improve vanamei shrimp gonads growth is sea worms (Nereis sp) or earthworms (Lumbricus sp), and 30% oysters/shellfish biomass provided every day. But these natural organisms are expensive, and the product quality is not available throughout the year. Processed dry feed offers many advantages, such as reliable supply, controlled nutrient content, reducing maintenance media contamination and avoiding pathogens, which are very important for the production of special pathogen-free nauplii (SPF) (Shaobo Du, 2004).

Vanamei shrimp is an introduced shrimp species that has undergone domestication. It has produced prospective offspring and broodstocks through breeding activities in Indonesia. Shrimp gonad growth could be improved by increasing the quality and quantity of feed, such as providing high protein-containing feed.

Based on proximate analysis result, amino acids and fatty acids from all the ingredients could be processed into feed. It is capable to to improve prospective vanamei shrimp gonad growth. Based on Amino acids and fatty acids profile, squid has the highest protein content of 73.87%. Shellfish, Sea worm (Nereis sp.), and Earthworms (Lumbricus sp) possess 59.97%, 54.35%, and 44.22% protein content respectively.

Important nutrients needed for shrimp growth are carbohydrates, fats, proteins, minerals and vitamins other than water. The most important component is proteins because the growth rate directly depends on the quality and quantity of the protein given. Shrimp in the early stages require high percentage feed. Initially, the minimum amount of protein needed is an average of 45%. After the shrimp grow, the protein needs gradually decrease to 35% (Pascual, 1989). Wouters et al. (2001a) reported that the feed protein content formulated in their study was around 50%. Nevertheless, it was relatively low compared to the protein level contained in the fresh feed.

According to Limswaathanathamrong et al. (2012), fatty acids are an important factor that must be considered when providing feed for shrimp during gonad maturation process. Fat content has long been known to have a large influence on marine fish and crustaceans reproductive growth. One lipid class, high-unsaturated fatty acids (HUFA), has proven to be very important and suitable for reproduction in some marine species and has received considerable research attention (Wouters et al, 2002).

Crustaceans have long been recognized as having limited ability to synthesize high-unsaturated fatty acids (HUFA) and do not have the ability to synthesize sterols. Therefore shrimp do not have a definitive dietary fat requirement but require enough fat to meet their needs for certain nutrients, such as HUFA, phospholipids, sterols, and energy. Fats, such as phospholipids, triglycerides, and cholesterol, are the main sources of energy contained in the feed. These components are involved in several important processes such as molting, growth, and reproduction. Cholesterol is an important component of animal tissues diet. It plays a major role in the structure of cell membranes and is a precursor to sex hormones, bile acids, and vitamin D. Crustaceans cholesterol are known as the most important food source known as the sterol. It is used for development, growth, reproductive survival, and a precursor to many hormones important for the initiation of metamorphosis and molting processes (Teshima and Kanazawa, 1971).

Vanamei shrimp tend to be carnivores compared to omnivores that eat small crustaceans and Polychaeta (Hendrajat, 2003).

Chamberlain and Lawrences (1981) reported that some natural foods used for penaeid shrimp gonads development were shellfish, squid, types of crustaceans and worms.

Natural food eligible to be utilized as feed are those sustainably available, possess high nutritional content and does not disease. Nevertheless, there’s limited stock of sea worms as it is dependent on nature. Sea worms’ usage could be suppressed by combining sea worms with other natural feeds to produce high quality larval production (Sabrina.et al., 2014). Fresh squid (Loligo pealeii) contains 10 fatty acids. Saturated and unsaturated fatty acid levels include C15: 0 (Pentadekanoate), C17: 0 (Margarat), C18: 0 (Stearate), C20: 0 (Arachidate),

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The results of the fatty acid profile analysis on squid flour, shellfish flour, and nereis flour exhibited a high content of unsaturated fatty acids (ARA: 2.19; 1.93; 2.47), (EPA: 3.14; 9.02; 1.48), (DHA: 13.96; 4.81; 0.25). Oysters and sea worms are natural feeds possessing complete nutritional content to increase gonad growth of vanamei shrimp prospective broodstock. Nevertheless, its natural availability is very limited and depends on the season. The increasing need for vanamei shrimp broodstock feeds encourages artificial feed alternatives possessing nutritional content in accordance with vanamei shrimp gonads growth and development. (Wyban et al., 1991).

**CONCLUSION**

Based on proximate analysis result, amino acids and fatty acids from each ingredient can be used as constituent ingredients for artificial feed formulations. These are in accordance with vanamei shrimp broodstock reproductive organ development. Therefore the feed could be used as an alternative substitute for fresh feed.

**SUGGESTIONS**

Further research is needed on other local ingredients as compilers of artificial feed formulations for vanamei shrimp gonads growth.

**ACKNOWLEDGMENTS**

This work has been conducted in the Integrated Laboratory of Bogor Agricultural University, Bogor, Indonesia.

**REFERENCES**


ANALYSIS OF FEASIBILITY STUDY OF NLI PROJECT BASED ON THE FLUCTUATION IN THE REPTILE HOBBY INDUSTRY

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ABSTRACT
Recently, the development of reptile hobbyists in Indonesia and the world continues to grow. The high market demand for reptile both at home country and abroad certainly shows how beneficial the reptile industry is. This research aimed to find out and analyze (1) the financial feasibility of the NLI Project based on fluctuation in the reptile hobby industry, (2) the composition of an optimal sales plan based on the financial feasibility test of the NLI Project. This research applied a quantitative descriptive approach based on a case study in the NLI Project. In this research, the authors used 3 main product lines of the NLI Project as product sampling used in the investment feasibility analysis of the NLI Project with a projection of the next 5 years. This research applied Discounted Cash Flow (DCF) method, such as Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI). The fluctuation in the reptile hobby industry was one of the main aspects in this research. Based on the results of various compositions through 19 different combinations, it could be seen that the NLI Project was feasible to run as a financial investment based on fluctuation in the reptile hobby industry. In addition, the optimal composition of sales allocation in the NLI Project was at 45-55% in the local reseller market, 35-45% in the export market, and 10% in the end-user market.

KEY WORDS
Reptile, feasibility, investment, fluctuation, industry, hobby.

Indonesia has abundant reptile diversity. Based on the collection of herpetofauna from various regions in Indonesia which are stored in the Bogor Zoological Museum, it was found that Indonesia has around 1,500 types of reptiles (Tjakrawidjaja, 2010). One family of reptile is monitor lizards. Indonesia has the most monitor lizard species in the world with a variety of patterns and colors (Bennet, 2015). Various types of reptile in Indonesia have made a commodity for this animal, both for to be kept as pet and utilized its skin and meat. According to Mardiastuti and Soehartono (2002), the international trade of reptile as pets has been started since 1980. In 1999, as many as 161 living reptile species were recorded for sale. In September 2010 and April 2011, research on reptile traders in Maluku, West Papua and Papua provinces was conducted. Some of the most traded species are frilled lizards (Clamydosaurus kingii), blue-tongued lizards (Tiliqua scincoides), and several species of monitor lizards (Varanus spp.) (Natusch and Lyons, 2011).

By with the increasing trend in reptile hobbies, the rate of monitor lizard exploitation in nature also increases dramatically. Varanus salvator is a species of monitor lizard that is spread almost throughout the Indonesian archipelago. However, this species gets less attention by the government. Smith (2013) from redOrbit.com thought that the exploitation of Varanus salvator is less noticed and leads to dangerous number of exploitation. Exploitation for the skin reaches 450,000 per year which does not include the exploitation for the meat by local residents and exploitation for keeping them as pets. Koch et al. (2013) reported that there were 6,214,310 salvator skins and 58,489 live salvators were exported in 2001-2010. Data from Nijman (2015) showed that there are at least 12,500 lizards exploited for its meat in 1 year. In addition, the findings of research conducted by Bennett (2015) reported that exploitation to the Prasinus complex in 2003-2012, especially the Varanus macraei (Prasinus
complex) species from Batanta Island, was exploited as much as 2,847. This high rate of exploitation may result in the extinction of the monitor lizards in nature due to the minimal breeding efforts.

The monitor lizard breeding has a fairly high level of difficulty and takes a long time (Dwyer and Perez, 2007). That is because the size of the monitor lizard can grow large to the length of 1.5 meters to 2.5 meters. On average, monitor lizards reached their adulthood and can reproduce from 1.5 years age in females. Meanwhile, the males have a faster growth. An adult female monitor lizard with large size (more than 1.5 meters), is able to produce up to 40 eggs in 1 year which is divided into 2 to 3 clutch periods. Patience will be tested during the incubation period where monitor lizard eggs need 180 to 230 days for incubation until they hatch into small monitor lizards (wikipedia.en). The level of difficulty in maintaining monitor lizards and high stress level makes this reptile not easy to breed. Up to now, there are very few breeders who have succeeded breeding the monitor lizard (Fischer, 2012).

The NLI Project (Nyambek Lokal Indonesia) is a start-up business engaged in breeding the reptiles, especially lizards or nyambek (in Indonesian local Javanese) which will then be sold as exotic pets. The business started from a small scale farm on the front yard of a residence in Surabaya since May 2015 using 4 cages and 4 lizards. Then, after routinely producing and being established as monitor lizard breeding, the NLI Project expanded to a larger farm by utilizing 1 special house for monitor lizard breeding in Gresik in October 2016. On this new farm, the NLI Project had 9 large cages used for production containing 5 productive females and 4 productive males. In addition, there were 16 small cages to accommodate the production of baby monitor lizards before being sold. Up to now, the NLI Project has succeeded in hatching more than 50 lizards per year, and had a total turnover of up to 20 million rupiah in 2017.

As a company that breeds monitor lizards, the NLI Project must consider financial aspects as one of the important elements in the company especially in facing the fluctuation in the reptile industry. The NLI Project must be able to properly regulate the type of monitor lizards they produce so that their sustainability and stability can be maintained and they still have good prospects. Therefore, a feasibility analysis is required by considering the elements of fluctuation in the reptile hobby industry, the level of difficulty of production and the availability of products in the market to be able to see the potential for the future and develop appropriate production strategies.

This research aimed to analyze financial feasibility and determine the optimal composition of sales plans from the NLI Project. The results of the analysis showed that it was financially feasible to conduct an analysis on the NLI Project based on the analysis of Net Present Value, Internal Rate of Return, and Profitability Index. The analysis also showed that the optimal composition of the sales plan was in the condition of 45-55% in the local reseller market, 35-45% in the export market, and 10% in the end-user market.

*NLI Project*. NLI Project (Nyambe Lokal Indonesia) is a business that focused in breeding reptiles especially monitor lizards or in Javanese called nyambek. NLI Project’s vision is to become a conservative based company for monitor lizards farm in Indonesia with the best care to meet the needs of reptile hobbyists in Indonesia. The NLI Project focuses on producing Indonesian local monitor lizard through the Captive Breeding (CB) method to meet the needs of the hobby market both local and international markets. The NLI Project studies the behavior and characteristic of each monitor lizard in Indonesia and breed them in captivity with proper husbandry. The NLI Project also participates in maintaining the local monitor lizard population in nature with the principle of only selling monitor lizards from the captive breeding and release programs to increase the population of monitor lizards in nature, especially the protected species. In addition, the NLI Project also provides socialization and education to hobbyists and public people about the role of monitor lizards in the balance of the ecosystem and shows that monitor lizards can be kept as a pets that are friendly to humans.

The strength point of NLI Project is to produce high-quality monitor lizards that suitable with the hobbyists need and provide good services and information. The provided quality includes attractive colors and patterns, stable health endurance, low stress levels, as well as
the temperament of the monitor lizards that are friendly to humans. The farm area provides adequate facilities, fast customer service, and up-to-date information which make NLI Project a company that can be trusted and known by many hobbyists, both local and international. It is also supported by affordable prices for the international markets.

The NLI Project provides sellers opportunities in local and international markets to be able to sell the local Indonesian lizards with CB labels at competitive prices and high profit margins through NLI associates. NLI associates are a seller’s cooperative relationship with NLI Project as an official store that sells CB lizards from the NLI Project. This method helps the NLI Project to distribute its products quickly and widely. Currently, there are only two NLI associates stores in Surabaya, namely Alvi Extreme Pets Indonesia (AEXPI) and Fable Pet Gallery. The future NLI Project market target will focus more on export markets and resellers compared to selling directly to the end users at a ratio of 90:10.

As a start-up business, the NLI Project is quite selective in choosing specimens that are bred due to limited land. Therefore, the NLI Project needs to take into account the number of parent assets they have and the species and morph for the breeding projects they run. It is required so that the NLI Project can maintain its business continuity and get maximum profit by utilizing their assets effectively and efficiently.

The majority of NLI Project operational costs are in the production process as monitor lizards. These costs include cage assets, parent assets, accessory requirements in cages, feed costs for monitor lizards, water, electricity, and so on. Currently, the NLI Project has not hired employees as a consideration to reduce operating costs as long as the NLI Project is still not really effective to have the income they expect. Therefore, in this development phase, the NLI Project began to take into account investment in species of monitor lizards that have more value in the reptile industry.

METHODS OF RESEARCH

The supporting data used were the data from the experts from all over Indonesia and the reptile hobbyists especially monitor lizards in Indonesia. The research was conducted for 8 months, from August 2017 to April 2018. The method used to analyze the feasibility of the NLI Project followed the basic method of capital budgeting theory. The method used was Discounted Cash Flow (DCF) method consisting of Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI) by measuring the cash flow condition for the next 5 years. An indicator that shows that the NLI Project is feasible to run is when the NPV value is > 0, with an IRR > 6% and PI > 1.0.

Meanwhile, to analyze the condition of the company in fluctuating conditions, this research included the ratio of price fluctuation obtained from the secondary data as a reference for fluctuating trends in the common reptile hobby industry. If the calculation results remain in accordance with the feasibility indicator, the NLI Project is feasible to run as a business.

The optimal NLI Project sales allocation is based on the number of products produced each year. NLI Project has 3 sales allocations, namely end user markets with end user prices, reseller markets, and export markets. The biggest selling focus for the NLI Project lies in the reseller and export markets which control up to 90% of sales every year and the remaining 10% is controlled by the end user market. The analysis was carried out with the Real Option (RO) method by applying various different combinations which refer to the 2 main conditions, namely the biggest selling conditions in the reseller market and the biggest selling conditions in the export market. The research was conducted by using the DCF method which expects the target composition to obtain NPV > 0, IRR > 6%, and PI more than 1.0.

RESULTS OF STUDY

Feasibility Test of the NLI Project without Fluctuation in Reptile Industry. The calculation trial of the feasibility test to the NLI Project was carried out in several different
Table 1 – Feasibility Test of the NLI Project (Annual Base; Value uses rupiah with export price and employee salary without fluctuation)

<table>
<thead>
<tr>
<th>n/n</th>
<th>Quantity (Land) (10% increase in production every year)</th>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High Yellow SALVATOR (HYS)</td>
<td></td>
<td>337,500</td>
<td>10,125,000</td>
<td>11,317,500</td>
<td>12,251,250</td>
<td>13,478,375</td>
</tr>
<tr>
<td>2</td>
<td>Cost of Production (HYS)</td>
<td></td>
<td>152,000</td>
<td>4,560,000</td>
<td>5,016,000</td>
<td>5,517,600</td>
<td>6,069,360</td>
</tr>
<tr>
<td>3</td>
<td>Quantity (Land) (10% increase in production every year)</td>
<td></td>
<td>7,000,000</td>
<td>140,000,000</td>
<td>154,000,000</td>
<td>169,400,000</td>
<td>186,340,000</td>
</tr>
<tr>
<td>4</td>
<td>Cost of Production (BD)</td>
<td></td>
<td>322,500</td>
<td>6,450,000</td>
<td>7,095,000</td>
<td>7,804,500</td>
<td>8,584,950</td>
</tr>
<tr>
<td>5</td>
<td>Blue Tree Monitor (BTM)</td>
<td></td>
<td>3,500,000</td>
<td>52,950,000</td>
<td>55,125,000</td>
<td>57,881,250</td>
<td>60,775,313</td>
</tr>
<tr>
<td>6</td>
<td>Cost of Production (BTM)</td>
<td></td>
<td>242,000</td>
<td>3,675,000</td>
<td>3,858,750</td>
<td>4,051,688</td>
<td>4,254,272</td>
</tr>
<tr>
<td>7</td>
<td>Gross profit</td>
<td></td>
<td>187,949,000</td>
<td>204,292,750</td>
<td>221,158,713</td>
<td>241,843,106</td>
<td>263,025,364</td>
</tr>
<tr>
<td>8</td>
<td>Operation expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average annual inflation ratio (5.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This initial experiment was carried out with the current NLI Project adaptation, which was without the employee’s salary and only included the personal salary of the NLI Project owner. In addition, in the development of a business, one of the main elements is the existence of competent employees who can keep the company running smoothly in which it helps the owner in running the company. Therefore, the experiment was also carried out by adding employee salaries to the monthly operational costs of the NLI Project.

Table 1 below illustrates the basic basis used in the calculation process of the feasibility test to the NLI Project. Table 1 shows that the initial investment value of the NLI project was IDR 158,150,500. All of the money comes from the private fund of the owner. The fund value is a reference in the investment feasibility assessment.

Using the same base as in Table 1, the trial of three combinations was carried out. The two main conditions used were conditions without employees and conditions with employees, each of which had three different prices based on the target market, namely end-user price, reseller price, and export price.

Table 2 – Feasibility Test of the NLI Project without Fluctuation (5-year base)

<table>
<thead>
<tr>
<th>Investment Value: IDR 158,150,500</th>
<th>Without Fluctuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Conditions</td>
<td>NPV</td>
</tr>
<tr>
<td>Without employee salary</td>
<td></td>
</tr>
<tr>
<td>1 End-user price</td>
<td>IDR 561,964,279</td>
</tr>
<tr>
<td>2 Reseller price</td>
<td>IDR 376,261,302</td>
</tr>
<tr>
<td>3 Export price</td>
<td>IDR 347,555,442</td>
</tr>
<tr>
<td>With employee salary</td>
<td></td>
</tr>
<tr>
<td>4 End-user price</td>
<td>IDR 454,954,668</td>
</tr>
<tr>
<td>5 Reseller price</td>
<td>IDR 269,251,690</td>
</tr>
<tr>
<td>6 Export price</td>
<td>IDR 240,545,830</td>
</tr>
</tbody>
</table>
Based on the simulation of feasibility test in Table 2, the NLI Project was considered as 100% feasible to run as a business with the conditions without fluctuations. The feasibility indicator could be seen in the NPV value > 0, the IRR value > 6%, and the PI value > 1.0. Employee salary had an impact on decreasing profits. However, it did not affect the feasibility of the NLI Project and continued to provide significant profit increase as shown in Table 1. The amount of the NPV, IRR, and PI figures decreased slightly after the component of employee salary was included.

Feasibility Test of the NLI Project with Fluctuation in Reptile Industry. As a tertiary need for hobbies, the reptile industry is quite developed and has a broad market. However, in terms of business, the reptile industry has very high dynamics that affect price fluctuation.

The NLI Project, as one of the new businesses in the industry, needs to review the business feasibility in terms of finance by including the element of price fluctuation that occurs in the reptile industry. The price fluctuation ratio used in this simulation used the data on price fluctuation of other reptiles i.e. Iguana that were obtained from the expert sources as the owner of the largest reptile shop in Surabaya, Budi Wonsosasmito.

Table 3 – Feasibility Test of the NLI Project (Annual Base; Value uses rupiah with the selling price of local resellers with employee salary and fluctuation)

<table>
<thead>
<tr>
<th>n/n</th>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price Change Ratio</td>
<td>Price (Rupiah)</td>
<td>0</td>
<td>0</td>
<td>-0.13</td>
<td>-0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Quantity (Lizard) (10% increase in production every year)</td>
<td>30</td>
<td>33</td>
<td>36</td>
<td>40</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Cost of Production (HYS)</td>
<td>250,000</td>
<td>7,500,000</td>
<td>8,250,000</td>
<td>8,805,200</td>
<td>9,529,360</td>
<td></td>
</tr>
<tr>
<td>Cost of Production (BTM)</td>
<td>152,000</td>
<td>4,560,000</td>
<td>5,016,000</td>
<td>5,517,600</td>
<td>6,069,360</td>
<td></td>
</tr>
<tr>
<td>Price Change Ratio</td>
<td>0</td>
<td>0</td>
<td>-0.15</td>
<td>-0.13</td>
<td>-0.15</td>
<td>-0.16</td>
</tr>
<tr>
<td>Quantity (Lizard) (10% increase in production every year)</td>
<td>20</td>
<td>22</td>
<td>24</td>
<td>22</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Price Change Ratio</td>
<td>7,500,000</td>
<td>150,000,000</td>
<td>145,250,000</td>
<td>134,219,250</td>
<td>125,494,999</td>
<td></td>
</tr>
<tr>
<td>Cost of Production (BD)</td>
<td>322,500</td>
<td>6,450,000</td>
<td>7,095,000</td>
<td>7,804,500</td>
<td>8,584,900</td>
<td></td>
</tr>
<tr>
<td>Price Change Ratio</td>
<td>0</td>
<td>0</td>
<td>-0.34</td>
<td>-0.32</td>
<td>-0.12</td>
<td>-0.29</td>
</tr>
<tr>
<td>Quantity (Lizard) (5% increase in production every year)</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Price Change Ratio</td>
<td>3,500,000</td>
<td>52,500,000</td>
<td>36,382,500</td>
<td>25,977,105</td>
<td>24,002,845</td>
<td></td>
</tr>
<tr>
<td>Cost of Production (BTM)</td>
<td>245,000</td>
<td>3,675,000</td>
<td>3,858,750</td>
<td>4,051,688</td>
<td>4,254,272</td>
<td></td>
</tr>
<tr>
<td>Cost of Production (BTM)</td>
<td>50,000</td>
<td>110,750,000</td>
<td>110,912,750</td>
<td>110,917,818</td>
<td>110,916,798</td>
<td></td>
</tr>
<tr>
<td>Expenditure for parent feed (BTM)</td>
<td>39,000</td>
<td>88,312,996</td>
<td>56,764,966</td>
<td>33,141,195</td>
<td>15,535,771</td>
<td></td>
</tr>
<tr>
<td>Expenditure for parent feed (BTM)</td>
<td>10,000</td>
<td>1,090,000</td>
<td>1,139,400</td>
<td>1,202,067</td>
<td>1,268,181</td>
<td></td>
</tr>
<tr>
<td>Annual electricity costs</td>
<td>3,600,000</td>
<td>3,600,000</td>
<td>3,798,000</td>
<td>4,006,890</td>
<td>4,227,269</td>
<td></td>
</tr>
<tr>
<td>Water fee</td>
<td>1,020,000</td>
<td>1,020,000</td>
<td>1,079,100</td>
<td>1,135,206</td>
<td>1,197,226</td>
<td></td>
</tr>
<tr>
<td>Telephone and internet fees</td>
<td>6,000,000</td>
<td>6,000,000</td>
<td>6,878,000</td>
<td>7,678,400</td>
<td>4,054,448</td>
<td></td>
</tr>
<tr>
<td>Employees salary</td>
<td>30,000,000</td>
<td>30,000,000</td>
<td>31,050,000</td>
<td>33,390,750</td>
<td>35,227,241</td>
<td></td>
</tr>
<tr>
<td>Employees salary</td>
<td>2,400,000</td>
<td>2,400,000</td>
<td>2,532,000</td>
<td>2,671,200</td>
<td>2,818,179</td>
<td></td>
</tr>
<tr>
<td>Maintenance cost</td>
<td>7,200,000</td>
<td>7,200,000</td>
<td>7,959,000</td>
<td>8,031,780</td>
<td>8,454,538</td>
<td></td>
</tr>
<tr>
<td>Transportation cost</td>
<td>5,200,000</td>
<td>5,200,000</td>
<td>5,978,000</td>
<td>6,068,890</td>
<td>4,227,269</td>
<td></td>
</tr>
<tr>
<td>Transportation cost</td>
<td>1,214,400</td>
<td>1,214,400</td>
<td>1,247,400</td>
<td>1,247,400</td>
<td>1,247,400</td>
<td></td>
</tr>
<tr>
<td>Farm house depreciation cost</td>
<td>5,004,000</td>
<td>5,004,000</td>
<td>5,948,000</td>
<td>5,948,000</td>
<td>5,948,000</td>
<td></td>
</tr>
<tr>
<td>Farm house depreciation cost</td>
<td>1,020,000</td>
<td>1,020,000</td>
<td>1,020,000</td>
<td>1,020,000</td>
<td>1,020,000</td>
<td></td>
</tr>
<tr>
<td>Expenditures for parent feed (BTM)</td>
<td>207,000,000</td>
<td>207,000,000</td>
<td>207,000,000</td>
<td>207,000,000</td>
<td>207,000,000</td>
<td></td>
</tr>
<tr>
<td>Total Operating expenses</td>
<td>107,002,000</td>
<td>112,147,874</td>
<td>117,578,623</td>
<td>123,304,007</td>
<td>129,346,435</td>
<td></td>
</tr>
<tr>
<td>Operating profit</td>
<td>88,312,996</td>
<td>56,764,966</td>
<td>33,141,195</td>
<td>15,535,771</td>
<td>-6,552,296</td>
<td></td>
</tr>
<tr>
<td>Interest expenses</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Profit before tax</td>
<td>88,312,996</td>
<td>56,764,966</td>
<td>33,141,195</td>
<td>15,535,771</td>
<td>-6,552,296</td>
<td></td>
</tr>
<tr>
<td>Tax (30% of profit available)</td>
<td>26,493,899</td>
<td>17,029,464</td>
<td>9,492,358</td>
<td>4,660,731</td>
<td>-1,974,187</td>
<td></td>
</tr>
<tr>
<td>Tax (30% of profit available)</td>
<td>88,312,996</td>
<td>56,764,966</td>
<td>33,141,195</td>
<td>15,535,771</td>
<td>-6,552,296</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>13,442,004</td>
<td>13,442,004</td>
<td>13,442,004</td>
<td>13,442,004</td>
<td>13,442,004</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>75,261,101</td>
<td>53,177,466</td>
<td>36,640,840</td>
<td>24,317,044</td>
<td>6,889,708</td>
<td></td>
</tr>
<tr>
<td>Discount Factor 6%</td>
<td>0.9708</td>
<td>0.9426</td>
<td>0.9151</td>
<td>0.8885</td>
<td>0.8626</td>
<td></td>
</tr>
<tr>
<td>Discount Factor 6%</td>
<td>73,063,000</td>
<td>50,125,080</td>
<td>33,560,033</td>
<td>21,605,693</td>
<td>5,943,062</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 above illustrates the basic basis used in the calculation process of feasibility test of the NLI Project with fluctuations. The fluctuation ratio uses fluctuating ratio conditions on 3 types of Iguanas, namely Green Iguana, Blue Iguana, and Albino Iguana. The placement of the fluctuation ratio adjusts the price of the three types of Iguana which become the benchmark and the price of the three types of NLI Project products used in the simulation.

Based on Table 4, five of the six trials concluded that the NLI Project was feasible to run as a business. However, on the 6th experiment, with the use of employee salary and export prices, the IRR value was 4.82% in which it was below the feasibility standard of 6%. It showed that the NLI Project was not feasible to run with the use of this condition.
The fluctuation condition caused a significant decrease in turnover resulting in loss conditions that began to appear in the 5th year in terms of sales at reseller price and employee salary. It could be seen in the simulation example in Table 3 even though based on Table 4 number 5 it was still in the feasible category. Fluctuating conditions resulted in drastic decrease of annual profit each year with large losses in the 5th year. It showed that the condition of the company was not well developed and unable to deal with conditions of price fluctuation coupled with inflation condition on operational costs that continue to increase every year despite an increase in production by 10% annually.

Analysis of the Composition of Effective Sales Plans Based on Financial Feasibility Test on the NLI Project. In taking the future sales strategy, the NLI Project needs to determine the appropriate sales allocation in order to obtain optimal profits despite price fluctuation in the reptile industry. Therefore, the feasibility test was carried out on the NLI Project by considering the sales allocation with the condition of 10% in the local market, and the remaining 90% will be divided into two conditions, i.e. the biggest selling condition was performed at the local reseller market and on the export market using the Real Option method. This method was performed by comparing 19 different combinations of composition between local and export resellers in 90% of sales.

The results of the feasibility test on the NLI Project with 19 sales combinations indicated that the NLI Project is 100% feasible to run as a business even though using 19 different combinations of sales composition. It could be seen from the lowest NPV condition that showed a positive number. Meanwhile, the lowest IRR was 9.63%. It meant that the IRR value was still above the lowest interest rate, which was 6%. The lowest PI calculation also shows a ratio of 1.14 which was above the lowest ratio of 1.00.

Based on Figure 1(a), the highest NPV condition was IDR 40,276,088 in which 90% of the sales were allocated to local resellers and the remaining 10% was allocated to end-users. Meanwhile, the worst condition of NPV was IDR 21,865,833 in which the condition where 90% of sales was allocated to exports and the remaining 10% to end users.

In addition to NPV chart, this research also presented the IRR chart of the NLI Project. Figure 1(b) also showed the NLI Project IRR graph in various sales conditions with the highest IRR of 14.71% in which it found the condition of 90% sales allocation in the local reseller market, and 10% in the end user without an allocation to the export market. Meanwhile, the worst condition was the IRR of 9.63%, in which condition where 90% of sales was allocated to exports and 10% to end users.
Based on NPV and IRR charts, it could be predicted that similar things could occur to PI. Based on Figure 1(c), the PI chart of the NLI Project showed that the highest profit condition was 1.25 which was in 2 conditions. The first condition lied when sales allocation is 90% at local resellers and 10% at end users without export sales. The second condition was when the sales allocation is 85% at local resellers, 10% at end users, and 5% in export markets. Meanwhile, the worst condition of PI was at 1.14 where 90% sales allocation in exports and the remaining 10% were in the end user.

Based on the results of the analysis, it was known that the best sales allocation conditions were dominated where sales allocation to local resellers at 90% and 10% sales to end users without export sales. However, in reality, export sales must still be performed. That is because the local resellers might not be able to absorb 90% of NLI Project products considering the sales to the end user was only at 10%. The balance of sales allocation between local resellers market and export market is necessary to find the possible optimal sales allocation. The balanced condition from 19 different combinations was the average NPV value of IDR 30,967,422, IRR of 12.19% and PI ratio of 1.20. Based on that, the average condition was closest to the condition of sales allocation within 45-55% at local resellers, 10% at end users and allocating between 35-45% to export markets.

**DISCUSSION OF RESULTS**

Based on the analysis results on the first problem regarding the financial feasibility test, the NLI Project is considered to be more than 90% feasible to run as a business if it is viewed from the calculation results with the three DCF methods, namely NPV, IRR, and PI. This research was conducted in 2 main conditions, namely the stable price condition and the condition with price fluctuation. The price standard used in this research was based on 3 different target markets, namely end user, local reseller, and export.

The results of the feasibility test at stable prices found that the NLI Project is feasible to run as a business even with 6 different conditions and the increasing income. Different condition was found in the results of feasibility test with price fluctuation in the reptile hobby industry. In fluctuating conditions, 5 out of 6 conditions in the NLI Project were considered as feasible to run as businesses under consideration that the income continues to decline every year. The NLI Project was considered as not feasible in the 6th condition, namely in Table 4 number 6 in which 100% of sales using export prices showed an IRR of 4.82% below the 6% interest rate and experienced losses in the 5th year.

Other analysis results were aimed at the second problem regarding the composition of an optimal sales plan based on the financial feasibility test of the NLI Project. This analysis was carried out by taking into account the existence of price fluctuations in the reptile industry by dividing sales allocations in 3 different target markets directly, namely end users, local resellers, and exports. The composition of the sales plan was based on the company’s sales conditions in which the 10% were in the end user market and the remaining 90% were between the local reseller and export markets. Therefore, in this analysis there were 2 main conditions, namely the condition where the biggest sales focused on the local reseller market and the condition where the biggest sales focused on the export market.

The results of the analysis on the second problem showed that out of 19 different combinations, the NLI Project was 100% feasible to run as a business if it was referring to the results of 3 DCF analyzes, namely NPV, IRR, and PI. The highest income condition was obtained when 90% of sales were addressed to local resellers. Meanwhile, the lowest income occurred when 90% of sales were directed to exports. However, the conditions did not allow local resellers to be able to absorb 90% of the total NLI Project production if it is viewed from the average sales to the end user directly which was only 10%. If it is viewed from the various possibilities that might occur, then the most ideal condition was in an average position where the composition of sales was 45-55% to local resellers, 35-45% to exports, and 10% to end users. If the NLI Project ends in an export condition that is more dominant than the local reseller, then the calculation results still support the feasibility of the
NLI Project as a company. However, it will be better if the NLI Project is able to increase the sales to the end user because it will increase the sales significantly.

Referring to the analysis results on the first and second problems, there are several things that need attention. One of them is the condition where there was fluctuation in selling prices. The condition of selling price fluctuation that tended to decline was not balanced with an increase in production each year and it caused a significant decrease in company turnover. This condition can be fatal and cause losses to the company. This is shown in Table 4 number 6 where the NLI Project is considered as not feasible to run as a business because the IRR is below the minimum interest rate limit. In addition, the condition of the company experienced losses in the 5th year. The condition of losses in the 5th year was also experienced in several other conditions of feasibility tests, one of which is shown in Table 3 and also occurred in all analysis calculations of the 2nd research problem regarding the composition of an effective sales plan.

The findings of this research are relatively consistent with previous research under several notes. This research is appropriate to be used as a method of investment feasibility analysis because it applied the NPV, IRR and PI methods. The DCF method has been used in 61.4% of companies in Indonesia as a company feasibility analysis (Leon and Kester, 2008).

These research findings strengthen Swastawati’s (2011) research who conducted a feasibility test analysis using NPV, IRR, and PI. The difference made in Swastawati’s research is the existence of non-DCF methods such as the Payback Period (PP) which was not carried out in this research. PP is commonly used in the feasibility test analysis to find out how long the investment made by the company can return and get the profit. In this research, this condition can be seen from the calculation of NPV.

Hafidzi’s (2012) research also used the same basic method, namely using NPV, IRR and Monte Carlo simulations with additional Discounted Payback Period (DPP), B/C Ratio to test the feasibility of expansion on CV Globalz Mandiri Jember. Hafidzi applied uncertainty or fluctuation conditions by applying Monte Carlo simulation to the company’s cash flow in standard, optimistic and pessimistic conditions.

Based on the findings of the above research, the most expected field conditions are if the selling price can be stable without fluctuations. It is because the income continues to rise every year with high profits so that it shows very good business prospects. However, if there is a fluctuation in field conditions, there is a need for anticipation from the NLI Project to deal with these conditions.

Based on the internal factors, the above research conditions only calculated the production figures of one parent in each product line. Meanwhile, the NLI Project had 3 normal females that could increase production rates rapidly. Even so, in fluctuating conditions, the NLI Project has a significant decrease in turnover every year which can result in losses at some stage. The total number of parents will indeed increase the company’s turnover, but it is possible that the decline in prices will continue to decrease the company’s turnover. One solution that can be performed is to replace one of the parents of High Yellow Salvator with the Black Dragon parent. Therefore, the NLI Project will get a high profit.

Another anticipation that can be performed simultaneously with adding product lines is to expand the farm to a larger scale. However, this step will be safer to do if it has been re-tested financially to ensure that the expansion does not result in losses. These steps are an effort of anticipation that can be carried out internally by the company.

As a company that sells a product, it certainly needs to pay attention to external factors affecting the circulation and the prices of products sold by the NLI Project. Regarding to the conditions of fluctuations in other reptiles, fluctuating factors tend to be caused by an increase in the number of products on the market. Therefore, external factors that may cause fluctuations need to be considered. One of the external factors is the presence of competitors among breeders and the level of natural catch supplies. Because of the lizards of the NLI Project are Indonesian local lizards, it needs to be a concern because it will affect the market conditions of end users and local resellers who sell their products to end users. To overcome this condition, it would be more profitable if the NLI Project prioritizes its sales to the export
market and maintains price stability in the local market. Therefore, the condition of price fluctuations in the local market can be minimized because the conditions of the destination countries of the export market cannot get monitor lizards in their nature.

In responding to competitor breeders, the NLI Project can conduct cooperative relationships between businesses to be able to maintain price stability so that the monitor lizard sales value can be more stable. This condition plays a good role with fellow domestic breeders, as well as the foreign breeders. Diplomatic relations with local breeders in pricing can maintain the stability of export prices because it reduces the risk of price competition. It should be realized by seeing the minimum number of monitor lizards in Indonesia. Meanwhile, diplomatic relations with foreign breeders can indirectly maintain the stability of export sales prices as well. This is due to differences in prices between natural wild caught monitor lizards and captive breed monitor lizards on international markets. Prices set by foreign breeders will affect the value of the selling price that Indonesian exporters can offer to outside importers. In addition, it may lead to the price that can be offered by the NLI Project to the export market.

Regarding to the relatively lower profit on export sales prices, the NLI Project still needs to anticipate the local market especially to maintain sales stability to local resellers which leads to end users. In facing the existence of wild caught animals that can affect the captive breeding of monitor lizards, the NLI Project needs to reconsider the advantages of the products they produce.

Good character, attractive colors and low levels of stress on captive breed monitor lizards are special advantages that are not necessarily obtained from natural catch lizards which can make price differentiation. Therefore, the conditions of circulation of wild caught monitor lizards are not entirely a threat if they are addressed in the right way. The anticipation that can be carried out is to routinely disseminate information about good captive breed monitor lizards through media promotions and exhibitions. If the hobbyists know the differences, they will prefer captive breed monitor lizards because it answers their main problems with natural catch monitor lizards in terms of adaptability, stress, disease and character. Therefore, the conditions of circulation of wild caught monitor lizards do not significantly affect price fluctuations in captive breed monitor lizards. In this case, proper promotion and communication can increase sales prospects to end users in Indonesia and of course will affect sales to local resellers.

**LIMITATIONS OF THE RESEARCH**

Analysis of the feasibility test on the NLI Project in this research is still far from perfection. It is because this research only prioritizes financial perspective. Meanwhile, based on the discussion in Chapter 5, the NLI Project needs to consider many other factors that will affect the conditions of calculation and assumptions of this research. The following are the limitations of this research.

- This research only applied the DCF method to measure the investment feasibility of a company;
- This study only used neutral/fixed production conditions. The existence of combination changes was only applied from price fluctuation and sales composition;
- The research did not take into account other conditions such as normal, pessimistic, and optimistic conditions for sales and production in the analysis of feasibility test.

**CONCLUSION AND SUGGESTIONS**

This research aimed to analyze the financial feasibility of the NLI Project. NLI Project is a company engaged in captive breeding of monitor lizards. The analytical method used in this research was based on Discounted Cash Flow (DCF), including Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI). Based on the analysis results, it could be concluded that the NLI Project is financially considered as feasible as a financial investment based on fluctuation in the reptile hobby industry. In addition, the optimal
composition of sales allocation in the NLI Project was at 45-55% in the local reseller market, 35-45% in export market, and 10% in the end-user market.

In conducting a research, it certainly may not be a perfect research. Various aspects, both technical and non-technical, can be overlooked and become input and consideration for future research. Therefore, the following are suggestions given by the authors to the company and future research:

- The use of the DCF method is indeed feasible enough to conduct an analysis on investment feasibility test. However, it would be better if the next research could complete it with non-DCF methods such as Break Even Point (BEP) as conducted in Hadi’s research (2010) or Payback Period (PP). The use of the BEP method will show clearly what the selling price needs to be maintained by the company and the amount of production that needs to be achieved to prevent losses. The use of the PP method can clearly present how quickly the issued initial investment can be returned and generate profits for the company.
- Future research can apply the Real Option (RO) method which can provide additional solutions in determining the company’s strategy to complement the achieved analysis results from both DCF and non-DCF methods (Ghahremani et al., 2012). In this case, the researchers can do more analysis by trying to make compositions outside the existing limits. Next, the researcher can compare the results of the analysis with the existing boundary conditions. Thus, the research may open up the potential with wider discussion to get the best solution.
- Future research can also apply additional conditions to sales and production such as neutral, pessimistic and optimistic conditions. By using these conditions, it can be known the condition of the company beyond the assumptions made and expected in this research.

REFERENCES

THE INFLUENCE OF INDIVIDUAL AND ENVIRONMENTAL FACTOR TO THE ORGANIC RICE FARMING PERFORMANCE AND ENTREPRENEURIAL BEHAVIOUR AS MEDIATION VARIABLES

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ABSTRACT
This research is aimed to reveal the factors that influence the entrepreneurial behaviour of organic rice farmers and also the influence of intrepreneurial behaviour towards the performance of organic rice farming in Sragen Regency, Central Java Province, Indonesia. This research uses Structural Equation Modeling supported by the software AMOS 22.0 as a tool to analysing. This research uses purposive sampling which includes 150 farmers who commit to organic rice farming. The results of this research show all the hypothesis is valid. There are positive influences of individual factors towards entrepreneurial behaviour, environmental factors towards the entrepreneurial behavior and the performance of rice farming, and entrepreneurial behaviour towards the farm business performance of organic rice farming.

KEY WORDS
Individual factor, environmental factor, entrepreneurial behaviour, farming performance, organic farming.

An organic farming is a method of agriculture cultivation which uses natural chemical and avoids the use of synthetic chemical. The main goal of cultivating the organic rice farming is to provide agriculture products which are free of chemical substance especially for the products of food which are safe for both consumer and producer (Mubiar & Alik, 2014). Organic farming can also promote the healthy environment. The organic rice is one of the products of organic farming cultivation. Sragen regency has potential production of organic rice. However, there are issues and challenges related to organic rice farming in Sragen regency. These challenges are related to the technology for providing production facilities such as organic fertilizer and organic pesticides and also the poor marketing strategies. Hence, supportive human resources are needed to support those phenomena (Alfiani, 2014).

Human resource development in agriculture or agribusiness entrepreneur is the main priority that must be taken as a serious issue. It is because human resource plays important roles in planning, implementing, and bearing the production risks, moreover human also can manage the decision to adopt or postpone the application of a technology to get the added value (Pambudi & Dabukke, 2010). Human resource also has important roles in the achieving competitive advantage as stated by Krismamurthy (2001). He has argued that individual factor can determine the success of achieving competitive advantage because every soul has creativity, innovation, ability, and also courage. He also believes that every individual can take advantage of the opportunity and use it to further the skill not to mention to overcome difficulties. Furthermore, human also have the ability to control and utilize technology so that those can help human to discover financial capital, information and also business networking. Thus, human resource has important roles in developing business.

The application of entrepreneurial behaviour to the organic rice farmers is conducted to give positive impact to the farm business performance. The entrepreneurial behaviour will make the farmers become more active in utilizing and developing the business potential, innovative in the production process, and also bold to take the business’ risks so that it will give impacts to the performance of the farmers (Santoso et al, 2015). Another expert highlights that the entrepreneurial behaviour, somehow, can upgrade the business
performance and make the farmers become innovative in utilizing the resources they have more efficient (Grande et al, 2012).

This research is executed to further analyze the individual factor and environmental factor which influence the entrepreneurial behaviour of organic rice farmers and also analyze the entrepreneurial behaviour influence towards the organic rice farming performance in Sragen Regency.

LITERATURE REVIEW

The skill of entrepreneurship can be determined as the function of entrepreneurial behaviour in combining creativity, innovation, the hard working, and also courage to get the opportunities and successful in business (Suryana, 2003). Yuyun (2011) has concluded that a company which proposes entrepreneurial behaviour by implementing innovative designs of production can improve business performance. It can be done by minimizing the costs or preventing the rising costs and maximizing the output. Such company has succeeded in business due to a combination of new input which produces the greater output compared with the previous one. In addition, by implementing innovative idea, certain company can even produce the efficient use of inputs so that it can reduce production cost to improve company profits and growth.

The general model of entrepreneurial behavior and business performance proposed by Delmar consists of business performance, entrepreneurial behaviour, individuals (motivation and ability) and the environmental. This model is based on the theory of Interactionist Perspective which means the behavior is assumed based on the reciprocal influence between business performance, individuals and the environmental. Meanwhile, the business performance depends on the factor of entrepreneurial behavior. This research also combines the psychological performance theory because the main focus of this research is to explain how entrepreneurial behavior affects business performance (Delmar, 1996).

The factors that may affect the entrepreneurial behaviour are individual factors and environmental factor. The individual factor as stated by (Zainura et al, 2016) consists of age, education, experience, and motivation. The environmental factor may consist of financial capital, family, and also social environment. (Virginia & Carlos, 2012) have said that the individual factors can influence the intention of developing the business. In the context of micro business, the psychological characteristics tend to dominate a person to behave in entrepreneurial culture and this is the primary motivation of starting a business and self-efficacy. The explanation above shows how individual factor and environmental factor can affect someone’s behaviour. Kuratko et al, (2014) and Rosairo & David Potts (2016) have stated that to know the environmental factors influencing entrepreneurial activities, it is necessary to examine the individual factor. Meanwhile, individual factor of organizational members and organizational environmental factors will influence entrepreneurial behavior which will ultimately affect the organizational performance strategies needed for organizational success.

H1: Individual factor significantly influences the entrepreneurial behavior of organic rice farmers.

H2: Environmental factor significantly influences entrepreneurial behavior of organic rice farmers.

Entrepreneurial behaviour is related to the human’s behaviour to identify and take the opportunities for business formation and development, as well as to explore and create opportunities in the on-going business activities (Rosairo & David Potts, 2016) through actions that lead to the entrepreneurial concepts; creative, innovative, and risk-taking (Delmar, 1996). The entrepreneurial behaviour gives positive impact to someone’s performance. This hypothesis corresponds to the previous research done by Delmar (1996). The other researchers such as Chen et al (2011); Roach et al (2016) and Odermi (2011) have also stated that the entrepreneurship gives positive impact towards business development and business performance. Improving business performance is influenced by
entrepreneurial behavior such as being proactive, competitive, innovative, risk-taking, and independent (Doye & Bwisa, 2015).

H3: The entrepreneurial behavior of organic rice farmers significantly affects the performance of organic rice farming.

In the model of entrepreneurial behaviour and business performance proposed by Delmar, the environmental factor is seen as a control variable and it is not considered as the main object of the research. Somehow, the environmental factor directly gives impact to the business performance (Dharmaratne, 2012; Schjoedt & Kraus, 2009; Chen et al., 2011). The company's performance depends on the environment because the business will run, if there is a demand for goods and services offered by the company (Delmar, 1996). According to Gomezelj & Kušce (2013), the environmental factors such as financial assistance, government policy, training support, business infrastructure, market competitiveness, and social cultural norms significantly affect the business performance.

H4: Environmental factor has significant effect on the performance of organic rice farming.

METHODS OF RESEARCH

Methods of data analysis used in this research are Structural Equation Modeling (SEM) supported by the software AMOS 22.0. Data processing analyzed by Structural Equation Modeling (SEM) are as follows: the validity and reliability, assumption of adequacy of the sample, the assumption of normality, the assumption of outliers, Evaluation of Goodness-of-Fit, and hypothesis testing. The technique used in this research is techniques of survey by employing the questionnaire as a tool for data collection. The determination of the location was carried out by means of purposive with the consideration that Sragen has been the pioneer of organic rice farming since 2001 and received the organic certification and labelling from INOFICE (Indonesian Organic Farming Certification). In addition, the organic rice is one of the featured products in Sragen regency. The population of the research is the farmers who cultivate the organic rice in Sragen regency. The sample of the research is 150 respondents.

RESULT OF STUDY

The characteristics of respondents can be further seen at the table 1. All the respondents are mostly male, which is 78.67%. Most organic rice farmers are in the productive age (41-60 y.o) which is 52.67%. The education level of the respondents is still low because most of the farmers are only graduated from elementary school (59.33%). Meanwhile, only 1.33% respondents have education at the college level. The land area of organic rice farming is mostly in the range of 1.000 m²-3.000 m² (43.33%), while the land area which is more than 9.000 m² is only 10.67%. At the level of land area, the survey indicates that organic rice farming is executed on small scale business which will ultimately affect the farmer's income. Based on the data information of the respondents, only 32.67% of the respondents have basic income of organic rice farming of <Rp.6.000.000, - for each cropping season. Low income levels of organic rice farmers can be caused by the land area which tends to be narrow. The farmers who have wider land area tend to have high income compared with the other farmers who only have land area in the range of 1.000 m²-3.000 m².

In statistic analysis used AMOS 22.0, the research can be started by testing the validity and reliability construct to measure the ability level of research instrument. This, somehow, can reveal whether the data are appropriate with research problem. An item considered as a valid and widely accepted if the factor loading is more than 0.5 while the ideal one is more than 0.7 (Ghozali I, 2014). The formal education construct has the factor loading 0.083. This construct is not considered as valid so it has to be dropped out from the model. Based on the calculation of AVE and CR, all the constructs have the AVE > 0.5 and CR > 0.7. It means all the constructs have met the demand of reliability construct. Based on the normality testing, this model of c.r multivariate is – 1.786. The c.r multivariate is on the range -2.58 < z < 2.58.
which means SEM model in this research has met the criteria of normality assumption. None of the mahalonobis distance of the entire sample exceed more than 43.8202 (Chi Square at α = 0.001 and df = 19). This means the data being analyzed does not contain the outliner.

Table 1 – Respondent’s characteristic

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td>Land area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>118</td>
<td>78.67</td>
<td>1000 m² – 3000 m²</td>
<td>65</td>
<td>43.33</td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>21.33</td>
<td>3001 m² – 5000 m²</td>
<td>41</td>
<td>27.33</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>5001 m² – 7000 m²</td>
<td>14</td>
<td>9.33</td>
</tr>
<tr>
<td>18 – 40</td>
<td>21</td>
<td>14.00</td>
<td>7001 m² – 9000 m²</td>
<td>14</td>
<td>9.33</td>
</tr>
<tr>
<td>&gt;60</td>
<td>50</td>
<td>33.33</td>
<td>&gt;9000 m²</td>
<td>16</td>
<td>10.67</td>
</tr>
<tr>
<td>Education's degree</td>
<td></td>
<td></td>
<td>Rice farming Income</td>
<td>49</td>
<td>32.67</td>
</tr>
<tr>
<td>Not going to school</td>
<td>1</td>
<td>0.67</td>
<td>Rp. 6.000.000 – Rp.12.999.999</td>
<td>44</td>
<td>29.33</td>
</tr>
<tr>
<td>SD (Elementary School)</td>
<td>89</td>
<td>59.33</td>
<td>Rp. 13.000.000 - Rp.18.999.999</td>
<td>21</td>
<td>14.00</td>
</tr>
<tr>
<td>SMP (Junior High School)</td>
<td>38</td>
<td>25.33</td>
<td>Rp. 19.000.000 - Rp.24.999.999</td>
<td>19</td>
<td>12.67</td>
</tr>
<tr>
<td>SMA (Senior High School)</td>
<td>20</td>
<td>13.33</td>
<td>&gt;Rp. 24.000.000,-</td>
<td>17</td>
<td>11.33</td>
</tr>
<tr>
<td>Diploma/ Sarjana (Bachelor)</td>
<td>2</td>
<td>1.33</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2 – Validity and Reliability Construct

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor loading</th>
<th>AVE (&gt;0.5)</th>
<th>CR (&gt;0.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Factor (FI)</td>
<td></td>
<td>0.829</td>
<td>0.882</td>
</tr>
<tr>
<td>Formal Education</td>
<td>0.083</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming experience</td>
<td>0.894</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>0.933</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception</td>
<td>0.906</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Factor (FL)</td>
<td></td>
<td>0.682</td>
<td>0.971</td>
</tr>
<tr>
<td>Input availability</td>
<td>0.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and Elucidation’s support</td>
<td>0.815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital and production tools support</td>
<td>0.831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotion and Marketing support</td>
<td>0.812</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business regulation support</td>
<td>0.827</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compactness of farmers</td>
<td>0.859</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to market information</td>
<td>0.788</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial Behavior (PK)</td>
<td></td>
<td>0.789</td>
<td>0.952</td>
</tr>
<tr>
<td>Innovative</td>
<td>0.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk-Taking</td>
<td>0.896</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hard working</td>
<td>0.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond to opportunities</td>
<td>0.897</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>0.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming Performance (KU)</td>
<td></td>
<td>0.819</td>
<td>0.929</td>
</tr>
<tr>
<td>Income level</td>
<td>0.901</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level marketing area expansion</td>
<td>0.926</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to compete</td>
<td>0.898</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farming commitment</td>
<td>0.887</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Evaluating the goodness of fit means measuring the concord level between the models being hypothesized with the data provided. The goodness of fit testing is conducted to refer the fitness index.

The table 3 shows how the data is processed. The total value of X² is 199.316 with the probability 0.003. Basically, if the Chi-Square being calculated is small and the p value does not exceed more than 0.05, it is required to use other criterias of goodness of fit (Ghozali, 2004). The GFI (Goodness of Fit Index) is under the reference value, 0.880. However, all the values at the table 3 are nearly closed to the reference value so that they can be considered as marginally fit. These results indicate that the model’s goodness of fit was reactive good and could be conidered as meeting the model’s suitability.

The result of the research indicates the entire hypothesis can be accepted and valid. H1, H3, and H4 are valid at the significant level of α 0.001 while H2 is valid at the significant level of α 0.01.
Table 1 – Hypotheses and Variables

<table>
<thead>
<tr>
<th>No.</th>
<th>Hypothesis</th>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1</td>
<td>PK → FI</td>
<td>0.651</td>
<td>0.062</td>
<td>10.429</td>
<td>***</td>
</tr>
<tr>
<td>2</td>
<td>H2</td>
<td>PK → FL</td>
<td>0.199</td>
<td>0.071</td>
<td>2.822</td>
<td><strong>0.005</strong></td>
</tr>
<tr>
<td>3</td>
<td>H3</td>
<td>KU → PK</td>
<td>0.180</td>
<td>0.064</td>
<td>12.622</td>
<td>***</td>
</tr>
<tr>
<td>4</td>
<td>H4</td>
<td>KU → FL</td>
<td>0.278</td>
<td>0.057</td>
<td>4.842</td>
<td>***</td>
</tr>
</tbody>
</table>

Note: *** significant level at α 0.001; * significant level at α 0.05; ** significant level at α 0.01.

DISCUSSION OF RESULTS

The result of the study shows the average response of the farmers is 3.43. It indicates that all the responses can give explanation about personal quality of the farmers in doing the business. It is because the average experience in organic rice farming is mostly 12 years. The farmers have motivation to get prosperous life in family by cultivating organic rice farming. However, farmers have adequate belief of success in developing the organic rice farming because of the lack of capital. All the capitals are used to fulfil the daily need and fund the next planting.

In addition, the result of this study shows there is a positive influence between individual factors (FI) and the entrepreneurial behavior (PK). It is indicated by the probability value (P) which is smaller than the value of α 0.001, with an estimate value of 0.651. High estimation values indicate that the individual factor has big influence to the entrepreneurial behaviour of organic rice farmers. The individual factor can be used as a prediction model to predict the entrepreneurial behaviour. It means the more experience they have, the higher
motivation and perception they get in developing organic rice farming. Those will ultimately advance the entrepreneurial behaviour of farmers in organic rice farming.

The finding results above are in accordance with the previous research done by Rosairo & David Potts (2016); Virginia & Carlos (2012); and Gomezelj & Kušce (2013). All of their research show the significant influence of individual factor to the entrepreneurial behaviour. Based on this finding, it can be said that individual factor affects the entrepreneurial behaviour of the majority of respondents. This condition represents that the respondents have possibility to improve the performance of organic rice farming. This individual factor can be brought up because of the length of experience of organic rice farming, the great motivation of the farmers to improve the prosperous life of the family and the perception of farmers about belief of success in developing the organic rice farming.

In addition, the result of this study also shows the calculation number is at the point 3.70. It means all the respondents agree that the environmental factor can support the performance of organic rice farming. All the respondents have said that they have obtained the availability of inputs such as seeds, organic fertilizers and pesticides, the government support in counselling, training, promotion and marketing, and business regulation. This, more or less, gives influence to the organic rice farming. However, there is still obstacle in conducting the organic rice farming in Sragen regency. Financial assistance program of the government is unevenly distributed. Not all the farmers even gets the financial assistance but they show the compactness by helping each others when planting and cropping the organic rice. Meanwhile, the farmers admitted that they get information and also business networking from agricultural extension officers, collectors, public figure, and also the fellow farmers.

Based on the hypothesis testing, the environmental factor (FL) gives positive influence to the entrepreneurial behaviour (FL). It is indicated by the probability value which is less than α 0.01 and positive correlation with the estimate value 0.199. This means that the high level of availability of inputs such as (1) government support in conducting counseling or training, (2) financial assistance and production facilities, (3) promotion and marketing, (4) business regulation, (5) compactness of farmers, and (6) an easy access to business networking for organic rice farming, all of them, can even give positive impacts to the entrepreneurial behaviour of the farmers. This result of study is supported by the previous research done by Shah Ali & Tariq Bhutta (2013); Rosairo & David Potts (2016); and Doye & Bwisa (2015). Those researchers have committed a study to reveal the relation between environmental factor and entrepreneurial behaviour. It is confirmed that there is positive relation between FL (environmental factor) and entrepreneurial behaviour (PK).

The result of the hypothesis testing also signifies that there is significant influence of entrepreneurial behaviour (PK) to the performance of organic rice farming (KU). The probability value (P) is smaller than α 0.001, with the estimate value 0.810. It means that the higher entrepreneurial behaviour possessed by farmers, the higher organic rice farming performed by the farmers. By this, the farmers are expected to enhance the success of businesses in the organic rice farming sector. The result of this study also indicates that the level of innovation, risk-taking, hard-working, responsive to opportunity, independence will ultimately affect the enhancement of organic rice farming performance. The good entrepreneurial behaviour can give implication to the basic performance of the farming such as increasing the revenue, marketing area, competitiveness, and also commitment of farming.

A research done by Roach et al., (2016) shows there is positive influence between entrepreneurial behaviour and business performance. It is widely accepted that the research proposed by Roach et al., (2016), et al is done to know the influence of the entrepreneurial factor to the business performance. Meanwhile, innovation becomes the primary factor to improve the business performance. In rhythm with the research done by David C, et al, this study also signifies the positive relation between innovation and the business performance. By implementing innovative designs and ideas, a company can produce and develop the products, improve the services to upgrade the business performance. Other researchers who have conducted the similar research are Odermi (2011); Shah Ali & Tariq Bhutta (2013);
Chen et al., (2011); and Doye & Bwisa (2015). All of them have described the positive influences of entrepreneurial behaviour to the business performance.

Based on the hypothesis testing, it can be confirmed that there is positive impact between environmental factor (FL) and farm business performance (KU). It is indicated by the probability value (p) which shows the lower scale than α 0.001, with the estimate value 0.278. This means the higher environmental factor that farmers have, the higher farming business performed by the farmers. In addition, the higher environmental factor that affects the organic rice farmers will directly give impact to the improvement of business performance of farming. It can give improvements in some aspect of the business performance such as the increased of the revenue, the wider marketing area, great competitiveness, and also higher commitment of farming. This result is supported by the previous research that analyzed the influence of environmental factors to the business performance of farming. These researches done by Chen et al., (2011); Dharmaratne (2012); and Gomezelj & Kušce (2013).

CONCLUCION AND SUGGESTIONS

Individual factor and environmental factor, both of them, give positive influences to the entrepreneurial behaviour of organic rice farming. The entrepreneurial behaviour directly gives positive impact to the organic rice farming performance. In addition, Environmental factor significantly affects the performance of organic rice farming. Majority of organic rice farmers have low education level so it is necessary to take them into non-formal education such as giving them an in-house training. It is to help the farmers to get easy in adopting and utilizing technology for the good farm business performance. Moreover, the financial capital, obviously influence the entrepreneurial behaviour. Sufficient financial capital is needed to support the entrepreneurial behaviour so that it can help to increase the basic performance of the farmers. Almost all the farmers can detect the opportunities they have. However, only few farmers take advantage of the opportunity because of the lack of financial capital.

REFERENCES

FACTORS INFLUENCING THE CONVERSION TO ORGANIC RICE FARMING

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ABSTRACT
The making of implementation policies to promote organic rice farming must be based on a good understanding of the factors influencing farmers’ decision to convert to organic rice farming. This research aimed to answer and understand more deeply the factors influencing farmers’ decision to switch from conventional to organic rice farming. This research was a case study on Jembar II Farmers Group in Margahayu Village, Indonesia. The results showed that all the variables, namely farmer characteristics, institutions, and farmer behaviors simultaneously affected the farmers’ conversion decision from conventional to organic rice farming. Meanwhile, partially, only two variables affected the farmers’ decision to convert to organic rice farming, namely farmer behaviors related to product prices and productivity as well as marketing institutions.

KEY WORDS
Organic rice farming, conventional farming, farmer characteristics, institutions, behaviors.

Organic farming is growing rapidly in all parts of the world. Since 2000, the organic land area has increased by almost 15 million hectares to 50.9 million hectares with total producers of 2.4 million, of which more than three-quarters of the producers were in developing countries (Willer and Lernoud, 2017). The growth of the organic farming in developing countries is triggered by the consumer preference to choose safer and healthier food ingredients and the development of people trends or lifestyle, ultimately leading to the high demand for organic products, particularly in developed countries (Karki et al., 2011; Widiarta et al., 2011). The high demand of developed countries’ consumers and high prices cause organic products yielded in developing countries to be largely exported. This certainly provides opportunities for exporters in developing countries to buy organic products from farmers at premium prices. However, the farmers still often face obstacles, one of which is low agriculture productivity. Hence, organic farming in developing countries is becoming a tool of socio-economic development and is supported by various international and national development initiatives (Reddy, 2010; Twarog, 2010; Kilcher & Echeverria, 2010). In 2007, the global trade of organic products reached USD $46.1 billion or 36.2 billion Euro (IFOAM, 2009). Even, it reached more than 60 billion Euro in 2014 (FiBL Survey, 2016).

The growth rates of organic production depend on different factors and vary from country to country and region to region (Broadt & Schug, 2008). In 2011, the organic land area throughout Asia covered 3.69 million hectares. In 2015, it increased by 7.5% to 3.97 million hectares. Meanwhile, in Indonesia, the organic land area reached 74,034.09 hectares in 2011 and increased by 76% to 130,384.38 hectares in 2015, so the share percentage of the total world organic farming area increased from 0.14% in 2011 to 0.23% in 2015 (Willer and Lernoud, 2017).

Organic products in developing countries tend to be more in demand due to its various benefits and advantages compared to conventional farming. Organic farming can protect and maintain soil health, significantly improve soil quality in terms of physical, fertility, and biological properties, enable ecosystems to better adapt to the impacts of climate changes, and increase the potential for carbon sequestration from the soil (Surekha et al., 2013; Pathak et al., 1992; Carpenter Boggs et al., 2000; Bhooshan et al., 2011). In terms of economic welfare, organic farming contributes to increasing farmers' income through higher productivity than conventional rice farming, and premium prices (Surekha et al., 2013; Reddy, 2010). Meanwhile, the social contribution of organic farming is to avoid/ anticipate
natural damages such as infertile soil, water pollution, biodiversity erosion, greenhouse gas emission, food scarcity, and pandemics related to chemical agriculture and pesticide poisoning, eventually leading to healthy communities (Scialabba, 2013). In principle, the ecological or organic farming system recalls the importance of ecological foundations of the existing farming systems. Organic agriculture has been proposed as an important means to achieve these goals (Seufert, 2012).

The number of organic rice farmers in East Priangan, West Java Province as the research location often experiences fluctuation. In 2011, there were 2,600 farmers. Based on this situation, the researchers were interested to examine the main reason underlying the farmers to switch from conventional to organic rice farming. The understanding of the factors influencing farmers’ conversion decision from conventional to organic rice farming is a prerequisite for formulating policies that will encourage the productivity of organic rice in the research location. There have been many studies examining the factors influencing farmers’ conversion to organic agriculture, both in developed and developing countries. Several studies have suggested that the main factors influencing farmers’ decision to convert to organic agriculture include environmental awareness, health, promising market prospects, economic benefits (Karki et al., 2011), profits, higher selling prices and incomes resulting from organic farming practices (Dabbert et al., 2004; De Cock, 2005, Sukristoyonubowo et al., 2011). Meanwhile, the non-economic (social) influencing factors are healthier rice quality due to minimal pest and disease (Sukristoyonubowo et al., 2011).

The previous studies have shown various factors determining farmers’ conversion decision from conventional to organic agriculture. These factors were used as the basis in the hypothesis formulation in this research. Until now, there has been no any study explaining the reasons underlying the farmers in the development area of East Priangan to switch from conventional to organic rice farming. The main purpose of this research was to answer and understand more deeply the factors influencing farmers’ conversion decision from conventional to organic rice farming in East Priangan region.

METHODS OF RESEARCH

This research was a case study on Jembar II Farmers Group in Margahayu Village, Manonjaya Subdistrict, Tasikmalaya Regency. The research location was selected purposively by considering that Manonjaya Subdistrict is one of the centres of rice production in Tasikmalaya Regency, which is also the development area of organic rice. The analysis unit of this research was individual. The data collection were carried out through a census of 46 members of Jembar II Farmers Group in Margahayu Village, Manonjaya Subdistrict, Tasikmalaya Regency. The respondents of this research were organic farmers who had implemented organic SRI rice farming practices.

In addition to distributing questionnaires, face-to-face interviews were also carried out with the organic rice farmers to obtain all the information needed in this research. The number of respondents interviewed was 46 people. The questionnaires were designed to obtain data related to the socio-economic characteristics of organic farmers, including age, sex, farming area, education, and farming experience.

To understand the decision-making process, the respondents were asked about the reasons underlying their decision of conversion from conventional to organic rice farming. The respondent behaviors and their main reasons to switch to organic rice farming were analyzed using a set of statement items with a Likert-scale ranging from (1) Very Disagree to (5) Very Agree. Pre-test questionnaires were also distributed to 20 respondents. From the pre-test questionnaires, several farming indicators that had confusing or difficult statements to be answered by the respondents were then omitted or refined. Only understandable statements were taken to be further analyzed.

In addition to primary data collection from the organic rice farmers, in-depth interviews were done with various stakeholders engaged in the organic rice development. The interviews aimed to obtain additional information in relation to social, economic, and political issues emerging along with the organic rice development in the research area. The results of
the interview stakeholders were analyzed with a narrative analysis method and then presented as additional information to the respondent analysis results.

The data analysis in this research was carried out with different treatments according to the data types obtained and the hypotheses formulated. According to Miles and Huberman (1984) in Sugiyono (2009), qualitative data are processed through three stages of analysis, namely data reduction, data display, and conclusion drawing. Data reduction is done by summarizing, selecting key elements, and focusing on important things according to research needs. Data display is presenting data in the form of brief descriptions and direct quotes to support quantitative data. Meanwhile, conclusion drawing is made after obtaining findings on the object of research.

The primary data of this research were obtained with a quantitative method, from the questionnaire filling results. The data were then edited and processed using SPSS 19.0 for Windows. Furthermore, the processed data were examined using Parametric Statistics for the hypothesis testing of each factor (partially). Hypothesis testing was also done using Multiple Linear Regression to determine the simultaneous effect of the factors on the farmers’ conversion decision from conventional to organic rice farming.

The equation of the multiple linear regression analysis is shown as follows:

\[ Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 \]

Where: \( Y \) = Dependent Variable (Conversion Decision to Organic Rice Farming); \( b_0 \) = Interception; \( b_1, b_2, b_3 \) are regression coefficients; \( X_1 \) is Farmer Characteristics, \( X_2 \) is Institutions dan \( X_3 \) is Farmer Behaviors.

The factors influencing the decision of conversion to organic rice farming simultaneously were known by testing the F value using the following formula:

\[ F_{\text{count}} = \frac{J_k \text{ regression}}{k} \frac{J_k \text{ residue}}{(n-k-l)} \]

Where: \( J_k \text{ regression} = b_1\Sigma x_{1i}y_i + b_2\Sigma x_{2i}y_i + b_3\Sigma x_{3i}y_i + b_4\Sigma x_{4i}y_i + b_5\Sigma x_{5i}y_i; \) \( J_k \text{ residue} = \Sigma (Y_i - \bar{Y})^2; \) if \( F_{\text{count}} < F_{\text{table}} (\alpha = 0.05) \), \( H_0 \) will be accepted, meaning that all independent variables (X) simultaneously have no effect on the dependent variable (Y) and if \( F_{\text{count}} \geq F_{\text{table}} \), \( H_0 \) will be rejected, meaning that all independent variables (X) simultaneously have an effect on the dependent variable (Y).

The effect of each factor on the decision of conversion to organic rice farming was determined by testing the t-value using the following formula:

\[ t_{\text{hit}} = \frac{b_i}{Sb_i} \]

Where: \( Sb_i = \sqrt{\text{variance} \; \; b_i}, \) while \( \text{Variance} \; \; b_i = \sigma^2 (x'x)^{-1}; \) if \( t_{\text{count}} < t_{\text{table}}, \) \( H_0 \) will be accepted, meaning that Variable \( X_i \) has no effect on Variable \( Y, \) If \( t_{\text{count}} \geq t_{\text{table}}, \) \( H_0 \) will be rejected, meaning that Variable \( X_i \) has an effect on Variable \( Y. \)

Furthermore, the accuracy degree of the relationship between the independent variables and the dependent variable was measured using the following formula (Sudjana, 1996):

\[ R^2 = \frac{J_k \text{ regression}}{\Sigma Y_i^2} \]

RESULTS AND DISCUSSION

Based on the analysis results, all the variables (farmer characteristics, institutions, farmer behaviors) simultaneously had a considerable effect on the farmers’ decision of
conversion from conventional to organic rice farming with a significance value $\alpha > 0.01$. Meanwhile, partially, only two variables greatly affected the farmers’ conversion decision to organic rice farming with a significance value $\alpha < 0.01$, namely farmer behaviors related to rice prices and productivity as well as marketing institutions.

The respondent (farmer) characteristics together with the institutions and behaviors affected the conversion decision from conventional to organic rice farming. This is in line with several previous studies conducted by Kallas et al. (2009), Rigby et al. (2001), and Scialab badan hattam (2002) finding that some of the most relevant factors influencing farmers’ decision to switch to organic agriculture are farmer characteristics, farmer behaviors, farmer opinions, non-economic factors, characteristic differences in terms of demographics, economic situation and the farmer attitudes compared to conventional farmers, technical factors and institutional support.

Information on the higher premium prices and productivity of organic rice compared to conventional rice would greatly influence farmers’ decision to switch to organic rice farming. It cannot be denied that each farmer always wants to get high profits from their farming. The high profits can be achieved through increased productivity coupled with high product prices. This is consistent with the results of Heryadi and Rofatin’s (2016) study stating that the main preference of farmers in the selection of organic SRI rice farming system is to obtain the optimum profits. The price of organic rice in the research location was IDR 650,000./- quintal (processed paddy) higher than the conventional rice price of IDR 500,000./- quintal (processed paddy). The average productivity of organic rice was 7.45 tons/hectare, larger than the average conventional rice productivity at Manojaya District level which amounted to 6.771 tons/hectare (processed paddy) (Planning and Development Agency of Manonjaya, Tasikmalaya Regency, 2013).

Furthermore, the existence of organic rice marketing institutions that can accommodate all the organic rice yields of farmers and the premium price guarantee led the farmers to convert to organic rice farming. Organic rice in the research location was easily marketed through its farmers’ group. By the farmers’ group, organic rice would be then sold to Gapoktan SIMPATIK with guaranteed markets and reasonable prices as expected by farmers.

CONCLUSION AND SUGGESTIONS

Simultaneously, all the variables, including farmer characteristics, institutions, and farmer behaviors, have a great effect on farmers’ decision to switch from conventional to organic rice farming. Meanwhile, partially, the variables that considerably affect farmers’ conversion decision to organic rice farming are farmer behaviors related to rice prices and productivity as well as marketing institutions. In this regard, alternative policies that can encourage farmers to convert to organic rice farming are very needed so as to further develop organic rice productivity and improve the welfare of farmers. Some of the alternative policies needed include the establishment of institutions that can guarantee the marketing continuity and premium prices for organic rice and the improvement of farmers’ ability from technical aspects to increase rice productivity.

ACKNOWLEDGEMENTS

The authors thank the LP2MP of University of Siliwangi, Indonesia, which has provided funding for this research.

REFERENCES

DOI https://doi.org/10.18551/rjoas.2018-09.60

ANALYSIS OF THE EFFICIENCY OF THE USE OF PRODUCTION FACTORS OF CUCUMIS LATIVUS FARMING IN ARISAN GADING VILLAGE, SOUTH INDRALAYA SUBDISTRICT OF OGAN ILIR DISTRICT, INDONESIA

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ABSTRACT
This study aimed to analyze the level of efficiency of the use of factors of production in cucumis sativus farming in Arisan Gading Village, South Indralaya Subdistrict of Ogan Ilir District. It used a survey method. The sampling technique used a purposive sampling method. Based on the results of calculations, the use of land, labor, seeds, NPK (Nitrogen, Phosphorus, and Potassium) fertilizer, and allocative herbicides were inefficient so that their use needs to be reduced to achieve optimal production, while the use of insecticide production factor was not efficient so its use needs to be increased.

KEY WORDS
Cucumis Sativus, efficiency level, production, factors.

Indonesia is indeed a paradise for all of us who are fond of farming activities because almost all trees or plants can live in this agrarian land. Having supportive natural conditions, we can in fact take advantage of opportunities to boost business in the agricultural sector. Cultivation of cucumis lativus is one of the opportunities that we can try to take advantage of because this fruit is very popular in the life of Indonesian people. All of the above factors are ineffective enough if there is no policy from the government supporting the agricultural development. Cucumis lativus is rich in provitamin A, functioning as a natural antioxidant to prevent damage to body cells. In addition, it has a high vitamin C content. It is rich in essential minerals such as calcium, phosphorus, and iron. It also has health benefits such as controlling sugar levels in the body, reducing the risk of cancer, helping the regeneration process of body cells, and helping to improve digestion.

South Sumatra is one of the provinces where farmers cultivate cucumis lativus because during the month of Ramadan the demand for cucumis lativus increases. Moslems often have it as an iftar menu. Therefore, the farmers plant it. This fruit is frequently processed into a refreshing drink. For health benefits, cucumis lativus can be used to control sugar levels in the body, reduce the risk of cancer, help the regeneration process of body cells, and help to improve digestion. South Indralaya Subdistrict is one of the subdistricts of Ogan Ilir District, South Sumatra Province where farmers regularly plant cucumis lativus when facing the upcoming Ramadan month. According to the Central Statistics Agency (2017), the average production of cucumis lativus in South Indralaya Subdistrict in 2016 was 8 tons of an average land area of 9 hectares.

The production of cucumis lativus is strongly influenced by the production factor since it will affect the income of the farmers to be high or low earnings. In addition, the level of efficiency of production factor needs to be taken into account so that farmers is aware whether their use of production factor is already efficient or not. In this way, they can use production factors in accordance with the needs and efficiency of the cucumis lativus plant.

Based on the background, the researcher was interested in conducting a study on the Analysis of Efficiency Level of the Use of Production Factors of Cucumis Lativus Farming in Arisan Gading Village, South Indralaya Subdistrict of Ogan Ilir District

METHODS OF RESEARCH

Research Location and Time. This research was conducted in Arisan Gading Village, South Indralaya Subdistrict of Ogan Ilir District. The location was determined purposively by
considering that the farmers of the Village had the *cucumis lativus* farming. The Village area is potential in agriculture, and most of the people there earn a living by growing *cucumis lativus* plants. The study started in March 2018 until completion.

**Research Method.** A research method is needed in order to measure the success of a study. This study used a survey method. According to Putra (2010), a survey method is a way of collecting data through inquiries from certain parties. The samples were taken from the farmers of *cucumis lativus* of Arisan Gading Village, South Indralaya Subdistrict, Ogan Ilir District. The survey was conducted directly using questionnaires as a means of collecting basic data and conducting interviews with resource persons as the sample representing the population of *cucumis lativus* farmers of Arisan Gading Village. This method was carried out to obtain thorough, factual data and facts from the the study object area.

**Sampling Technique.** The study used a purposive sampling technique. Putra (2010) states that purposive sampling is a technique of selecting sample with certain (objective) considerations. Sampling in the field was conducted by interviewing 30 samples. They were farmers of *cucumis lativus* of Arisan Gading Village, Indralaya Selatan Subdistrict of Ogan Ilir District.

**Method of Data Collection.** The collected data in this study were derived from primary and secondary data. The primary data were collected using an interview guideline or prepared questionnaire. The list of questions or questionnaire used in this study contained questions related to *cucumis lativus* farming and the factors of production used. This study took some photos for documentation. While secondary data were gathered from library sources, internet, village monographs of sample locations, and related agencies.

**Method of Data Analysis.** This study aimed to measure the level of efficiency of the use of production factors by using the following formula:

\[
\frac{dy}{dx} = \beta_i
\]

The marginal mathematical product equation derived from the use of the i production input (PM<sub>i</sub>) is:

\[
PM_i = \frac{dy}{dx} = \frac{d(PT)}{dx}
\]

As for the tabulated data (discrete), the PM<sub>i</sub> is obtained from the change of output divided by change of input:

\[
PM_i = \frac{\Delta y}{\Delta x}
\]

To get the Marginal Product Value of the use of production inputs (NPM<sub>i</sub>), the two segments of the last equation above are multiplied by the product price (Py) to obtain:

\[
NPM_i = PM_i \cdot Py = \beta_i \frac{Y}{X_i} \cdot Py = P_{xi}
\]

Furthermore, the determination of efficiency criteria can be done by using the ratio of the Marginal Product Value to the price of the production factor (NPM<sub>i</sub>/P<sub>xi</sub>) with the following conditions:

\[
k = \frac{NPM_{xi}}{P_{xi}} = 1
\]

The use of efficient X, production factors or maximum profit achieved.

\[
k = \frac{NPM_{xi}}{P_{xi}} > 1
\]

The use of X, production factors is inefficient or less than what is needed so the amount needs to be added.

\[
k = \frac{NPM_{xi}}{P_{xi}} < 1
\]

The use of X, production factors is inefficient or exceeds the needs so that the amount needs to be reduced.
WHERE:

\[ NPM_{xi} \]: Marginal product value derived from the factor of production to \( i \) (Rupiah);

\[ P_y \]: Production unit price (Rupiah);

\[ P_{xi} \]: Production factor unit price to \( i \) (Rupiah);

\[ \beta_i \]: Coefficient;

\[ X_i \]: Production average to \( i \).

RESULTS AND DISCUSSION

Efficient Use of Production Factors. Efficiency is defined as an effort to use the smallest input to get the maximum output (result). Production is optimum if production factors are used as efficiently as possible. In this study, the analysis of allocative efficiency (price) was carried out. The allocative efficiency of the use of production factors is achieved if the Marginal Product Value (NPMx) is the same as the unit price of the production factor used. This situation shows that the use of these production factors is optimum at a certain level of output without having to be added or reduced.

The results of this study showed that the average use of production factors per planting season of *cucumis lativus* farming of Arisan Gading Village in 2018. The production factors were the area of land, labor, seeds, NPK fertilizer, herbicides, and insecticides. The average land area used for *cucumis lativus* farming was 0.70 hectares. The average use of production factors per planting season per year for labor was 48.58 HOK, 0.63 kilograms of seeds, 169.50 kilograms of NPK fertilizer, 0.74 liters of herbicides and 1.9 kilograms of insecticides. Meanwhile, the average production of *cucumis lativus* was 4,473 kilograms per arable area per planting season with the average selling price of Rp. 3,000.00 per kilogram. The cost or price of an input or factor of production is the expense that must be incurred by the farmer to get the production factor. All cucumber farmers of Arisan Gading village used their own land, so to find out the average price of land per plot of land, it was Rp.30,000,000.00 per hectare, so that the average land rent was Rp. 21,050,000.00 per arable area per planting season. The average cost incurred for labor wages was Rp. 24,338.34 per HOK. The price of cucumber seeds was calculated based on the prevailing seed prices in Arisan Gading Village, which was Rp.40,666.67 per kilogram. The price of NPK fertilizer was calculated based on the average cost incurred by farmers, which was Rp.6,937.00 per kilogram. The average price for buying herbicides was Rp.67,500.00 per liter. The average price of insecticides was Rp.50,000 per kilogram. The allocative efficiency of the use of production factors of the *cucumis lativus* farming in 2018 was obtained from the calculation of the level of each efficiency. The calculation results are given in Table 8.14.

<table>
<thead>
<tr>
<th>Production Factor</th>
<th>PR</th>
<th>PM</th>
<th>NPM</th>
<th>Hx</th>
<th>K</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor (X₁)</td>
<td>92</td>
<td>-21</td>
<td>169.50</td>
<td>24,338.34</td>
<td>-2</td>
<td>Inefficient</td>
</tr>
<tr>
<td>Seeds (X₂)</td>
<td>7</td>
<td>1</td>
<td>4,473</td>
<td>40,666.67</td>
<td>-2</td>
<td>Inefficient</td>
</tr>
<tr>
<td>NPK Fertilizer (X₃)</td>
<td>26</td>
<td>1.27</td>
<td>3,000.35</td>
<td>67,500.00</td>
<td>0.55</td>
<td>Inefficient</td>
</tr>
<tr>
<td>Herbicides (X₄)</td>
<td>6</td>
<td>-132</td>
<td>-398,076.40</td>
<td>50,000.00</td>
<td>-5</td>
<td>Inefficient</td>
</tr>
<tr>
<td>Insecticides (X₅)</td>
<td>2</td>
<td>26</td>
<td>798,837.58</td>
<td>15.98</td>
<td></td>
<td>Not Yet Efficient</td>
</tr>
</tbody>
</table>

*Source: Processed primary data, 2018.*

Land Use. The ratio between the Marginal Product Value (NPMx₁) to Hx₁ was less than one (NPMx₁ / Hx₁ or k = 0.84), which means that the land production factor was inefficient at a 95% of confidence interval, so the used land area needs to be reduced to get optimal production. Therefore, the hypothesis of this study stating that the factors of land production was inefficient was rejected. The marginal product of land production factor was 5,871.65. This shows that each addition of 1 hectare of land will increase the cucumis lativus production by 5,871.65 kilograms. Meanwhile, the result of the NPM calculation show that the obtained land NPM was Rp.17,614,945.00 per arable area per planting season. This
figure is the addition of the *cucumis lativus* production value derived from the addition of one hectare of land.

*Use of Labor.* The ratio between the Marginal Product Value of (NPM<sub>x2</sub>) to the average labor wage (H<sub>x2</sub>) was less than one (NPM<sub>x6</sub> / H<sub>x6</sub> or k = -2.60). This means that the use of labor was inefficient so that the workforce needs to be reduced. The hypothesis of this study stating that the factor of labor production was not yet efficient was rejected.

The marginal product of the factor of labor production was -21.09 kilograms. This shows that every addition of 1 HOK, labor supply would reduce the production of *cucumis lativus* by 21.09 kilograms. Meanwhile, the result of the NPM calculation showed that the obtained NPM of the workforce was Rp. 63,261.43. This figure is a reduction of the production value of *cucumis lativus* for each additional 1 HOK.

*Use of seeds.* The ratio between the Marginal Product Value (NPM<sub>x3</sub>) to H<sub>x3</sub> was less than one (NPM<sub>x3</sub> / H<sub>x3</sub> or k = -22.99), which means that seed production factor was inefficient at 95% confidence intervals so that the seed dose needs to be reduced to obtain optimal production. Therefore, the hypothesis of this study stating that the factor of seed production was not yet efficient was rejected. The marginal product of the seed production factor was 311.60 kilograms. This shows that every addition of 1 kilogram of seeds would reduce the total *cucumis lativus* production by 311.60 kilograms. Meanwhile, the NPM calculation result showed that the obtained NPM seeds was Rp. 934,796.83 per kilogram. This figure is a decrease in the production value of *cucumis lativus* obtained from the addition of 1 kilogram of seeds.

*Use of NPK Fertilizer.* The ratio between the Marginal Product Value (NPM<sub>x4</sub>) to H<sub>x4</sub> was more than one (NPM<sub>x4</sub> / H<sub>x4</sub> or k = 0.55). Thus the production factor of NPK fertilizer was inefficient at 95% confidence intervals so that the dose of fertilizer use needs to be added to achieve optimal production. Therefore, the hypothesis of this study stating that the factor of production of NPK fertilizer was inefficient was rejected. The marginal product of the NPK fertilizer production factor was 1.27 kilograms. This shows that every addition of 1 kilogram of NPK fertilizer would increase the production of *cucumis lativus* by 1.27 kilograms. Meanwhile, the NPM calculation result showed that the NPM of NPK fertilizer obtained was Rp. 3,800.35 per kilogram. This figure is the addition of the *cucumis lativus* production value derived from the addition of 1 kilogram of NPK fertilizer.

*Use of Herbicides.* The ratio between the Marginal Product Value (NPM<sub>x5</sub>) to the herbicide production factor price (H<sub>x5</sub>) was less than one (NPM<sub>x5</sub> / H<sub>x5</sub> or k = -5.90). This shows that the factor of herbicide production was inefficient at 95% confidence intervals so that the use of herbicides needs to be increased. Therefore the hypothesis of this study stating that the use of herbicide was inefficiently was rejected. The marginal product of the herbicide was -132.69 kilograms which means that every addition of 1 liter of herbicide would decrease the amount of production by 132.69 kilograms. Meanwhile, the marginal product value of the herbicide was -398,076.40. This value is a decrease in the production value of Rp. 398,076.40 derived from each addition of one liter of herbicide.

*Use of Insecticides.* The ratio between the Marginal Product Value of (NPM<sub>x6</sub>) to the average insecticide price (H<sub>x6</sub>) was greater than one (NPM<sub>x6</sub> / H<sub>x6</sub> or k = 15.977). This means that the use of insecticides was inefficient so that the amount of use needs to be increased. Therefore, the hypothesis of this study stating that insecticide production factors was inefficient was accepted. The marginal product of the insecticide production factor was 266.28 kilograms. This shows that each addition of one kilogram of insecticides would increase the production of *cucumis lativus* by 266.28 kilograms. Meanwhile, the result of the NPM calculation showed that the obtained insecticide NPM was Rp. 798,837.58. This figure is the addition of *cucumis lativus* production value for each addition of one kilogram of insecticides.

**CONCLUSION**

The average use of production factors per planting season per year for labor was 48.58 HOK, 0.63 kilograms of seeds, 169.50 kilograms of NPK fertilizer, 0.74 liters of herbicides
and 1.9 kilograms of insecticides. Meanwhile, the average production of *cucumis lativus* was 4,473 kilograms per arable area per planting season with the average selling price of Rp. 3,000.00 per kilogram. The cost or price of an input or factor of production is the expense that must be incurred by the farmer to get the production factor. While the use of insecticide production factor was not efficient so its use needs to be increased.

**REFERENCES**

DOI: https://doi.org/10.18551/rjoas.2018-09.61

THE FACTORS INFLUENCING PADDY LAND CONVERSION ON THE NON-PADDY LAND OF KLATEN DISTRICT, INDONESIA

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ABSTRACT
Land conversion is a change in the function of some parts or all of the land area from its original function to another function. The land conversion, somehow, can directly affect the environment and the inherent potential of the land. Land conversion is broadly conducted due to the growing needs of the population numbers. This research is done to reveal the factors that influence paddy land conversion to the non–paddy land in Klaten District, Indonesia. This research used analytic descriptive methods. The data used in this research are the secondary data by the year 2002-2016. The method of analyzing the data used the econometric analysis with the Ordinary Least Square model or multiple linear regression models. All selected data then computed by statistical software, Stata 12.0. The result of this study shows the factors that influence the paddy land conversion in Klaten District. They are the number of population, the number of industry, Gross Regional Domestic Product (GRDP) of agriculture, the land productivity, the average of paddy field area, and the average of education level. However, the most influential factors that influence the paddy land conversion are the number of industry, Gross Regional Domestic Product (GRDP) of agriculture, the average of paddy field area, and the average of education level. Meanwhile, the variables or factors that do not significantly influence the paddy land conversion in Klaten District are the number of population and the productivity land.

KEY WORDS
Land conversion, paddy field, multiple linier regressions, Klaten District.

Land is a natural resource that has primary function in developing the country. In the context of national growth, almost all the sectors require land such as agriculture, industry, trading, and also infrastructure sector. In agriculture sector, land is considered as a basic resource both for the farmers and the growth of agriculture itself. Indonesia is well known as an agricultural country which most of all the agriculture activities focus on the land. Land plays important role in the production activity which produces basic food need for all the people (Putri, 2015).

Mansur et al (2014) have presented that the areas of paddy fields have been declining due to the changes caused by the land conversion. The paddy field has important function as a media of paddy planting. Paddy becomes one of the important of agriculture commodities in human life. However, recently, a massive change happens in Indonesia in the context of agricultural land conversion. Agricultural land is gradually converted to non-agricultural land to extend human settlements and urban industrial area. This changing takes consideration to the economic feasibility. In this way, the government has to put into an action and require a change in the regulation and protection of farmers especially for the agricultural land which produces the livestock that all humans need. Unprotected agricultural land, somehow, will be vulnerable to the shifting functions, especially in the urban areas or growing cities.

According to (Hakim, 2002), an increase in economic growth will directly lead to the rapid growth in some part of economic sectors. Based on the result of empiric studies proposed by (Mustopa, 2011), the increase of economic growth will automatically involve the wider land so it will also increase the land requirement for developments of various sectors, particularly industry. The importance of land for various sectors, in fact, will increase the demand of the land use. However, there is a condition where the population growth is increasing but the land availability is relatively limited. Land availability as one of the
production’s factor, somehow, cannot be reproduced again by human because it belongs to non-produced input (Mubyarto, 1996).

Agriculture sector plays important role in contributing to the Gross Regional Domestic Product (GRDP) in Klaten District. Agriculture sector stands on the third rank after manufacturing sector, large or retail trade sector, and automotive sector. Agriculture sector, contributes a constant price at 2.814.072 (IDR) to the Gross Regional Domestic Product (GRDP) of Klaten District in 2016 (Badan Pusat Statistik Kabupaten Klaten, 2017). By this report, it indicates that agricultural sector becomes one of the pillars of the economic growth in Klaten District.

Klaten is one of the regencies of Indonesia which is expected to be the region that can support the national food security. It cannot be denied that Klaten has the fertile rice paddy and also adequate irrigation infrastructure. But, the industrial developments gradually change the agricultural land into the non-agricultural land for the shake economy feasibility. The paddy land conversion is happening then it directly gives negative impacts, because basically agricultural land has broad function both for economic, social, and environmental aspect. In the economic and social aspects, the paddy land conversion brings the hot issues and gives negative impacts to the farmer’s life. It can reduce the agricultural employment and farmers’ income in agriculture. Meanwhile, in the environmental aspect, a number of benefits of the land will be lost along with the loss of the function of the paddy fields that have been converted to the non-agricultural land (Budi, 2011). By this, the conversion of agricultural land is a threat to the achievement of food security and has serious implications for food production, the physical environment, and the welfare of agricultural and rural communities whose lives depend on their land.

The process of paddy land conversion to the non-paddy land for residential and industrial purposes, somehow, is difficult to be avoided as a result of population growth and rapid economic growth. The availability land is limited while the demand of the land requirement is increased significantly. It requires choice and reallocation of land use in the most economically profitable direction. Problems in agriculture, especially the paddy field in Klaten District, have been marked by the decrease of paddy field area because of the high level of paddy land conversion. By those explanations above, it need a further research to analyze the factors that may affect the paddy land conversion to the non-paddy land in Klaten District. It is conducted to build strategy to the land protection so that it will create an effective system for cultivating, managing, and controlling the paddy fields area in Klaten District.

The hypothesis of this research could be described as follow: the factors influencing the paddy land conversion in Klaten District were the number of population, the number of industry, Gross Regional Domestic Product (GRDP) of agriculture, the land productivity, the average of paddy field area, and the average of education level.

MATERIALS AND METHODS OF RESEARCH

This research used analytic descriptive methods. The method was used to know the factors influencing the paddy land conversion in Klaten District, Central Java Province, Indonesia. The data used in this research was the secondary data which included quantitative data from the year of 2002-2016. The data sources were Klaten central Bureau of Statistics, Klaten Development Planning Agency at Sub-National Level (Bapedda), Klaten District Agriculture Service, Klaten industrial services, the literatures such as books, journals, result of studies, and other supported data. Factors that supposed to influence the land conversion in Klaten District are as follows; the number of population, the number of industry or company, the Gross Regional Domestic Product of agriculture, land productivity, the average area of land ownership, and the average of education level.

The method of analyzing the data used the econometric analysis with the Ordinary Least Square method or multiple linear regression. All selected data then computed by statistical software, Stata 12.0.
According to (Gujarati, 2006), formally, the equation of multiple linear regression model between variables can be formulated as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \epsilon \]

Where:
- \( Y \) = the loss of paddy field area because of the land conversion (ha);
- \( \alpha \) = the intercept;
- \( X_1 \) = number of population;
- \( X_2 \) = number of industry or company (in unit);
- \( X_3 \) = Gross Regional Domestic Product (GRDP) of agriculture in Klaten District (in million rupiahs);
- \( X_4 \) = the land productivity (kw/ha);
- \( X_5 \) = the average of land ownership (ha);
- \( X_6 \) = the average of education level (year);
- \( \beta_i \) = regression coefficient;
- \( \epsilon \) = Error Term.

The multiple linier regressions can be estimated by the ordinary least square methods (OLS). The basic concept of Ordinary Least Square model is to find the best fitting line or predict the regression coefficient (\( \beta \)) by minimizing the error term (\( \epsilon \)). The Ordinary Least Square (OLS) assumption can be described as follows: (1) unbiased estimator and has minimum variance estimation both for linier or non-linier model (2) Consistent, sample size increase indefinitely, approaches the real value of the parameter in the population and (3) \( \beta_0 \) & \( \beta_1 \) are normally distributed (Gujarati, 2006)

Model-based testing in this research was done to evaluate the accuracy and predictive power of regression models. There had been three model-based testing in this research; (1) Coefficient of determination (R-Squared) test, (2) the F-test for linier regression and (3) the T-test for linier regression.

The method of Classical assumptions test in this analysis of regression model was required to get the good model of linier regression and also to meet the BLUE criteria or generally called as Best Linear Unbiased Estimator. After the model was regressed then the assumption deviation tests were performed to check the model assumption. This included (1) multicollinearity test by using Pairwise Correlation Test, (2) heteroscedasticity test by using Breusch-Pagan Test, (3) normality test by using Shapiro-Wilk Test, and (4) autocorrelation test by using Durbin-Watson Test.

**RESULTS AND DISCUSSION**

A regional development is always related to the economic and population growth. Theoretically, the growth of a number of populations in a certain region will affect the demand of the land use. However, in fact, the availability of land today is limited. Recently, in Indonesia, there were resident’s clashes due to land eviction and unclear land ownership. It is evoked by the program of land conversion, especially the paddy field which is converted into non-paddy field.

Klaten District becomes a region which continues to increase the economic development in its region. It will finally affect the paddy field area. The decline of the paddy field area in Klaten District can be seen at the Figure 1.

The Figure 1 shows the relative decline in the paddy field area by the year 2002-2016. By the year 2002-2013, a significant decline of the paddy field area had occurred in Klaten District. Meanwhile, in the 2013 and the next year after that, the paddy field area remained the same. It means that there is no declination in the paddy field area at that time and it had the total area of 33,220 ha. However, in 2014-2016, the area had declined by 154 ha.

The paddy land conversion is always influenced by other variables. It means that the conversion does not take into an action by itself but it includes some factors that may influence the execution of paddy land conversion itself. The paddy land conversion in Klaten...
District can be influenced by total population in Klaten District, the number of industry or company, the Gross Regional Domestic Product (GRDP) of agriculture, the land productivity, the average of paddy field area, and the average of education level.

![paddy field area](ha)

Figure 1 – Paddy field area in Klaten District by the year 2002 to 2016

To understand estimate factors which influence paddy field conversion in Klaten District, this research involved the econometrical analysis to meet the classical assumption of BLUE (Best Linier Unbiased Efficient Estimator) which includes multicollinearity test, heteroscedasticity test, normality test, and autocorrelation test. The result of the normality test with the Shapiro-Wilk Test shows that the error is normally distributed if the value is > 0.05. Symptoms of multicollinearity (Co-efficient of correlation between the independent variables is ≥ 0.8) with the Pairwise Correlation Test appears when the variable of total population is included in the model. By this, the variable of total population needs to be transformed into transforming variables in the form of first difference. The heteroskedasticity test by using Breusch-Pagan Test, in this research, indicates the value which is more than 0.05 or > 0.05. It means that it is free of heteroscedasticity. The others classical assumption test for this model of analysis are autocorrelation test by using Durbin-Watson Test with limited value of dL is 0.38897 while the limited value of dU is 2.57158.

Table 1 – The results of the estimate factors which influence the paddy land conversion in Klaten District, Indonesia by the year 2002-2016

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Coef</th>
<th>Std.Err</th>
<th>t</th>
<th>P &gt; [t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number of Population</td>
<td>-0.0098462</td>
<td>0.0081</td>
<td>-1.22</td>
<td>0.264 ns</td>
</tr>
<tr>
<td>2.</td>
<td>Number of Industry</td>
<td>0.2738647</td>
<td>0.0644106</td>
<td>3.24</td>
<td>0.014**</td>
</tr>
<tr>
<td>3.</td>
<td>GRDP of agriculture</td>
<td>0.0001136</td>
<td>0.0000354</td>
<td>3.21</td>
<td>0.015**</td>
</tr>
<tr>
<td>4.</td>
<td>Land Productivity</td>
<td>-0.2789373</td>
<td>0.9606009</td>
<td>-0.29</td>
<td>0.780 ns</td>
</tr>
<tr>
<td>5.</td>
<td>Average of land ownership area</td>
<td>-0.0754167</td>
<td>0.0268908</td>
<td>-2.80</td>
<td>0.026**</td>
</tr>
<tr>
<td>6.</td>
<td>Average of education level</td>
<td>-70.36712</td>
<td>30.43711</td>
<td>-2.31</td>
<td>0.054*</td>
</tr>
</tbody>
</table>

R-squared (R²) 0.7355
Adj R-squared 0.5088
Prob > F 0.0746
Breusch-Pagan test 0.9450
Shapiro-Wilk test 0.20064
Durbin-Watson test 2.572456
Sampling Period 2002-2016 (n) 14

Source: Analyzed by the Stata 12.0 (2018).
Notes: * = significant at Confidence Interval of 90%; ** = significant at Confidence Interval of 95%; ns = not significant.
By evaluating the test, it can be produced the equation model of linier regression in the following pattern:

\[ Y = 375.2361 - 0.0098X_1 + 0.2738X_2 + 0.0001X_3 - 0.2789X_4 - 0.0754X_5 - 70.3671X_6 \]

Based on the Table 1, the result of estimate value indicates a good fit. The coefficient of determination (R-Squared) is 0.7355. This means the varieties that can be explained by explanatory factors in the model is equal to 73.55% while the others are explained by outside factors of the model. Meanwhile, the value of Adjusted R-squared is 50.88 %. Then, the value of F-statistic (Prob f-statistic) is 0.0746 or 7.46 % which is smaller than the real level (10%). This signifies that there is at least one independent variable that affects the dependent variable.

Based on the T-test of this linier regression, the result of the estimate value can be seen from the p value/ significance. Based on the Table 1, the probability value of \( \text{X}_1 \) is equal to 0.264. Statistically, it does not significantly influence the paddy land conversion. In short, it can be described that the growth of population does not have a direct influence to the execution of land conversion in Klaten District. The variable of population \( \text{X}_1 \) however, is not significant with hypothesis of this research. In the beginning, it is stated that the variable of population will bring significant effect to the land conversion. Moreover, the growths of population will loss the land area of the paddy field because of the high demand of the land requirement for industrial or residential purposes. However, the result of the study shows that the variable of population \( \text{X}_1 \) does not contribute to the paddy land conversion. This means that a residential construction is not only executed in the paddy land but also in the non-paddy land. In this highlight, this research is not in accordance with the research done by Haarsma & Qiu (2017) and Azadi et al (2011). Both of the researches have declared that the paddy land conversion is executed because of the growth population.

The variable of number of industry \( \text{X}_2 \) indicates the p-value/significance is equal to 0.2738647. This means that this result is significant at the Confidence Interval of 95%. This shows that there is a positive influence between land conversion and the number of industries in Klaten District. If the number of industries increases, then the land requirement for industrial also increases. There is an indication that the area of agriculture will be converted into industry if the number of industries is increasing. This research is in accordance with the research done by Kustiawan (1997). In the macro perspective, the phenomenon of agricultural land conversion in developed country is caused by the economic structural transformation and the demographic condition of the country. The economic structural transformation means that there is a transformation of economic pillar from the agricultural sector to the industrial sector. Meanwhile, Fauzi (1992) in his research has described that the agricultural land conversion is influenced by the growth of population, non-agriculture household, the distance and location of the land which is near with the area of industry. In addition, this research is also supported by a study done by Prajanti (2014) in some part of the region in Central Java province, Indonesia. She found that there were many residential and industrial area which exist in the agricultural land which have been successfully converted into non-agricultural land. Different location, a research done by Phuc et al (2014) in Hue, Vietnam, has showed that the land conversion is for increasing the number of industry and developing the town. It goes hand in hand with the hypothesis of this research which shows the development of industry will increasingly raise the phenomenon of land conversion in Klaten District.

Based on the Table 1, the variable \( \text{X}_3 \) or Gross Regional Domestic Product (GRDP) statistically influences the land conversion in Klaten District. It is indicated by the result of the analysis which is significant at the Confidence Interval of 95% with the probability value 0.015. It means that GRDP or Gross Regional Domestic Product gives significant influence in conducting the land conversion in Klaten District. The GRDP is one of the indicators that can describe the economic growth. An increase in economic growth in a certain region can rapidly change the economic structure into manufacturer sector. The development of manufacturer sector and other sectors that require land use, somehow, become one of the
causes of the paddy land declination in Klaten District. This result of this analysis is in accordance with the research done by Pakpahan and Anwar (1989). The research was conducted in West Sumatra province, and South Sulawesi province, Indonesia. They have successfully examined the factors influencing the land conversion in both of the provinces. It is said that the land conversion is influenced by the economic growth which is not accompanied by the increased value of food crops. Meanwhile, the research done in West Java Province, Indonesia, shows that the factors influencing the conversion of the paddy land to the non-paddy land are the economic growth in the non-agricultural sector, the number of population, the location of the land from Central Business District (CBD) (Hakim, 1989). This means that getting closer to the CBD area, the conversion rate is indicative high. This result is also supported by the research done by Schmitz et al (2014) in South America and Sub-Saharan Africa and also Zhang et al (2014) in Zhejiang, China. The results from previous researches are clearly stated in accordance with this research. Those support the research hypothesis in this research.

Based on the Table 1, the variable of land productivity ($X_4$) has negative result but it does not significantly influence the paddy land conversion. The probability value is equal to 0.780, greater than the real level of 10 percent ($0.780 > 0.1$). It can be interpreted that the land productivity does not necessarily cause the paddy land conversion in Klaten District. It is because there are neighborhood and citizens associations in Klaten District which regulate the land allotment as sustainable paddy fields which makes those fields cannot be converted even they have low productivity of the land. A research done by Lakasamana (2015) has described that the land productivity does not have direct impact to the decline of the paddy fields area. The factors that cause the agricultural land conversion in the macro level are the number of residence and industry. However, a research done by Amalia (2014) has indicated the contradictory result with this research. It was stated that the increased of land productivity will maintain the existing area of paddy fields. By this research, it indicates that the paddy land conversion occurs only in the paddy fields which have low productivity. The low productivity of land is caused by some factors such as texture of soil that is difficult to plant, poor irrigation, or excessive use of chemicals. The owner of the lands, somehow, will be interested to sell the paddy fields to the investors. That will be more profitable than doing the farm by themselves. Such condition contributes to the indication of paddy land conversion into non-paddy land.

The variable of average area of land ownership ($X_5$) signifies the P-value which has negative value of -0.0754167. It is significant at the Confidence Interval of 95%. By this result, it can be said that the wider area of paddy land ownership can reduce the occurrence of the paddy land conversion. The farmers who have wider area of the paddy land will be interested to choose maintaining the land to get its benefits especially for the fertile lands. The fertile lands can increase the land productivity so that the farmers’ income will automatically increase. This is in line with the result of the study done by Barokah et al (2003) in Karanganyar District, Central Java Province, Indonesia. It is already stated in their research that the wider land area will increase the contribution of income from farming both in the region that is far from the center of economy or not. This result of study shows that the farmer’s household prefers to continue to pursue their farming as long as they have wider land ownership. In this light, the final result of this research is stated in accordance with previous research and this result of study also supports the research hypothesis.

Based on the Table 1, the result of the average of education level ($X_6$) significantly influences the execution of the paddy land conversion in Klaten District. The probability value is 0.054 and it is significant at Confidence Interval 90%. The parameter of coefficient $X_6$ shows the negative value; -0.36712. It can be said that the longer education is taken; the opportunities for farmers to shift the function of the land are smaller. The length of education shows someone educational attainment. The higher education level will bring impact to the land conversion which means the higher education level will reduce the program of land conversion. For those who have higher education level, of course, will require hundreds of consideration to get involved in the land conversion because they have good rationality. In addition, the farmers, somehow, will choose to not to get involved in the paddy land...
conversion because they will find difficulties to get new jobs which appropriate with them. Basically, the paddy land conversion is highly correlated with the income received by farmers.

**CONCLUSION AND SUGGESTIONS**

Based on this research, it can be concluded that the factors influencing the paddy land conversion in Klaten District are the number of population, the number of industry, Gross Regional Domestic Program of agriculture, the land productivity, the average of paddy field area, and the average of education level. The most influential factors which cause the paddy land conversion are the number of industry, Gross Regional Domestic Program of agriculture, the average of paddy field area, and the average of education level. Meanwhile, the variables that do not significantly cause the paddy land conversion in Klaten District are the number of population and the productivity land. Based on this research, it is suggested to the government to take a consideration toward the issue of the decline of paddy land area because of the land conversion for some purposes. It needs resolute punishment and requires government regulation to protect the land use from residential and industrial purposes.

**REFERENCES**

THE CORRELATION BETWEEN GROWTH CHARACTERS AND YIELD OF SHALLOT (ALLIUM ASCALONICUM L.) DUE TO THE APPLICATION OF NITROGEN, PHOSPHATE AND POTASSIUM FERTILIZERS

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ABSTRACT
The research was aimed to evaluate the correlation between growth characters and yield components of shallot (Allium ascalonicum L.) on several dosages of nitrogen, phosphate and potassium fertilizers. It was conducted on experimental farm and laboratory of Plant Physiology of Department of Agronomy Faculty of Agriculture, University of Sriwijaya in 2018. The research was consisted of two experiments and each experiment used Block Randomized Design with 3 replicates. First experiment was the combination of nitrogen (N) and phosphate (P) application, while second experiment was the combination between N and potassium (K). Same dosages of N fertilizer were used for both experiments consisting of N₁ = 100 kg ha⁻¹; N₂ = 150 kg ha⁻¹; N₃ = 200 kg ha⁻¹; and N₄ = 250 kg ha⁻¹. Four dosages of P fertilizer was applied in the first experiment consisting of P₁ = 160 kg ha⁻¹; P₂ = 220 kg ha⁻¹; P₃ = 280 kg ha⁻¹; and P₄ = 330 kg ha⁻¹. While K fertilizer dosages in second experiment were K₁ = 50 kg ha⁻¹; K₂ = 100 kg ha⁻¹; K₃ = 150 kg ha⁻¹; and K₄ = 200 kg ha⁻¹. Results showed that positive significant correlation was found between vegetative characters and generative characters in both experiments such as between plant height and shallot bulb number, and between total bulbs dry weight per clump and bulb dry weight. The correlation between tiller number per clump and bulb number per clump was only resulted from first experiment. The highest bulb dry weight per clump was resulted from the combination of 150 kg N ha⁻¹ and 160 kg P ha⁻¹ and combination of 200 kg N ha⁻¹ and 200 kg K ha⁻¹.

KEY WORDS
Nitrogen fertilizer, phosphate fertilizer, potassium fertilizer, shallot.

Horticulture development in Indonesia has been prioritizing on two commodities, chilli pepper and shallot, since these two commodities not only become basic food ingredients but also have a significant role in affecting inflation in Indonesia. Shallot is one of the leading vegetable commodities that have been intensively cultivated by farmers. It is categorized as complementary spices utilized as food seasoning and traditional medicine. This commodity is also considered as a source of income and employment opportunities that contribute significantly to regional economic development. The prospect of Indonesian shallot development is quite promising since Indonesia is one of shallot exporters in the world. According to data from Food and Agriculture Organization (FAO), Indonesia was ranked in fourth position as shallot exporters after New Zealand, France and Holland, and ranked first among ASEAN countries in the period of 2010 to 2014 (Agricultural Research and Development Agency, 2005).

Based on the data from Center for Agricultural Data and Information (2016), there were 4 provinces of shallot production center in Indonesia considering the average yield from 2011 to 2015. They were Central Java, East Java, West Java and West Nusa Tenggara. These provinces contributed around 85.33% of shallot total average production in Indonesia. The largest was Central Java with 40.59% and average production of 432,813 tons. East Java
contributed 23.16% with 246,927 tons per year. West Java and West Nusa Tenggara contributed 11.10% and 10.48% respectively. The rest of 14.67% was from other provinces.

Central Statistics Agency of South Sumatra (2015) stated that total shallot production in South Sumatra was 150 tons in 2014, decreasing for about 67 tons (30.87%) compared to 2013. The decline in production was caused by a decrease in harvest area and decreased productivity. During 2014, shallot production area in South Sumatra was only in four regencies consisting of Ogan Komering Ulu (OKU), Muara Enim, Musi Rawas and South OKU with 65, 18, 65, and 2 tons of production respectively.

Agriculture intensification through either organic or inorganic fertilizing was among the efforts for increasing shallot production in South Sumatra. Shallot is a nutrient sensitive plant where the symptoms would immediately appear due to both deficiency and excess of nutrients. Many studies of fertilizer application on shallot plant has shown good results. A study by Deden (2014) reported that urea application with the dosage of 200 kg ha\(^{-1}\) or equivalent to 80 kg N ha\(^{-1}\) significantly affected the average plant height. Sumarni et al. (2012) added that the application of 120 kg P\(_2\)O\(_5\) ha\(^{-1}\) would result the highest bulb fresh weight and bulb dry weight compared to other treatments with 35.02 and 25 g per plant respectively. Highest bulb dry weight was also resulted by the combination of 250 kg N ha\(^{-1}\) and 150 kg K ha\(^{-1}\) with 64.69 g per clump as reported by Napitupulu and Winarno (2010). Furthermore, the dosage of 100 kg K ha\(^{-1}\) would increase bulb diameter, fresh weight per bulb and dry weight per bulb (Uke et al., 2015).

Thus, this research was aimed to evaluate the application of several dosages of N, P, and K fertilizers on growth and yield of shallot (*Allium ascalonicum* L.).

**METHODS OF RESEARCH**

The research was conducted in experimental farm and laboratory of plant physiology of Department of Agronomy, Faculty of Agriculture, University of Sriwijaya in 2018. The research was consisted of two sets of experiments and both used Block Randomized Design with 3 replicates. First experiment was the combination of N and P fertilizer, while the second was the combination of N and K fertilizer. Same dosages of N fertilizer were applied in both experiments consisting of \(N_1 = 100\) kg ha\(^{-1}\); \(N_2 = 150\) kg ha\(^{-1}\); \(N_3 = 200\) kg ha\(^{-1}\); and \(N_4 = 250\) kg ha\(^{-1}\). Dosages of P fertilizer in first experiment consisted of 4 levels: \(P_1 = 160\) kg ha\(^{-1}\); \(P_2 = 220\) kg ha\(^{-1}\); \(P_3 = 280\) kg ha\(^{-1}\); and \(P_4 = 330\) kg ha\(^{-1}\). While K fertilizer dosages in second experiment consisted of \(K_1 = 50\) kg ha\(^{-1}\); \(K_2 = 100\) kg ha\(^{-1}\); \(K_3 = 150\) kg ha\(^{-1}\); and \(K_4 = 200\) kg ha\(^{-1}\).

Shallot bulb of Bima variety from Central Java weighed around 4 to 6 grams was used as plant material. The bulb was first soaked in fungicide solution containing Azoxystrobin and Difenoconazole for about 15 minutes then was cut at the size of 1/3 of bulb length. The bulb then was planted about 3 cm of depth on the mix of alluvial soil and manure with the ratio of 2:1 (v:v) in a 20 cm x 40 cm of polybag. Each polybag contained about 10 kg of planting media with the height media of 23 cm. The fertilizers were applied based on the treatments and the application was carried out twice. Half dosage was first applied 10 days after planting, and another half dosage was given 30 days after planting.

The parameters observed consisted of plant height, leaf number per clump, tiller number per clump, bulb number per clump, fresh weight per bulb, total bulb fresh weight per clump, bulb dry weight, total bulb dry weight per clump, and leaf chlorophyll. Leaf chlorophyll was measured using a destructive method (Hall and Rao, 1987). It was carried out by extracting about 0.25 g of leaf powder with 80% acetone. The dissolved chlorophyll solution then was filtered using Whatman filter paper and was put on spectrophotometer with 645 and 663 nm wavelength to determine the absorbents. Total chlorophyll content was calculated by using the formula below:

\[
\text{Total chlorophyll} = (17.3 \times A_{645}) + (7.18 \times A_{663}) \text{ mg/l}
\]
The analysis of leaf chlorophyll was conducted in the laboratory of plant physiology in Department of Agronomy, Faculty of Agriculture, University of Sriwijaya.

Shallot bulbs were harvested at 60 days after planting. During harvest, fresh bulbs were first weighed and then were air-dried for 7 days which later were weighed to obtain the data of dry weight per bulb.

RESULTS AND DISCUSSION

Growth characters. The application of N and P fertilizer showed different response in the parameters of plant height, leaf number and tiller number. The highest result for plant height was obtained from N₂P₁ treatment with 40.64 cm and the lowest was 32.10 cm in N₂P₃. N₁P₁ treatment resulted the highest number of leaf with 32.56 of leaves, while the lowest was 22.46 in N₂P₃. The highest tiller number was found in N₁P₁ with 6.74 tillers and the lowest was in N₁P₃ with 4.35 tillers (Table 1).

Table 1 – The application of N and P fertilizer on growth characters of shallot

<table>
<thead>
<tr>
<th>N treatments</th>
<th>P₁</th>
<th>P₂</th>
<th>P₃</th>
<th>P₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁</td>
<td>40.32±0.47</td>
<td>36.07±4.49</td>
<td>31.31±9.45</td>
<td>33.07±4.98</td>
</tr>
<tr>
<td>N₂</td>
<td>40.64±3.44</td>
<td>33.59±1.24</td>
<td>32.10±4.03</td>
<td>35.53±9.95</td>
</tr>
<tr>
<td>N₃</td>
<td>36.00±4.16</td>
<td>32.90±7.47</td>
<td>35.50±3.33</td>
<td>36.54±3.29</td>
</tr>
<tr>
<td>N₄</td>
<td>34.89±6.02</td>
<td>33.10±6.63</td>
<td>32.92±0.80</td>
<td>39.34±3.03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leaf number</th>
<th>N₁</th>
<th>N₂</th>
<th>N₃</th>
<th>N₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁</td>
<td>32.56±2.74</td>
<td>29.43±5.46</td>
<td>26.19±3.37</td>
<td>24.67±6.89</td>
</tr>
<tr>
<td>N₂</td>
<td>32.54±3.79</td>
<td>25.20±3.56</td>
<td>22.46±4.99</td>
<td>25.57±2.39</td>
</tr>
<tr>
<td>N₃</td>
<td>21.59±4.18</td>
<td>22.46±4.99</td>
<td>25.89±2.80</td>
<td>25.54±1.64</td>
</tr>
<tr>
<td>N₄</td>
<td>39.34±3.03</td>
<td>26.63±10.28</td>
<td>25.74±2.80</td>
<td>25.28±3.86</td>
</tr>
</tbody>
</table>

Plant responses to the application of N and K fertilizer were also different as seen in plant length, leaf number and tiller number (Table 2). The treatment with highest plant length was N₂K₄ with 42.08 cm and the lowest was 32.34 cm in N₄K₃. Plant with most leaf number was found in N₁K₁ and N₄K₂ with 34 leaves, while the least was in N₄K₁ with 22 leaves. Highest tiller number was in N₂K₄ with 6.74 tillers and the lowest was in N₄K₃ with 4.19 tillers.

Table 2 – The application of N and K fertilizer on growth characters of shallot

<table>
<thead>
<tr>
<th>N treatments</th>
<th>K₁</th>
<th>K₂</th>
<th>K₃</th>
<th>K₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁</td>
<td>39.91±5.70</td>
<td>38.04±2.23</td>
<td>33.88±2.47</td>
<td>34.76±1.87</td>
</tr>
<tr>
<td>N₂</td>
<td>39.88±3.15</td>
<td>38.67±0.88</td>
<td>40.38±1.67</td>
<td>42.08±2.46</td>
</tr>
<tr>
<td>N₃</td>
<td>38.78±5.17</td>
<td>36.53±2.57</td>
<td>34.83±5.84</td>
<td>38.57±2.73</td>
</tr>
<tr>
<td>N₄</td>
<td>39.56±1.77</td>
<td>38.53±4.47</td>
<td>32.34±10.88</td>
<td>40.76±3.88</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leaf number</th>
<th>N₁</th>
<th>N₂</th>
<th>N₃</th>
<th>N₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁</td>
<td>34±12.08</td>
<td>30±9.22</td>
<td>25±8.46</td>
<td>23±4.55</td>
</tr>
<tr>
<td>N₂</td>
<td>33±8.19</td>
<td>23±5.01</td>
<td>29±13.50</td>
<td>30±6.29</td>
</tr>
<tr>
<td>N₃</td>
<td>25±7.84</td>
<td>23±6.17</td>
<td>29±13.12</td>
<td>31±8.28</td>
</tr>
<tr>
<td>N₄</td>
<td>22±3.91</td>
<td>34±9.38</td>
<td>31±8.06</td>
<td>32±11.24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tiller number</th>
<th>N₁</th>
<th>N₂</th>
<th>N₃</th>
<th>N₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁</td>
<td>5.59±1.07</td>
<td>5.54±0.42</td>
<td>5.54±0.92</td>
<td>4.94±0.15</td>
</tr>
<tr>
<td>N₂</td>
<td>6.61±0.67</td>
<td>5.19±0.67</td>
<td>5.20±0.61</td>
<td>5.70±1.28</td>
</tr>
<tr>
<td>N₃</td>
<td>5.39±0.73</td>
<td>4.52±0.50</td>
<td>4.89±1.27</td>
<td>5.39±0.72</td>
</tr>
<tr>
<td>N₄</td>
<td>5.56±0.80</td>
<td>5.02±0.59</td>
<td>4.19±1.00</td>
<td>5.33±0.38</td>
</tr>
</tbody>
</table>
The combination of N with P and K with the highest plant height and the most leaf number was obtained in the same N dosages with 150 kg ha\(^{-1}\) and 100 kg ha\(^{-1}\), respectively. While for tiller number, best results were obtained in the combination of P with 100 kg ha\(^{-1}\) N dosage and in the combination of K with 150 kg ha\(^{-1}\) of N dosage (Table 2). Pramitasari et al. (2016) reported that N supply would affect the growth, appearance, color, and yield of plants. The application of N would initiate the green color as it was the structural element of chlorophyll which later contributed in photosynthesis.

**Yield components.** Table 3 shows the effect of N and P application on yield components. It was resulted that bulb number per clump was around 5.78 – 8.42 bulbs. The highest number was obtained from N\(_1\)P\(_1\) and the lowest was from N\(_3\)P\(_3\). Similar to this, Suwandi et al. (2015) reported that Katumi variety shallot could result 9 bulbs per clump, while Bima variety resulted 5 – 8 bulbs. So in this case, the number of both bulbs and tillers was likely influenced by the genetic factor. Basuki (2009) added that the number of either bulbs or tillers would be affected by the size of planting bulb. The bigger bulb planted, the smaller the tiller number.

The combination of 100 kg ha\(^{-1}\) N fertilizer and 160 kg ha\(^{-1}\) P fertilizer (N\(_1\)P\(_1\)) showed the highest results for total bulb fresh weight per clump and fresh weight per bulb with 9.81 g and 8.53 g, respectively. It was assumed that the mix of planting media between soil and manure had provided sufficient nutrients. Sumarni et al. (2012) reported that excess P application (more than 180 kg ha\(^{-1}\)) would decrease fresh weight per bulb due to excess P in soil, disrupting soil nutrients balance. N\(_1\)P\(_1\) treatment also resulted the highest total bulb dry weight per clump with 49.38 g. However, the highest dry weight per bulb was obtained from the combination of 150 kg ha\(^{-1}\) N fertilizer and 160 kg ha\(^{-1}\) P fertilizer (N\(_2\)P\(_2\)) with 6.43 g. The application of P with the dosage higher than 120 kg ha\(^{-1}\) would not likely increase shallot yield since excess P in soil would suppress micro nutrients availability (Sumarni et al., 2012).

<table>
<thead>
<tr>
<th>N treatments</th>
<th>P(_1)</th>
<th>P(_2)</th>
<th>P(_3)</th>
<th>P(_4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(_1)</td>
<td>8.42±1.52</td>
<td>6.88±0.76</td>
<td>5.89±0.70</td>
<td>7.22±1.38</td>
</tr>
<tr>
<td>N(_2)</td>
<td>8.11±1.84</td>
<td>6.78±0.84</td>
<td>5.78±1.50</td>
<td>7.67±2.52</td>
</tr>
<tr>
<td>N(_3)</td>
<td>6.89±2.34</td>
<td>7.67±1.53</td>
<td>6.89±2.01</td>
<td>7.33±2.33</td>
</tr>
<tr>
<td>N(_4)</td>
<td>6.76±0.66</td>
<td>7.11±1.90</td>
<td>7.67±1.52</td>
<td>7.11±1.69</td>
</tr>
</tbody>
</table>

**Table 3 – The application of N and P fertilizer on yield components of shallot**

The effect of N and K application on yield components is given in Table 4. Based on the results, it was found that bulb number was related to tiller number. Similar to this, a study by Basuki (2009) resulted that bigger bulb would produce less tiller number. The highest total bulb fresh weight per clump and fresh weight per bulb was obtained from the combination of

<table>
<thead>
<tr>
<th>N treatments</th>
<th>P(_1)</th>
<th>P(_2)</th>
<th>P(_3)</th>
<th>P(_4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(_1)</td>
<td>49.38±7.78</td>
<td>27.39±10.93</td>
<td>18.72±13.47</td>
<td>25.95±14.52</td>
</tr>
<tr>
<td>N(_2)</td>
<td>49.26±0.96</td>
<td>20.65±11.42</td>
<td>24.19±13.62</td>
<td>36.32±26.35</td>
</tr>
<tr>
<td>N(_3)</td>
<td>28.95±14.20</td>
<td>34.17±12.99</td>
<td>33.91±16.95</td>
<td>25.81±14.38</td>
</tr>
<tr>
<td>N(_4)</td>
<td>29.81±17.80</td>
<td>29.62±11.90</td>
<td>23.83±7.69</td>
<td>34.79±13.24</td>
</tr>
</tbody>
</table>

**Table 4 – The application of N and K fertilizer on yield components of shallot**

Fresh weight per bulb (g)

<table>
<thead>
<tr>
<th>N treatments</th>
<th>P(_1)</th>
<th>P(_2)</th>
<th>P(_3)</th>
<th>P(_4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(_1)</td>
<td>4.54±1.02</td>
<td>4.96±3.45</td>
<td>4.65±1.55</td>
<td></td>
</tr>
<tr>
<td>N(_2)</td>
<td>6.02±1.69</td>
<td>5.66±2.21</td>
<td>6.95±1.68</td>
<td>6.44±2.93</td>
</tr>
<tr>
<td>N(_3)</td>
<td>5.92±1.74</td>
<td>6.11±3.78</td>
<td>8.04±1.04</td>
<td>5.47±3.31</td>
</tr>
<tr>
<td>N(_4)</td>
<td>7.04±3.55</td>
<td>7.38±2.11</td>
<td>6.62±0.38</td>
<td>7.12±2.04</td>
</tr>
</tbody>
</table>

Dry weight per bulb (g)

<table>
<thead>
<tr>
<th>N treatments</th>
<th>P(_1)</th>
<th>P(_2)</th>
<th>P(_3)</th>
<th>P(_4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(_1)</td>
<td>3.08±0.46</td>
<td>3.90±1.46</td>
<td>3.02±2.30</td>
<td>3.02±1.16</td>
</tr>
<tr>
<td>N(_2)</td>
<td>6.43±1.96</td>
<td>2.89±1.16</td>
<td>3.98±1.89</td>
<td>4.25±2.73</td>
</tr>
<tr>
<td>N(_3)</td>
<td>3.99±1.41</td>
<td>4.21±2.35</td>
<td>4.49±1.10</td>
<td>3.67±2.59</td>
</tr>
<tr>
<td>N(_4)</td>
<td>4.27±2.39</td>
<td>4.90±1.58</td>
<td>3.64±0.63</td>
<td>4.92±1.13</td>
</tr>
</tbody>
</table>

The combination of N with P and K with the highest plant height and the most leaf number was obtained in the same N dosages with 150 kg ha\(^{-1}\) and 100 kg ha\(^{-1}\), respectively. While for tiller number, best results were obtained in the combination of P with 100 kg ha\(^{-1}\) N dosage and in the combination of K with 150 kg ha\(^{-1}\) of N dosage (Table 2). Pramitasari et al. (2016) reported that N supply would affect the growth, appearance, color, and yield of plants. The application of N would initiate the green color as it was the structural element of chlorophyll which later contributed in photosynthesis.

The combination of N with P and K with the highest plant height and the most leaf number was obtained in the same N dosages with 150 kg ha\(^{-1}\) and 100 kg ha\(^{-1}\), respectively. While for tiller number, best results were obtained in the combination of P with 100 kg ha\(^{-1}\) N dosage and in the combination of K with 150 kg ha\(^{-1}\) of N dosage (Table 2). Pramitasari et al. (2016) reported that N supply would affect the growth, appearance, color, and yield of plants. The application of N would initiate the green color as it was the structural element of chlorophyll which later contributed in photosynthesis.

The effect of N and K application on yield components is given in Table 4. Based on the results, it was found that bulb number was related to tiller number. Similar to this, a study by Basuki (2009) resulted that bigger bulb would produce less tiller number. The highest total bulb fresh weight per clump and fresh weight per bulb was obtained from the combination of
250 kg ha\(^{-1}\) N fertilizer and 100 kg ha\(^{-1}\) K fertilizer \((N_2K_3)\) with 50.63 g and 9.14 g, respectively. According to Napitupulu and Winarno (2010), the application of high dosage N and K fertilizer would provide enough amount of nutrients to increase fresh weight per bulb. Lower fresh weight per bulb was probably caused by less N and K supply for bulb development. Fikri et al. (2015) stated that balance amount of potassium would positively affect assimilate translocation from leaves to the storing organs, including shallot bulbs.

Highest total bulb dry weight per clump was resulted from \(N_2K_1\) treatment with 38.21 g. While for dry weight per bulb, the highest was obtained in \(N_3K_4\) with 6.84 g. It was assumed that the combination of N fertilizer with lower dosage of K fertilizer did not affect total dry weight per bulb since high N dosage would cause a more watery bulb. Napitupulu and Winarno (2015) had reported that the application of high N dosage fertilizer without K fertilizer caused the plant become succulent and did not increase plant dry weight.

**Table 4 – The application of N and K fertilizer on yield components of shallot**

<table>
<thead>
<tr>
<th>N treatments</th>
<th>K(_1)</th>
<th>K(_2)</th>
<th>K(_3)</th>
<th>K(_4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N_1)</td>
<td>6.00±1.00</td>
<td>5.70±0.58</td>
<td>5.03±2.08</td>
<td>6.00±1.00</td>
</tr>
<tr>
<td>(N_2)</td>
<td>6.00±1.73</td>
<td>5.30±1.53</td>
<td>5.00±1.00</td>
<td>6.30±1.53</td>
</tr>
<tr>
<td>(N_3)</td>
<td>6.00±2.00</td>
<td>4.70±1.53</td>
<td>5.00±1.00</td>
<td>5.30±1.15</td>
</tr>
<tr>
<td>(N_4)</td>
<td>5.70±1.53</td>
<td>6.00±0.00</td>
<td>5.00±1.00</td>
<td>6.00±1.00</td>
</tr>
</tbody>
</table>

**Correlation between vegetative characters and yield components.** Based on correlation analysis among parameters due to fertilizer combinations treatments (Table 5 and 6), it was resulted that plant height was significantly positive correlated with leaf number and bulb number per clump with \(r = 0.747\) and \(r = 0.710\) for N and P combination treatments, and \(r = 0.678\) and \(r = 0.684\) for N and K treatments. Deden (2014) reported that higher plant height and more number of leaves would increase shallot production as seen in bulb number per clump. Rahayu and Berlian (2004) added that well-grown shallot was characterized by having longer and more number of leaves so that it would produce bigger bulbs resulting in higher yield production. Higher plant was believed would produce more photosynthates which later be translocated to the storing organs and would initiate bigger bulb development (Arifin et al., 2014). Leaf number was significantly positive correlated to tiller number, total bulb fresh weight per clump and total bulb dry weight per clump. The more number of shallot leaves, the more photosynthates produced and the more carbohydrates translocated to the storing organs or to other developing organs (Khoiroh, 2014).

From N and P combination treatments, significant correlations were resulted from plant height to leaf number, bulb number, total bulb dry weight per clump and dry weight per bulb (Table 5). Limbongan and Monde (1999) reported that leaf number of a variety would related
to bulb number due to more photosynthates produced. More photosynthates would also lead to more tiller number. For leaf number parameter, it was significantly positive correlated to tiller number, bulb number, total bulb fresh weight per clump, total bulb dry weight per clump and dry weight per bulb. While tiller number correlated with bulb number. Shallot plant with more tiller number would also produce more number of bulbs. Similar to this result, Kusmana et al. (2009) reported that Tanduyung shallot variety with the most number of tillers had produced the most number of bulbs. Total bulb fresh weight per clump significantly correlated to total bulb dry weight per clump. Research finding by Mayun (2007) also showed similar result where fresh weight per bulb affected air-dried bulb weight.

Table 5 – Correlation among parameters due to the application of N and P fertilizer

<table>
<thead>
<tr>
<th>No</th>
<th>Parameters</th>
<th>Plant height</th>
<th>Leaf number per clump</th>
<th>Tiller number per clump</th>
<th>Bulb number per clump</th>
<th>Total bulb fresh weight per clump</th>
<th>Fresh weight per bulb</th>
<th>Total bulb dry weight per clump</th>
<th>Dry weight per bulb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plant height</td>
<td>1</td>
<td>0.747</td>
<td>0.605*</td>
<td>0.710</td>
<td>0.778*</td>
<td>0.600*</td>
<td>0.816</td>
<td>0.797*</td>
</tr>
<tr>
<td>2</td>
<td>Leaf number per clump</td>
<td>1</td>
<td>0.869**</td>
<td>0.916**</td>
<td>0.809**</td>
<td>0.521**</td>
<td>0.843**</td>
<td>0.716*</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tiller number per clump</td>
<td>1</td>
<td>0.769*</td>
<td>0.582**</td>
<td>0.380**</td>
<td>0.591**</td>
<td>0.488**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bulb number per clump</td>
<td>1</td>
<td>0.764*</td>
<td>0.392**</td>
<td>0.839*</td>
<td>0.676*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Total bulb fresh weight per clump</td>
<td>1</td>
<td>0.855**</td>
<td>0.959**</td>
<td>0.936**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Fresh weight per bulb</td>
<td>1</td>
<td>0.730*</td>
<td></td>
<td></td>
<td>0.849**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Total bulb dry weight per clump</td>
<td>1</td>
<td>0.943**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Dry weight per bulb</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$r 5\% = 0.666, r 1\% = 0.798$

Table 6 – Correlation among parameters due to the application of N and K fertilizer

<table>
<thead>
<tr>
<th>No</th>
<th>Parameters</th>
<th>Plant height</th>
<th>Leaf number per clump</th>
<th>Tiller number per clump</th>
<th>Bulb number per clump</th>
<th>Total bulb fresh weight per clump</th>
<th>Fresh weight per bulb</th>
<th>Total bulb dry weight per clump</th>
<th>Dry weight per bulb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plant height</td>
<td>1</td>
<td>0.678</td>
<td>0.726</td>
<td>0.684</td>
<td>0.552**</td>
<td>0.331**</td>
<td>0.464**</td>
<td>0.262**</td>
</tr>
<tr>
<td>2</td>
<td>Leaf number per clump</td>
<td>1</td>
<td>0.716*</td>
<td>0.637**</td>
<td>0.728*</td>
<td>0.441**</td>
<td>0.779*</td>
<td>0.517**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tiller number per clump</td>
<td>1</td>
<td>0.628**</td>
<td>0.433**</td>
<td>0.211**</td>
<td>0.322**</td>
<td>0.040**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bulb number per clump</td>
<td>1</td>
<td>0.523**</td>
<td>0.132**</td>
<td>0.343**</td>
<td>0.013**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Total bulb fresh weight per clump</td>
<td>1</td>
<td>0.831**</td>
<td>0.855**</td>
<td>0.712*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Fresh weight per bulb</td>
<td>1</td>
<td>0.665**</td>
<td>0.772*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Total bulb dry weight per clump</td>
<td>1</td>
<td>0.887**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Dry weight per bulb</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$r 5\% = 0.666, r 1\% = 0.798$

Table 6 shows significant positive correlation was found between growth parameters, such as plant height and leaf number, to shallot yield due to the application of N and K fertilizers. However no significant response was resulted from all parameters for both growth and yield characters based on the analysis of variance (data not shown). Positive correlation
was found between plant height and leaf number since shallot height was vertically measured the highest leaf so that it assumed that plant height would increase following the increase in leaf number. The increase in leaf number would benefit the plant regarding the enhanced sunlight interception and CO$_2$ fixation for photosynthesis (Ni’am and Bintari, 2017).

Leaf number also significantly positive correlated with tiller number, total bulb fresh weight per clump, and total bulb dry weight per clump. It was clearly understandable that plant with more tiller number would also have more leaf number leading to the improved in photosynthetic rate resulting in better accumulation of photosynthates. Similar to this, a study by Eki et al. (2016) resulted that plant fresh and dry weight was increased following the increase in leaf number and leaf area. Bulb dry weight would greatly depended on bulb fresh weight as reported by Yusniwati et al. (2014).

CONCLUSION

Plant height was significantly positive correlated with bulb number, total bulb dry weight per clump and dry weight per bulb for either N and P combinations or N and K combinations. Tiller number was only significantly positive correlated with bulb number per clump on N and P combinations, and had no correlation for all yield parameters on N and K combinations.

ACKNOWLEDGEMENTS

Our gratitude to the Rector of Sriwijaya University for the research financial support through the Chief of Sriwijaya University Research Center and Community Service of Universitiy of Sriwijaya Institution with Research Competitive Superior Scheme 2018.

REFERENCES

DOI https://doi.org/10.18551/rjoas.2018-09.63

STRATEGY TO IMPROVE THE COMPETITIVENESS OF LOCAL NON-CARCASS CATTLE: A CASE STUDY AT CV MULTI JAYA MANDIRI BOGOR

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*E-mail: raqsi.fauzan@gmail.com

ABSTRACT
The main objective of this study was to analyze the competitiveness of non-carcass cattle industry. The case study was conducted in a non-carcass management company in CV MJM. Initially an external scope analysis was conducted to identify problems that occurred in the company's marketing area in Jakarta, Bogor, Depok, Tangerang and its surroundings. The descriptive method used to identify non-carcass cattle commodities using the Porter's Diamond Model analysis, Internal Factor Evaluation (IFE) Matrix and External Evaluation Factors (EFE) are used to analyze internal and external factors in CV MJM, SWOT Matrix selected to create and determine the strategy to be applied and Analytic Network Process Analysis (ANP) used as a process to determine strategic priorities for the company. The results of SWOT Matrix in this research yield five alternative strategies chosen as strategy of increasing CV MJM competitiveness. The best strategy is taken based on expert decisions to improve corporate competitiveness that is maintaining customer satisfaction and loyalty.

KEY WORDS
Analysis, competitiveness, non-carcass, SWOT matrix.

Livestock is one of the agricultural sectors which grows rapidly every year. It is supported by the development of livestock products processing industries such as meat, derivative products, milk, eggs, and other processed products. Based on BPS data (2016), livestock and plantation are one of the sub-sectors which contribute significantly to Indonesia's agricultural development, of which livestock is by 5.44% while plantation is by 5.83%. Increased demand in the livestock sector has an impact on domestic stock needs. Beef production in Indonesia particularly is still very low. Therefore, the government's solution is importation in order to achieve national food prices stability. In addition to carcass or beef, people also consume beef offal which is a derivative product from cow, which is non-carcass. Generally, Indonesian people call it as jeroan (offal). Non-carcass is divided into several parts of the animals body slaughtered or is usually called as parts except muscles and bones. Non-carcass can be separated into three categories: fancy and variety meat which consist of tongue, lips, tail, and back meat, manufacturing meat or industrial meat consists of fatty meat, and edible offal which consists of liver, heart, kidney, tongue, intestine, brain and others. Non-carcass consumption has become a familiar thing in Indonesian society. It is also easy to find in soto seller, Padang restaurant, meatball, and others. According to Meat & Livestock Australia (MLA) in 2017, exports to Indonesia were high for manufacturing meat and edible offal as much as 30% for meatball industry. According to the Livestock Service Office of West Java (2016), the largest cattle non-carcass consumption is in West Java and DKI Jakarta.

One of the companies involved in non-carcass providers in Bogor is CV Multi Jaya Mandiri (MJM). This company is engaged in the storage, distribution and marketing of beef offal. CV MJM cooperates with PT Elders Company which is located at campus of IPB Dramaga Bogor. PT Elders is a slaughterhouse company founded in 2006 in Indonesia which has a high standard in slaughterhouses. PT Elders based in Australia and was founded in 1839. The carcass and non-carcass produced by PT Elders are the best, but non-carcass is not the selling value of PT Elders. In addition to having ISO 9001 certification, PT Elders also has an ASAP GLOBAL standard which is in accordance with the standards of its home country. Non-carcasses from the slaughterhouse at RPH Elders are not absorbed by
RPH, but these non-carcasses are usually auctioned off to individuals or sellers. CV MJM establishes a full partner for all non-carcass products produced by RPH in the slaughter day. CV MJM has the authority to participate in selecting the products of RPH before it is packaged, stored and distributed to areas of Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) and its surroundings including Cianjur and Sukabumi. The main consumers of CV MJM are traditional markets in Jabodetabek (Jakarta, Bogor, Depok, Tangerang and Bekasi) and its surrounding, then companies such as PT Ajinomoto (Masako), PT Bahtera Internaniaga Internusa (Pronas), Wardah, and meatball factories.

Problems which occur in the scope of the external industry began when the non-carcass import quota was opened of which the Indonesian government had legalized in mid 2016. The first import after the legalization reached 32,202,553 volumes/(kg) which in the previous year only reached 2,473,262 volumes/(kg). Its increase could be estimated at 1302%. The import budget in 2016 in the beef offal sub-sector reached 75 million USD. It can be seen in Table 1 that the government budget for the import is quite large in the sub-sector of the beef products and beef offal. Table 1 is data released by veterinary public health (KESMAVET) in 2017.

Table 1 − Import Budget of Livestock Sub-sector in 2012-2016

<table>
<thead>
<tr>
<th>Imported Animal Product Sub-sector</th>
<th>Value (USD) / Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>146,233,711</td>
</tr>
<tr>
<td>Cattle (non-carcass)</td>
<td>16,791,528</td>
</tr>
<tr>
<td>Sheep/Goat</td>
<td>8,083,004</td>
</tr>
<tr>
<td>Non-cattle (non-carcass)</td>
<td>-</td>
</tr>
<tr>
<td>Poultry</td>
<td>1,545,889</td>
</tr>
<tr>
<td>Other meat</td>
<td>2,969,714</td>
</tr>
</tbody>
</table>


A large budget was issued by the government to import beef offal to restrain the local prices to increase continuously in accordance with the increased financing of live beef cattle which affects the high prices of domestic beef and offal.

Then, in 2017, Indonesia officially established a partnership with the Indian state to import frozen buffalo meat and frozen buffalo offal which has been certified halal. It is actually considered problematic by Indonesia's standardization since India has not been free from Foot and Mouth Disease (FMD) in its beef cattle. The entry of hundreds of tons of smuggled frozen offal which are planned to be sold in bulk in various traditional markets in Indonesia will distort the domestic markets. The competition between the similar companies both local producers or frozen meat importing companies has triggered the increase of fierce competition. Based on the data from the Imported Animal Product Quarantine Installation (IKPHI) in 2016, there were 92 Limited Liability Companies (PT) and Commanditaire Vennootschap (CV) companies applied for offal import. As long as CV MJM runs its business, CV MJM also faces intense competition by domestic non-carcass competitors in the same industry, especially in the marketing area of CV MJM with its marketing target in traditional markets located in Jabodetabek (Jakarta, Bogor, Depok, Tangerang, and Bekasi) and its surrounding. Those competitors include PD Intan Jaya, CV Rian Jaya, CV Anugerah Perkasa, CV Sinar Offal, and CV Muti Jaya. When it is viewed from the Figure 1, the main competitor of CV MJM is CV Multi Jaya located in Jatinegara, East Jakarta which has the largest market share of 29%. CV Multi Jaya cooperates with several RPHs in meeting their needs. It is in contrast to CV MJM which only cooperates with PT Elders. It could be strength for CV MJM, especially in the price offered by the suppliers because the suppliers give cheaper prices since CV MJM absorbs all non-carcass products from PT Elders. Tactics on price games, product quality, excellent service, and halal certification are used to improve the competitiveness of each company.
It certainly triggers the increase of fierce business competition. The existence of such competition makes industrial companies which manage cattle non-carasses to get a bigger market share. Therefore, Porter's Diamond Model analysis is used in this research to determine the external environment which affects the local non-carass industry. SWOT Analysis is required in order to analyze the internal and external conditions which occur in the current CV MJM and to formulate appropriate strategies in determining strategies to improve the development of local non-carass cattle businesses in CV MJM.

LITERATURE REVIEW

Cattle Non-Carass. It can be explained that, in addition to carcass, offal is halal and hygienic slaughtered animal bodies which consists of organs in the chest cavity and abdominal cavity, head, tail, legs starting from the tarsus/carpal bones down, udder, and reproductive organs. Offal is also often interpreted as a part of the livestock body other than carcass (offal) which has a lower economic value than carcass (Soeparno (2005) and Srigandono (1996)).

Competitive advantage (Porter's Diamond Model). Porter (1990) explains that condition factors refer to inputs used as production factors, such as labor, natural resources, capital and infrastructure. These variables are variables which already exist and are owned by an industry. The higher the quality of these input factors, the greater the industry opportunity to increase their competitiveness and productivity. Porter's Diamond Model consists of four determinants (determining factors) of competitiveness. These four attributes are the factors of conditions, demand conditions, related industries and supporting industries, as well as competition. The role of government and opportunities also plays an important role in determining the competitiveness.

SWOT Analysis. Wheelen and Hunger (2004) argue that SWOT analysis cannot only be used to identify the distinctive competence of a company, which is the capability of a certain expertise and the resources owned which strategically make a company different, but also can identify the company's inability in taking advantage of opportunities exist because of the limitations of certain sources. According to Rangkuti (2011), SWOT analysis is the systematic identification of various factors to formulate a company strategy. This analysis is based on logic which can maximize strengths and opportunities, but simultaneously can also minimize the weaknesses and threats. After knowing the strengths, weaknesses, opportunities, and threats, then the advantages of the opportunities that exist can be determined, as well as to minimize or even overcome the weaknesses they have in order to avoid the existing threats.

Analytic Network Process. The Analytic Network Process (ANP) method is a non-Bayesian non-parametric qualitative approach for the decision-making process with a general framework without making assumptions (Ascarya 2006). Network spreads in all
directions and allows the influence of a cluster on other clusters or the cluster itself and feedback which forms the cycle (Saaty in Nugroho 2008).

Conceptual Framework. In order to identify the company’s strengths and weaknesses, an internal analysis of the company using the Internal Factor Evaluation (IFE) matrix was carried out. Meanwhile, for the opportunity and threat factors faced by the company, an external analysis using the External Factor Evaluation (EFE) matrix was carried out. Then, from the IFE and EFE matrix analysis, IE matrix which will map the current position of the company is obtained. The result obtained from the IE matrix is developed using a strategy with the Strengths-Weakness-Opportunities-threats (SWOT) matrix. Based on the strategies formulated in the SWOT analysis, the most effective priority strategy was chosen by using ANP. The strategy implementation obtained from the analysis was then submitted to the CV MJM. The framework is summarized in the operational thinking chart in Figure 2.

![Conceptual Framework of the Research](image)

Figure 2 – Conceptual Framework of the Research

METHODS OF RESEARCH

The research location is at CV Multi Jaya Mandiri, Bogor District, West Java Province. The research has been conducted for three months, which is from January to April 2018. This research uses two types of data; those are primary data and secondary data. The primary data is obtained from in-depth interviews and filling out expert questionnaires by the internal parties, which are the owners of CV MJM and Production Heads. Meanwhile, the external parties are the Executive Director of NAMPA association, Director of KESMAVET for the 2006-2011 as well as an expert consultant for large ruminants, IPB's professor of livestock, and RPH PT Elders Manager/CV MJM distributor in order to determine the competitiveness factors and external-internal factors of the company, as well as for the formulation strategy. The secondary data is obtained from documents owned by the company and literature studies.

Data Analysis and Processing Method. The data processing and analysis of this research uses Porter's Diamond Model to identify the competitiveness of non-carass cattle in the company's marketing area. In order to find out the strategies which can be done to
improve the competitiveness of the company, SWOT Analysis method is used. According to David (2002), SWOT matrix (Strengths Weaknesses Opportunities Threats) is the right tool to assist managers in building four types of strategies, those are the SO (Strengths Opportunities) strategy, WO (Weakness Opportunities) strategy, ST (Strengths Threats) strategy and WT (Weakness Threats) strategy. Furthermore, the quantitative data from Porter’s Diamond Model and SWOT Analysis are processed using software. Then, in order to compile and map out the strategies in improving the competitiveness of the company which has been obtained, Analytic Network Process (ANP) is used from the internal company party.

RESULTS AND DISCUSSION

Identification of Cattle Non-Carcass Competitiveness Factor. The competitiveness factors are analyzed based on competitive advantage theory of Diamond Porter’s Model which consists of the factors of condition, demand condition, related industries and supporting industries, competition, company structure and strategy, as well as opportunities. Table 2 describes the assessment result of expert respondents in determining the external aspects of the local non-carcass cattle industry which occur at this time.

Table 2 – Factors that influence the competitiveness of the cattle non-carcass industry

<table>
<thead>
<tr>
<th>No</th>
<th>Attribute</th>
<th>Value</th>
<th>Respondent</th>
<th>Average value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Condition Factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Infrastructure resources</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Quality human resources</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Capital resources</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Natural and environmental resources</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Science and technology resources</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Demand Condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The number of buyers and the growth rate buyers</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Consumer preferences and tastes</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>The intensity of non-carcass needs</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Related Industries and Supporting Industries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Ability of domestic non-carcass suppliers</td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>The existence of hotel, restaurant and catering businesses</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>The existence of local traditional markets</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Competition, Structure and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The level of competition in the local cattle non-carcass industry</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>The presence of domestic competitors in the same industry</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Role of Government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Encouraging the development of domestic non-carcass business</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>The role of government in shaping local demand conditions</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Chance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Business climate</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

The result is obtained based on the expert's assessment of the factors which affect the competitiveness development of the local non-carcass cattle industry. The first is the condition factor which are the aspect of science and technology resources (3.80), the second is the demand condition which is in aspect of consumer preferences and tastes (3.80), the third is the related industry and supporting industries factors in the aspect of the ability of domestic non-carcass suppliers (4.00) and the existence of local traditional market (3.80), while the fourth is the government factor in the aspect of forming local demand conditions (3.80).

Condition Factor (Resources of Science and Technology). Experts state that the progress of the recent food industry is supported by the advancement of science and technology. The company's ability to innovate by providing a different image of one product and another is supported by advanced technology.

Demand Condition (Consumer Preferences and Tastes). Experts assess that the consumers’ preferences and tastes can represent the reasons for non-carcass (offal)
products which are in great demand for most people in Indonesia. The current trend of Indonesian society is towards "Junk Food". According to statistics from the Directorate General of Animal Husbandry and Animal Health in 2016, the average consumption of products from farms has increased every year, which is meat from processed foods and preserved meats (sausages, nuggets, smoked meat, corned beef, etc.) of 29.06%.

**Related Industries and Supporting Industries (Ability of Domestic Non-car cass Suppliers and Existence of Traditional Markets)**. Experts state that the availability of raw materials is the most important compared to the others. The only place to get local non-car cass beef products is from the cattle slaughterhouses. Then, local traditional market is considered as the only place for the consumers to buy various kitchen needs, especially beef offal products.

**Role of Government (The role of government in shaping local demand conditions)**. Experts state that the government has a role as regulator, facilitator, economic supervisor to advance industries in Indonesia, especially non-car cass industries. The steps taken by the government to keep the availability of domestic needs are by importing carcasses and non-car casses of cattle from Australia, New Zealand and India, which was a large government policy in 2016.

**Component Analysis of Porter Diamond Model Based on External SWOT (Opportunities and Threats)**. The second phase carried out in the formulation of strategies is to identify the strengths, weaknesses, opportunities and threats. This analysis is derived based on each component in Porter's Diamond Model analysis whose source of information comes from various literatures and interviews with the experts from KESMAVET government agency, meat processing and its derivative association (NAMPA), academics, and CV MJM company owners on the development of non-car cass industry cattle, especially in Jabodetabek. The result of the analysis can be seen in Table 3.

Table 3 – Porter Component Analysis's Diamond Model Based on SWOT External opportunities and threats

<table>
<thead>
<tr>
<th>Component</th>
<th>SWOT Identification</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Condition Factor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Resources of Science and Technology</strong></td>
<td>Opportunities</td>
<td>Management of local non-car cass in new medium-sized companies in the temporary storage process</td>
</tr>
<tr>
<td><strong>Demand condition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consumer Preferences and Tastes</strong></td>
<td>Opportunities</td>
<td>Indonesian people consider offal to be part of a variety of culinary cultures</td>
</tr>
<tr>
<td><strong>Related Industries and Supporting Industries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ability of Domestic Non-car cass Suppliers</strong></td>
<td>Threats</td>
<td>Supplier products have few substitute items</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td></td>
<td>Local production has not been able to meet domestic demand</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td></td>
<td>Advantages in terms of quality possessed when compared with non-car cass imports</td>
</tr>
<tr>
<td><strong>Existence of Traditional Markets</strong></td>
<td>Opportunities</td>
<td>The only consumer access to local cattle non-car cass products</td>
</tr>
<tr>
<td><strong>Role of Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The role of government in shaping local demand conditions</strong></td>
<td>Opportunities Threats</td>
<td>Ensure adequate domestic needs</td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td></td>
<td>The number of imported products entering traditional markets can affect the local market</td>
</tr>
</tbody>
</table>

**Analysis of Internal and External Strategies Factor of CV MJM**. In order to evaluate the internal factors, the Internal Factors Evaluation-IFE analysis method is used. In the IFE analysis method, each of these internal factors is given weight and rank. The weighting of each factor is obtained by pair-wise comparison technique. Meanwhile, in determining the
weight of each factor, a scale of 1-5 is used based on the level of influence or strategic role of factors on the competitiveness of CV MJM. The result of the IFE analysis can be seen in Table 4.

Table 4 – Identify the strengths and weaknesses of MJM CV

<table>
<thead>
<tr>
<th>No.</th>
<th>Internal Strategic Factors</th>
<th>Weight</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Good company image and product</td>
<td>0.11</td>
<td>4</td>
<td>0.44</td>
</tr>
<tr>
<td>2</td>
<td>Company access close to slaughterhouse</td>
<td>0.10</td>
<td>4</td>
<td>0.40</td>
</tr>
<tr>
<td>3</td>
<td>Cooperation of all employees and a conducive working atmosphere</td>
<td>0.09</td>
<td>4</td>
<td>0.36</td>
</tr>
<tr>
<td>4</td>
<td>International standard products</td>
<td>0.10</td>
<td>3</td>
<td>0.30</td>
</tr>
<tr>
<td>5</td>
<td>Requests can be tailored to the wishes of consumers</td>
<td>0.09</td>
<td>4</td>
<td>0.36</td>
</tr>
<tr>
<td>6</td>
<td>Provide product warranty</td>
<td>0.08</td>
<td>4</td>
<td>0.32</td>
</tr>
<tr>
<td>Weaknesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The unavailability of marketing personnel to acquire new customers</td>
<td>0.13</td>
<td>1</td>
<td>0.13</td>
</tr>
<tr>
<td>8</td>
<td>Limited capital for business development</td>
<td>0.09</td>
<td>1</td>
<td>0.09</td>
</tr>
<tr>
<td>9</td>
<td>Dependence on raw materials</td>
<td>0.12</td>
<td>1</td>
<td>0.12</td>
</tr>
<tr>
<td>10</td>
<td>The product has no added value</td>
<td>0.09</td>
<td>2</td>
<td>0.18</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1.00</td>
<td></td>
<td>2.70</td>
</tr>
</tbody>
</table>

Based on the analysis of internal strategic factors, it can be seen that the main strength in improving the competitiveness of CV MJM is the good corporate image and product factors with a score (0.44). The internal strategic factor which falls into the category of the main weaknesses and influences is the unavailability of marketing personnel to get new customers (0.13). It affects the company performance due to the lack of more systematic and targeted marketing activities to maximize the product marketing. The result of the average value of the IFE Matrix shows that CV MJM is above the average with a value of 2.70. It identifies that CV MJM Company is strong enough on its company's internal factors.

Analysis of the external environmental conditions of CV MJM includes the remote environment and industrial environment. The analysis produces several factors which become opportunities and threats. Opportunity and threat factors which can occur from outside the company are related to law, government and politics, economy, technology, customers, competitiveness and competition. External factors were analyzed using the External Factors Evaluation-EFE analysis method. The result of the EFE analysis can be seen in Table 5.

Table 5 – Identify the opportunities and threats of MJM CV

<table>
<thead>
<tr>
<th>No.</th>
<th>External Strategic Factors</th>
<th>Weight</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Processed food consumption continues to rise</td>
<td>0.13</td>
<td>4</td>
<td>0.52</td>
</tr>
<tr>
<td>2</td>
<td>The potential for non-carcass products to be the preferred processed food</td>
<td>0.11</td>
<td>4</td>
<td>0.44</td>
</tr>
<tr>
<td>3</td>
<td>Part of Indonesian culture (culinary)</td>
<td>0.10</td>
<td>3</td>
<td>0.30</td>
</tr>
<tr>
<td>4</td>
<td>High demand increase in Jabodetabek region</td>
<td>0.11</td>
<td>3</td>
<td>0.33</td>
</tr>
<tr>
<td>Threats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Indonesian people prefer import non-carcasses because prices are much cheaper</td>
<td>0.15</td>
<td>3</td>
<td>0.45</td>
</tr>
<tr>
<td>6</td>
<td>The emergence of competitors with large production capacity</td>
<td>0.16</td>
<td>3</td>
<td>0.48</td>
</tr>
<tr>
<td>7</td>
<td>Business strategies are easy to imitate</td>
<td>0.14</td>
<td>3</td>
<td>0.42</td>
</tr>
<tr>
<td>8</td>
<td>Health issues</td>
<td>0.10</td>
<td>3</td>
<td>0.30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1.00</td>
<td></td>
<td>3.24</td>
</tr>
</tbody>
</table>

The main opportunity for CV MJM is the growing interest in the consumption of processed foods in packages with score of 0.52. The expert interview results stated that advanced product processing is needed by the company to provide additional value to the product. According to data from the Directorate General of Animal Husbandry and Animal Health in 2016, the average consumption of products from animal husbandry has increased every year; those are meat from processed foods and preserved meat (sausages, nuggets, smoked meat, corned beef, meatballs, etc.) for 29.06%. The main threat to CV MJM is the emergence of competitors with large capacity (0.48). Utilizing the potential by combining the
resources and competencies of the CV MJM. The total score of external factors is (3.24) which mean that CV MJM already has good ability in its efforts to respond the external factors by taking advantage of opportunities and avoiding or facing threats/challenges.

SWOT Matrix. The result of the company's internal and external capability analysis in Figure 3 shows that the total IFE value is 2.70 and the total EFE value is 3.24. CV MJM position in IE matrix is in quadrant II. The appropriate strategy for quadrant II is to grow and develop. The strategy emphasizes intensive strategies which is market penetration, market development and product development.

<table>
<thead>
<tr>
<th>Score Weight Total IFE</th>
<th>High (3.00–4.00)</th>
<th>Medium (2.00–2.99)</th>
<th>Low (1.00–1.99)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (3.00–4.00)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium (2.00–2.99)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (1.00–1.99)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 – IE Matrix CV MJM

Alternative strategies in improving the competitiveness of the CV MJM are carried out using a matrix analysis approach which is a continuation of the IFE and EFE Matrix analysis by matching the internal factors (strengths and weaknesses) occur in CV MJM company with the external factors (opportunities and threats) which are influential in the development of CV MJM's business. The SWOT matrix was used in formulating strategies to improve the competitiveness of CV MJM. By using SWOT Matrix, the strategy result consists of SO strategy (the use of power to take advantage of existing opportunities), WO strategy (utilizing opportunities to minimize the weaknesses), ST strategy (using force to overcome the existing threats) and WT strategy (minimizing weaknesses and avoid threats from the external environment). The following alternative strategies are generated in the SWOT matrix shown in Figure 4.

S-O Strategy (Strength-Opportunities). CV MJM can provide different services to get a market which has not been entered by the competitors. Doing a product development in accordance with the potential purchasing power of the community.

W-O Strategy (Weakness-Opportunities). At present, CV MJM does not have any official website in its business development plan yet, because CV MJM currently does not have any sales personnel. This can be an excellent opportunity for CV MJM to build a broader image and credibility without requiring more human resources.

Periodic business plan evaluation is expected to make the company more careful in making long-term business decisions. The goal is that the vision and mission of CV MJM can run well. Highlighting the quality side is a strategic step to differentiate the company's services and products. Good product quality can be a reference for the consumers to repurchase the product.

Leading to serving the market which has been owned by CV MJM. Strategic steps which should be done are not just focusing on finding new customers, but how CV MJM manages the existing customers by providing more optimal services to achieve customer satisfaction and loyalty.
<table>
<thead>
<tr>
<th>INTERNAL</th>
<th>STRENGTHS (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good company image and product</td>
</tr>
<tr>
<td></td>
<td>company access close to slaughterhouse</td>
</tr>
<tr>
<td></td>
<td>Cooperation of all employees and a</td>
</tr>
<tr>
<td></td>
<td>conducive working atmosphere</td>
</tr>
<tr>
<td></td>
<td>International standard products</td>
</tr>
<tr>
<td></td>
<td>Requests can be tailored to the wishes of</td>
</tr>
<tr>
<td></td>
<td>consumers</td>
</tr>
<tr>
<td></td>
<td>Provide product warranty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERNAL</th>
<th>WEAKNESSES (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The unavailability of marketing</td>
</tr>
<tr>
<td></td>
<td>personnel to acquire new</td>
</tr>
<tr>
<td></td>
<td>customers</td>
</tr>
<tr>
<td></td>
<td>Limited capital for business</td>
</tr>
<tr>
<td></td>
<td>development</td>
</tr>
<tr>
<td></td>
<td>Dependence on raw materials</td>
</tr>
<tr>
<td></td>
<td>The product has no added value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITIES (O)</th>
<th>Strategy S-O</th>
<th>Strategy W-O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processed food consumption continues to rise</td>
<td>Product development towards the niche market (S1, S2, S3, S4, S5, S6, O1, O2, O3, O4)</td>
<td>Building business networking through online media (W1, W2, W3, W4, O1, O2, O3, O4)</td>
</tr>
<tr>
<td>The potential for non-carcass products to be the preferred processed food</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part of Indonesian culture (culinary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High demand increase in Jabodetabek region</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THREATS (T)</th>
<th>Strategy S-T</th>
<th>Strategy W-T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesian people prefer import non-carcasses because prices are much cheaper</td>
<td>Evaluating business plans periodically by involving the existing Human Resources (S1, S3, S6, T2, T3)</td>
<td>Giving a special treatment to the consumers before and after purchase (W2, W3, W4, T1, T2, T3, T4)</td>
</tr>
<tr>
<td>The emergence of competitors with large production capacity</td>
<td>Full attention on the product quality control from the process of sorting, packaging, storing and distributing products to maintain the quality (S1, S2, S3, S4, S5, S6, T1, T4)</td>
<td></td>
</tr>
<tr>
<td>Business strategies are easy to imitate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health issues</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 – Alternative strategy

Selection of CV MJM Competitiveness Improvement Strategy. The indicators used to determine the priority of strategies to increase the competitiveness of CV MJM can be classified in 3 clusters, those are: factors, problems, and alternatives. Factor clusters explain the broad scope of the internal and external environment of the non-carcass business industry. The factor cluster consists of the resources of science and technology, the ability of domestic suppliers, the role of the government to shape the local demand conditions, the existence of traditional markets, as well as consumer preferences and tastes. Furthermore, the problem cluster is the internal and external constraints faced by CV MJM Company. Determination of weight was obtained using SWOT analysis method. The problem cluster consists of raw material dependence, the emergence of competitors with a large production capacity, Indonesian people preference of non-imported carcasses because of the low price, unavailability of sales personnel to get new customers, and business strategy which is easily replicated. Lastly, alternative cluster is an action in the form of a strategy which aims to improve the competitiveness of CV MJM. Alternative clusters consist of providing products according to the consumer demand, evaluating business plans regularly, maintaining product quality, as well as maintaining customer satisfaction and loyalty. The structure of the ANP model is shown in Figure 5.

Factor Cluster. Factor cluster result indicates that the attributes of consumer preferences and tastes towards non-carcasses are the most important attributes. Preference is formed from consumers' perceptions of the product. Experts assess that the preferences and tastes of consumers get the highest score in the clusters of factors which have an effect of 30.01%. According to Kardes (2002), there are two preferences which are preferences based on attitudes and preferences on attributes. Consumer preference for non-carcass products belonging to CV MJM is attribute based preference. According to Kardes, attribute-based preference is formed on the basis of comparing one or more attributes. This also applies to non-carcass products of CV MJM, some of the factors which affect it are good corporate image and many surrounding communities who are very familiar with the product and have relatively cheap prices at the price of competitors.
Problem Cluster. The main problem cluster comes from the external company. The analysis result shows that Indonesian people prefer non-imported carcasses because of the low price, with the biggest score of 26.63%. This is consistent with the study conducted by Saleh (2011) who states that the shift of Makassar society to imported beef from many aspects of its research is on the aspect of low prices, while the excess of local beef in terms of quality and availability causes consumers to consume local beef. Sumarwan (2002) argues that prices are the product or service attribute which is mostly used by some Indonesian consumers who still have low income. Price is the main factor considered in choosing a product or service. Many traditional food businesses and processed meat industries such as sausages, burgers and meatball producers depend on the availability of...
beef and offal imports in the local market, because the price is cheaper than the local beef and local offal. It gives more benefits for their business. In general, the need for offal will continue to increase while local production tends to remain static, and the population growth continues to increase in West Java. In addition, some offal products are found to be illegal in traditional markets, causing the quality of the product is not be maintained.

The result in the alternative cluster indicates that the highest priority strategy alternative is to give special treatment to the consumers before and after purchase (27.35%). Giving a special attention should be in terms of quality, quantity and service. This refers to Levit’s book (1987) which states that the conditions which must be fulfilled by a company so that success in competition is trying to achieve the goal of creating and maintaining the customers. Hartono (2014) in his research explains that loyalty and willingness to conduct transactions continuously in the same company can occur if consumers are satisfied with the company’s performance.

The results showed that during this research, external strategic factors from the parameters of Porter’s Diamond theory, namely the factors that affect non-carcass natural resources are conditions factors, demand factors, related industry and supported industry. The most important is the ability of domestic non-carcass suppliers (4.00), science and technology resources, consumer preferences and tastes, local traditional market, and also the role of government in create local demand condition (3.80).

CONCLUSION
Based on the determination of SWOT on CV MJM, the main strength of the CV MJM is the company's image and good product. While the main weakness is due to the unavailability of marketing personnel to get new customers. The total score of (2.70) shows that the internal conditions of CV MJM are quite strong. The factor that becomes main opportunity for CV MJM is a Processed food consumption continues to rise. Where as the main threat to CV MJM is there are The emergence of competitors with large production capacity. The total score of external factors is (3.24) which means that CV MJM already has the ability to respond to external factors by taking advantage of opportunities and avoiding or facing threats.

There are five alternative strategies generated from the SWOT Matrix which can be a reference for companies in increasing their competitiveness based on selected priorities from the ANP analysis of the company. The chosen strategy is giving special treatment to consumers before and after purchase.

SUGGESTIONS

It is necessary to increase the information system in the company to encourage more efficient marketing in the future and to be the differentiator between CV MJM and its competitors. A good company reputation can show the brand image to new companies who wants to be a partner with CV MJM.

Further research is needed that more in-depth and specific to any situation or condition. This further research can be focused on the field of marketing and logistics of local non-carcass products to provide information on effective and efficient types of marketing and distribution to support the company's strategy.

REFERENCES

DETERMINING FACTOR AND LEVEL QUALITY OF SHRIMP FEED OPTIMALLY USING TAGUCHI METHOD: THE CASE OF PT KARKA NUTRI INDUSTRI SIDOARJO, INDONESIA

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Department of Industrial Engineering, Faculty of Engineering, University of Pembangunan National "Veteran" Jawa Timur, Indonesia
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ABSTRACT
PT. Karka Nutri Industri is a company engaged in manufacturing that produces shrimp feed. One of the factors that influence the success of the company in running a business is the quality of the product. The production process of shrimp feed should be controlled every 2 hours once the production process runs. In the process of Water Stability (WS) is one of the problems that exist in shrimp feed. With the existence of these problems then conducted the research determining factor and level quality of shrimp feed optimally using Taguchi method. Using 3 factors, experiments were conducted from various conditions. Determination of parameters in the hope obtained by the optimal quality of shrimp feed (Water Stability). This study aims to determine the factor and level of quality of optimal shrimp feed and provide proposed improvements to improve quality with Taguchi method. Objects taken in this research are Water Stability process based on L9 (3^3) orthogonal array matrix with three controlled factors like factor A (Temperature / (Steam), factor B (material rotational speed (RPM), factor C (strong currents limit and the minimum value amximal (Ampere)). This experiment also involves noise factors for a powerful introduction to noise. The data analysis of this research uses signal-to-noise ratio (SNR) with Nominal-is-Best characteristic. Based on the analysis of the research results, it can be concluded that the proposed improvement design with the Taguchi method approach is obtained by setting the factors: Temperature (Steam) 75º at A3 (level 3), Material Rotation Speed (RPM) 30 Hz at B1 (level 1) and strong currents limit minimum and maximum value (Ampere) of 130 A at C3 (level 3).

KEY WORDS
Water stability, Taguchi Method, orthogonal array, proposed improvement, mininast software.

The development of industrial world in the present era is very important in economic development in Indonesia. Various kinds of industries experienced a fairly rapid development, so as to spur the emergence of competition in the industrial world will be more stringent, so that companies with each other are required to compete well. One of the factors that influence the success of the company in running a business that is the quality of the product.

Karka Nutri Industri is a company engaged in manufacturing that produce shrimp feed. Shrimp feed production process should be controlled every 2 hours once the production process runs, but in fact Water Stability (WS) is one of the problems faced by the company. Where shrimp feed is not in accordance with the required standards.

With the existence of these problems then conducted the research of determination factor and level of quality of shrimp feed optimal with Taguchi method. Using 3 factors, experiments were conducted from various conditions. Determination of parameters with hope obtained by optimal quality of shrimp feed (Water Stability). The Taguchi method is a method used in off line quality control activities at the design stage of the production process (Soejanto, 2009). Taguchi emphasizes that the best way to improve quality is to design quality into products starting from the design stage of the product so that by robust product design against noise factor, because it produces robust performance products as well.

The use of Taguchi method in this research is expected to improve the quality of the product so as to obtain the maximum quality of shrimp feed.
LITERATURE REVIEW

Taguchi Method. Taguchi method is a structured approach to determine the best combination in producing products in the form of goods or services. Genichi Taguchi developed a design approach from a robust design perspective, in which the product must be made defect-free and of high quality (Taguchi, et al, 2005).

Quality definition by Taguchi is the quality of a minimum loss product provided by a product to the public or consumer since the start of the product is ready to be sent to the consumer. Based on the definition, then there is a new perspective where a quality not only in the production process but also associated with the loss to the community (producers and consumers). The purpose of the Taguchi loss function (loss function) is to evaluate quantitative loss of quality caused by variations. (Belavendram, 1995) in (Ermawati, 2014).

Quality control activities (QC) are divided into two, which are:
1. Off-line QC: Off-line QC is a quality control activity conducted before the production process takes place;
2. On-line QC: On-line QC is a quality control measures after the production process.

Orthogonal Array. Orthogonal array is one of the Fractional Factorial Experiment (FFE) groups. Orthogonal array can be to evaluate several factors with a minimum number of experiments. Orthogonal array serves to design an experiment to analyze experimental data. The selection of orthogonal array must be adjusted to the number of factors and their level to be observed. The selection of orthogonal array must meet the inequalities. (Belavendram, 1995) in (Ermawati, 2014):

\[ V_{OA} \geq V_T \]

That is the number of experiments - 1 ≥ total d.o.f for all factors and their interactions. Where (Soejanto, 2009): \( V_{OA} \); number of experiments - 1; \( V_T \); total number d.o.f from all factor.

Variable Response (Characteristics of Quality). Generally every quality characteristic has a target. There are 3 (three) quality characteristics grouped by target, ie (Ross, 2008):

Nominal is the best. Measuring characteristics with specific target values specified by the user (user-defined):

\[ \eta = 10 \log_{10} \left( \frac{1}{n} \sum_{i=1}^{n} y_i \right) - \frac{1}{n} \sum_{i=1}^{n} (y_i - \mu)^2 \]

Smaller is the best. Measurement of non-negative characteristic in which the target is ideally a zero:

\[ \eta = 10 \log_{10} [\text{MSD}] = -10 \log_{10} \left( \frac{1}{n} \sum_{i=1}^{n} y_i^2 \right) = 10 \log_{10} [\sigma^2 + y^2] \]

Larger is the best. Measurement of non-negative characteristics which are ideal targets infinite or $\infty$. Example:

\[ \eta = 10 \log_{10} [\text{MSD}] \]

\[ \eta = 10 \log_{10} \left( \frac{1}{n} \sum_{i=1}^{n} \frac{1}{y_i^2} \right) \]

Signal to Noise Ratio. The signal is the average value of the characteristics and displays the desired component, which is close to a predetermined target value. While noise is an undesirable component and is measured by the variability of output characteristics. Signal to noise ratio (S / N ratio) is a value that shows how much influence of controlled factors on the quality of the resulting product and take into account the variations of the resulting product and how close the product to the target has been determined. The S / N ratio is used to select factors that contribute to the reduction of a factor’s variation (Metasari, Nur, 2013).
S / N ratio calculation formula used, namely: Larger is the best. Measurement of non-negative characteristics which are the ideal targets is infinite or \( \infty \):

\[
\eta = 10 \log_{10} [\text{MSD}]
\]

\[
\eta = 10 \log_{10} \left( \frac{1}{2} \sum_{i=1}^{n} \frac{1}{y_i} \right)
\]

**Pooling Up Strategy.** Pooling up strategy tend to maximize the number of columns considered significant. With significant decisions these factors will be used in the next trial round or in product or process design. Thus the tendency to make an \( \alpha \) error (type I error) will be enlarged, namely the consideration that factors led to improvements, but does not. However, this situation is better than making a \( \beta \) error (a type II error) that consideration of that factor does not lead to improvement when in fact lead to improvements.

The formula (Belavendram, 1995) in (Saputro, 2011):

\[
S(\text{Pooled } e) = S_e + S_D
\]

\[
V(\text{Pooled } e) = v_e + v_D
\]

\[
M(\text{Pooled } e) = \frac{S(\text{Pooled } e)}{V(\text{Pooled } e)}
\]

**Percent Contribution.** Percent contribution is a portion of each factor and or significant interaction to the total of observed variants. Percentage of this contribution is a function of the sum of squares of each significant factor which is an indication of the strength of a factor and or factor interaction.

The formula for the percent contribution calculation (Belavendram, 1995) in (fitria, 2011):

\[
SS_A = SS_A - (Ve \times VA)
\]

\[
P = \frac{SS_A}{SS_T} \times 100\%
\]

**Confirmation Experiment.** Confirmation experiment is an experiment conducted to examine the conclusions obtained. The purpose of the confirmation experiment is to verify, among other things:

- Allegations made at the time of model determination factor and its interaction;
- Setting the parameters (factors) of the optimum analysis results of the experimental results on the performansi expected;
- Steps on confirmation experiment. Confirmation experiment declared successful if: there was an improvement of the existing process (after the Taguchi experiment was done); the results of the confirmation experiments close to the scores that have been researched.

**METHODS OF RESEARCH**

*Identification and Definition of Operational Variables.* In the identification of variables there are variables obtained based on data from companies used in the application of Taguchi Method along with its operational definition. The variables are as follows:

1. Free Variable. This variable is not depends on other variables. The magnitude of this variable can be determined freely depends on the desired needs. This variable consists of control factor and noise factor:
   a. Water Factor;
   b. Steam Factor;
c. Rotation of machine speed factor (RPM).

2. Dependent Variable. This variable depends on the value of other variables. In this research, the dependent variable is the Quality Characteristic (Nominal is best).

Data Processing Method. The research was conducted at PT. Karka Nutri industry with the object of research on the Water Stability (WS) to optimize the quality of shrimp feed. The step of this research is doing field study and literature study. Furthermore, the formulation of the problem and determine the research objectives. The next step is conducting the data collection and processing of data obtained. After obtaining the relevant data with the problem then experimenting with orthogonal array determination and experimental data processing which includes anova, s / n ratio, contribution percentage, optimal contribution determination, confidence interval then done confirmation experiment to get optimal result and proposal. The final step is to formulate conclusions and suggestions.

RESULTS AND DISCUSSION

Experiment Data. For the selection of 3 levels is the design matrix L9 (34), L27 (313), L81 (340). The degree of freedom in the orthogonal array (OA) indicates the minimum number of rows, so that the selected OA must have at least 7 rows, L9 33 being the OA matrix that can be used as an experiment.

L9 Orthogonal Array Matrix is a matrix containing 9 rows as the number of selected test combination and four columns to determine the effects of the main factors and their interactions. In this case there is only one linear form and a mapping scheme and there is only one interaction that can be combined, that the interaction of L9 (34) uses two columns instead of one column due to the degree of freedom required.

![Figure 1 – Linear Graphic L9(3^4) (Soejanto, I., 2009)](image)

Response Data Processing Each Factor Mean & S / N Ratio. To find out the results of the calculation of process water stability through a combination of major factors, namely temperature / steam (A), Rotation Speed of Machine (RPM) (B), Strong Current (Amperes) (C) can be seen from the combination of the level and factors that optimum reached at the average value of shrimp feed on the water stability process with the greatest value of each factor, namely:

In the first experiment:

\[
\frac{S}{N} = -10 \log \left[ 1 + \frac{1}{n} \sum_{i=1}^{n} y_i \right] = -10 \log \left[ \frac{1}{3} \left( \frac{1}{70^2} + \frac{1}{80^2} + \frac{1}{90^2} \right) \right] = 18.07
\]

Table 1 – The Results Calculation of S / N ratio Based on Water Stability process

<table>
<thead>
<tr>
<th>Experiments</th>
<th>Factors</th>
<th>Experiment Results (WS values) Min</th>
<th>Mean (WS) Min</th>
<th>Ratio S/N (WS) Min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>Rep 1</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>73</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>35</td>
<td>74</td>
<td>60</td>
<td>82</td>
</tr>
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<td>3</td>
<td>35</td>
<td>75</td>
<td>90</td>
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</tr>
<tr>
<td>9</td>
<td>40</td>
<td>75</td>
<td>60</td>
<td>73</td>
</tr>
</tbody>
</table>

RJOAS, 9(81), September 2018
Table 2 – The average response of S / N ratio Each Factor Based on the Water Stability

<table>
<thead>
<tr>
<th></th>
<th>A_i</th>
<th>B_i</th>
<th>C_i</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>19,19</td>
<td>19,79</td>
<td>19,29</td>
</tr>
<tr>
<td>Level 2</td>
<td>19,98</td>
<td>19,54</td>
<td>19,79</td>
</tr>
<tr>
<td>Level 3</td>
<td>19,73</td>
<td>19,58</td>
<td>19,82</td>
</tr>
<tr>
<td>Difference</td>
<td>0,79</td>
<td>0,25</td>
<td>0,54</td>
</tr>
<tr>
<td>Rank</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Figure 2 – The Factor Response Against The S / N Ratio On Water Stability Graph

Data processing. The incorporation factor as a starting error of a factor by the number of squares / sum-square (SS), the smallest of which is not significant factors combined with the sum of squared errors to total free degrees. (Sum square) the smallest of the factors that are not significant are:

Table 3 – Result of ANOVA for The Average Thickness On Quality of shrimp feed

<table>
<thead>
<tr>
<th>Sumber</th>
<th>V</th>
<th>SS</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>11,3432</td>
<td>5,6716</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>33,2654</td>
<td>16,6327</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>9,22390</td>
<td>4,6195</td>
</tr>
<tr>
<td>Error</td>
<td>14</td>
<td>171,885,942</td>
<td>68,2575</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>171,939,745</td>
<td>95,1813</td>
</tr>
</tbody>
</table>

DISCUSSION OF RESULTS

Based on the results obtained in the previous analysis, where the standard used is Water as much (39%), Temperature / Steam as much (81 º), Machine Round Speed as much (80 rpm). It is known that the combination of factors in the Water Stability process that affect the average and variation of quality on shrimp feed is the same, that is 37% water at level 2 (A2), Temperature / (Steam) as much as 73ºC at level 1 (B1), and Engine speed of 90 rpm at level 3 (C3).

From the calculation of confidence intervals at 95% confidence level for Taguchi experiments were then compared with the experimental confirmation of the confidence interval for the confidence intervals are at Taguchi experiment. Thus the optimal combination of factors mentioned above proved to improve the quality of shrimp feed in the Water Stability process.

CONCLUSION AND SUGGESTIONS

In accordance with data processing and data analysis that has been shown in previous chapters, the conclusion that can be drawn from the results of this research are:
The result of research from combination of optimum level and factor can improve on Water Stability (WS) process to the quality of shrimp feed with obtained from 37% Water Factor at level 2 (A2), Temperature / (Steam) as much as 73°C at level 1 (B1), and engine speed of 90 rpm at level 3 (C3).

Propose improvements in shrimp feed with optimum value on Taguchi experiment with an average of 82.69 minutes and 33.56 minutes variability, whereas the experimental confirmation to the average and variability in the quality of shrimp feed was 82.27 minutes and 38.77 minute.

The research has been done to determine the combination of process variation so that the quality of Shrimp Feed in Water Stability process can be in accordance with the expected company.

The suggestions given are as follows:

- Taguchi method should be applied for determination of optimum combination of the level and the resulting factor for improving the quality of the shrimp feed on the Water Stability;
- Always maintain optimal conditions on the Water Stability as a way to maintain the quality of Shrimp Feed.

REFERENCES

ABSTRACT
Objective of this study is to evaluate how effective seaweed is in reducing organic substance in semi-intensive tiger shrimp cultivation. This study used Sargassum sp, Gracilaria sp. and Caulerpa sp. seaweed which is spread 50 grams/m². The tiger shrimp density is 30 shrimps/m². Each treatment is repeated three times for 68 days. The finding showed that the treatments had significant influence towards both organic substance and seaweed growth. However, the treatment did not have significant influence towards the tiger shrimp. The seaweed reduces percentage of the organic substance. The seaweed does not have any influence towards Panaeus monodon growth and biomass. Each treatment results in different seaweed growth and biomass. Caulerpa sp. has higher biomass and better growth level compared to Sargassum sp. and Gracilaria. Seaweed can reduce organic substance in the tiger shrimp cultivation and as the result, increase its productivity as well as income of tiger fish farmers.

KEY WORDS
Organic substance, quality of water, shrimp cultivation, Sargassum sp, Gracilaria sp., Caulerpa sp., Panaeus monodon.
which protein substance is between 30 and 42% three times a day. The water parameter test was conducted in Faculty of Fisheries and Marine Science, Diponegoro University laboratory.

Furthermore, this study used three types of seaweed, namely Sargassum sp, Gracilaria sp, Caulerpa sp and the control. Each treatment was repeated three times.

Water parameter consists of total organic matter, sediment organic substance and ammonia. The analysis method was APHA et al, 1998. Seaweed and tiger shrimp parameters are biomass production, Specific Growth rate (SGR) and tiger shrimp Survival Rate (SR). Effendi (2001)’s formula was adapted to measure Specific Growth rate (SGR) and Survival Rate (SR) of the tiger shrimp.

$$SGR = \frac{\ln W_t - \ln W_0}{t} \times 100\%$$

Where:

Wt: Tiger shrimp weight at the end of the study (gram);
Wo: Tiger shrimp waste at the beginning of the study (gram);
t: time.

$$SR = \frac{N_t}{N_0} \times 100\%$$

Where:

Nt: number of tiger shrimp at the end of the study (shrimp);
No: number of tiger shrimp at the beginning of the study (shrimp).

SPSS version 17 was the software used to analyze data on biomass, tiger shrimp and seaweed SGR, tiger shrimp SR and organic substance. One-way Analysis of Variance (ANOVA) was used to evaluate interaction between the treatments and parameter; when it resulted in difference, the researchers proceeded to Duncan Multiple Range Test (DMRT).

RESULTS AND DISCUSSION

Figure 1 showed amount of organic substance, ammonia (NH₃) and nitrite (NO₂) in the shrimp farm for 68 consecutive days with different kinds of seaweed. The organic substance concentration was significant (p<0.05) between treatments.

Figure 1 – Total Organic Matter (TOM), Ammonia (NH₃) and Nitrite (NO₂)
Based on Duncan multiple range test, the treatment with *Sargassum* sp resulted in the lowest concentration of organic substance. The amount of organic substance was between 46.74 and 191.88 mg/L. Ammonia (NH₃) and nitrite (NO₂⁻) concentration were not significant (p>0.05) between the treatments. The amount of ammonia and nitrite (NO₂⁻) was 0.002-0.839 mg/L, and 0.0034-0.839 mg/L consecutively. The amount of ammonia and nitrite was high at the beginning of the study.

Table 1 showed some parameters showing quality of water in the tiger shrimp, for example temperature, dissolved oxygen, salinity and pH.

**Table 1 – Quality of Water in the Tiger Shrimp**

<table>
<thead>
<tr>
<th>Water Parameter</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>29.4 – 33.8</td>
</tr>
<tr>
<td>Dissolved oxygen (mg/L)</td>
<td>3.4 – 6.87</td>
</tr>
<tr>
<td>Salinity</td>
<td>29 – 38</td>
</tr>
<tr>
<td>pH</td>
<td>8.46 – 9.55</td>
</tr>
</tbody>
</table>

**Tiger Shrimp Production.** Table 2 showed production of tiger shrimp. One way ANOVA showed that there was no significant difference between the variables in all of the treatments (p>0.05). The overall biomass of the tiger shrimp was 289 – 323.2 grams. The Specific Growth Rate (SGR) and Survival Rate (SR) of the tiger shrimp were 3.35-3.61% and 83-92% consecutively.

**Table 2 – Production of Tiger Shrimp**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Biomass (g)</th>
<th>SGR (%)</th>
<th>SR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sargassum sp</td>
<td>289 ± 10.76</td>
<td>3.35 ± 0.21</td>
<td>83 ± 8.88</td>
</tr>
<tr>
<td>Gracilaria sp</td>
<td>321.5 ± 10.86</td>
<td>3.35 ± 0.16</td>
<td>87 ± 6.80</td>
</tr>
<tr>
<td>Caulerpa sp</td>
<td>320.5 ± 10.02</td>
<td>3.61 ± 0.32</td>
<td>92 ± 3.46</td>
</tr>
<tr>
<td>No seaweed</td>
<td>323.2 ± 19.84</td>
<td>3.59 ± 0.33</td>
<td>89 ± 9.07</td>
</tr>
</tbody>
</table>

**Seaweed Production.** Table 3 showed growth of *Sargassum* sp, *Gracilaria* sp and *Caulerpa* sp seaweed in the semi-intensive tiger shrimp cultivation for 68 consecutive days. The one way ANOVA described significant difference in biomass and SGR of the seaweed (p<0.05). DMRT showed that the biomass and SGR of *Caulerpa* are the highest of all of the treatments.

**Table 3 – Seaweed Production**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Biomass (g)</th>
<th>SGR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sargassum sp</td>
<td>236.6 ± 16.81</td>
<td>0.62 ± 0.29</td>
</tr>
<tr>
<td>Gracilaria sp</td>
<td>326.2 ± 13.6</td>
<td>1.11 ± 0.18</td>
</tr>
<tr>
<td>Caulerpa sp</td>
<td>385.8 ± 9.37</td>
<td>1.36 ± 0.1</td>
</tr>
</tbody>
</table>

The objective of this study is to analyze ability of seaweed in reducing organic substance in the semi-intensive tiger shrimp cultivation using three types of seaweed (*Sargassum* sp, *Gracilaria* sp and *Caulerpa* sp) while comparing the result with no seaweed treatment. The treatment with seaweed has influence towards the total organic matter (TOM) compared one with no seaweed. Seaweed that can absorb organic substance and thus, reducing percentage of organic materials harmful for tiger shrimp (Rahmaningsih, 2012). *Sargassum* sp is the type of seaweed that can reduce the organic substance the most (119.8 mg / L). As an addition, *Sargassum* is suitable for poly-culture seaweed cultivation. *Sargassumhenslowianum* can absorb heavy metals and accumulates nutrient biocumulation in the aquaculture in Shenzhen, South China Sea (Yu, et.al, 2014). In this study, the TOM concentration is high due to increasing dosage of shrimp feed, age and weight. On the 14th day, the TOM concentration increased but it declined on the 28th day. However, the TOM concentration goes back up until the 68th day. The analysis reported that the TOM concentration in the tiger shrimp cultivation is <90 mg/L (KKP, 2016). Seaweed can inhibit accumulation of the organic material more effectively than the treatment without seaweed.
The average concentration of ammonia is between 0.304 and 0.352 mg/L, while that of nitrite ranges is between 0.176 and 0.179 mg/L. It happened due to high ammonia content in the water (tiger shrimp cultivation). Furthermore, the concentration of ammonia (NH3) and nitrite in the tiger shrimp cultivation is <0.1 mg/L and <1 mg/L (KKP, 2016).

There is no difference between biomass, Specific Growth Rate (SGR) and Survival Rate (SR) of P. monodon tiger shrimp in the treatment with seaweed and those of P. monodon tiger shrimp in the treatment without seaweed. In general, individual weight of the tiger shrimp at the end of the treatment was considered low (0.62-1.36 grams/shrimp). Several factors, such as high salinity, inhibit optimum growth of the tiger shrimp. Despite being euryhalin, maximum salinity tolerance for tiger shrimp growth is between 15 and 25 ppt (Gunarto, et al, 2006); salinity during the treatment was twice of the maximum tolerance (between 28-39 ppt). There is significant difference in seaweed production during the treatment (p<0.05). Seaweed is able to accumulate and absorb organic substance and more importantly use the substance as nutrients (Saputra, et al, 2017). Caulerpa has higher average production compared to Sargassum and Gracilaria. Each type of seaweed has different growth rate depend on some factors, such as environment and physiology of the seaweed.

CONCLUSION

Based on the finding, Sargassum sp and Caulerpa sp have positive influence towards decline of organic substance. On the other hand, ammonia (NH3), nitrite (NO2), biomass and shrimp SGR do not have any influence towards the decline. Biomass and SGR of the seaweed are different in which average biomass and SGR of Caulerpa seaweed are 128.6 grams and 1,363 grams consecutively. The implication is that poly-culture is the most suitable aquaculture system for both seaweed and tiger shrimp.

ACKNOWLEDGMENTS

The authors would like to thank Coastal Resource Management Study Program, Aqua Culture Department for their support upon completion of this study.

REFERENCES


REPRODUCTIVE PERFORMANCE BASED ON MORPHOMETRIC CRITERIA OF PISANG SHRIMP (PENAEUS SP.) AS ENDEMIC SPECIES IN WEST COASTAL ACEH

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ABSTRACT
Pisang shrimp (Penaeus sp.) is an endemic species of Aceh coastal region. This shrimp could be found on the west coast in Aceh. The aims of this study were to determine the reproductive performance of pisang shrimp based on morphometric criteria. Shrimps with the 3rd level of gonad maturity (LGM) were collected from fisherman's caught in Meulaboh, West Aceh. The broodstock sampling were done by three times repitition in the same location. In each sampling, 10 shrimps with the 2nd-3rd level of gonad maturity were selected. Female broodstocks with the 2nd-3rd gonad maturity level were acclimated in a 5 m³ tank. Shrimps with complete organ were selected to be the broodstock then the total length, length of the carapace and body weight were measured. The broodstocks were transferred into a cone tank in size 250 L with a density of 1 shrimp /tank for maturation. The shrimps's eggs were collected in the morning to obtain the fecundity of the each broodstock. Data were analyzed by linear regression then the correlation values between fecundity with weight, total length and the carapace length were determined. The results showed that the weight, total length dan length of the carapace of Pisang shrimp had a close relationship with the fecundity. The highest correlation values was shown by the weight variable ($R^2 = 0.961$) then followed by the length of carapace ($R^2 = 0.895$). The weight variable explained the fecundity better than total length variables and the carapace length. On the other hand, the carapace length variable explained the fecundity better than the total length variable. The lowest values for absolute and relative fecundity were produced by broodstock in weight of 50.5 g with a total of fecundity of 73.500 eggs, while the highest values were produced by the broodstock in weight of 123.5 g with heighest fecundity was 413.139 eggs.

KEY WORDS
Pisang shrimp, broodstock, reproductive, morphometrics, fecundity.

Aceh Province, Indonesia, is located on the western end of Sumatera Island. It has a vast sea water area, namely the Malacca Strait waters in the eastern region and Indian Ocean waters in the western region. The vast sea waters greatly support the potential for marine biodiversity. Therefore, Aceh is one of the provinces in Indonesia that has a relatively high biodiversity source, especially from the crustaceans either crabs or shrimps. The sea waters in Aceh are famous for the best source of tiger shrimp (Penaeus monodon) and highly in demand by shrimp producing countries. This tiger shrimp are found in the eastern part of Aceh. Tiger shrimps are generally caught in the regency of Aceh Timur and Aceh Tamiang. There are numerous and various potential of shrimp in Aceh, including the endemic type of shrimp species found in the western Aceh waters that have the potential to be developed. Aside from the tiger shrimp, Aceh also has the potential of the pisang shrimp which are native to Aceh and are thought to be endemic species on the west coast of Aceh (Novita et al., 2015). Pisang shrimp are widely spread and appear seasonally along the waters of the western region of Aceh from Lamno (Aceh Besar) to the coast of South Aceh. Its size is similar to the tiger shrimp type (BPBAP, 2014). People on the west coast of Aceh call it in its local name “udeung pisang” and some regions call it “udeung hitam” with the word udeung means shrimp. Pisang shrimp has a relatively large size compared to other types of white shrimp such as Penaeus margueinsis and Penaeus indicus. In general, pisang shrimp in Aceh is similar to tiger shrimp in terms of morphology and behavior (BPBAP 2014).
Pisang shrimp is not widely known in Indonesia by shrimp farmers. However, farmers in Aceh are very familiar cultivating this type of shrimp, especially on the west coast of Aceh. The fishermen are even routinely catching this them for sale, both for local consumption needs and seafood restaurant needs in Medan, North Sumatera. In 2014, the Pisang shrimp was sold at IDR 60,000 – 80,000 per kg in Aceh market with the size of 40 – 60 shrimps per kg. Meanwhile, it was sold at IDR 120,000 – 160,000 per kg in Medan market with the size of 15 – 20 shrimps per kg. The high market price and the increasing public demand make the pisang shrimp as the candidate of one of the leading commodities in Aceh in the aquaculture sector. The pisang shrimp in western Aceh waters are found mainly in August – March and the peak are around September – November. They are caught at a depth of 10 – 40 meters (BPBAP 2014).

The morphometric criteria of the shrimp are characteristics related to the number of body parts and body size, which is the indicator of taxonomy characteristics in identifying the shrimp. The tiger shrimp morphometric measured includes total length, carapace length, rostrum length, antenna length, antenullary length, uropod length, telson length, body weight and body parts of the shrimp (Riani 2000).

This study aimed to determine the reproductive performance of Pisang shrimp based on the morphometric criteria. This study only measured the total length, carapace length, and weight which were thought to affect the amount of fecundity in reproduction performance.

MATERIALS AND METHODS OF RESEARCH

The Pisang shrimp broodstock as the test sample was collected directly from fishermen at the location identified as the main source of the shrimp on the west coast of Aceh, Meulaboh. The relationship between morphometric characters was used to obtain information about the promotion of certain characters to others (Parenrengi et al. 2007). The selection of several morphometric criteria was based on the consideration that the morphometric relationship will be able to explain the reproductive performance of the pisang shrimp broodstock where gonads was mature naturally. To represent the distribution of total length, carapace length, and weight, samples were collected and then selected which include gonad maturity, complete organ or without defect and physiological conditions. Thirty samples were collected and from each collection 10 shrimps were selected with 3 times collection period.

This study was conducted descriptively (qualitative) while fecundity analysis, Hatching Rate (%), Survival Rate (SR %) were analyzed using formulas from several literature sources. The handling of broodstocks, maturation, egg handling and larvae maintenance were referred to the Standard Operational Procedure (SOP) for tiger shrimp hatchery.

Morphometric data measurement related to the reproductive performance in this study includes total length, carapace length, and body weight of pisang shrimp broodstock. The measurement for broodstock length and carapace length was using a ruler in millimeter or centimeter unit, while the weight was measured using a digital scale in gram unit.

The relationship between total length, carapace length and weight with fecundity productivity was analyzed using SPSS (regression). Simple linear regression analysis is one of the regression methods that can be used as a statistical interference tool to determine the effect of an independent variable on the dependent variable. The simple linear regression test and multiple linear regressions have several objectives, namely:

- Calculate the average estimation value and the dependent variable value based on the independent variable value;
- Test the hypothesis of dependency characteristics;
- Predict the average independent variable value based on the independent variable value outside the sample reach.

Linear regression is also a statistic that serves to test the extent to which the causal relationship between the causative factor variables (X) and the effect variable. The causative factor is generally denoted with X or also called as the predictor, while the effect variable is denoted with Y or also called as the response. Simple linear regression (SLR) is also one of
the statistical methods used in production to forecast or predict the quality and quantity characteristics.

The formula of Simple Linear Regression model is as follow:

\[ Y = a + bX \]

Where: \( Y \) = response variable or effect variable (Dependent); \( X \) = predictor variable or cause variable (Independent); \( a \) = Constants; \( b \) = Regression coefficient (slope); amount of response caused by the predictor.

RESULTS AND DISCUSSION

Hatching Rate and Survival Rate (% of Larvae. After the eggs hatched into nauplii, the hatching rate was calculated based on the eggs hatched into nauplii. During the study, the hatching rate did not have a positive correlation with morphometric criteria such as total length, weight and carapace length, and it was not found that the higher fecundity value will increase the eggs hatching rate. On the contrary, based on the results of the study, it was found that the low average value of fecundity was in the broodstock weighing between 50.5 – 53.8 grams/shrimp with fecundity value between 73,500 – 91,353 eggs. However, the eggs hatching rate value is very high between 85.7 – 89.9 %, meaning that fecundity highly contributes to the hatching rate. This is presumably because a large number of eggs will reduce the changes of eggs being fertilized by sperms. Additionally, it is strongly suspected that more eggs mean that they are more likely to stick to each other. If it is rarely stirred, the eggs will stay at the bottom of the tank and make it rot which lead to low hatching rate. Riangi (2000), reports that the increasing fecundity resulted in a low degree of hatching rate, or the increase of one variable will be followed by a decrease of other variables. The average hatching rate of eggs during the study was obtained between 76 – 78.8%. Primavera states that good eggs have an average hatching rate of more than 58%. Therefore, it can be concluded that the eggs produced from natural broodstocks are categorized as very good.

Of the total 30 mature pisang shrimp broodstocks, they produced eggs, nauplii, zoea, mysis and postlarvae (PL) with varying degrees of average survival. Based on Table 2, the average survival was 65.3% in nauplii – zoea, 70.5% in zoea – mysis, 73.1% in mysis – PL1, 75.9% in PL1 – PL12, and 38.9% in PL1 – PL12. The larvae life degree from nauplii to mysis showed that the increasing stadium of shrimp will increase the degree of life. In PL1-PL12 stadium, the average larvae degree of life was 38%. Kurata (1975) in Riaani (2000) states that the larvae degree of life during PL stadium range from 30% to 60%.

Parameter of water quality during the study. Water quality is one of the components that determine the larval life during breeding. Seawater used through a physical filtration process using charcoal is then put into a reservoir as a settling tank. After it was settled for 2 days, it was then sterilized using chlorine. 2-3 days later, the water can be distributed to the breeding tank through waterco (physical filter). Waterco is equipment commonly used in filtration installation in shrimp hatchery unit, made of fiber and contain silica sand. The measurement and observation of water quality were conducted continuously. During the study, the quality of media water measured was temperature, salinity, dissolved oxygen (DO), ammonia and pH. Water quality measurement was performed 2 times a day.
continuously, at 8.00 – 9.00 WIB and afternoon at 17.00 – 18.00 WIB. The larvae breeding water quality is presented in Table 2.

Table 2 – Water Quality Parameters during Larval Breeding

<table>
<thead>
<tr>
<th>No</th>
<th>Parameter</th>
<th>Larvae breeding cycle</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Temperature</td>
<td></td>
<td>28-30</td>
<td>29-31</td>
<td>28-30</td>
<td>Degrees Celcius</td>
</tr>
<tr>
<td>2</td>
<td>Salinity</td>
<td></td>
<td>28-32</td>
<td>30-34</td>
<td>27-32</td>
<td>ppt</td>
</tr>
<tr>
<td>3</td>
<td>DO</td>
<td></td>
<td>5-6.5</td>
<td>5.0-6.5</td>
<td>5.5-6.7</td>
<td>ppm</td>
</tr>
<tr>
<td>4</td>
<td>pH</td>
<td></td>
<td>7.3-8.5</td>
<td>7.5-8.5</td>
<td>7.5-8.5</td>
<td>ppm</td>
</tr>
<tr>
<td>5</td>
<td>Ammonia</td>
<td></td>
<td>0.08-0.40</td>
<td>0.09-0.82</td>
<td>0.09-0.57</td>
<td>ppm</td>
</tr>
</tbody>
</table>

The table above shows the range of water quality parameters as a result of measurement in the breeding tank during the study were: temperature of 28-31 °C, salinity of 27-32 ppt, dissolved oxygen of 5.0-6.7 ppm, pH of 7.3-8.5 and ammonia of 0.08-0.82 ppm.

According to Kokarkin et al. (1986), the optimal water quality in shrimp larvae breeding is a temperature ranging from 28-29 °C, salinity of 28-32 ppt, pH of 7.8-8.3 and dissolved oxygen of 4.5-7.0 ppm. Dissolved oxygen of 5.5-6.5 ppm and salinity of 25-35 ppt is a good quality for shrimp breeding in the hatchery (Chamberlain 1982). Referring to the above literature, the water quality in the breeding tank for 3 cycles shows that it was relatively ideal for the breeding of pisang shrimp larvae.

Reproduction performance based on Morphometric Relationship pattern between weight and fecundity. In general, the maturity of shrimp reproduction is strongly influenced by morphometric factors, one of which is the weight of each individual shrimp broodstock, which is characterized by the level of reproductive maturity has developed so that the morphometric data for weight size can be used to show the value of the resulting fecundity. Rianni (2000) suggests that morphometrically shrimp broodstock have a positive relationship between body weight and fecundity they produced. This means that the heavier the weight of female shrimp broodstock, the higher the fecundity they produced. The fecundity value based on weight and length is called relative fecundity, while the fecundity based on the number of eggs from each individual is called absolute fecundity.

Figure 1 – Relationship between weight and fecundity

The results of the study showed that the relationship between weight and fecundity is very closely determined. The determination coefficient value, which is represented by $R^2$ is 0.96. This means that the broodstock weight can explain the diversity in the number of eggs (fecundity) of 96%. This is in accordance with the study results by Rianni (2000) which suggests that the female broodstock weight and the resulting fecundity show that heavier weight will increase the fecundity. Figure 1 shows that female broodstock began to gonad...
mature at 50.5 weight with 73500 eggs or 1.455 eggs per gram body weight. The number of eggs per unit of weight continues to increase as the weight increases to 3490 eggs/gram at 123 gram weight of broodstock. This means that with 2.5 times of weight change will increase the eggs production to almost 2.5 times. This change is more significant that the change in the total length and carapace length value to the fecundity of pisang shrimp broodstock.

For efficiency in pisang shrimp hatchery, the data of the relationship between weight-fecundity recommends using female broodstock weighing over 50 grams. In tiger shrimp, the ideal weight for a spawning process to obtain healthy seeds is >217 grams/shrimp (Naca, 2005). Meanwhile, Rianni (2000) suggests that tiger shrimp broodstock from Aceh morphometrically weigh 157 grams/shrimp is capable of producing 565.916 eggs (fecundity). The study results in pisang shrimp broodstock weighing between 85.5 to 123.5 grams/shrimp showed very good reproductive performance with very high fecundity achievements, this size was thought to be the productive period for pisang shrimp broodstock from nature. Broodstock weight of 85.5 grams was able to produce 269,500 eggs or with a fecundity ratio of 3,152 eggs. Whereas the broodstock weight of 123.5 grams produced 431.139 eggs with a fecundity ratio of 3,491 eggs. The reproductive performance of naturally mature gonad of pisang shrimp began to show the absolute amount of fecundity increased at a weight of 85.5 grams. Therefore, that weight range is thought to have entered a good reproductive period for pisang shrimp broodstock.

**Relationship pattern of total length and fecundity.** Correlation value or determination coefficient between total length and fecundity denoted by R² is 0.844, meaning that the total length of broodstock, the 84% of the fecundity diversity can be explained by total length variable (cm). However, this value is lower than the correlation between weight and carapace length to fecundity. At 16 cm, female broodstock produced 91.352 eggs or 5.700 eggs per total length. This value rises to almost 3 times of the total length 26.7 cm (431.138 eggs or 16.147 per unit total length). This means that with 1.5 times length change will increase the number of eggs up to 3 times.

![Figure 2 – Relationship between total length and fecundity](image)

From the relationship pattern between total length and fecundity, it can be concluded that broodstocks with a total length of at least 16 cm can be used for seedlings. Longer the female broodstock will produce more eggs per additional length unit.

**Relationship pattern between carapace lengths with fecundity.** The morphometric parts of shrimp that can be used as a standard in estimating the amount of fecundity produced by each broodstock are the carapace length. In this case, the size of the prospective spawning shrimp broodstock for female shrimp broodstock is the one with carapace length between 52-
Based on data analysis (Graph 3), a positive correlation between carapace and fecundity length is 0.895, meaning that 90% of the diversity in fecundity can be explained by the carapace length variable. This value is better than the correlation between total length and fecundity but still below the correlation value between broodstock weight and fecundity. The female broodstock with 7.5 cm carapace length produced 73,500 eggs or 9,800 eggs per cm long carapace. While the female broodstock with 12 cm carapace length produced 431,138 eggs or 35,928 eggs per cm long carapace. This shows that a 1.6 times change in carapace length will increase the number of eggs by 3.7 fold.

Carapace length changes clearly show changes in fecundity compared to total length. However, because the length change of the carapace is less noticeable than the change in length, it is better to measure the carapace length with a more precise unit of mm rather than cm. The female broodstock with 7.5 cm carapace length is feasible as broodstock ready for the spawning. However, in terms of fecundity, it is not optimum yet, meaning that it is not in the productive size category.

CONCLUSION

The morphometric criteria for pisang shrimp provide different explanation and result between carapace length, total length and weight to the number of fecundities. The total length size to fecundity is no better than the carapace length to the amount of fecundity, while weight has a strong effect compared to carapace length and total length to the amount of fecundity in pisang shrimp broodstock which eggs mature naturally. Based on the regression test results, the correlation value between total length and fecundity, which is denoted with $R^2$ is 0.844. This means that 84% of fecundity diversity can be explained by total length variable (cm). Meanwhile, the correlation value or determination coefficient between carapace length and fecundity, which is denoted with $R^2$ is 0.895. This can be explained by carapace length variable (cm) that almost 90%, of diversity in fecundity, can be explained by carapace length variable. Meanwhile, the relationship between weight and fecundity is closely determined by the determination coefficient value denoted with $R^2$ of 0.961. This means that the broodstock weight can explain the diversity in eggs amount (fecundity) of 96%. The absolute and relatively lowest fecundity in broodstock weighing 50.5 grams with the fecundity of 73,500 eggs and the highest is in broodstock weighing 123.5 grams with the fecundity of 431,139 eggs. In addition to morphometric criteria, another
influence that can be used as a reference in estimating the value of fecundity is environment condition and several other factors.

ACKNOWLEDGEMENTS

This research is funded by the Pusat Pendidikan dan Pelatihan Kelautan Perikanan Kementerian Kelautan Perikanan through the program of Tugas Belajar (Tubel) in the Universitas Diponegoro, Indonesia. Thank you for Pusdik KKP as the manager of learning tasks, the lecturers in the postgraduate program of Master in Coastal Resources at the University of Diponegoro and the Head of Brachiswater Development Center Ujung Batee in Aceh who have given the opportunity for the learning tasks.

REFERENCES

They didn’t have it in their time...

...imagine what you could achieve with it now

Images of Francis Crick and John Kendrew courtesy of NRC Laboratory of Molecular Biology. All other images courtesy of Wellcome Library, London.

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