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REGIONAL ECONOMIC PERFORMANCE ANALYSIS RELATED TO REGIONAL EXPANSION OF BULUNGAN AREA

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ABSTRACT
This research concentrates on analyzing the structure and economic patterns are formed from the division of Bulungan and compare the performance of regional development of the division. The analytical tool used is the analysis of the typology of the area, the relative potency region, shift-share, and analysis of the performance of construction index. The data used is secondary data holding area and the area of the division in the period 2012-2016. The results based on the analysis of existing conclude that no one region is classifiable in a rapidly advancing area and quickly grew. District parent (Bulungan) classified in relatively remote areas while hasi area division (City of Tarakan, Nunukan, Mainau district, Tana Tidung) belong to the fast developing areas and developed areas depressed. Tarakan city has the highest economic potential with LQ> 1 in 14 sectors of the base. Parent regional economic growth is lower when compared with the area of the division and the parent local development performance is lower when compared to the area of the division.

KEY WORDS
Economic performance, structure, growth, development, regency.

Reconstruction of government policies conducted since 1998, where there is a change of government administration system which initially from centralized system to decentralization. The amendment was based on Law Number 22 Year 1999 on Regional Autonomy which was then amended by Law Number 32 Year 2004 regarding Regional Government and Government Regulation Number 78 Year 2007 concerning Procedure for Formation, Elimination and Regional Merger.

Before the enactment of the Autonomy Law, Bulungan District has a total area of approximately 75,467 Km2, but after four times the expansion then the total area changed to 29,371 km2. In its development, one of the sub-districts originally located in the region of Bulungan Regency, based on RI Law No. 29 of 1997 experienced the status of the middle town. This is in line with the increasing status of the city of Tarakan from the administrative city to the City of Madya. With the enactment of Law no. 22 of 1999 on Regional Autonomy, the territory of Bulungan is redefined into two autonomous regions at once. Based on Law no. 47 of 1999 then two areas in the region of Bulungan ie Malinau District and Nunukan Sub-district changed the status to Malinau and Nunukan District. The expansion of Bulungan area did not stop in 1999. Subsequent developments indicated that the Bulungan area was once again divided by the establishment of a new autonomous region, Tana Tidung Regency, based on RI Law no. 34 of 2007.

With the expansion in the area of Bulungan then bring the impact of various changes in the parent regions and regions of the division. One is the growth of centers of economic activity with emphasis on the mining, agriculture, trade, industry and banking sectors as well as the emergence of various institutions both government and private as a consequence of the establishment of new government institutions. Below is the data of economic growth rate of the Parent and Regency / City districts resulting from the expansion in 2012 - 2016:
The highest economic growth of the five districts / cities above is the City of Tarakan with a cumulative growth rate of 7.12 percent over the past 5 years. Meanwhile, cumulative own monthly economic growth grew by 4.41 percent in the last 5 years. The economic structure of the parent regions and regions resulting from the division by 2016 is still dominated by the Mining and Excavation business field which is 24.65 percent and the Agriculture, Forestry and Fisheries business field is 18.09 percent.

The autonomy is expected to give people the freedom to manage their own resources for their own welfare, in some previous studies show that the expansion of the region impacts the economic condition of regions that are not better than the parent regions, negatively impacting public services and the welfare of the people in the regions resulting from the division, and no areas of the division are categorized as capable.

From the description above, further research is needed to determine the changes in the structure and pattern of the economy after the expansion and simultaneously compare the performance of development between regions parent with the area of the division.

**LITERATURE REVIEW**

*Basic Concept of Regional Economics.* Basic economics is a science that studies about how a person can meet the needs of his own life while the ability is limited. From the concept, the economics have derivatives of which one of them is the regional economics or economics of the region. Regional economics (region) is a branch of economics which in its discussion incorporates elements of the potential difference one region with other regions. Regional economics does not discuss individual economic activities but analyzes a region as a whole or looks at the diverse potentials of the region and how to regulate a policy that can accelerate the region's economic growth (Tarigan, 2005).

What is to be achieved in regional economics is actually not much different from that of economics in general. Theoretically Ferguson (1965) in Tarigan (2005) says that the main objectives of economic policy are (1) full employment, (2) economic growth, and (3) price stability.

*Regional Economy In Perspective of Regional Expansion.* The theory that speaks of regional economic growth starts from the theory cited from the micro / macro development by changing the boundaries of the region and adapted to the operational environment. The growth theory quoted from macroeconomics is applicable to a national economy which in itself also applies to the region concerned. However, in its application it must be related to the scope of its operational area, for example the region has no authority to make fiscal and
monetary policy, the area is more open in the movement of people and goods (Tarigan, 2012).

**Economic Growth and Regional Potential.** According to Mankiw (1999), GDP can be viewed in two ways: first, the total income received by everyone in the economy and second, is the total of spending on goods and services in the economy. From these two views, GDP can reflect the performance of a country's economic growth (Khusaini, 2006).

With the expansion of the region is expected to create a policy framework that is able to create a conducive economic climate. The result of the formation of newly created regions is required to find sources of development finance without reducing the expectation of assistance and sharing of the central government and using public funds in accordance with the priorities and aspirations of the people. Under these circumstances, the role of private investment and local-owned enterprises is desirable as a major driver of growth and economic development of the region (engineer of growth). The region is also expected to attract investors to encourage regional economic growth as well as generate a large multiplier effect (Khusaini, 2006).

**Regional Economic Base Theory.** The basic theory of economics states that the economic growth rate of a region is determined by the magnitude of the increase in exports from the region (Tarigan, 2005). The theory of this base is classified into two sectors namely the base sector and non-base sector.

### METHODS OF RESEARCH

**Regional Tipology Analysis.** In the analysis of local typology used to know the description of the pattern and structure of economic growth of each region. According to regional typology, the area is divided into four classifications, i.e. fast-forward and fast-growing areas, advanced but depressed regions, fast-growing areas and relatively disadvantaged areas (Mudrajad, 2004).

![Figure 2 – Regional Tipology](image)

<table>
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<tr>
<th>Per Kapita (y)</th>
<th>(yi &gt; y)</th>
<th>(yi &lt; y)</th>
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<tr>
<td>Growth (r)</td>
<td>High income and high growth</td>
<td>Low income and high growth</td>
</tr>
<tr>
<td>(ri &gt; r)</td>
<td>High income and low growth</td>
<td>Low income and low growth</td>
</tr>
<tr>
<td>(ri &lt; r)</td>
<td>High income and low growth</td>
<td>Low income and low growth</td>
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**Note:**

- r = Average district / city economic growth;
- y = Average PDRB per capita district / city;
- ri = districts / cities economic growth observed (i);
- yi = per capita PDRB per district / city observed (i).

**Analysis of Regional Relative Economic Potential.** This analysis is used to determine the economic potential in Bulungan District and 4 (four) Districts / Cities resulting from the expansion. This should be done so that the determination of real sectors that can be developed to sustain regional economic growth. Knowledge of the comparative advantage of a region can be used by policy makers to encourage changes in regional economic structures towards sectors that contain comparative advantage (Tarigan, 2005).

$$LQ = \frac{\frac{X_i}{PDB}}{\frac{X_i}{PNB}}$$

Where:

- Xi = Value added sector i in a region;
- PDRB = Gross regional domestic product of the area;
- Xi = Value added sector i nationally;
- PNB = Gross national product or GNP.
If LQ > 1 means that the sector's role in the area is more prominent than the sector's role nationally. Conversely, if LQ <1, the role of the sector in the area is smaller than the sector's role nationally. LQ > 1 indicates that sector I roles are quite prominent in the area and often indicate that the area is a surplus of sector I products and exports it to other regions.

**Shift-Share Analysis.** This analysis is used to find out the comparison of economic growth rate between parent region and region of expansion in more depth. So that various factors that cause changes in the economic structure of an area and its growth from one time to another can be clearly known. With this analysis is also expected to explain the competitiveness ability of a particular commodity between regions.

To connect between the components can be used notation as follows:

- \( \Delta = \) Year-end increment \((t)\) is reduced by the initial number of years \((t-n)\)
- \( N = \) National or national territory / higher level
- \( r = \) Region or region of analysis
- \( E = \) Employment or number of employment
- \( I = \) Dirty industry
- \( t = \) Year
- \( t-n = \) Year beginning
- \( t + m = \) Year of projection
- \( N_s = \) National share
- \( P = \) Propotional shift
- \( D = \) Differential shift

The relationship between the components can be stated as follows:

\[
\Delta E r = E r, t - E r, t - n
\]

This means the increase of regional employment in the final year \((t)\) minus the number of employment at the beginning of the year \((t-n)\).

The role of National share \((N_s)\) in which the increase of regional employment sector is am with the national average then use the equation as follows:

\[
N_s, t = E r, i, t-n (E N, t / E N, t-n) - E r, i, t-n
\]

Proportional shift \((P_r, i)\) is to see the effect of sector \(i\) on the national growth of employment in the region analyzed using the following equation:

\[
P_r, i, t = \{(E N, i, t / E N, i, t-n) - (E N, t / E N, t-n)\} x E r, i, t-n
\]

Differential shift \((D_r, i)\) illustrates the deviations between sector growth \(i\) in the area of analysis on the national level using the following equation:

\[
D_r, i, t = [E r, i, t - (E N, i, t / E N, i, t-n) E r, i, t-n]
\]

**Development Performance Index Analysis.** This analysis aims to see the comparison of development performance between the parent regions and the newly created regions. In this case more see whether there is a significant change or progress in an area when the division or have other impacts. This analysis is also used by Bappenas in collaboration with the United National Development Program (UNDP) in 2007 to evaluate the results of the division in all parts of Indonesia. The explanation of indicators and calculations are as follows:

1. Regional Economic Performance. This indicator is made with the aim of measuring whether the newly created regions can show economic development or not. The component used to measure economic performance is to make Regional Economic Performance Index (IKE). For kabupen \(i\) in year \(t\), can be formulated as follows:

\[
IKE_{i,t} = \frac{ECGI_{i,t} + WELFI_{i,t} + ESERI_{i,t} + (100 - POVEI_{i,t})}{4}
\]
Where:

ECGI = GDP growth of non-oil and gas in percent;
WELFI = GRDP per capita;
ESERI = Ratio of Regional Revenue PDRB to Provincial GRDP;
POVEI = Poverty rate.

(2) Financial Performance of Regional Government. This indicator is used to measure the extent to which regional capability of the division can perform its duties, functions, authority and responsibilities in the context of fiscal policy of financial management for growth and development in general. To know the performance of financial performance ability of local government, then made Local Government Financial Performance Index (IKKPD) for district i in year t with formula as follows:

\[ IKKPD_{i,t} = \frac{(100 - FIDI_{i,t}) + FGII_{i,t} + FCAPEXI_{i,t} + FCEI_{i,t})}{4} \]

Where:

FIDI = Fiscal Dependency;
FGII = Income generation capacity;
FCAPEXI = Proportion of capital expenditure;
FCEI = Government sector contribution.

(3) Performance of Public Services. This indicator is used to evaluate government performance in terms of public services in education, health and infrastructure. For this purpose, the Public Service Index (PPI) was established in district i in year t, with the following formula:

\[ PPI_{i,t} = \frac{(BEFI_{i,t} + (100 - BETI_{i,t}) + AEFI_{i,t} + (100 - AETI_{i,t}) + PHFI_{i,t} + PHOI_{i,t} + PRQI_{i,t})}{7} \]

Where:

BEFI = Number of students per primary school and junior high school;
BETI = Number of students per elementary and junior high school teachers;
AEFI = Number of students per high school;
AETI = Number of students per high school teacher;
PHFI = Availability of health facilities per 10,000 population;
PHOI = Availability of health personnel per 10,000 population;
PRQI = Percentage of road length with good quality of all roads in the district concerned.

RESULTS AND DISCUSSION

Based on the observation period starting from 2012 to 2016 it is known that no region in the northern part of Borneo island has fast growing and fast growing economic growth. Bulungan as the Mother District which is supposed to be more economically stable belongs to the classification daren relatively lagging behind. This means that, when compared with the region of the division, Bulungan Regency has experienced a very slow growth area.

Various factors that cause it can happen, including external factors and internal factors. One of the potentials of Bulungan Regency is the area that should be managed and utilized to add economic value such as the provision of plantation land. However, it is less attractive for investors to invest in the Bulungan region due to geographical conditions such as higher mountain ranges, steeper slopes and steeper slopes when compared to other areas. So investors choose to invest in other areas that have more potential land and lower investment costs. In addition, another external factor is Bulungan District also has a high dependence with the outside to meet all its needs, ranging from the needs of basic materials, materials development, equipment and equipment, electricity, transportation and others.
Internal factors that cause the delay is from the quality performance of government apparatus, the policy direction is not right on target, the participation of the community and relevant stakeholders. With the policy of regional autonomy, the impact on the division of government apparatus. For newly-expanded regions, the new civil servants are not immediately available, so to fill the vacancy and fulfillment of public services filled by the apparatus from the parent region. Thus, it causes a decrease in the number of staff in the parent area and the changing employee regulation causes the quality of the apparatus to decrease. For example, civil servants, including technical teams, teachers, medical workers and others who have been enrolled in certain education and training so that special skills should be placed and assigned to assist in newly created regions of the division. In fact, the withdrawal of civil servants from the new local government to the old government is very difficult to do. Many factors and considerations to withdraw civil servants to the parent region are if this is done then there will be an accumulation of employees in the old local government while the territory, area and the population is reduced due to the division.

Prior to the expansion, the parent government should prepare a draft preparation for the fulfillment of all the needs of the new territory with the aim that the area deserves to be expanded. For that the policy taken is a focus on the provision of facilities and infrastructure such as communication, transportation, clean water, irrigation, education, health and other services in the area to be expanded. Development priorities are more directed at improving inter-regional liaison infrastructures so that budgets that should be allocated to the interests of parent regions should be shared with newly created regions.

Tana Tidung regency, which is the last area of the division of Bulungan region, belongs to the category of developed regions is depressed, it means that the income per capita of Tana Tidung is higher than the regional average but the economic growth is lower. This is because most residents of Tana Tidung reside in Sesayap subdistrict (district capitals) and trade centers are located in the region so that practically the center of economic growth is concentrated there. This has led to the impact that previously most of the people, as farmers and fishermen, have other businesses ie trading. Community in other sub-districts have side business as laborers in palm oil companies or timber companies. Thus, the average income per capita of the community has increased. Based on statistical data of 2017, it is known that from 9,432 work force there are 9,181 work while unemployment is only 243 people, meaning 97.33% of worker population of Tana Tidung Regency have job. When compared with other areas in the northern part of the island of Borneo, most of the GRDP is dominated by the mining sector, then the Tana Tidung Regency experienced a different thing. The agricultural sector has the greatest contribution to the increase of Gross Regional Domestic Product of Tana Tidung Regency. Based on statistical data of 2017, the agricultural sector
has a GRDP distribution of 36.34%, followed by mining and quarrying sector by 25.14% and construction sector by 16.55%.

Nunukan and Malinau districts are among the fastest growing regions. For Kabupaten Nunukan and Malinau, they have more productive plantation commodities compared to Bulungan Regency. Nunukan Regency has 270 Ha of rubber, 410 Ha of Coconut, 92 Ha of coffee, 32 Ha of pepper, 5,456 Ha of cocoa and 22,404 Ha of oil palm, and Malinau Regency has 1,626 Ha of rubber plantation, 1,772 Ha of coffee, 3 Ha of pepper, 3,855 Ha cocoa, and 1,050 ha of palm oil. With the area of plantation commodity crops, it will have an impact on increasing the regional GDP. Besides having productive plantation land, Nunukan Regency has superior commodity in the form of the biggest dried seaweed producer in Indonesia. This has a significant impact on the increase in income Nunukan people mainly coastal communities. The potential of 20,000 ha of marine waters that can be utilized for seaweed cultivation is capable of producing more than 146,674 tons per year and consuming 84.29% of the production share and involving more than 3,000 fisheries households.

The city of Tarakan is also included in the fast growing region. This is because Tarakan is a center for export and import trade in the northern part of the island of Borneo with a container port facility or a port of goods and a large-capacity passenger port. Strategic geographic location closer to neighboring countries such as Malaysia, Singapore, Brunei and others make this area experiencing higher trade sector development when compared with other blood so it can give big contribution to APBD and APBN. Tarakan also has a much better and more adequate transportation facilities and infrastructure, namely the international airport of Juwata. With the airport, then the entrance to Bulungan District, Nunukan District, Malinau District and Tana Tidung Regency is through the City of Tarakan. Tarakan is also known as a transit city which directly impacts the growth of economic centers such as the development of services sector, transportation, hotels, processing industry, warehousing, information and communication.

Identification of Economic Base Area Analysis Location Quotient (LQ). From the calculation result using Location Quotient (LQ) analysis, it can be known which sectors have potential in each region.

It is known that from 17 base sectors throughout the northern part of Kalimantan, Bulungan District as the parent region has only 8 basic sectors this is very different from Tarakan City which has 14 base sectors. The base sector of Bulungan District is also owned by other areas such as mining and recycling sectors, water supply, waste management, waste and recycling, communications information, real estate, government administration, defense and social security, educational services, other services.

In the field of economic potential development in the parent region and the division is still dominated by the primary sector, namely the agricultural sector including plantation sub-sector, fishery, livestock, forestry and mining mining sector in the form of oil and gas and coal. The more dominant sectors and the highest economic activity contributed to mining and quarrying, however, the results obtained have not been supported by the processing industry. The results obtained are only limited to exploration of raw materials and without further processing.

With a land area dominated by forests and hilly and mountainous contours of land, community dwellings cluster in lowland and close to the river. So the center of infrastructure development more focused on the paths that have easier access such as river flow. Limitations of infrastructure or roads that have not been connected between settlement centers cause transportation using water and air routes. This causes a high cost of transportation so that the results of processing industries and commodity products tend to be expensive. Especially for people who live in border areas prefer goods derived from Malaysia on the grounds that raw materials are more affordable and easily obtainable.

A more complex problem is the unbalanced energy supply, where there are differences in supply and demand for energy. Regions only get tax on coal mining business, oil and gas but processing of the commodity is processed outside the region so that the benefits received from it is less than the maximum. For example, because not all areas are connected by road or due to inadequate infrastructure, not to mention the higher oil prices in the world
market, it causes uneven fuel supply throughout the region. The demand for high fuel while limited supply causes some areas experiencing fuel shortages and higher prices.

The route connecting trade, shipping, and air transportation centered on Tarakan City. This former sub district has grown more advanced because it has access to the airport and national ports and container ports. The central government in Tanjung Selor sub-district, Bulungan District, has more role as the center of government and in its development can be a city supporting the expansion of settlement area, relocation and expansion of industrial area previously centered in Tarakan. For that, from now on, prepared facilities and infrastructure supporting the formation of Tanjung Selor District became the capital of Tanjung Selor as well as other cities.

The value generated from each of the basic sectors in general is still below the area of expansion, meaning that the parent region has a lower potential. In the field of agriculture and food crops such as Bulungan, Nunukan and Tana Tidung are potential areas for the development of rice, corn and cassava commodities. Land area of 115,721.57 Ha is a huge potential that can be utilized, but until now the use of land for rice fields only about 14,265.05 hectares, which means that the remaining area of 101,456.51 Ha has not been utilized. Of the total crops, Tana Tidung has the largest yield of 21,774 hectares or 54% of the total harvest of the entire northern part of the island of Borneo.

In the field of horticulture that can be developed are fruits such as oranges, durian / lai and bananas. Of the three potential fruits, bananas have the highest commodity and Nunukan area is the largest contributor, which is 54.62% of the total production, and then followed by Bulungan region capable of producing 51.28% oranges from the total production.

In the field of plantation there are types of garden plants that can be developed include palm oil, rubber, pepper, coffee, sugar palm and cocoa. The nunukan area has 6,514 hectares or 52% of the total cocoa plantation area, 1,085 ha or 48% of the total coconut plantation area. But for coffee income continues to decline where previously coffee plantation area of 5,628 Ha decreased to 2,818 Ha. This causes coffee crops to continue to decline and the last is the potential for oil palm plantations that continue to burn.

Generally, from the table above, it is known that almost all sectors in the parent regions and regions of the division have positive values. There are only a few negative sector sectors such as mining and quarrying in Bulungan District, agriculture, forestry and fishery sector, information and communications sector, government administration sector, health services sector and social activities in Malinau District.

Of the 17 sectors that are owned by the parent regions, only the administrative sector of government, defense and social security that have the highest positive value when compared with the region of the division. For the construction sector even though Bulungan Regency has positive value but still lose higher with Tarakan City, as well as processing industry sector where the parent region has value of 222.98 billion still higher Tarakan City which has value 500.18 milyar. However, from these three sectors Bulungan District is still superior to other regions and this can still be used as a specialization sector.

Based on the projection of the overall result analysis that can be a specialization of each region is for Bulungan Regency as many as 4 sectors, 3 units of Nunukan District, Tarakan City 6 sectors and Tana Tidung 1 district, while for Malinau District is not clearly illustrated because the propotional shift and differential share that shows a negative value. Similarly, from the projection of shift share analysis between the parent regions with the resulted regions from 2016 to 2020 there is no change in economic structure.

Analysis of Development Performance Indices between the Parent Area with the Expansion Area. When viewed from the results of economic performance calculation then the region of the division able to grow rapidly equivalent to the parent region. This also means the determination of the area of division policy is an area capable of standing alone parallel to the parent so that indirectly can improve the welfare of society and improve the existing conditions.

Judging from the economic distribution of the parent region with the newly created region shows that this policy has a positive impact such as the distribution of physical development and the availability of public service facilities throughout the region. From the
description above, it can be described that causes the economic growth of the region of the division able to balance and grow rapidly equivalent to the parent region:

- Equitable Distribution of Economic Potential. From the data that has been presented, it is known that the area of expansion has good economic potential and can be managed and utilized so that it can compete with the parent region. In this case the potential in question is a component that can significantly improve the economy such as agricultural areas, management of forest products, fisheries, ponds, productive plantations, industrial estates, mining and other supporting components.

- Reduced Poverty Rate. Previously it has been described that from the results of the data presentation it is recognized that the parent region has the most abundant population when compared to the area of expansion. This means that there is a need for policy regulation of the government program of the targeted parent territory which is capable of driving the wheels of the economy so that it can increase the income of the community. Poor people in general have limited human resources, both in terms of education, knowledge and ability in order to generate income. For that with the division of the potential of natural resources more evenly, it can be managed and have a higher level of productivity.

Financial Performance:

![IKKPD (%)](image)

![Figure 3 – Local Government Financial Performance Index](image)

Overall, the financial performance of the regions resulting from the division appears to be higher than the parent regions, due to a number of problems in regional finance:

a) Fiscal Dependency. Where both parent regions and regions of expansion still have a fiscal dependency on the central government. Thus, with the expansion of the central government burdened in terms of financial budgeting so that the goal of fiscal decentralization and regional autonomy cannot encourage the independence of local governments in carrying out development, for it is necessary to optimize the increase of sources of economic potential. Funds from the central government that should be the initial capital in order to optimize local revenue create a dependence on the government.

b) Optimizing revenue and low economic contribution. Parent regions that should have a better economic level are inversely proportional to the region of the division. The budget allocation policy still lacks the right target, where there is a need to focus more serious efforts to support the growth of the economic centers. The inadequate role of the government of the broadcasting policies issued by each local government has had an impact on the underdeveloped economy which ultimately makes the regional income not optimal so that the fiscal self-sufficiency is not achieved.

c) The share of allocation of capital expenditures from local government is low. The portion of low allocation of capital expenditure is not able to encourage economic growth. This can be used as a measure of the ineffectiveness of budgeting policy in an effort to increase economic activity either consumptive or investment.
Performance of Public Services. The development of Public Service Performance Index (IKPP) of the parent regions throughout the year 2012-2016 is below the region of the division. This is a picture of less optimal public services in the parent regions than the region of the division. Less optimal public services in the parent region especially concerning the availability of school building facilities, the availability of health workers, the quality of road infrastructure and also no less important the availability of educators.

The not yet optimal public service in the parent region is caused by a number of problems. Can be mentioned in between:

a) Less effective use of funds. The policy of expansion then each district / city get a relatively equal portion of the budget. With the General Allocation Fund and the Special Allocation Fund from the central government, it should be able to encourage the expansion and even distribution of services in the field of education and health. It should be used to encourage the improvement of public services and the improvement of facilities and infrastructures. However, the parent regions have a lower service index when compared with the exposed blood. Overall Bulungan District has a higher index compared to other districts but lower than Kota Tarakan.

b) Limited manpower and ineffective placement of public service personnel. Of all available medical personnel cannot reach the service in all regions of the parent or the result of the expansion except the City of Tarakan. Geographical conditions are a limiting factor in every service. Where extensive coverage, inadequate facilities and difficult transportation means lead to the recruitment and deployment of public service personnel is difficult. Especially for teachers who have the status of Civil Servants, they prefer to be placed in better areas such as the district capital. Similarly, the health apparatus, where for remote areas and far from the district capital no one chooses to live there. The fulfillment of medical personnel such as doctors, nurses and midwives at the sub-district level is with the appointment of PTT (Non-Permanent Employee) workers whose working period is limited to two years.

CONCLUSION

Based on the results of the above analyzes, it can be concluded that the structure and pattern of the economy that formed after the division is having a negative impact for Bulungan District which is the parent of the regions - districts are split. This is because the economy of Bulungan District before the expansion only focused on economic growth without any effort to distribute income evenly.

After the division, it was seen that the economy of the district of Bulungan started to grow but not significant when compared with the region of the division. Bulungan District has 8 main sectors driving the economy, namely the mining sector, manufacturing industry, water supply, communications information, real estate, government administration, education services and other services. This suggests that the role of these sectors is more prominent than the role of the same sector nationally.

Sectors that have locational advantages and are sectors that can specialize in Bulungan District in the future are the sectors of electricity and gas procurement, construction, accommodation provision and government administration. This is because the economic sector has a positive proportional shift and differential share.

The performance index of development in terms of economy, regional finance and public service of the division areas appears to be higher than parent regions, caused by a number of problems in terms of prioritization or direction of development policy, regional potential factors, low incomes and high fiscal dependence. In addition, the lack of optimal public services in the parent area compared to the results of the divisionerutama concerning the availability of school facilities, the availability of health personnel, the quality of road infrastructure and also no less important the availability of educators should be the focus of local government. The lack of optimal public services in the parent regions is caused by a number of problems, including: ineffective use of funds, unavailability of public service personnel, and not yet optimal utilization of public services.
RECOMMENDATIONS

Based on the analysis, discussion and conclusion that have been mentioned above, the suggestions that can be done by the local government are:

1. Efforts to increase local revenue can be made by:
   a. Tax intensification. Kecamatan Tanjung Selor located in Bulungan District and also as the capital of North Kalimantan Province is an attraction for investors. The emerging businesses in this area are mostly engaged in the service sector, where businessmen, entertainment and restaurants are emerging.
   b. Local regulation on swallow nest tax collection, considering that there are quite a lot of business actors engaged in this field and there is no regulation of regulations and policies that regulate it.
   c. Increase local levies.
      Implementation of local regulation on retribution which has not been done by local government is kind of garbage / cleanliness levy, funeral and corpse retribution, public roadside retribution, retribution of fire extinguisher and service fee. Therefore, it is necessary to carry out the withdrawal of such levies in order to increase local revenue.
   d. Opening business opportunities by way of easier permission to investors who will invest in the field of mining. The potential of gold and coal mines located in Peso and Sekatak subdistricts has not been explored. Only local people are mining traditionally and illegally in the area, so there is no contribution at all to the regional income while the natural potential is quite large.

2. Bulungan Regency Government is expected to increase human resources and community welfare. For that it is necessary:
   a. Creation of e-planning system. Due to the frequent implementation of ineffective and unsustainable development and development planning between provincial and district governments overlapping, an e-planning system is required. It is expected to be able to create a more effective and sustainable planning system. So that the development of source of funds derived from the District and Provincial APBD can be realized well.
   b. Airport Upgrades. As with the city of Tarakan where the biggest thing that affects the economic improvement of the area is because it has an airport and port of goods bersekala international. Therefore, it is necessary to extend the run way at the airport in Bulungan and the addition of airlines.
   c. Port Making. Support the planning of the North Kalimantan Provincial Government to create the International Port Industrial Zone (KIPI) in Tanah Kunig Sub-district. This is in accordance with the results of the President's visit on October 6, 2017 in Bulungan and the master plan has been made.

3. With regards to the Bulungan District Government's plan to be re-established into Kota Tanjung Selor and Kota Sebatik, seyognya conduct a more in-depth study, especially related to the distribution of economic potential. It is necessary to make strategic efforts in terms of regional development so that there is no gap, conduct and preparation of apparatus that has the qualification and competence is good for efficient and effectiveness of public services.

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THE IMPLEMENTATION OF GOVERNMENT POLICY IN EMPOWERING BUSINESS AND «IRA-MASI» GROUP OF GIFT NILE TILAPIA (Oreoichromis sp.) FARMERS IN SUCO COM, EAST TIMOR

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ABSTRACT
Policy implementation is widely seen as the application of the legislation in which various actors, organizations, procedures, and techniques collaborate to implement policies in order to achieve policy goals or programs comprehended as a process, an output, and an impact (outcome). This study aims to identify and analyze the implementation of government policy in empowering the business and group of fish farmers, recognize the constraints faced by group of fish farmers, establish empowerment strategies that can be developed in empowering business and group of fish farmers, and determine the role of the government in empowering the wealth of fish farmer groups. This research was conducted in Com Village, Lautem Moro Subdistrict, Lautem District, East Timor, from December 15th, 2017, to February 5th, 2018. This research was conducted using qualitative descriptive method. Data collection used in this study was the primary and secondary data obtained using observation, interview, and documentation techniques.

KEY WORDS
Policy, implementation, government, empowerment, fish farmers group.

The world development urges the improvement of each country in various aspects of social life which certainly cannot be separated from every policy taken by the highest apparatus in a country. Various supporting factors in the success of a state concept such as the democracy concept require the society to think about political actions. It is clear that as a social creature, it is not advantageous for the society to sit quietly while all decisions concerning society are made by a ruler they cannot control or direct. Active participation in improving a habitual, society, or nation existence is an important part of the development of the social character.

There are at least two English terms similar to the village concept, i.e. rural and village. Rural areas involve a number of villages in which the characteristics of the society include farmers as the most occupation, living in a family atmosphere, and other social characteristics identical to rural areas (Krisdyatmiko, 2002). Meanwhile, village development is a further development strategy of the village development strategy. In the village development, intensive efforts are carried out with the aim and tendency to focus on particular groups and regions through the delivery of services, assistance, and information to the villagers (Pootstchi, 1986).

This strategy sees development as a unified process with the economic aspect as a part of it. In the process, in addition to the economic aspects, there are social, political, cultural, psychological, and technical aspects mutually interacted, correlated, and maintained. The map of East Timorese lives based on the results of the 2015 population census shows that of 1,183,643 people, 66.6% are farmers in 2,225 communities, 442 villages, 65 subdistricts, and 13 districts (National Statistics Directorate of East Timor, 2015 Census).

In Lautem District, especially Lautem Moro Subdistrict, many people still feel the powerlessness, especially fish farmers whose daily life only relies on the results of fish farming. This is also affected by the growing population in Lautem Moro Subdistrict based on the results of 2015 population census of 20,410 people in the area of approximately 380.17
km². With the increasing number of people from year to year, the level of competition in people's lives is higher and the job field is more difficult to find. As a result, the society, especially at the rural level, can only sustain life in agriculture, such as rice fields, fields, and fish farms.

The Government, in the 6th Government Cabinet under the leadership of Prime Minister Rui Maria de Araujo, has a strategy for village community development, especially farmers, through the Ministry of Agriculture and Fisheries (Ministerio Agricultura e Pescas). They provide free fish farming facilities for farmer groups to improve the farmer wealth and to provide empowerment.

**MATERIALS AND METHODS OF RESEARCH**

This research was conducted using qualitative descriptive method. According to Kirk and Miller, qualitative research is a practice in social science that relies on observation of people in their own areas and relates to their language and terminology. Thus, qualitative descriptive research is an effort to disclose the event or the state of the research subject or object and solve the problems faced at this time based on observable facts or actual circumstances. Referring to that objective, the focus of the research entitled "The implementation of Government policy in empowering the business and group of Gift Nile tilapia (Oreochromis sp) farmers in Suco Com, East Timor" is to investigate the government policy implementation program. This research was conducted in Com Village, Lautem Moro Subdistrict, Lautem District, East Timor.

The research was conducted from December 15th, 2017, to February 5th, 2018. The reasons for the research site selection by the researcher were because the selected location was the location and target group of the Government in the policy implementation program.

**Selection Techniques of Informant or Research Subject.** In determining the informants or research subjects, the researcher used a combination of Snow Ball and purposive techniques. The purposive sampling technique was used in accordance with the purpose of the research. The sample units contacted were tailored to the specific criteria set by the research objectives (Nawawi, 2005).

According to Black and Champion (1999), purposive sampling is one way the researchers take to ensure that certain elements are inserted into the sample.

**Data collection technique.** Data collection techniques the researcher applied in this study were as follows: Observation; Interview; Documentation.

**Data analysis technique.** Data analysis techniques the researcher employed in this study were: Data reduction; Data presentation; Conclusion.

**RESULTS AND DISCUSSION**

Lautem District consists of 5 subdistricts, 34 villages, and 151 communities with an area of +1,813.12 km². It is bordered by Australia to the south, the Republic of Indonesia to the east and north, and Baucau and Viqueque District to the west. The population based on 2017 data source is 84,533 people, while the languages as the unifying tool in Lautem District are Fataluku, Makasae, Makalero, and Iowaa. The fish farmer group (Ira-Masi) is located in Muaposu Community, Com Village, Lautem Moro Subdistrict, Lautem District. It is bordered by Kisor Island to the north, Bauro Village to the south, Mehara Village to the east, and Parlamento Village to the west. Muaposu Community as the research location is located on the east side of Com Village. The population of Muaposu Community is spread on the shores of Com beach in the plateau located 542 m. above the sea level. Muaposu Community as the location of the fish farmer (Ira-Masi) group is not the only community having a farmer group. There are many more other farmer groups in Com Village. Those groups of farmers in Com Village are registered at the Ministry of Agriculture and Fisheries (MAP) of Lautem to get free fish farming facilities.

Table 1 presents several groups of fish farmers located in Muaposu Community, Com Village, Lautem City.
Table 1 – Groups of Fish Farmers in Com Village

<table>
<thead>
<tr>
<th>No</th>
<th>Name of group leader</th>
<th>Fish species</th>
<th>Location of farming</th>
<th>Number of Ponds</th>
<th>Number of group members</th>
<th>The width of the ponds</th>
<th>Acreage (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nile tilapia</td>
<td>Muapuso</td>
<td>4 units</td>
<td>M: 5 F: 2</td>
<td>-20x20 m²=2 -10x10 m²=2</td>
<td>1000 m²</td>
</tr>
<tr>
<td>1.</td>
<td>Ermundo da cruz</td>
<td>Nile tilapia</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Armindo dos santos</td>
<td>Nile tilapia</td>
<td>Muapuso</td>
<td>2 units</td>
<td>M: 6 F: 3</td>
<td>7x8 m²= 2</td>
<td>112 m²</td>
</tr>
<tr>
<td>3.</td>
<td>Hermenegildo M.Xavier</td>
<td>Gift Nile tilapia</td>
<td>-</td>
<td>10 units</td>
<td>M: 5 F: 5</td>
<td>7x20 = 10</td>
<td>1400 m²</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture and Fisheries of Lautem City.

The establishment of the Nile tilapia farmer group (Ira-Masi) began in 2016 to respond to the implementation of Government policy through the Ministry of Agriculture and Fisheries in the empowerment program of fish farmer group and productive land utilization. The farming land is the private property of Mr. Hermenegildo who is also the head of the farming group. With the approval of the land, the Government fully assists the program. The assistance provided by the Ministry of Agriculture and Fisheries is providing free support to each farmer group, especially the fish farmer group (Ira-Masi), for empowering the farmer's community. This can be realized at the beginning of the Parliamentary Majority Alliance governance in 2007 through the statement of Ministry of Agriculture and Fisheries: Strong Agriculture, Strong State (Agrikultura Forte, Nasaun Forte). The statement is based on the idea that the agricultural sector plays an important role as the basic foundation in the national economic development in East Timor. Table 2 presents the organizational structure of the fish farmer group (Ira-Masi).

Table 2 – Members of the Gift Nile tilapia farmer group (Ira-Masi)

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Gender</th>
<th>Age</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hermenegildo Maria Xavier</td>
<td>M</td>
<td>43</td>
<td>Group leader</td>
</tr>
<tr>
<td>2.</td>
<td>Luis Maria Xavier</td>
<td>M</td>
<td>70</td>
<td>Member</td>
</tr>
<tr>
<td>3.</td>
<td>Orlando Marques</td>
<td>M</td>
<td>65</td>
<td>Member</td>
</tr>
<tr>
<td>4.</td>
<td>Alcino Lopes</td>
<td>M</td>
<td>45</td>
<td>Member</td>
</tr>
<tr>
<td>5.</td>
<td>Olderico Marques</td>
<td>M</td>
<td>35</td>
<td>Member</td>
</tr>
<tr>
<td>6.</td>
<td>Alcina Lopes</td>
<td>F</td>
<td>54</td>
<td>Member</td>
</tr>
<tr>
<td>7.</td>
<td>Tereza Neves</td>
<td>F</td>
<td>38</td>
<td>Member</td>
</tr>
<tr>
<td>8.</td>
<td>Francisca Neves</td>
<td>F</td>
<td>16</td>
<td>Member</td>
</tr>
<tr>
<td>9.</td>
<td>Elita Lopes</td>
<td>F</td>
<td>44</td>
<td>Member</td>
</tr>
<tr>
<td>10.</td>
<td>Rozinha Lopes</td>
<td>F</td>
<td>68</td>
<td>Member</td>
</tr>
</tbody>
</table>

This research results can strategically be used to formulate Government policy in empowering the business and group of fish farmers in Com Village. The results were obtained through a logical framework using SWOT analysis. This analysis is based on the logic that maximizes Strength and Opportunity and simultaneously minimizes Weakness and Threat (Rangkuti, 2000). The identification result of Strategic Internal Factors Analysis Summary (IFAS) obtains six factors consisting of three strengths and three weaknesses for the empowerment policy of business and group (Ira-Masi) of fish farmers in Muaposu Community, Com Village as the Government empowerment target area. Strength aspects consist of readiness of land and members of farmer groups, availability of good and uncontaminated water source, and togetherness of the farmer group members. The weaknesses consist of the lack of group members’ knowledge about fish farming business, the exposed farming land, and the lack of fish farming marketing. Internal factors becoming the main strength is the readiness of land and potential water source that can serve as the location of government policy implementation targets in empowering the business and group of fish farmers in Muaposu Community, Com Village with a total of relative internal strength weight value of 0.418 based on the identification of Strategic Internal Factors Analysis Summary (IFAS). Whereas, the main weaknesses are the lack of group members’
knowledge about fish farming business and the exposed farming area causing it to be very vulnerable for the farming result. The relative weakness weight value based on the identification of Strategic Internal Factors Analysis Summary (IFAS) analysis is 0.993. Table 3 presents the identification results.

### Table 3 – Identification Results of Strategic Internal Factors Analysis Summary (IFAS)

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Strength Factor</th>
<th>Weight</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S1</td>
<td>A fertile area with biodiversity</td>
<td>0.075</td>
<td>19</td>
<td>1.425</td>
</tr>
<tr>
<td>2</td>
<td>S2</td>
<td>The uncontaminated condition of the water source</td>
<td>0.079</td>
<td>20</td>
<td>1.58</td>
</tr>
<tr>
<td>3</td>
<td>S3</td>
<td>Availability of workers</td>
<td>0.063</td>
<td>16</td>
<td>1.008</td>
</tr>
<tr>
<td>4</td>
<td>S4</td>
<td>The high market demand for local fish</td>
<td>0.063</td>
<td>16</td>
<td>1.006</td>
</tr>
<tr>
<td>5</td>
<td>S5</td>
<td>Awareness of group members</td>
<td>0.059</td>
<td>15</td>
<td>0.885</td>
</tr>
<tr>
<td>6</td>
<td>S6</td>
<td>The readiness of the Government to help</td>
<td>0.079</td>
<td>20</td>
<td>1.58</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Total of strength factors</td>
<td>0.418</td>
<td></td>
<td>7.486</td>
</tr>
<tr>
<td>B</td>
<td>W1</td>
<td>Low level of members’ education and skills</td>
<td>0.079</td>
<td>20</td>
<td>1.58</td>
</tr>
<tr>
<td>2</td>
<td>W2</td>
<td>Minimal group organization</td>
<td>0.059</td>
<td>15</td>
<td>0.885</td>
</tr>
<tr>
<td>3</td>
<td>W3</td>
<td>No post-harvest practice before being marketed</td>
<td>0.059</td>
<td>15</td>
<td>0.885</td>
</tr>
<tr>
<td>4</td>
<td>W4</td>
<td>No technology utilization</td>
<td>0.051</td>
<td>13</td>
<td>0.663</td>
</tr>
<tr>
<td>5</td>
<td>W5</td>
<td>No funds from government/private institutions</td>
<td>0.059</td>
<td>15</td>
<td>0.885</td>
</tr>
<tr>
<td>6</td>
<td>W6</td>
<td>The exposed farming area</td>
<td>0.079</td>
<td>20</td>
<td>1.58</td>
</tr>
<tr>
<td>7</td>
<td>W7</td>
<td>Lack of government role in controlling farming business</td>
<td>0.059</td>
<td>15</td>
<td>0.885</td>
</tr>
<tr>
<td>8</td>
<td>W8</td>
<td>Lack of results marketing management</td>
<td>0.063</td>
<td>16</td>
<td>1.006</td>
</tr>
<tr>
<td>9</td>
<td>W9</td>
<td>Productive only in certain seasons</td>
<td>0.067</td>
<td>17</td>
<td>1.139</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Total of weakness factors</td>
<td>0.575</td>
<td></td>
<td>9.51</td>
</tr>
<tr>
<td></td>
<td>Total internal factors</td>
<td>0.993</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Difference in total of strength - total of weakness = S - W = x = -2.024

**Source:** Research Results.

The most likely threat is the security of farming area because the farming area is very exposed and far from the society settlement, farming area damage due to lack of care from the members of fish farmer group (Ira-Masi), and less stable Government policy due to political interest. The total weight for the opportunity factor of this analysis is 0.567 with a score of 10.789, while the threat with weight value of 0.511, the score is 8.94. Table 4 presents the identification result.

### Table 4 – Identification Result of Strategic External Factors Summary Analysis (EFAS)

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Opportunity Factor</th>
<th>Weight</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>O1</td>
<td>Benefits of government policies implementation</td>
<td>0.085</td>
<td>20</td>
<td>1.7</td>
</tr>
<tr>
<td>2</td>
<td>O2</td>
<td>High selling value of gift Nile Tilapia commodity</td>
<td>0.081</td>
<td>19</td>
<td>1.539</td>
</tr>
<tr>
<td>3</td>
<td>O3</td>
<td>Increased members’ income</td>
<td>0.085</td>
<td>20</td>
<td>1.7</td>
</tr>
<tr>
<td>4</td>
<td>O4</td>
<td>Contribution to the economic development program</td>
<td>0.081</td>
<td>19</td>
<td>1.539</td>
</tr>
<tr>
<td>5</td>
<td>O5</td>
<td>The development of gift Nile tilapia business</td>
<td>0.077</td>
<td>18</td>
<td>1.386</td>
</tr>
<tr>
<td>6</td>
<td>O6</td>
<td>Potential for tourism objects</td>
<td>0.077</td>
<td>18</td>
<td>1.386</td>
</tr>
<tr>
<td>7</td>
<td>O7</td>
<td>Potential for local fish resource management</td>
<td>0.081</td>
<td>19</td>
<td>1.539</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Total of opportunity factors</td>
<td>0.567</td>
<td></td>
<td>10.789</td>
</tr>
<tr>
<td>B</td>
<td>T1</td>
<td>Lack of human resources capacity</td>
<td>0.064</td>
<td>15</td>
<td>0.96</td>
</tr>
<tr>
<td>2</td>
<td>T2</td>
<td>Less control of water sources</td>
<td>0.064</td>
<td>15</td>
<td>0.96</td>
</tr>
<tr>
<td>3</td>
<td>T3</td>
<td>Limited feed for gift Nile tilapia</td>
<td>0.064</td>
<td>15</td>
<td>0.96</td>
</tr>
<tr>
<td>4</td>
<td>T4</td>
<td>Irregular feeding</td>
<td>0.085</td>
<td>20</td>
<td>1.7</td>
</tr>
<tr>
<td>5</td>
<td>T5</td>
<td>Uncontrolled water parameters</td>
<td>0.085</td>
<td>20</td>
<td>1.7</td>
</tr>
<tr>
<td>6</td>
<td>T6</td>
<td>Open farming area</td>
<td>0.085</td>
<td>20</td>
<td>1.7</td>
</tr>
<tr>
<td>7</td>
<td>T7</td>
<td>Minimal togetherness of group members</td>
<td>0.064</td>
<td>15</td>
<td>0.96</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Total of threat factors</td>
<td>0.511</td>
<td></td>
<td>8.94</td>
</tr>
<tr>
<td></td>
<td>Total of external factors</td>
<td>1.078</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Difference in total of opportunity - total of threat = O - T = y = 1.849

**Source:** Research Results.
From the results of observations, the strategic factors in the form of figures were obtained which were then inventoried into the Strategic Internal Factor Analysis Summary (IFAS) Matrix and Strategic External Factors Analysis Summary (EFAS) Matrix, which can be seen in the following table.

<table>
<thead>
<tr>
<th>No.</th>
<th>Total of Internal Factor Scores</th>
<th>Total of External Factor Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>S = 7.486</td>
<td>O = 10.789</td>
</tr>
<tr>
<td>2.</td>
<td>W = 9.51</td>
<td>T = 8.94</td>
</tr>
</tbody>
</table>

\[ \text{Difference between score } S - W = x \]
\[ \text{Difference between score } O - T = y \]

| X = -2.024 | Y = 1.849 |

Source: Research Results.

Based on the results of scoring analysis of internal and external factors, the axis \( x = -2.024 \) and \( y \)-axis = 1.849 were obtained.

Furthermore, the results of this analysis are presented in the quadrant form of each SWOT quadrant factor by Pearce & Robinson (1998) which can be seen in the following figure.

![Quadrant SWOT analysis Results](image)

The figure above shows that the x-axis and y-axis has a negative and positive value, so the position of the organization on the diagram lies in quadrant III. Thus, this position signifies a weak but potential organization. The recommendation given is a change of strategy which means that farmers are advised to change the previous strategy because the old strategy is difficult to acquire the existing opportunities and to improve the farmer operation.

**CONCLUSION**

The conclusions of this research based on the implementation of Government policy through the Ministry of Agriculture and Fisheries No.17/GM-MAP/2015 on the identification of potential areas for the empowerment of farmer groups, especially to members and group Ira-Masi of fish farmers in Muaposu Community, Com Village, are the following:
The Government, especially the Ministry of Agriculture and Fisheries, with all the strength is committed to help the society, especially fish farmer groups in business and group empowerment.

Empowerment strategy undertaken in empowering businesses and fish farmer group Ira-Masi is the awareness of the mindset.

Strengthening the capacity of farmer group "Ira-Masi" members by various activities such as trainings, workshops, seminars, farming meetings, and so on.

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18. 2010, Sensus Penduduk,Badan Statistik Nasional Timor Leste.
THE EFFECT OF LEADERSHIP ON ORGANIZATIONAL CITIZENSHIP BEHAVIOUR THROUGH WORK CLIMATE AND JOB SATISFACTION

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ABSTRACT
The success and failure of the system in educational institutions depend on leaders. Leaders who are able to nurture the teachers, who become subordinates, will certainly improve the work atmosphere. The purpose of this study is to examine and analyze the effect of leadership on job satisfaction and work climate oriented on the organizational citizenship behavior. This study adopted quantitative research, with sampling technique used is probability cluster sampling with 78 respondents selected at some Madrasah Aliyah Negeri (Senior High School) in Lombok. Data were collected by questionnaire and analyzed using SmartPLS analysis. The findings show that leadership has a significant effect on work climate, job satisfaction and organizational citizenship behavior.

KEY WORDS
Leadership, work climate, organizational citizenship, behavior, job satisfaction.

Law No. 14/ 2005 about Teachers and Lecturers explicitly states that the position of teachers as professionals serves to improve the dignity and role of teachers as learning agents to improve the quality of national education. Government Regulation No. 74/2008 about Teachers mentions that teachers have a workload of at least 24 hours of face-to-face and as much as 40 hours of face-to-face per week, until now not all teachers can perform the ideal task in accordance with the laws and regulations, with the responsibility of teaching at least 24 hours face to face in 1 (one) week. Human is the main element of the organization so that it becomes a central factor. Organization only works if the humans who collect themselves interact in realizing the volume and work (Nawawi 2000).

In generally, the organizations to achieve the competitive advantage must be organize the highest individual performance, because essentially individual performance affects group performance, and finally give affect the overall organization performance. Good performance is expected to be the "behavior" of the employees desired by the organization. The behaviors that the organization demands today are not only in-role behaviors but also extra-role behaviors. This extra-role behavior is also called Organizational Citizenship Behavior. Organizational Citizenship Behavior (OCB) is a workplace behavior that's not found in the formal job employee's description but is highly appreciated if implemented by employees because it improves the effectiveness and sustainability of the organization (Katz in Purba & Seniati, 2004). In addition, OCB also reflects employees who are cooperative, helpful, caring and hardworking (Organ, 2005).

Personality and Job Satisfaction can affect the behavior of workers in groups and individuals. George & Bettenhausen (1992) argue that one's willingness to help others is also influenced by mood or pleasure in work. A positive mood will increase a person's chances of helping others. In the study by Podsakoff et al., (1982) states that "leadership behavior affects subordinates to produce performance beyond what should or exceed the minimum level required by the organization". Kairatu (2007) also conducts study about the type of transformational leadership having a strong influence in shaping OCB behavior on employees.
Job satisfaction can be seen with a decrease in productivity, strike, and abstain. Job satisfaction is defined as a pleasure or positive emotion that devides an assessment of employee's performance on his job or job experience (Locke in Turner et al., 2004). According to Robbins et al., (2009), the factors that affect job satisfaction one of them is the element of leadership. A good leader means to appreciate the work of the staff. For the leadership, staff can be considered as a father figure / mother / friend and also colleague. So it can be concluded that there is a significant effect of Leadership on Organizational Citizenship Behavior. Job Satisfaction can affect the behavior of workers in groups and individuals. As for the meaning of job satisfaction is the emotional of employees that occur or does not occur the intersection between the value of repayment of employees and companies with the level of value of the expected services by the employees concerned (Martoyo, 2000).

Research conducted by Prihatsanti & Dewi (2010), states that there is a significant relationship between organizational climate with Organizational Citizenship Behavior, but the effect of organizational climate variable is very low on Organizational Citizenship Behavior, where the organizational climate gives effective contribution of 25% on Organizational variables Citizenship Behavior (OCB). Speaking of human resources in Government Institutions, one of the main keys to organizational success is human resources. In this study, the intended HR is Master (teachers). Teachers are required to provide the best for Madrasah in increasing organizational performance. Maximum performance is an organization's demands that are shown not only in-role behavior but also extra-role which is also called Organizational Citizenship Behavior (OCB).

Based on the observation that OCB or extra role of teacher still not maximal. This can be seen from some indicators that the mutual help behavior has not been fully implemented in the work environment, the rewards obtained by teachers are less satisfactory and the leadership has not been able to create mutual trust and mutual need among fellow teachers. From the phenomenon and research gap of previous research, this has been a gap to resume similar research with constraints to review the effect of leadership, work climate, job satisfaction with OCB.

**LITERATURE REVIEW**

*Leadership.* Organizations need a leader figure who has the ability to influence the group to achieve a defined vision and purpose (Robbins et al., 2009). The activities doing by leaders in organizations called leadership. In the theory of leadership according to Wursanto (2002) explains that someone will be chosen to be a leader if he has better knowledge of his followers, has the nature of leadership (fair, confident, creative, energetic, communicative), able to socialize, charismatic and certainly have talent. Rivai (2005) states that leadership functions are in the form of instructive functions (one-way communication in assigning job to employees), consultative functions (two-way communication, mutual solutions between leaders and employees), participatory functions, delegation functions and control functions. Leadership is considered as a factor that has a major influence on the performance of organizations, managers and employees (Sathye, 2004). It is conceived as a set of traits, values, qualities and behaviours displayed by the leader that foster and encourage the participation, commitment and development of followers. Academic leaders are the pivot of change in higher institution of learning. The success or failure of the system depends on them (Shahmandi et al., 2011). According to Rivai (2005) indicators of leadership functions include the following:

- Leaders are able to move and motivate subordinates to carry out orders, leaders conduct consultations with subordinates who have the information required in determining decisions;
- Leaders try to enable subordinates to participate in making decisions and in implementing them,
- Leaders delegate authority in decision-making based on trust;
Leaders who share the same principles, perceptions and aspirations with subordinates;
The leader is able to organize the activities of its members in a direction and in effective coordination,
Leaders conduct guidance, direction, coordination, and supervision to subordinates.
Successful leadership will lead to increased subordinate work, because conducive leadership can provide great motivation and enthusiasm within the organization. Leaders will be able to correct subordinates as stated by Colquitt et al., (2011) that subordinates with appropriate leadership tend to have higher levels of performance, they are also more involved in extra-role behavior (OCB).

**Work Climate.** Work climate will be very support to the employee's performance (Leblebici, 2012). Syauta et al., (2012) identifies work climate as a pleasing work atmosphere, which is always expected by every employee so as to create a positive performance. However, Munawarah et al., (2013) and Saeed et al. (2013) do not find empirical support for this assumption. Chandrasekar (2011) reveals that the working climate holds an important role in motivating employees to carry out their duties, which affects their emotional intelligence.

According to Meyer et al., (2004), the working climate set on work environment a part from another. He asserted that if the working climate is positive and pleasing, coupled with decent emotional intelligence of members, maximum performance will be accomodated. Problems in the professional world not only needs intellectual competence, but also calls for emotional intelligence, to a greater levels. If someone can to solve a problem related to his emotions in the professional world, he will result a good performance. The indicator work climate according to Lussier (2005) include: the level of coercion perceived subordinates, supervision, appreciation, comfortable working atmosphere, and trust to subordinates.

**Job Satisfaction.** Basically job satisfaction is individual. Each individual has a different level of satisfaction. Job satisfaction is an important factor in the organization because it can affect the productivity of employees (Maruyo, 2000), because employees who have high satisfaction will see their work as fun, different with employee who have a low job satisfaction, he will see work as very complex and boring so that the employee works in a forced state. Employees who work in forced situations have a poor performance compared to those who work with high spirits.

According to Robbins et al., (2009) the factors that can affect job satisfaction are self work, supervision, salary, promotion opportunities, and relationship with co-workers. There are consequences when an employee likes a job and dislike a job. One of them, if the employee will show disloyal behavior, will be out of work and have not care.

**Organizational Citizenship Behavior/ OCB.** The study has been done by researchers and mangers to realized that organizational success can only be reached when employees perform more than just complete the required job duties. Katz (1964) states that the issues of employee motivation in organizations, finding the term "role behavior" which were formally rewarded by the organization's reward system and "extra role behaviors" which were not rewarded by the official reward system but also enhanced organizational effectiveness. The term "Organizational Citizenship Behavior" was created by Bateman and Organ (1983). The OCB is further as a discretionary behavior not directly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization (Organ, 1988), it identifies the OCB more broadly and include three categories of behaviors courtesy, sportsmanship, and citizenship behavior.

OCB is essential in the education system to promote the inclusive range behaviors required to achieve goals. OCB employees are becoming increasingly important in organizations in the era of downsizing, economizing and reaction to the economic pressures over the past decade (Lo and Ramayah, 2009). The study identifies the OCB antecedents as clarity of role, leadership, organizational justice (Ehrhart, 2004) organizational commitment, and individual traits (Chahal and Mehta 2010; Emami et al., 2012) and is influenced by demographic factors, personality factors and organizational climate (Suresh and Venkatamman 2010). The OCB indicators used are altruism (behavior helping),
conscientiousness, sportmanship (sporty), civic virtue (responsibilities as members of organizations) and courtesy (Organ et al., 2005).

METHODS OF RESEARCH

The type of research used in this study is causal research. According Silalahi (2010) “Causal research is a study that aims to determine the cause and effect relationship between two or more variables”. Given that the number of members of the population is relatively more then the researchers conducted data collection using survey sample data. Determination of the number of samples using Purposive Sampling method. The number of samples of 78 people taken proportionately in each Madrasah Aliyah. The data collection tool used in this study is the questionnaire given to the respondents.

Hypothesis Test using Partial Least Square (PLS). Partial Least Square (PLS) according to Wold in Ghozali (2008) is a powerful analytical method because it is not based on many assumptions. This research uses PLS as data analysis technique with SmartPLS software. The indicators used in this study adopted several studies, namely leadership variables by Rivai (2005), work climate by Lussier (2005), job satisfaction by Robbins et al., (2009), and OCB by Organ et al. (2005). Here is a hypothetical model of research:

![Diagram](image)

Notes: L1-n = Leadership indicators; WC1-n = Work Climate indicators; JS1-n = Job Satisfaction indicators; OCB1-n = OCB indicators.

Figure 1 – Model hypothesis

RESULTS AND DISCUSSION

Based on the questionnaires distributed, it can be show that teachers who have age less than 31 years as many as 2 people with a percentage of 2.6%, Teachers who have age between 31-40 years as many as 22 people with a percentage of 28.2%, Teachers who have age over 40 years is as many as 54 people with a percentage of 69.2%. It can be show that Teachers male gender as many as 67 people with percentage of 85.9% while the female teacher as many as 11 people with a percentage of 14.1%. This data describes that most of the teacher is male. Teachers who have less than 6 years working period as many as 22 people with a percentage of 28.2%, the working period between 6-10 years as many as 26 people with a percentage of 33.3%, tenure of more than 10 years as many as 30 people with a percentage of 38 , 5%. therefore, it can be concluded that most Teachers have more than 10 years of work experience.
Based on the responses of respondents can be shows that the average responses of respondents to Leadership variables of 4.07 with good criteria, responses of respondents to Work Climate variables of 4.21 with very good criteria, respondents to Job satisfaction variable of 3.96 with satisfied criteria and responses of respondents to the variable Organizational Citizenship Behavior of 4.17 with high criteria. Here are the results of the PLS test:

![Figure 2 – PLS Bootstrapping Result](image)

Based on model measurement (outermodel) that is test of discriminant validity and composite reliability show all variable is valid (value $\sqrt{AVE}> 0.5$) and reliable (value of CR> 0.7).

<table>
<thead>
<tr>
<th>Variabel</th>
<th>$\sqrt{AVE}$</th>
<th>CR</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>0.57</td>
<td>0.856</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>Work Climate</td>
<td>0.65</td>
<td>0.867</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.53</td>
<td>0.805</td>
<td>Valid &amp; Reliable</td>
</tr>
<tr>
<td>Organizational Citizenship Behavior (OCB)</td>
<td>0.57</td>
<td>0.871</td>
<td>Valid &amp; Reliable</td>
</tr>
</tbody>
</table>

To assess the significance of the prediction model in testing the structural model, it can be show from the t-statistic value between the independent variables to the dependent variable in the Path Coefficient table in the SmartPLS output below:

<table>
<thead>
<tr>
<th>Relationship between Variables</th>
<th>Loading Path</th>
<th>T- statistik</th>
<th>t Table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Leadership $\rightarrow$ Work Climate</td>
<td>0.729</td>
<td>14.42</td>
<td>1.96</td>
<td>Significant</td>
</tr>
<tr>
<td>H2: Work Climate $\rightarrow$ OCB</td>
<td>0.113</td>
<td>0.49</td>
<td>1.96</td>
<td>Not Significant</td>
</tr>
<tr>
<td>H3: Leadership $\rightarrow$ Job Satisfaction</td>
<td>0.465</td>
<td>6.09</td>
<td>1.96</td>
<td>Significant</td>
</tr>
<tr>
<td>H4: Leadership $\rightarrow$ OCB</td>
<td>0.284</td>
<td>2.59</td>
<td>1.96</td>
<td>Significant</td>
</tr>
<tr>
<td>H5: Job Satisfaction $\rightarrow$ OCB</td>
<td>0.549</td>
<td>4.99</td>
<td>1.96</td>
<td>Significant</td>
</tr>
</tbody>
</table>
Based on table 2 the influence of leadership on work climate has t-statistic (14.42) > t-table (1.96), meaning that leadership has significant effect to work climate. Thus hypothesis 1 is accepted. This shows that the leadership of Madrasah Aliyah Negeri in Lombok influences the working climate of Madrasah Aliyah Negeri teachers in Lombok. This study shows that the leadership of Madrasah heads reaches the good category. The highest percentage in terms of leaders consult with subordinates who have a information needed in determining decisions and efforts to enable subordinates leaders to participate in making decisions and in carrying out the category very well. Similarly, the school working climate is analyzed with very good category. This shows that a good leadership that is done by the head of Madrasah, will result in the better the school working climate in Madrasah Aliyah Negeri Lombok. This means that the principal and teachers have established a harmonious relationship by showing the mutual support for each other. The results of the study describe the conducive atmosphere of Madrasah Aliyah Negeri in Lombok. This study line with research conducted by Amar and Sittinur (2014) and Ramadhani (2016), proving that leadership has significant effect on work climate.

The influence of work climate on Organizational Citizenship Behavior (OCB) has t-statistic value (0.49) < t-table (1.96), meaning that work climate has positive and not significant effect on Organizational Citizenship Behavior (OCB). Thus hypothesis 2 is rejected. This shows that the contribution of the work climate effect is only slight and not significant to the extra behavior of Madrasah Aliyah Negeri in Lombok. In this case the work climate using 8 indicators such as the coercion level perceived by employees due to the rules and procedures are structured or arranged. The supervisory level of guidance and guidance is done by the organization and is felt by the employee. The level of rewards given to the employee's efforts. Feelings of a friendly work atmosphere and more emphasis on hospitality or friendship conditions in the group. Support to employees in performing organizational tasks. Feelings of pride in the organization's existence and loyalty demonstrated during work period. Employees are given space to perform or take risks in performing the task as a challenge. Some of the things that cause the work climate have no significant effect on OCB. Where the work climate indicator used in this study there are some that do not effect on extra behavior role of Madrasah Aliyah Negeri in Lombok. One of them is "the level of appreciation given to the employee's efforts". This indicator has a positive relationship but does not significantly influence the OCB of the Teachers, which is not directly related and overtly formalized to the reward system. Organizational Citizenship Behavior (OCB) is a voluntary behavior, not a forced action on things that prioritize the interests of the organization. This study line with research conducted by Bolino and Turnley (2003). But different from the results of study conducted by Prihatsanti & Dewi (2010) and Ramadhani, (2016), which proves that the work climate in schools affects teacher achievement (OCB).

The influence of leadership on job satisfaction has t-statistic (6.09) > t-table (1.96), meaning that leadership has a significant effect on job satisfaction. Thus hypothesis 3 is accepted. This indicates that the respondent's response to the satisfaction of the supervisor is the goodness / courtesy of supervisory ways, the ability to give feedback, and willingness to listen to subordinate and effective feedback that the meaning is the better leadership then the teacher job satisfaction will increase. Leadership behavior in the ability as a leader can actuate and motivate the teachers of Madrasah Aliyah Negeri in Lombok to do a good job. There is a similarity principle, perceptions and aspirations of leaders with teachers who create satisfaction for teachers. Because of all this, the goodness of the leader guidance, direction, coordination, and supervision continuously and directed to his subordinates effectively so that the work of teachers directed and satisfied what has been done by the head of Madrasah in achieving common goals in Madrasah Aliyah Negeri in Lombok. The results of this study are confirmed by Suhendi and Anggara (2010) which states that the role of leaders can affect morale and job satisfaction, security, quality of work life, and level of organizational performance. This opinion reinforces Kuswadi's (2004) statement that the leader must always be able to feel what the employee needs so that the employee will be satisfied. In addition, this study line with research conducted by Andri et al. (2011), Fatima et
al. (2011), Ghafoor et al. (2011) and Rehman et al. (2012) which proves that leadership has a strong influence and a significant positive effect on job satisfaction.

The influence of leadership on Organizational Citizenship Behavior (OCB) has a t-statistic (2.59) > t-table (1.96), meaning that leadership has a significant effect on OCB. Thus hypothesis 4 is accepted. It is perceived by the teachers towards the behavior of the leader / direct superior in influencing subordinates to want to perform tasks with good category means the ability of Leaders in mobilizing and motivating subordinates to carry out the command effectively affect the extra behavior of the role of Madrasah Aliyah Negeri in Lombok. Where Leadership capability regulates teacher activities directed and in effective coordination. As well as the leader's efforts to enable subordinates to participate in making decisions and in implementing them. The results of this study are consistent with the research of Organ et al., (2005) which suggests that the support of superiors also affect the OCB. The support given by the leader can bring a positive attitude to the work and the organization, and have a desire to help co-workers and will be more cooperative. These findings also reinforce research by Kaihatu, et.al (2007) who found that leadership types have a strong influence in shaping OCB behaviors in employees. It is also in line with Adewale et al. (2018) that self-efficacy leadership has a significant impact on OCB.

The influence of satisfaction on Organizational Citizenship Behavior (OCB) has t-statistic value (4.99) > t-table (1.96), meaning that job satisfaction has significant effect to OCB. Thus hypothesis 5 is accepted. There is a feeling of pleasure in carrying out work in school. It is felt that the conformity of work carried out with the expertise / knowledge possessed and the conformity of the responsibilities in work satisfied. These results study support the research by Hendarto’s (2013), Wijaya and Sutanto (2014), and Nurhayati et al. (2016), proving that job satisfaction affects the OCB. Jahangir et al., (2004) also suggested job satisfaction has been found to have a positive relationship with work performance and Organizational Citizenship Behavior, which furthermore has significant effect on employee absenteeism, turnover, and psychological distress. Workers with high levels of job satisfaction are more likely to be involved in Organizational Citizenship Behavior.

CONCLUSION

The role of leadership is very important in the organization. Leaders need to understand attitudes and behavior of existing employees in the organization in order to improve work spirit so that positive impact for the organization. Leadership is needed to respond to the challenges of change that occur as a result of advancements in various areas of human life, not least the change in the needs of the individual, the individual who wants to actualize himself, which affects the form of service and respect for the individual. Leadership not only pays attention to the need for self-actualization and rewards, but awareness raises for leaders to do their best in implement the wheel of leadership with more attention to human factors, its performance and the growth of its organization.

In this study, there are suggestions that leadership, work climate, and job satisfaction should always be enhanced by school management because these variables can strengthen extra role behaviors (OCB) so that teachers can result a good jobs in the future. For the next researcher who is interested in the same topic as the current study using PLS analysis, should have many subject of study with the larger number of respondents so that the accuracy of the model with the variation of its influence can be even higher in finding the optimal model on variables studied.

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INDONESIAN FOOD POLICY: THE PROGRAMS FOR STRENGTHENING FOOD SELF-SUFFICIENCY IN REFORMATION ERA

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ABSTRACT
The 2012 decree #18, the policy on food states that objective of food implementation is to meet basic human needs and provide fair, equitable, and sustainable benefits based on food sovereignty, food self-sufficiency, and national food security. Food sovereignty, independence and security are fundamental and supports implementation of policies related to food implementation in Indonesia. The 2012 decree #18 stated that food implementation aims to improve ability to produce food independently, provide a variety of food and meet the requirements of security, quality, and nutrition for public consumption.

KEY WORDS
Food policy, security, nutrition quality, consumption.

Rice is staple food in Indonesia. Rice farming is livelihood for majority of Indonesian people. Prawiro (1998) even stated that “...Indonesian economy may as well regarded as rice economy.”

Until recently, Indonesia is one of the largest rice-producing countries as well as one of the largest consumers of rice in the world. Official government data shows that rice production in Indonesia. The 2014 national rice production achieved 70.85 million tons or decreased by 0.43 million tons (0.61%) compared to that in 2013. Estimated rice production in 2015 was 75.55 million tons, a 4.70 million tons (6.64%) increase compared to that in 2014. There was 1.83 million ton increase of rice production in Java in 2015 and 2.88 million ton increase of rice production outside Java. These occurred due to a 0.51 million hectare (3.71%) increase in harvested ricefield and 1.45 quintal/ hectare (2.82%) increase in productivity. Based on the National Socioeconomic Survey, average rice consumption is 87.63 kgs/year or 240gr/day, while the average rice consumption for household and restaurant based on the the National Bureau of Statistics/ Department of Trade and Industry is 114 kgs /year or 312 grams /day. Third, based on the Ministry of Agriculture, average rice consumption is 124kgs/year or 340grams/day and that based on the National Bureau of Statistics, it is 139 kgs / day or 380 grams /day. These data are higher than the actual rice consumption and therefore, this year the government will establish that estimated rice consumption is 114 kilograms/ year. Using the estimation, the national rice consumption reaches about 27 million tons (National Bureau of Statistics, 2015).

High consumption of rice and the fact that majority of Indonesian people depends upon ricefield as source of their income show how pivotal and strategic role rice has for Indonesian peopple. Not only is rice related to consumer’s need, but it also is related to farmers which according to International Fund For Agricultural Development (IFAD) are the largest part of low-income citizens in Indonesia. Rice has also become inseparable part of Indonesian history from the traditional kingdoms, Dutch occupation, the Old Order, the New Order to present time.

Based on the elaboration, the government should guarantee there is adequate supply of rice for consumption. Based on previous events, lacking supply of rice will automatically result in food crisis. Food crisis will cause nutrition, health, economics and even political...
crisis. The government should take certain preventive measures in order to prevent negative impacts of food crisis.

Besides that, food security is also defined as affordability that is closely related to efforts to improve quality of human resources. Without qualified food, it is impossible to produce competent human resources. Therefore, developing a robust food security system is requirement for the national development. In developing food security system, main actors involved are business persons, producers, processors and traders; most of whom are small entrepreneurs. Therefore, efforts to increase and stabilize food security should focus on empowering small business allowing them to become self-reliant and be able to develop agriculture sustainably. In order to improve food security, the government should play roles as facilitator, policy-maker, and accelerator developing farmer’s ability in agriculture.

Vocal point of the 2012 Decree number 18 is alarming need to establish institutions authorized for coordination, policy-making, and providing guidances to different ministries/ institutions related to food security policies and programs. Article 126 of food-related regulation the House of Representatives issued in October 2012 states "in order to achieve food sovereignty, food self-sufficiency and national food security, food-related public institutions should report to the President." The article then stated that "such public institutions are responsible for implementation of food-related government programs."

Due to their strategic positions, it is expected that the public institutions responsible for food authority can avoid conflict of interest of related sectoral ego. We expect that these institutions become more independent because they are responsible for not only establishing food-related policy but also being food operator. They are responsible for national food supply, production, storage and distribution.

It proves how much responsibility both central and regional government have to make sure that national food implementation programs are well-organized, effective and efficient. The government should empower potentials all stakeholders have to carry out effective and efficient food implementation that is able to overcome recent and future challenge.

Food challenges are increasingly complex, constantly changing from time to time and affected by specific, local and global phenomena. Changes and discrepancy such as the actual condition of the society, social dynamics, advances of technology, information revolution, telecommunication, transportation, democratization, decentralization and globalization are food determinants we have to analyze as foundations for national anticipation.

LITERATURE REVIEW

Each expert has his or her own definition about public policy. It occurs because these experts have different perspectives and focus of analysis. In general, these diversified definitions can be classified into two point-of-views: The first is point-of-view that treats all public policies as equal and the second one is point-of-view focusing on implementation of policy.

The second point-of-view is then divided into two categories. The first category considers public policy as government decisions that have particular objectives or targets while the other category considers public policy as government decision which has anticipated or predicted effects (compared to Solihin Abdul Wahab (1990 : 31 , 32) and Agus Dwiyanto (1994).

The first category is represented by ideas of Thomas R. Dye, C. Edwards III and Sharkansky, Davis Eston, as well as James E. Anderson, while Nakamura and Small Wood as well as Presman and Wildavsky are the experts whose ideas represent the second category.

Dye defines public policy as “anything the government has decided to apply or not to apply” (as cited in Winarno, 2004: 2). Furthermore, Dye (Irfan Islamy, 1994:18) explained that:

"When government has made decision to carry out an action, they should be certain that the action carries out certain purpose previously. Public policy should involve all
government "programs" and should not only represent the government or government apparatus interest. Besides that, an action the government decides not to carry out can also be categorized as public policy since such action has equal effect as the government programs...”.

Edwards and Sharkansky (Islamy:18) defined public policy as “anything the government has stated and conducted or not conducted. Public policy refers to target and goals of the government programs ....” They further emphasized that “public policy is stated clearly in government regulations or government apparatus’ speeches or programs and actions carried out by the government “ (Islamy:19).

Eston defined public policy as “an act to forcefully allocate value to members of the society.” Furthermore: “legitimate government is the only institution who has authority to conduct programs affecting the society and the legitimate government’s decision-making is represented into value applicable in the society.” (Islamy: 20).

Anderson (as cited in Winarno, 2004: 3) defined policy as “a program of which objectives have been established by one or a group of actors in order to overcome certain issue.” Public policy is formulated as “policies developed by public institutions or government apparatus.” Anderson explained that this public policy concept imply that (1) policy has always had particular objectives or refers to a goal-oriented action; (2) policy consists of government apparatus' actions or pattern of their actions; (3) instead of program or discourse, policy is real action carried out by the government; (4) public policy has positive effect in terms that it represents government effort to overcome certain issues. It may also have negative impact when the government has decided not to take certain action against particular issues; and (5) public policy is at least based on regulations and authoritative in nature.

The second perspective is reflected into the definitions formulated by experts such as Nakamura and Small Wood, as well as Presman and Wildavsky among others. According Nakamura and Wood (as cited in Wahab: 32) “public policy is series of instructions/mandate policy-maker establish and administrators are the ones carry out these instructions as well as explain their objectives and methods to achieve those objectives.” The basis is conception that “public policy should involve policy implementation design.” Despite having diversified definition, in macro-level public policy has one orientation that is public interest (society). In relation to this, Islamy postulated that:

“..... it can be concluded that public policy refers to series of public-oriented actions the government has decided to apply or not.”

In the context of public policy analysis, policy implementation is an important and strategic aspect. “Important’ is closely related to Grindle (Wahab)”s idea that:

“Policy implementation is not only related to description of political decisions into routine procedures through channel of bureaucracy; instead, it is related to conflict, decision and who gets what from a policy implementation.”

On the other hand “strategic” is closely related to formulation of political decision into routine procedures through channel of bureaucracy, conflicts, decision-making and who gets what from particular policy implementation. Strategic is also related to its function and role as "mediating variable" connecting objective and outcome of a policy. It means policy implementation refers to how successful administration of a policy is (outcome). Wahab described that:

“In general, implementation aims to develop a system in which public policy objectives and targets are formulate into government programs (outcomes). Therefore, implementation involves what the policy science called Policy Delivery System of which result consist of specific procedures or means to achieve particular purpose/ target”.

Due to its relevant and strategic nature, policy implementation is considered as the most challenging aspect of public policy. Bardach (1984: 293), for example, described that:

“It is quite a challenge to design public program and public policy. It is even more challenging to find convincing terminology or jargons for the decision-makers to listen to. The most challenging step is to carry the programs or public policy in a way that meets everyone’s expectation including those considered as clients”.
Developing countries, in particular, struggle to carry out their public policy. In the third-world country, public policy implementation is the largest obstacle for development in social and economic sector (Smit 1973: Grindle, 1980, dalam Wahab:150). “Government of the third-world country is unable to plan, design and establish either public policy or development programs” (Myrdal, as cited in Wahab: 1990). Despite of being significant, strategic and sophisticated, public policy implementation initially does not attract attention of politicians, scholar or practitioners due to some of the reasons Winarno (2004 : 67) explained as follow:

“This devotion is partly based on naive assumption, stated in numerous studies that once public policy has been issued, administrator has responsibility to apply the policy and makes sure objectives of the policy, policy-makers had formulated previously, can be achieved. Implementation is regarded as series of decisions and interaction that look for political substance. There is assumption that policy implementation is less-than-complex process and does not involve proumient issues.

Recently, developing countries has started to pay attention to their public policy sector since facts on the field reveal less-than-stellar policy implementation or even failure in implementation of several vital policies.

Winarno (2004: 171) stated that policy implementation has several considerable impacts. The first is its impact on public issues and people who become its target. The second is policy implementation affects non-targeted group. The third is policy implementation influence the current condition and the future.

Food security has long become public policy instrument. Mears and Moeljanto (1982) argued this issue has not yet been solved since the Amangkurat era. Mubyarto (2002) state that agricultural sector, including rice in Indonesia, is not a solely scientific issue. It means rice production involves not only reproduction and economic issues, but also political and social issues. Thus, Mubyarto (2002) described three theoretical objectives of food security implementation, namely:
1. Stabilizing price of crops more particularly for farmers,
2. Improving farmer’s income through better term of trade.
3. Providing direction and guidance on number of production.

Syafa’at (1996)’s study that run analysis on food policy and its impact towards public welfare based on welfare economics perspective identified several important elements, namely:
1. Real price of rice grain had negative influence towards demand of rice. 10% increase in the price of rice grain would decrease demand of rice by 6.5 %.
2. Real price of rice grain had positive influence towards rice production. 10% increase in the price of rice grain would increase production of rice by 6.5 %.
3. Rice grain demand is inelastic; every policy shifting the demand curve to the right, for example technology for qualified seeds, had tendency to decrease farmer’s income because farmer’s income resulting from increasing production is lower than that caused by decreasing price.

National food security sustainability according to Econit (2000) is called intertemporal benefit, which should be considered as “investment” instead of divestation. Both the Logistic Affair Agency and the government tend to treat rice commodity operation as money losing operations, compared to other commodities. Sajogyo (1999) mentioned that robust and sustainable food security will benefit the society. “...unfortunately the government does not refer to macro-economic policy to discuss strategy to achieve food security. Macro-economic policy can help the government analyzing supply and demand in order to achieve food security in household, regional and national level.”

Adopting Mos’oed’s review on Bates (1981)’s agricultural crisis that frequently happened in Africa, we can understand that series of process taking place in Africa actually have similar anasirs to ones Indonesian farmers are facing currently. The government is reluctantly to issue a policy that increases output due to political reasons. All business actors in agricultural sector, either those who are for or against the government, will benefit from the government policy that increases output (Mos’oed, 1999).
The reality is stated in "group of theory" discussing policy as equilibrarian (Truman, as cited in Dye, 1972: 23-25), showing that in HGD policy benefits consumer instead of producer or in the other words, the policy is consumer oriented.

**DISCUSSION OF RESULTS**

Food is one of the the most important national in national development programs. Being basic need for human-being, food is considered as means of survival and related to human welfare. Human being has always made effort to get food because their lives depend upon food.

The House of Representatives has issued the 2012 Decree number 18, new regulation related to food. Article 2 of this decree states that sovereignty, independence, resilience, security, benefits, equity, sustainability and justice are the principles or foundations of food implementation in Indonesia. This decree describes reducing dependence on food sources from foreign countries as one of the major purposes of the national development.

The decree emphasizes on two aspects, namely food sovereignty and food self-sufficiency. These two should be viewed as public decisions, political standpoints, statutes and policies. Objective of this policy is to improve productivity and food production (agriculture, livestock, as well as fisheries) optimally, and strengthen national food reserves. It is expected to that the policy help farmers becoming qualified suppliers.

Direction of this policy is to achieve food sovereignty, food independence, and food security. Approaches or steps used to achieve these objectives, as stated in the 2012 Decree number 18 on food, will have a major impact on the Indonesian food market. As an example, taking food self-sufficiency as the main objective of this decree will likely result in a series of food policies that shift away from transparency in food trade. Article 34 on food exports and Article 36 on food imports represent these issues. Article 36 states that food insufficiency and/or inability to produce food article locally are the only conditions to import food. Article 34 to 40 describing export-import of food implies that balance between surplus and deficit is the only requirement for exporting and importing food. Unfortunately, the data on food article balance is far from accurate.

Based on the 2012 Decree number 18, food refers to processed or non-processed (natural) product of agriculture, plantation, forestry, fishery, livestock, or aquaculture and from water that human being consumed as food or beverage including food additives, raw materials, and other ingredients used in preparing, processing, and/or making food or beverage. Human-being depends heavily upon food to survive. Lack of food will decrease quality of life, cause some disease, famine and even disaster. Besides that, change of global climate has started increasing price of certain food commodity. Some international institutions have issued early reminder about food price fluctuation, and importance of national food security, food independence, and food sovereignty.

Food security, independence and sovereignty have their own definition. Food security refers to condition in which an individual and a country have adequate supply of qualified, safe, various, nutritious and accessible food. These food items should match religion, belief and culture exist in society and helps the community to live healthy, active, productive and sustainable lives. Food independence refers to ability of a country to use its natural, human, social and economic resource as well as local wisdom to produce diversedtype of food they need. Food sovereignty means government right to establish food-related policy independently in order to make sure all citizens have access towards food and give authority to the citizens to decide food system suitable with their local resources/ potentials (The 2012 Decree number 18).

Objective of food security is to increase availability of food, develop food diversification, developing food institutions and food business. There are several indicators of robust food security, namely:

*Food Availability*. One of the methods to provide accessible food for the society is food diversification, making sure different types of food are available to meet demand from the society. Another method is to help small, middle-scale and large industries in rural and urban
areas to grow. Diversification is local source-oriented meaning that ideally food should be produced locally because it will boost local economy.

**Food Accessibility.** Food is basic rights for each Indonesian citizen since human being needs food to survive. Therefore, the government should guarantee there is adequate supply of safe, qualified, nutritious diversified and more importantly affordable food for Indonesian citizens. In addition, it is necessary to develop a food security system of which bases are diversified food resources, institutions and local cultures.

**Consumer Acceptability.** Food distribution or trade should meet certain requirements for food sanitation, maximum amount of food additives, contaminated residue, and standard procedure of food packaging. Another thing food producer should pay attention to is laboratory testing. Certain food items should pass laboratory testing prior to distribution.

**Food Safety.** Another significant factor is food safety. It refers to condition and effort to prevent food from biological and chemical pollution as well as other substances that have negative impact towards health.

**People’s Welfare.** The most significant foundation of food security is food diversification. Other important elements to achieve food security are institution and domestic/local culture, food distribution and accessibility, and increasing amount of income. Creating conducive business climate, business opportunity and empowering cooperative and SMEs help the society getting better access to food.

Food security, food independence and food sovereignty are a whole concept in which food is available, affordable, and safe for consumption (Eriadi, 2012). Besides that, business actors and farmers as food producers will benefit from food-manufacturing business. At last, food should be distributed widely to all areas in Indonesia.

**CONCLUSION**

Taking how relevant the role of food for human being into account, Indonesian government should strive for providing sufficient and qualified food supply for its citizens. Adequate food supply will result in economic and national stability. Efforts to increase production also aims to improve standard of living, create more jobs, develop level of intelligence and quality of life as well as create strong foundation for the following stage of national development.

As an addition, food security will result in decreasing amount of food import allowing the government to spend foreign exchange for other imported goods pivotal for the national development. Food supply and nutrition are two foundations to develop Indonesian human resource in the long-term. In relation to increasing standard of living and nutrition, food supply brings some consequence because of ever-increasing demand of food.

Food should ideally be available in sufficient amount and affordable price all over Indonesia. When the government has been able to realize this situation, food does not become complicated challenge. Nevertheless, food security still becomes major challenge for diversified countries including Indonesia. Indonesia is known as agraris country because 60% of its citizens live in rural areas and work as farmers. The national food issues can be traced back to several elements and consumption.

**SUGGESTIONS**

It is vital for the government to make sure there is adequate supply of qualified food for its citizens. Food (rice) scarcity will automatically result in food supply, which may cause nutritional, social and even political crisis. One of the important elements of food security and sustainability is farmers. When farmers they can make living from farming, they will take care of their ricefield well and farmers will have tendency to quit farming when they feel they can no longer rely on farming as their source of income or do not get any support from the government. In order to realize food security, the government should establish some of the following policies:

- Sustainable policy on farmer’s welfare;
• Develop rural, regional and national food information system for farmers;
• Conduct regional and national food distribution and food crisis mapping;
• Conduct regional and national food production mapping;
• Conduct monitoring in rural, regional and national level to make sure market mechanism run smoothly;
• Provide credit and capital farmers need to take care and develop their farm.

REFERENCES

ABSTRACT
The purpose of this paper is to examine the impact of infrastructure expenditure to education, health and roads on poverty reduction in Indonesia. The relationship of both variables controlled through other determinants such as locally generated revenue, gross regional domestic product, population and good governance index. Using Data Panel in Indonesia years 2006 up to 2015, were analyzed using an econometric model with fixed effect regression. The results show that infrastructure expenditure to education and health have a negative influence significantly to poverty reduction, while road infrastructure expenditure has not significant impact on poverty reduction in Indonesia.

KEY WORDS
Infrastructure expenditure, poverty reduction, good governance, education, people health.

Poverty is classified as a serious issue of concern to the world. This fact marked by the election of poverty reduction as the primary goal of SDGs (sustainable development Goals). Through a study conducted by Roser and Ospina (2018), it was noted that approximately 746 million people in the world live in extreme poverty in 2013. And then decreased became as many as 705 million people in 2015. They are not able to meet some of their basic needs such as education, health, access to infrastructure, so they become unproductive resources.

Indonesia is one of the developing countries that have a problem of extreme poverty that has not been solved until now. Solihin (2014: 8) in his book "Implementation of Poverty Reduction Policy" mapped the profile of Indonesia's poor in 2007. This mapping is to identify a state of extreme poverty. Every 100 residents of Indonesia, 44 people do not have access to clean water; 49 people do not have access to adequate sanitation; 49 people not pass the primary school; 11 people are illiterate; 42 people live in villages that are not junior high school; 36 people live in villages without telephone connections; 25 children under five are malnourished and 82 babies were born handled by unskilled birth attendants.

The poverty rate in Indonesia is fluctuating over ten years. However, the trend of poverty in Indonesia has decreased significantly. Since the economic crisis in mid-1997 led to as many as 49.5 million people into the poverty line. Until 2015, the number of poor people in Indonesia reached 28.76 million (Kuncoro, 2010; CBS, 2015).

Overcoming the problem of poverty, the Indonesian government has issued various policies. One of them is to prioritize the development of infrastructure in order to reduce the inequality between urban and rural areas in the hope of reducing poverty. As we know that about 65% of Indonesia's population lives in rural areas and the rest live in urban areas (CBS, 2010).

Rural areas are generally characterized by the social and economic backwardness such as low levels of education, unproductive, malnutrition, limited employment, and low access to capital (Rustanto, 2015). While urban is identical with more adequate facilities like educational facilities, health, and access to basic infrastructure and the availability of employment. Therefore, the priority of this infrastructure development policy that set by the Indonesian government aims to provide the same facilities in each region.
World Bank (2004) said that in supporting the poverty reduction programs, it is necessary to take several steps related to infrastructure, namely: 1) improvement of roads and electricity facilities; 2) improvement of health level; and 3) improvement to the quality of education. Thus, by putting special attention to infrastructure development such as roads, access to clean water, the provision of educational infrastructure, health infrastructure and other infrastructure are believed to help reduce poverty (Ali and Pernia, 2003; Seetanah, et al, 2009; Rusinarith, 2010).

The relationship between infrastructure and poverty has also been demonstrated by Marinho et al., (2017) in his research in Brazil. The results show that the infrastructure has affected the temporal trajectory in Brazil, which means there is a change of situation after the infrastructure improvements by using an index that consisting of the transportation, energy and mineral resources, communication and health, sanitation, gross domestic product per capita and education to reduce poverty in Brazil.

The policy of infrastructure development becomes the main focus in reducing poverty as stated in NAWACITA, and types of infrastructure that become priorities are clarified in the Presidential Regulation Number 75 the year 2014 on Acceleration of Infrastructure Provision priority which has been converted into the Presidential Regulation No. 122 the year 2016. Types the infrastructure is transportation, roads, irrigation, drinking water, wastewater, solid waste facilities, telecommunication and informatics infrastructure, electricity, oil and gas, educational facilities, health infrastructure, regional infrastructure and tourism infrastructure.

The commitment to fulfill of infrastructure facilities in each region is reflected in the number of infrastructure budget issued by the government each year. In 2010 the budget spent on infrastructure amounting to Rp 86 trillion and continues to rise until 2016 became Rp 317.1 trillion (databoks, 2016).

The budget is financial use activity plan that embodies the estimates spending that are arranged in a proposal for a specific period of time. After being drafted and then authorized to finance the development estimate. So the budget for infrastructure development is a government expenditure plan to realize infrastructure development in order to assist the community in fulfilling their life needs.

Mardiasmo (2005: 65) points out the importance of a budget is due to: First, the budget is a tool that is used to direct economic development, to ensure the sustainability and improve the quality of people’s lives. Therefore, the actions of poverty reduction, the budget is used for designing and estimating activities or the allocation of public expenditure on community infrastructure. Secondly, the budget is needed because of the needs and desires of citizens who are not of limited value and continue to grow. So that through the budget, the government can control and limit the expenditure to build infrastructure is a top priority community needs such as access to education, access to health care, access roads, access to electricity and telecommunications access. Third, the budget required to declare that the government was accountable to the people. Then, in order to realize the welfare of society, after the development plan, the budget becomes a proof that the government cares and has to perform its role as a function of the allocation of infrastructure that aims to meet the needs of the life of its citizens.

This paper aims to analyze the relationship between the amount of budget for infrastructure issued by the government with the decrease of the number of people in poverty in Indonesia. Using indicators of the amount of the infrastructure budget to the type of infrastructure that consists of social infrastructure: education and health, and economic infrastructure is the availability of roads (World Bank, 1994; Familioni, 2004: 20).

Kartasasmita (1996: 240) states that poverty is caused by lack of education a person so that the person does not have the skills, personal development, and confidence. And Jhinghan (2000) added that the cause of a person in a poor state due to lack of adequate infrastructure for education, causing a lot of people who are not educated and do not have the skills. In fact, these skills will be useful for a country because of his ability to absorb modern technology and to develop the capacity to create growth and sustainable development (Todaro, 2011).

The importance of the budget for infrastructure in reducing poverty has been proven by
numerous studies. Fan, Hazell, and Thorat (2000) in India to prove that any government expenditure on education, the effect is much infrastructure on poverty in the countryside. Every one million Rupee issued by the government, it will increase forty-one people to rise to the base of the poverty line.

Fan, Zhang, and Zhang (2002) in China, proved that expenditure on rural education infrastructure has contributed to poverty reduction. For every government expenditure of 10,000 yuan then about 9 (nine) people will be out of poverty line. Fan, Jitsuchon, and Methakunnnavut (2004) proved that government expenditure on education infrastructure in Thailand is very influential on poverty, where every million Baths spent, the poor in Thailand will be reduced by 21. This proves that budgetary support for infrastructure for access to education is needed, especially in rural areas.

World Bank (2004) argued that in order to realize and support the implementation of poverty reduction programs, one of them is needed to improve access to health services. Suitable empirical studies include by Prasetya et al (2012) saying that government expenditure on health significantly affects the number of poor people in rural areas.

Fan, Hazell, and Thorat (2000) have examined the link between public expenditure for health and for roads with poverty. That every one million rupees spent will raise 18 poor people to the poverty line. By increasing about 100 billion rupees, the poverty rate will decrease by 0.65%. Or with every one million rupees in spending on road infrastructure in India, it will lift as many as 124 poor people out of poverty line.

Fan, Zhang and Zhang (2002) also prove for road infrastructure in China, that by increasing government spending for the development of good and high-quality roads such as roads connecting major industrial centers in coastal and rural areas have had an effect on poverty reduction. Every 10,000 yuan has been upgraded to 3.2 of poor people up to the poverty line.

Similarly, research by Fan, Jitsuchon, and Methakunnnavut (2004) in Thailand. The results show that there is an influence with increased expenditure on road infrastructure on poverty reduction. Where every one million Bhat issued by the Thai government for the development of quality roads has been able to lift as many as 107 poor people into the poverty line.

Study of Hastuti (2016) also proves that the larger the paved area (good or quality) then the opportunity for non-poor people in the region increases. Because of the access road has an important role in the economic, social, cultural, environmental, political, defense and security, as well as used for the welfare of the people. The road is also the distribution infrastructure of goods and services as the lifeblood of the community. So with the availability of access roads can easily cause people to perform activities and reach to the center of the economy, smoothen the course of productivity of goods and services and facilitate people reach their daily needs. Therefore, the budget on infrastructure development is needed in order to reduce poverty.

Basically, the budget issued by the government, in order to build the infrastructure can reduce poverty if the budget is managed on target. That is, it takes the role of government in the distribution of the budget in the context of infrastructure development. Due to poverty reduction not only by looking at the growth of the economy but also their need for good governance in order to allocate funds effectively and efficiently so as to achieve the purpose of access to infrastructure for public services.

Basically, the budget spent by the government in order to build infrastructure can reduce poverty if the infrastructure expenditure is properly managed. Means that it takes the role of government in the budget disbursement in the framework of infrastructure development. Because in alleviating poverty not only by looking at economic growth, but also need a good governance in order to allocate the budget effectively and efficiently. So the goals of infrastructure access service for the community can be achieved.

The existence of good governance will encourage the achievement of the target of allocating funding that was issued to create a service to the community in the provision of infrastructure, good educational infrastructure, health, and roads. Because, in the absence of good governance, funds for poverty alleviation will not be realized. This can occur if the lack
of transparency on the use of a number of the budget.

Turkewitz (2001) has reviewed the relationship of good governance principles in its activities to manage the budget for development. Through the identification of the achievements of several indicators with an establishment, he concluded that there is a close connection to the principle of good governance. The more effective a rule, the lower the infant mortality rate. The lower the level of corruption in the government bureaucracy, the higher the level of adult literacy.

Rajkumar and Swaroop (2008) analyzed the relationship between public spending by the government and the resulting outcomes. His study found that government expenditure to infrastructure in the health sector has a very strong negative impact on child mortality in countries that have good governance. This means that the higher the expenditure incurred by good governance, it will reduce child mortality rate significantly. Additionally, Rajkumar and Swaroop also stated that the lower the level of corruption or the higher quality of the bureaucracy, the expenditure infrastructure on health will be more effective in reducing child mortality. Conversely, they also found that countries with high levels of corruption and highly inefficient bureaucratic circumstance caused expenditure on health to be ineffective as well. So is the same case with education. The higher government expenditure on education will lead to more effective in improving the educational attainment with good governance. While countries with bad governance have lower levels of education (Gupta et al., 2000).

Kaufmann, Kraay, and Zoidolabaton (1999) also conducted an empirical study and found that good governance is essential in a country’s economic performance. In the standard devaluation increase on one of the indicators of good governance, led to a decrease of two and a half to fourfold reduction in infant mortality rate. Likewise, with Sumartono, Suryahadi, Arifianto (2004) argued that without good governance, any funds budgeted for poverty alleviation cannot be used properly. Because of the lack of transparency and rampant corruption practices. The reason is that corruption causes misused budget and the budget allocation for poverty reduction diverted to other projects more in line with the interests of the authority holders.

METHODS OF RESEARCH

Data description. This paper was conducted to see how the relationship between education, health and road infrastructure expenditure to reduce poverty in Indonesia. Seeing this relationship is controlled by a factor of economic growth through local revenues and the value of the regional gross domestic product; factor index of good governance; and the population of the district and cities in Indonesia. The data in this paper is used secondary data, with a cross-section which is 512 regencies and cities in Indonesia, and time-series from 2006 to 2015.

Measurement of poverty in this study using the approach of the basic needs conducted CBS (2016). That is someone who cannot meet their basic needs such as food, clothing, housing, education, and health.

Table 1 – Variables, definitions and Sources

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Sources</th>
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<tbody>
<tr>
<td>Poverty</td>
<td>The amount of poor people (Million people)</td>
<td>Central Bureau of Statistics Indonesia</td>
</tr>
<tr>
<td>Education (IEE)</td>
<td>Infrastructure expenditure for education (Rp Billion)</td>
<td>Regional financial information system at the Ministry of finance</td>
</tr>
<tr>
<td>Health (IEH)</td>
<td>Infrastructure expenditure for health (Rp Billion)</td>
<td>Regional financial information system at the Ministry of finance</td>
</tr>
<tr>
<td>Roads (IER)</td>
<td>Infrastructure expenditure for roads from special allocation funds (Rp Billion)</td>
<td>Regional financial information system at the Ministry of finance</td>
</tr>
<tr>
<td>Populations (TP)</td>
<td>Total of Populations in Indonesia (in log)</td>
<td>Central Bureau of Statistics Indonesia</td>
</tr>
<tr>
<td>PAD</td>
<td>Total of locally generated revenue at distric and city in Indonesia (in log)</td>
<td>regional financial information system at the Ministry of finance</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross regional domestic product at distric and city in Indonesia (in log)</td>
<td>Central Bureau of statistics Indonesia</td>
</tr>
<tr>
<td>GGI</td>
<td>Good governance index (in percentage)</td>
<td>Indonesia Good Governance Index</td>
</tr>
</tbody>
</table>
Descriptive analysis. This paper presents a descriptive analysis to describe the trend of the poverty level, the expenditure of infrastructure to education, health, and roads in Indonesia years 2006 to 2015. An analysis of this description will show the development of each variable in the form of graphs based on rural and urban areas.

Correlation analysis. This paper will do the Pearson correlation which will be demonstrated through scatter plot using Spss software version 21. Correlation analysis aims to demonstrate the pattern of relationship lines formed on each of the independent variables on the dependent variable, which would explain the following relationship:

- Correlation infrastructure expenditure education with poverty;
- Correlation infrastructure expenditure health to poverty;
- Correlation infrastructure expenditure for road and poverty.

Fixed effect analysis. Fixed effect is one of panel data regression analysis. That is combination of time series data with cross-section data. The fixed effect panel data model assumes a fundamental difference between the areas can be accommodated through the intercept differences, but inter-timed intercepts are the same. The fixed effect means that the regression coefficient (slope) remains the unit analysis and inter-timing. The panel data regression model with fixed effects model (FEM) is when $a_i$ treated as a fixed parameters, but vaies between $i = 1, 2, 3, ..., N$. This model is used when the securities unit of analysis and the effects of time correlated with $X_{it}$ (infrastructure budget to $i$ and at time to $t$) or has a pattern that is not randomized (random). This assumption makes the error component of the unit analysis and time effects can be part of the intercept. FEM generally occurs when N is relatively small and T is relatively large. Equation of Fixed effect regression model is:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + e_{it}$$

Where: $i$ = district / city; $t$ = time; $Y_{it}$ = value analysis of poverty in the $i$-th unit in year $t$; $X_{1it}$ = the value of education infrastructure budget on the $i$-th unit of analysis in year-to-$t$; $X_{2it}$ = the value of the health infrastructure budget analysis of the $i$-th unit in year $t$; $X_{3it}$ = value of road infrastructure budget on the unit of analysis to-$i$ in year $t$; $\beta$ = coefficient; and $e_{it}$ = confounders (error).

Based on the equation of the model, can be formulated equation for this study, namely:

Poverty = $\beta_0 + \beta_1 IEE_{it} + \beta_2 IEH_{it} + \beta_3 IER_{it} + \beta_4 GGI_{it} + \beta_5 IEE*GGI_{it} + \beta_6 IEH*GGI_{it} + \beta_7 IER*GGI_{it} + \beta_8 PAD_{it} + \beta_9 GDP_{it} + \beta_{10} TP_{it} + e_{it}$

RESULTS AND DISCUSSION

Trends of Infrastructure expenditure and poverty in Indonesia, years 2006-2015. The Indonesian government has sought to reduce poverty, one of them through increased the expenditure for infrastructure. Infrastructure expenditure such as education, health and roads become priorities underway which aims to provide services to the community in the form of infrastructure facilities. So they can easily meet their basic needs. Government expenditure on infrastructure development and poverty reduction for the years 2006-2015 are shown in figure 1.

Figure 1 shows the development of infrastructure expenditure for education, health and roads during the years 2006 to 2015. Each expenditure is categorized in rural and urban areas. The results show that over the past 10 years, expenditure for education and health infrastructure has been increased annually, both in rural and urban areas. However, the expenditure of road infrastructure has fluctuated, namely the increase and decrease in both rural and urban areas.

Infrastructure expenditure for education, health, and roads has been allocated more to rural areas than urban areas. For education, rural accept the budget as much as Rp 41.61 trillion, while urban areas were only Rp 9.92 trillion. Until 2015, the budget for rural areas amounted to Rp 150.14 trillion, while in urban areas it was only Rp 32.5 trillion. The increase in the number of the budget in the countryside for 10 years was Rp 108.53 trillion, while in

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urban areas the increase for 10 years was 22.58 trillion. This means that the total budget of the education infrastructure for 10-year, amounting to 80% is allocated in rural areas and 20% is allocated in urban areas. For health, rural allocated Rp 10.9 trillion in 2006 to Rp 50.79 trillion in 2015. So the increase that occurred was Rp 39.89 trillion. As for the allocation in urban areas amounted to Rp 2.74 trillion in 2006 and Rp 11.94 trillion in 2015. This means that for urban areas the increase in the period of 10 years is Rp 9.2 trillion. As with the infrastructure expenditure for education, 80% of the total of infrastructure expenditure for health is allocated to rural areas and the remaining 20% is allocated to urban areas.

In contrast to expenditure on education and health, infrastructure expenditure for roads is fluctuating and proportion for rural and urban areas is different every year. In 2006 the proportion given to rural areas was 85% of the total and for urban areas only 15%. In 2007 the proportion of 87% of rural and urban areas only 13%. In 2008 the proportion of 87% rural and 13% urban. In 2009 the proportion of rural areas by 83% while only 17% urban. In 2010 the proportion of rural areas by 91% while for urban only 9%. In 2011 and 2012 the proportion of rural dropped to only 88% and urban by 12%. In 2013 and 2014 the proportion of 89% for rural and urban 11%, and in 2015 amounted to 90.5%, while for urban areas it was 9.5%.

The ratio of poverty in Indonesia has also been displayed in Figure 1. It shows that distribution of poverty in Indonesia is more prevalent in rural than urban areas. This happens because Indonesia has more villages than cities and about 65% of Indonesia's population live in rural areas and the rest in urban areas. Another thing that causes a higher rural poverty is because the countryside is characterized as more areas lagging behind urban areas in the economic, social, education and health as well as lagging behind in infrastructure.

The trend of poverty for years 2006 to 2015 under the provisions of the Central Bureau of Statistics Indonesia have experienced a decline in both rural and urban. Over the ten years, the rural poverty has decreased by 7.6% while urban areas have decreased by 5.2%. Rural areas have a more poverty reduction than urban areas. This fact is in line with the expenditure of more infrastructure for rural than urban. This justifies, that by providing a larger budget for rural areas can able to reduce poverty is greater as well.

This correlation is done by Pearson correlation method through SPSS application version 21. The objective of doing this correlation test is to measure the strength as well as to determine the direction of a linear relationship between two variables. That is, the correlation is not to pay attention to their causality, and causality, which are affected and which affect. So that both variables may act as a variable X and variable Y.

Infrastructure Expenditure to Education with Poverty. Figure 2 displays a pattern
of relationships that occur in the development of infrastructure expenditure for education with the development of poverty in the counties and cities in Indonesia in 2006-2015. The results suggest that the confidence level on the graph only 99% with \( \alpha = 0.01 \) (1%) and the coefficient of determinasi is 0.26. This means that 26% of poverty can be explained by a number of educational infrastructure expenditure. Then the Pearson correlation results for 0.509. This means that there is a positive relationship between expenditure on education infrastructure with significant poverty represented by the same with 0.000 < 0.05. However, the level of relations held by these two variables is enough. Thus, the relationship contained in this variable is the bigger the infrastructure expenditure for educational issues, the higher the poverty rate in Indonesia.

![Infrastructure Expenditure to Health with Poverty](image)

**Figure 2** – Correlations between infrastructure expenditure on education with poverty

![Infrastructure Expenditure to Roads with Poverty](image)

**Figure 3** – Correlations between infrastructure expenditure on health with poverty
The pattern of linkages between infrastructure expenditure for health and poverty is shown in figure 3 and shows a positive relationship.

The linear line indicates that the two variables contain the value that is directly proportional. This means that the higher the number issued health infrastructure, the higher the poverty. The confidence level of this correlation is 99% with $\alpha = 0.01$ (1%). While, the coefficient of determination is 0.14. This means that only 14% of poverty can be explained by the amount of infrastructure expenditure for health. Then the results of Pearson correlation is $0.375$. This means that there is a positive relationship between the expenditure of infrastructure for education with poverty indicated by significant equal to $0.00 < 0.05$. Just as the level of infrastructure expenditure relates to education, the extent to which this variable of health infrastructure expenditure on poverty is sufficient.

Figure 4 shows a pattern of relationships that occur on infrastructure expenditure for education and poverty in the counties and cities in Indonesia in 2006-2015. The results suggest that the confidence level on the graph is 99% with $\alpha = 0.01$ (1%). While the coefficient of determination is 0.004. This means that the level of incredulity variable expenditure for road infrastructure is very low to be able to explain the variables of poverty. Then the results of Pearson correlation of $-0.063$. This means that there is a negative relationship between expenditure on road infrastructure with significant poverty represented by the same with $0.00 < 0.05$. Thus, an explanation of the two variables is the higher the expenditure of road infrastructure, the poverty in Indonesia will be lower. However, the level of relationship both variables is very low. With the very low level of trust and level of relationships, the variables of infrastructure expenditure for roads can be at virtually unrelated values.

**Analysis Econometric models.** This section identifies the relationship between poverty and infrastructure expenditure for education, health, and roads that are controlled by some other determining factors such as local revenue, gross regional domestic product, population and good governance index. Based on the test results chow and Hausman test, the exact method used in this research is the analysis of the fixed effect. The result of the influence of the independent variables and the dependent variables are shown in Table 1.

This section identifies the relationship between poverty and infrastructure expenditure for education, health, and road that are controlled by some other determining factors such as
local revenue, gross regional domestic product, population and good governance index. Based on the results from Chow test and Hausman test, the exact method used in this research is the analysis of the fixed effect. The result of the influence of the independent variables and the dependent variables are shown in Table 1.

Model 1 shows the influence of the infrastructure budget to poverty. The results suggest that only the infrastructure expenditure for education has a significant negative effect. This is indicated by the coefficient value of -0.084824 with a probability of 0.000 (less than 5%). This means that every 1% of the education infrastructure expenditure increases, poverty will decrease by 0.085%. While the expenditure of health and road infrastructure has no significant effect on poverty. This is proven by the probability value of both variables is equal to 0.1430 and 0.6511 (greater than 5%).

Model 2 shows the influence of infrastructure budget on poverty with the existence of control variable that is the index of good governance. With controls of good governance index causing the coefficient value of infrastructure expenditure variable decreased. In education infrastructure budget has a coefficient value of -0.81445 with a probability of 0.000 (less than 5%). This indicates that the presence of factors governance, education infrastructure budget has a significant impact on poverty. While the health and road infrastructure expenditure does not have a significant impact on poverty in spite of their have a good governance. Seen from the probability value of these two variables are each of 0.1640 and 0.6429 (greater than 5%).

The estimation results of the model 3 explain the effect of a given variable infrastructure budget on poverty with the control factor of the index of good governance, local revenue, gross regional domestic product, and population. Evaluation is based on criteria of statistical models seen through the value R-square or is equal to 0.967486. This means that the variables in this model have a variable degree of appropriateness in explaining poverty by 96%, While the rest can be explained by other factors outside variables. Then the probability value or F-statistics 0.0000 valued at less than 0.05 or α = 5%, explaining that the reliability of this model is 95%.

Testing of each independent variable statistics shows that education infrastructure budget has a real effect on poverty levels. With a coefficient value of -0.084052 and probability value of less than significant level of 5 percent indicates that the educational infrastructure budget variables significantly affect poverty. Any increase in education infrastructure budget of 1%, will reduce poverty by 0084%. While the health and road infrastructure budget no real effect on poverty. Seen from a probability value respectively 0.1028 and 0.8419 which means greater than the level of 5 percent indicating that both the infrastructure budget does not significantly affect poverty.

The results of the fixed effect regression on the effect of infrastructure expenditure for education on the poverty line with what was conveyed by some previous researchers like Fan, Jitsuchon, and Methakunnnavut (2004); Fan, Hazel, Thorat (2000); Fan, Zhang and Zhang (2002); and Prasetya et al (2012). While for the effect of the health infrastructure expenditure is not aligned. Fan, Jitsuchon, and Methakunnnavut (2004) studied in Thailand about the relationship between expenditure for education and poverty. The result is that by increasing one million Baths for infrastructure expenditure on education, the number of poor people would be reduced by 21. In 2000 in India, Fan, Hazel and Thorat prove that each issuing of one million rupees for the expenses of education and health infrastructure, so each community will pull out of the poverty line by 41 people and 18 people. Then the study conducted by Fan, Zhang, and Zhang in 2002 in China, yielded that every government expenditure on the educational infrastructure of 10,000 yuan, so as many as nine people would be out of poverty.

The allocation of the educational and health infrastructure budget actually aims to increase the level of human life and increase the quality of human resources to become productive human beings. Education infrastructure expenditure as stated in Presidential Decree No. 122 of 2016, namely as a means of learning provision; laboratory; training center; research centers or study centers; infrastructure research and development; student practice room; libraries and learning support and training facilities. Isjoni (2006) states that
the availability of facilities and infrastructure to support the learning process will greatly influence the quality of education. The construction of classrooms worth going to create a learning atmosphere that is comfortable, the library will adequately support the improvement of the quality of education as well as the laboratory will provide access to knowledge, improving the quality of education and improving the science will ultimately have an impact on the creation of productive human. While for the effect of the health infrastructure expenditure is not aligned.

Such as education, infrastructure expenditure for health also aim to provide and improve the quality of health infrastructure. As is well known that health is one of the factors that affect human resources. Malnutrition or a low level of public health will result in low quality of man with mental retarded level. Thus, expenditure on health infrastructure is very useful in order to fulfill one of the basic right to obtain medical care in the form of facilities and services that are a precondition for increasing the productivity of society (Todaro and Smith, 2003). However, in this study for health infrastructure expenditure does not have a significant impact on poverty reduction. Or it can be explained that with the issuance of high-spending health infrastructure cannot accommodate the circumstances of the poor. This can occur where a number of the budget spent not on target. This means that the budget has been used for other purposes that have nothing to do with direct service delivery to the poor. Such as non-poor communities get the facilities that are supposed to be for the poor.

Other problems can also occur where poor people have less gain more attention in the service due to the policies or the flow of health care procedures cumbersome, especially for the poor. So that medical authorities discriminate ministry among the poor with other patients who pay higher medical fees in cash. An example is when poor people first come to the hospital to get health facilities, the poor tend to wait too long for service than the wealthy community. Another example is when the poor get access inpatient services by the poor card given by the government, likely to be given a short time, which is usually only for one week only. Whereas other patients who paid with private money was never in limiting the duration to get the service, and the price of health care each year could turn out to be higher depending on the prevailing price. So with the high budget spent poverty is also higher.

Infrastructure expenditure for roads in Indonesia does not have a significant impact on poverty reduction. These results reject the theory of Fan, Zhang, and Zhang (2002) in China, which states that an increase of 10,000 Yuan for spending on good and high-quality road infrastructure can lift 3.2 poor people into the poverty line because it connects major industrial centers with rural roads. There are two conclusions to be drawn from the results of this regression. First, that the high expenditure on road infrastructure due to building roads in rural areas and disadvantaged with a high poverty rate. So that higher expenditure is not able to have an impact on poverty reduction. This can be seen through the figure 1, that the trend for road infrastructure budget has fluctuated. There is no continuous increase every year, and the proportion of the budget spent is higher in rural areas than in urban areas.

Second, expenditure for road infrastructure cannot reduce poverty because through this expenditure, the roads built cannot be fully enjoyed by the poor. As we know that over the years, the higher of infrastructure expenditure on roads has been used to built and improve the motorway. While toll roads can only be passed by using 4 wheeled vehicles and more so this facility can be enjoyed by the rich. This agrees with Prawesti and Hermawan (2017) in their research on infrastructure development and poverty reduction in Java. Their result suggests by the fact that the rich people than the poor people utilize the transportation system more effectively. The higher the access road makes entrepreneurs can build a few stores in rural causing loss of income of poor people. In other words, road access in rural areas is not used by the poor to access the economic market. But more used to seek education or health so that the road does not contribute to reducing poverty. Whereas this facility should be used by the poor optimally to reach the market economy. Such as what was delivered by Hastuti (2016) that the more extensive the quality road will be the higher the chances of society to improve the economy. Therefore, the expenditure of health infrastructure does not significantly affect poverty even though local revenue and regional gross regional domestic product increases.
Another factor that can explain the impact of infrastructure expenditure on poverty is the index of good governance. Means that in order to reduce the poverty rate, both the infrastructure expenditure for education, health, and the road must be through good governance. Because the budget for development issues is the issue of how the government can use it effectively and efficiently, and use the right target. As the theory advanced by Turkewitz (2001) and Rajkumar, Swaroop (2002) that the better governance of the budget for infrastructure development carried out, it will be the exact function of the budget is allocated so that the objectives of infrastructure expenditure can be achieved.

This paper proves that there is an effect of good governance to poverty reduction. The higher the index of good governance, the lower the number of poverty. While the index of good governance in Indonesia is still relatively low, causing the allocation function of infrastructure expenditure cannot reduce the poverty that is so big. One of the causes due to lack of accountability of local governments in realizing the entire budget that has been determined. This is evident through research conducted by Arma (2016) who examines the financial health of the region. It was found that there are still many districts and cities in Indonesia during 2006 to 2013 whose financial status is unhealthy due to low budget absorption.

The low budget absorption will have an impact on the not realizable of budget planning. One of them can happen in the development of education, health and road infrastructure. Thus, not fully realized will result in ineffective expenditure on infrastructure to reduce poverty. Therefore, there is a need for good governance to manage infrastructure budgets. The existence of good governance, budget absorption for poverty alleviation program can run optimally.

CONCLUSION

This paper has analyzed the relationship posed by infrastructure expenditure for education, health, and the road to poverty reduction in Indonesia using the control variables of income, regional gross domestic product, population and good governance index. Based on the District and State level in Indonesia, were analyzed using a fixed effect method generates that infrastructure expenditure for education that is directed through increased local revenues, gross regional domestic product and indices of good governance have a significant negative effect but inelastic with respect to poverty reduction. As for the health and road infrastructure expenditure showed no effect on poverty reduction for health care does not fully pro-poor and more road construction majority enjoyed by the rich.

APPENDIX

The Results of Fixed effect Regression on Poverty

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<tbody>
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<td>-0.081445</td>
<td>0.0000</td>
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<tr>
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<td>0.006086</td>
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<td>0.002426</td>
<td>0.8419</td>
</tr>
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<td>PAD</td>
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<td>-2.247482</td>
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</tr>
<tr>
<td>GDP</td>
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<td>-6.717167</td>
<td>0.0003</td>
<td>-6.717167</td>
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</tr>
<tr>
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<td>135.8329</td>
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R-Squared 0.961647 0.961675 0.967486
Adjusted R-squared 0.956240 0.956263 0.962771
Prob (F-stat) 0.000000 0.000000 0.000000

REFERENCES


THE EFFECT OF TRANSFORMATIONAL LEADERSHIP, ORGANIZATIONAL CULTURE AND STRATEGIC ORIENTATION ON ORGANIZATIONAL PERFORMANCE THROUGH THE MEDIATING ROLE OF KNOWLEDGE MANAGEMENT: A STUDY IN REGIONAL WATER SUPPLY COMPANIES OF WEST NUSA TENGGARA, INDONESIA

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ABSTRACT
This study aims to examine and to explain the direct impact of transformational leadership, organizational culture, and strategic orientation on organizational performance, as well as indirect impact of those variables through the mediating role of knowledge management. A quantitative approach is applied where data are collected based on a survey method; in addition, the analysis technique uses General Structured Component Analysis. All regional water supply companies in West Nusa Tenggara are involved as the unit analysis of this research in which 70 managers at top and middle level are treated as research respondents. The research indicates that there is a positive and significant direct effect of knowledge management on organizational performance; yet there is no direct effect of transformational leadership, organizational culture, and strategic orientation on organizational performance. The result also demonstrates that knowledge management is a full mediation variable of organizational culture and strategic orientation on organizational performance, but not on the relationship between transformational leadership and organizational performance. However, in order to provide more comprehensive results, further research of study needed to involve more regional water companies as unit analysis as well as another knowledge management’s drivers in order to broaden the perspective of knowledge management role.

KEY WORDS
Transformational leadership, organizational culture, strategic orientation, knowledge management, organizational performance.

The core concept of transformational leadership is transformation, or change of the organization, so Tichy and Devanna (1986) said that companies were being asked to make fundamental changes. Burns (1978) defined transformational leadership as a process in which leaders and followers raise one another to higher levels of morality and motivation and transformational leadership best reflects this changes. According to Bass (1985-1990), Avolio and Bass (2002), there are four behaviors that form the basis of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence involves setting an example for followers to follow. This style can be regarded in terms of “behavior and attributes”. It refers to the charismatic behavior shown by transformational leaders who express confidence in the organizational vision (Antonakis et al., 2003). Under inspirational motivation, leaders try to inspire their followers by motivating them to become committed to the organizational vision. They encourage members to focus on organizational objectives, and have the ability to motivate their followers by providing meaning and challenge to their work (Avolio and Bass, 2002, Sashkin, 2004). Intellectual stimulation is the degree to which leaders encourage their followers to try new approaches, and to re-examine and challenge existing assumptions. They encourage imagination, and develop innovative ways of dealing with organizational
issues (DuBrin, 2012). When implementing individualized consideration leaders build interactive relationships with followers and pay special attention to their needs (Avolio and Bass, 2002; Saenz, 2011). These four behavioral patterns positively affect followers by elevating them to the best they can be, motivated by the desire for achievement and self-development.

Organizational culture (OC) is defined as the set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments (Schein, 2004). OC can become a source of sustainable competitive advantage if that culture is valuable, rare, and imperfectly imitable (Barney, 1986). Organizational cultures represent the character of an organization, which directs its employees’ day-to-day working relationships and guides them on how to behave and communicate within the organization, as well as guiding how the company hierarchy is built (Ribiere and Sitar, 2003). Denison (1990) developed a model of organizational culture and effectiveness based on four traits: involvement, consistency, adaptability and mission. According to Denison, the effectiveness of a company directly linked to organizational culture (Denison, 1990).

Business strategy has been characterized as the manner in which a firm decides to compete (Walker and Ruekert, 1987), which encompasses the pursuit, achievement, and maintenance of competitive advantage in an industry (Varadarajan and Clark, 1994). Normative theory in strategy has tended to adopt process, content, or context perspectives (Ketchen et al., 1996). The literature has considered strategic orientation from three viewpoints: the narrative approach endeavors to describe verbally the holistic nature of strategy which is unique to the event, situation, and organization (Czarniawska, 1998); the classificatory approach attempts to classify firms’ strategy according to either ex ante conceptual arguments or ex post empirically derived groupings; and the comparative approach (Morgan, 2003) considered strategy in terms of the relative emphasis made by the firm along each strategic orientation dimension. Venkatraman’s conceptual of strategic orientation will be used as the basis for the following conceptualization.

Knowledge management is defined as a proactive, systematic process by which value is generated from intellectual or knowledge-based assets and disseminated to the stakeholders.

Swan, J., Scarborough, H., and Preston, J. (1999) defines KM as, “…any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations. Nonaka & Takeuchi (1995) identifies four possible modes: socialization, externalization, combination, and internalization. Socialization transforms tacit knowledge into new tacit knowledge through social interactions among organizational members. Externalization converts tacit knowledge into explicit notions. Combination is the organizational knowledge creation process whereby individual explicit knowledge is converted to organizational explicit knowledge. Internalization is the conversion of explicit knowledge into the organizational tacit knowledge. To examine knowledge creation process, this study adopts the SECI (socialization, externalization, combination, and internalization) model by Nonaka (1994) for two reasons. First, the SECI model contains not only knowledge transfer but also knowledge creation. Existing knowledge transfer and new knowledge creation are very significant in knowledge management. Second, the SECI model has been widely used in many research areas such as organizational learning and new product development (Lee and Choi, 2003).

Organizational performance is a complex, multi-dimensional phenomenon that is difficult to understand and measure (Goodman and Pennings, 1977). Different organizations have different performance objectives and performance may vary according to the targets set, the time period observed, the criteria used and on whose perspective is being taken (e.g. the customers’, the managers’, the employees’ or the shareholders’). Performance measurement is a complex issue and several researchers have attempted to develop an understanding of the issues relevant to organizational performance and its measurement, (Kaplan and Norton, 1996; Neely, et al., 1997). Performance measures are needed in the organization to evaluate how well the firm functions. The perspective being taken here is that
a suite of measures are needed that will reflect objectively and consistently the quality of the strategic decisions that have been made within firms (Chakravarthy, 1986). Thus research adopt organizational performance based on BPPSPAM criteria to measure corporate performance in term four aspects related to financial measurements, services delivered, operational, and human resources.

LITERATURE REVIEW

Few researchers address the link between information management and leadership, and even fewer address the relationship between transformational leadership and knowledge management. Leaders play a crucial role in building and maintaining an organizational knowledge. Managing knowledge requires a conscious effort on the part of leaders at all levels of the organization to manage three key knowledge processes: creating, sharing and exploiting knowledge. Transformational leadership theory provide a foundation for understanding how leaders impact the cultivation of knowledge (Conger & Kanungo, 1998). Some theorists argue that effective leading organizational knowledge processes is essential to achieving and sustaining a competitive advantage (Teece, 1998). Based on the characteristics of knowledge conversion, Bryant (2003) suggested that transformational leadership influences how individuals approach, interpret, and establish knowledge conversion at work. In fact, the characteristics of transformational leadership facilitate effective knowledge-conversion processes (Bryant, 2003). Based on these and other studies, it is hypothesized that knowledge management positively contributes to organizational performance. Politis (2001) found that self-management, transformational, and transactional leadership styles are related to dimensions of knowledge acquisition. Bryant (2003) argued that there is a clear relationship between transformational leadership and knowledge management in organizations.

H1: Transformational leadership impacts positively on knowledge conversion processes

Organizational culture is an intangible assets of a company. It is about beliefs, values, norms, and attitudes that manage how organization members behaving in everyday life in an organization. Tseng (2011) explores the impacts of hierarchical culture on the effectiveness of the knowledge management processes. Wang et al. (2011) finds that organizational culture comprises a firm’s climate that informally and tacitly defines how the firm develops and uses knowledge, thus it has a significant effect on knowledge creation capability. Another researchers found that organizational culture or corporate culture has a positive effect on knowledge management (DeLong & Fahey, 2000; Alavi & Leidner, 2005), as well as impact on individual willingness to share knowledge in organization. Nonaka & Takeuchi (1995) emphasized the important of organizational culture for exchange and communicate tacit knowledge. Based on those literature review, we could structure such hypothesis.

H2: Organizational culture impacts positively on knowledge conversion processes (SECI)

The development of strategy involves extensive and intensive knowledge activities. Because knowledge is highly specific and personal, created knowledge is difficult to transform into collective organizational memory and practical use (Grant, 1996; Szulanski, 1996). Knowledge creation processes such as socialization, externalization, combination, and internalization describe a spiral of interactions between explicit and tacit knowledge (Nonaka, 1994; Nonaka and Konno, 1998). The SECI model of knowledge creation allows firms to exchange and transform knowledge continuously and dynamically through a series of self-transcendental processes (Nonaka and Konno, 1998; Nonaka et al., 2000a). When developing and implementing new venture strategy, the dynamic spiral of knowledge creation plays a critical role in facilitating the conceptualization and actualization of strategy.

H3: Strategy impacts positively on knowledge conversion processes (SECI).

Knowledge is well known as a strategic source (Grant, 1996). The ability to create and use knowledge allows a firm to develop a sustainable competitive advantage because of the valuable, rarity, hard to imitate characteristic of knowledge. Previous studies have suggested
the critical role of knowledge creation in the success of organizations (Kogut and Zander, 2003; Nonaka and Takeuchi, 1995; Gold et al., 2001). Organizations with better knowledge creation process can connect knowledge in new and distinctive ways and provide value to customers (Nonaka and Konno, 1998; Lee and Choi, 2003). Knowledge management encompasses managerial efforts in facilitating acquisition, creation, storing, dissemination, developing and using activities of individual or group in organization (Demarest, 1997; Rowley, 2001; Soliman & Spooner, 2000; Bergeron, 2003). Other researchers also found that an increasing of industry’s competition level will effect a company competitive through developing key success factors of knowledge management (Ling et al., 2008; Darr et al., 1995).

H4: Knowledge conversion processes (SECI) impacts positively on organizational performance

Organizational culture refers to shared assumptions, values, and norms (Schein, 1985) and a source of sustained competitive advantage (Barney, 1991). Empirical research shows that it is a key factor to organizational effectiveness (Lok & Crawford, 1999; Denison, 1990; Gordon and Di Tomaso, 1992; Peters and Waterman, 1982). In particular, Lok & Crawford (1999) use Wallace’s organizational culture dimensions (bureaucratic, innovative, and supportive) to show the it’s impact on workers’ commitment. Denison and his colleagues (Denison, 1990; Denison and Mishra, 1995; Denison and Neale, 1996; Fey and Denison, 2003) identified and validated four dimensions of organizational culture that are conducive to organizational effectiveness: adaptability, consistency, involvement, and mission. Adaptability refers to the degree to which an organization has the ability to alter behavior, structures, and systems in order to survive in the wake of environmental changes. Consistency refers to the extent to which beliefs, values, and expectations are held consistently by members. Involvement refers to the level of participation by an organization's members in decision making. Mission refers to the existence of a shared definition of the organization's purpose.

H5: Organizational culture impacts positively on organizational performance.

According to Gatignon and Xuereb (1997), strategic orientation is the principle that directs the organizational activities and behaviors essential for the performance of the firm. It represents different mechanisms of organizational adaptation. The relationship between strategic orientation and performance has been an important topic in management studies and has attracted the attention of scholars for decades (Acquaah, 2007; Venkatraman, 1989). However, there still exists a lack of consensus on the conceptualization and measurement of strategic orientation. As a result, conflicting theoretical perspectives are employed; and contrasting methodologies are utilized (Morgan & Strong, 2003). Hakala (2010) described it as templates for the ways of conducting business activity to maintain and improve the organizational performance. The strategic orientation of the firm may be considered a key element with important implications for the management and efficiency of SMEs (Snow and Hrebiniak 1980). Depending on the strategic orientation adopted, the firm may emphasize more or less aspects such as technological position, innovation, organizational design, and personnel management (Conant, Mokwa, and Varadarajan 1990). These aspects of management can largely determine firm performance and business efficiency (Slater and Narver 1993).

H6: There is a significant impact of strategy on organizational performance in regional water supply company of West Nusa Tenggara.

The transformational leader wants to achieve results beyond what is normal and sets higher of the team’s mission, stimulates employees to think innovatively about a problem or task, and places the group goals over personal self-interest (James, 2005). Transformational leaders' behaviors are influential in motivating the employees and to make them more aware of the task outcomes and also to stimulate their order needs and develop their self-interest (Elenkov, 2002) for the organization’s performance. In his study on the transformational leadership practices in Russian companies; Elenkov (2002) examined the former impact on organizational performance. Using a Multifactor Leadership Questionnaire, he analyzed the leadership behavior of 253 leaders. The analysis underlined a strong correlation between
transformational leadership practices and organizational performance. In their study on the connection between the transformational leadership style and organizational performance, (Zhu et al. 2005) identified within 170 companies from Singapore, a positive relationship between the transformational leadership and the organizational performance. They also demonstrated that effective human resources management arbitrates the relationship between leadership and performance through increased commitment, higher motivation and intellectual motivation.

H7: There is a significant impact of transformational leadership on organizational performance in regional water supply company of West Nusa Tenggara.

Transformational leaders have charisma, provide inspiration and promote intellectual stimulation (Bass, 1999; Bass and Avolio, 2000; Conger, 1999). Charisma generates the pride, faith and respect that leaders work to encourage their employees to have in themselves, their leaders, and their organizations. Transformational leaders provide inspiration by motivating their followers, largely through communication of high expectations. Such leaders also promote intellectual stimulation by promoting employees’ knowledge so that employees can be innovative in their approach to problem solving and solutions. Various studies analyze the influence of transformational leadership on organizational performance through intermediate constructs such as culture (e.g., Ogbonna and Harris, 2000), entrepreneurship (e.g., García Morales et al., 2006), knowledge management (e.g., Gowen et al., 2009), human–capital–enhancing human resource management (Zhu et al., 2005), competitive strategies (e.g., Menguc et al., 2007), and absorptive capacity (e.g., Morales et al., 2008a, b). However, understanding of the processes through which the leader exerts this influence is still limited and largely speculative (Bass, 1999; Conger, 1999). This investigation seeks to analyze empirically whether transformational leadership exerts this influence on organizational performance through the intermediate influence of knowledge management (SECI).

H8: Knowledge management fully mediate the impact of transformational leadership on organizational performance in regional water supply companies of West Nusa Tenggara.

Previous research shows that culture as a key factor to organizational performance (Deal and Kennedy, 1982; Denison, 1990; Gordon and Di Tomaso, 1992 Peters and Waterman, 1982). In particular, Denison and his colleagues (Denison, 1990; Denison and Mishra, 1995; Denison and Neale, 1996; Fey and Denison, 2003) identified and validated four dimensions of organizational culture that are conducive to organizational performance: adaptability, consistency, involvement, and mission. Another studies imply a positive relationship between Denison’s organizational culture and Nonaka & Takeuchi’s SECI mode includes (Andreeva & Ikhilchik, 2014; Kaur et al., 2012; Gray & Densten, 2013; Li et al., 2012). Organizational culture does not directly lend its influence on organizational performance; rather, it exerts its influence through shaping the behavior of organizational members. In an ambiguous and uncertain world, the most important part of decision-making is to digest the information from the environment to structure the unknown.

H9: Knowledge management fully mediate the impact of organizational culture on organizational performance in regional water supply companies of West Nusa Tenggara.

Previous research suggest a positive association between organizational strategy and knowledge management. For example, Pedler et al. (1991) highlight the importance of an analytical approach to strategy that contributes to learning. Senge (1990) stresses the ability to envision the future that is crucial to the learning organization. Watkins and Marsick (1996) emphasize a proactive approach to new learning and new markets in establishing a learning organization (Watkins and Marsick, 1996). The knowledge-based view considers the firm as a set of knowledge assets and the role of the firm as creating and deploying these assets to create value (Grant, 1996). Organizational strategy can then be perceived as the organization’s plan of creating and deploying knowledge assets. Knowledge management partially carries the influence of strategy through defining what strategic knowledge is, coordinating critical knowledge transfers, and guiding key knowledge exploitation efforts which could result in enhanced effectiveness. Apart from the path of knowledge
management, strategy impacts organizational performance through other channels such as control systems and resource sharing schemes.

H10. Knowledge management fully mediates the impact of strategy on organizational performance in regional water supply companies of West Nusa Tenggara.

METHODS OF RESEARCH

A positivist paradigm is applied that emphasize on theoretical testing where data collected by using questionnaire survey and an in depth interview to get a valid and reliable result (Cooper & Schindler, 2011). There are 8 regional water supply companies in West Nusa Tenggara Province as sample survey (saturated sample). 70 respondents, consist of 18 top level managers and 52 middle level managers, selected based on purposive sampling according to criteria gave their perceptual opinion about the relationship between exogenous and endogenous variables. The identification and selection of sampling respondents was considered with attention being paid to the knowledge understood within the firm concerning the data generation requirements of the survey. So as to limit measurement error, it was determined that related Head of Administrative and Technique in each sampling unit could be accepted as the respondent due to their understanding of decision making processes.

Survey items were adapted from existing instruments used in past research and each respondent's perceptual answer is based on five score of Likert scale. To measure subjects’ perceptions of transformational leadership, the Multifactor Leadership Questionnaire (MLQ-5x/Short Form) (Bass & Avolio, 1995) was employed. For the purpose of this study, four subscales were loaded together and used as a measure for transformational leadership (Charisma, Inspiration, Individualized Consideration, and Intellectual Stimulation).

Measures assessing organizational culture were adapted from Denison and his colleagues (Denison, 1990; Denison and Mishra, 1995; Denison and Neale, 1996; Fey and Denison, 2003) that encompassed four functional dimensions: adaptability, consistency, involvement, and mission. The scale measures to what extent an organization is perceived to display the four dimensions of characteristics, for example, to what extent “we have a shared vision of what the organization will be like in the future. Venkatraman's (1989) STROBE (Strategic Orientation of Business Enterprise) framework was utilized in this study to represent organizational strategy. The reason why it was used instead of strategic typologies is that it depicts the intensity of characteristics of strategy rather than putting them into categories. STROBE measures to what extent the respondents perceive their organization's strategy as displaying three characteristics including analysis, futurity, and riskiness. To measure the knowledge creation process based on the four modes of knowledge conversion theory, we developed a questionnaire based on previous research (Tseng, 2010) and empirically examined the item internal consistency and construct validity to ensure the general validity issue of the instrument. To measure the perceived levels of organizational performance based on BPPSPAM measurement consists of 4 dimensions i.e. financial, services, operational, and human resources dimensions where each part has five measurement items.

Following Hwang & Takane (2004), Generalized Structure Component Analysis (GSCA) was conducted for assessing confirmatory measurement models structural models. As the name suggests, GSCA lies in the tradition of component analysis. It substitutes components for factors as in PLS. Unlike PLS, however, GSCA offers a global least squares optimization criterion, which is consistently minimized to obtain the estimates of model parameters. GSCA is thus equipped with an overall measure of model fit while fully maintaining all the advantages of PLS (e.g., less restricted distributional assumptions, no improper solutions, and unique component score estimates). In addition, GSCA handles more diverse path analyses, compared to PLS. For example, it can easily fit the same path model to more than one group with optional impositions of across-group constraints, which PLS cannot accommodate (Hwang & Takane, 2004).
Descriptive analysis. GSCA analysis apply measurement of goodness of fit based on score of FIT, AFIT (adjusted FIT), GFI (goodness of fit index), and SRMR (Standard Root Mean Square). Table 1 below shows goodness of fit of structural model and overall goodness of fit.

<table>
<thead>
<tr>
<th>Table 1 – Goodness of FIT Structural Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Fit</td>
</tr>
<tr>
<td>FIT</td>
</tr>
<tr>
<td>AFIT</td>
</tr>
<tr>
<td>GFI</td>
</tr>
<tr>
<td>SRMR</td>
</tr>
<tr>
<td>NPAR</td>
</tr>
</tbody>
</table>

Table above shows that all fit model are over the minimum reference score. Fit’s score of 0.595 mean that 59% variance data can be explained by the model. The score may fall between 0 to 1 mean that the closer to 1 score the better model explain the variance. Meanwhile GFI (goodness fit index) revealed a score above cut-off value.

This measurement consist of convergent validity describes correlation between indicators and latent variable’s score and the score obtained should be between 0.5 to 0.6 of loading factor; discriminant validity (AVE) recommended >0.5; and internal consistency reliability (alpha) measured by composite reliability that describes the relationship between latent variable and block indicators, the value more than 0.60 is better. Overall convergent validity scores are greater that 0.6 mean that all indicators are suitable to describe its related latent variable. The lowest convergent validity based on GSCA analysis obtained by intellectual stimulation indicator of transformational leadership variable (0.670), and the highest scored by operational aspect indicator of organizational performance variable (0.889).

Discriminant validity and composite reliability value are shown in the following table.

<table>
<thead>
<tr>
<th>Table 2 – Value of AVE and Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Transformational Leadership (X1)</td>
</tr>
<tr>
<td>Organizational Culture (X2)</td>
</tr>
<tr>
<td>Strategic Orientation (X3)</td>
</tr>
<tr>
<td>Knowledge Management (Y1)</td>
</tr>
<tr>
<td>Organizational Performance (Y2)</td>
</tr>
</tbody>
</table>

Hypothesis testing and path coefficient of direct impact will be conducted in five variable latent where there are 7 direct relationships between exogenous variables and endogenous variables. The result shown by path coefficient value and critical value at significant value of alpha = 0.05.

Figure 1 – Path Coefficient and Hypotheses Testing Diagram
Based on diagram above, we could find a complete meaning of all value in the table below.

### Table 3 – Path Coefficient of Direct Impact and Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Path Coefficient</th>
<th>CR</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>TL (X1) → KM (Y1)</td>
<td>0.121</td>
<td>0.133</td>
<td>NS</td>
</tr>
<tr>
<td>H2</td>
<td>OC (X2) → KM (Y1)</td>
<td>0.267*</td>
<td>2.1*</td>
<td>significant</td>
</tr>
<tr>
<td>H3</td>
<td>Strategy (X3) → KM (Y1)</td>
<td>0.333</td>
<td>3.15*</td>
<td>significant</td>
</tr>
<tr>
<td>H4</td>
<td>KM (Y1) → OP (Y2)</td>
<td>0.422*</td>
<td>2.9*</td>
<td>significant</td>
</tr>
<tr>
<td>H5</td>
<td>OC (X2) → OP (Y2)</td>
<td>0.148</td>
<td>1.04</td>
<td>NS</td>
</tr>
<tr>
<td>H6</td>
<td>Strategy (X3) → OP (Y2)</td>
<td>0.001</td>
<td>0.01</td>
<td>NS</td>
</tr>
<tr>
<td>H7</td>
<td>TL (X1) → OP (Y2)</td>
<td>0.171</td>
<td>0.118</td>
<td>NS</td>
</tr>
</tbody>
</table>

As hypotheses 2 and 3 predict, both organizational culture and strategy are significantly related to knowledge management as well as relationship between knowledge management and organizational performance (hypotheses 4). On the other hand, hypotheses 1 is not significantly related to both knowledge management and organizational performance. There is also found that hypotheses 5, 6, and 7 are all not significantly related to organizational performance, judging from the results of bevariate correlations (as shown in Table 3). Knowledge management (CR=2.9, p>0.05) demonstrated a positive and significant relationship with organizational performance. Organizational culture (CR=1.04, p>0.05), and strategy (CR=0.01, p>0.05) also demonstrated a positive relationship with organizational effectiveness but not significant. Both variables organizational culture (CR=2.1, p>0.05) and strategy (CR=3.15, p>0.05) revealed a positive and significant relationship with knowledge management, but not for that of transformational leadership. Based on the table above, three hypotheses (H2, H3, and H4) are accepted and the rests are rejected.

This path coefficient shows an indirect impact of independent variables (transformational leadership, organizational culture, and strategy) on dependent variable (organizational performance) mediated by knowledge management (SECI model). Based on this statistical processes, it can be concluded whether SECI Model fully mediated (complete mediated) that relationship or not.

### Table 4 – Path Coefficient of Mediating Impact

<table>
<thead>
<tr>
<th>No</th>
<th>Relationship</th>
<th>Mediating variable</th>
<th>Path Coefficient</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OC (X2) → OP (Y2)</td>
<td>KM</td>
<td>0.267*</td>
<td>0.422*</td>
</tr>
<tr>
<td>2</td>
<td>Strategy (X3) → OP (Y2)</td>
<td>KM</td>
<td>0.333*</td>
<td>0.422*</td>
</tr>
<tr>
<td>3</td>
<td>TL (X1) → OP (Y2)</td>
<td>KM</td>
<td>0.121*</td>
<td>0.422*</td>
</tr>
</tbody>
</table>

Hypothesis 8, 9 and 10 predict that knowledge management fully mediates the relationship between transformational leadership, organizational culture, and organizational strategy with organizational performance. The findings supported the hypothesis 9 and 10. Both organizational culture and strategy had a positive and significant influence on knowledge management (value of CR are 0.267 and 0.333, respectively), and a positive influence of knowledge management on organizational performance (CR=0.422). Furthermore, the result also show a direct effect of knowledge management on organizational performance (CR = 0.422, p<0.01). In addition to these effects, the study shows indirect effects of organizational culture & strategy on organizational performance. Based on these findings, it can be concluded that knowledge management fully mediates the relationship between both organizational culture and strategy on organizational performance although the direct relationship between these two variables on organizational performance is not significant. On the other hand, this study shows that knowledge management does not mediate indirect relationship between transformational leadership on organizational performance. Thus, this finding does not support the hypotheses 8.
CONCLUSION

Previous researches show that a leader has a critical role in knowledge management processes in terms of delivering vision, how to motivate followers, system building, as well as determining organizational structure in order to achieve knowledge conversion to be a competitive advantage (Nonaka & Toyama, 2005; Nonaka et al., 2006; Joshi, 2000; Yeh et al., 2006; Wong, 2005; Sin et al., 2009). Nonaka et al. (2006), in particular, found that a leader role is to facilitate knowledge creation rather than to control, or to direct. Therefore, a flexible characteristic of a leader is required to success rather than a mechanistic control.

The overall pattern of effects between exogenous and endogenous variables in the GSCA model is consistent with hypotheses stated, but only some of the path tested were confirmed. Of the 7 paths tested between these variables, 3 were significant. For the transformational leadership variable, there is no significant impact on both knowledge management (as mediating variable) and organizational performance. Organizational culture and strategic orientation have a positive and significant impact on knowledge management, but contrary to the organizational performance. However, knowledge management has a positive and significant effect on organizational performance.

Knowledge management was found to fully mediate organizational culture and strategy’s influence on organizational performance. This finding suggests that how well knowledge is managed is largely associated with how well cultural values are translated into value to the organization. Further, culture has a greater contribution to knowledge management than transformational leadership variable. This may be due to the fact that culture determines the basic beliefs, values, and norms regarding the why and how of knowledge generation, sharing, and utilization in an organization. This finding strengthens the call for attention to creating an organizational culture that is conducive to learning and knowledge management (Davenport and Prusak, 1998; DeLong and Fahey, 2000).

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17. Denison, Daniel R., 1984, Bringing corporate culture to the bottom line, Organizational Dynamics.
A CONCEPT: FACTORS INFLUENCING SHARING TACIT KNOWLEDGE IN PUBLIC SECTOR ORGANIZATION

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ABSTRACT
Sharing tacit knowledge is a personal and more practical knowledge sharing based on someone's experience and skill. This research aimed to determine the process of sharing tacit knowledge in a public sector organization by putting several variables of organizational culture and servant leadership as antecedent and trust as mediation. This research was a combination of the previous model; it did not appear a new basis theory since it was an interaction of the previous research but more focusing on government organization. This research was practically expected to provide information to government organization on the factors influencing sharing tacit knowledge.

KEY WORDS
Organizational culture, servant leadership, trust, sharing tacit knowledge.

Public sector workers are encouraged to be a knowledgeable staff so that able to provide satisfying service to society. That can be achieved by a worker with a featured knowledge (Muluk, 2008). Staff and tacit knowledge owned are one of the important resources in an organization. However, tacit knowledge management is relatively more difficult (Ambrosini and Billsberry, 2007), since tacit knowledge is abstract, attached to an individual, and the existence is not fully realized (Faust, 2007; Stenmark, 2000).

According to Collins (2001), knowledge in an organization is dynamic and depends on the social relationship among the individual to create, share, and make use the knowledge. A large number of tacit knowledge is divided informally and this process depends on the working environment culture. Another problem frequently appearing in the fields of tacit knowledge is how the staff can share the knowledge with the supervisor (Nonaka et al., 2009). Moreover, in order to get an experience which will provide tacit knowledge, it needs a trust-each-other-relationship and close interaction. In terms of new context, this experience must have right involvement with tacit knowledge holder (Levin & cross, 2004; Holste & Fields, 2010). Previous research result indicates that the utilization of tacit knowledge in an organization is not maximal yet (Probst et al., 2000; Stemark, 2000). Additionally, Dirks & Ferrin (2002) in a leadership theory have found that trust will influence organizational leadership setting; the use of leadership concept can be a key to optimize the success of encouraging the behavior of sharing tacit knowledge in working area.

Problem Gap. A previous study conducted by Foos et al., (2006) found that characteristic similarity of social, personal, and culture, understanding as well as vision and goal similarity in a company between the side of source and receiver is a factor supporting the process of sharing tacit knowledge. Borges' research (2013) found that personality and consciousness are the most influential characters in relation to the behavior of sharing tacit knowledge. According to Supiah and Sandhu (2011), organizational culture type influences the behavior of sharing tacit knowledge both good and bad influence. According to that review, it can be found that there is an opportunity of research development on the sharing tacit knowledge which was previously conducted by a company (Foos et al., 2006), influenced by personality and consciousness (Borgess, 2013), and the type of organizational culture (Supiah and Sandhu, 2011). As the research development, sharing tacit knowledge of this research will be applied to public organization especially in the government office. The researchers want to know the impact of sharing tacit knowledge under the difference of organizational culture condition and leadership in public sector organization.
Furthermore, Rezaei et al., (2012) proposed that the relationship between servant leadership with the trust as the basis of servant leadership effectivity towards sharing tacit knowledge. It was also supported by Goh and Jie's (2014) research stating that a good relationship between servant leadership and the shared trust to become an affective-based trust and cognitive-based trust influence the effort of improving commitment in an organization. Dehaven (2007) stated that manager's perception of knowledge management and the influence of servant leadership influence the adjustment and the use of knowledge management. According to those findings, it can be predicted that knowledge transfer is also influenced by leadership style of an organization.

According to the research of Alony et al., (2007), trust is a factor supporting the process of sharing tacit knowledge under the existence of trust-each-other-feeling so that bringing a training relationship which is also the supporting factor of sharing tacit knowledge process. Clinton's (2011) finding shows that trust builds an indirect impact on the effectiveness and accessibility of sharing tacit knowledge. Trust is based on someone's expectation of others and this creates awareness. Unique ability development leading to the tacit knowledge depends on the existence of effective trust among the individual. Renzl (2008) stated that trust in management specifically increases the behavior of sharing tacit knowledge through the decrease of being afraid of losing someone's unique value and increase a willingness to document knowledge. Thus, it can be said that trust in an organization influences sharing tacit knowledge among the individual in an organization.

**Problem Statements.** This conceptual research aims to identify what factors that greatly affect sharing tacit knowledge in a government organization. According to that background and previous research gap so that the problem statements were as follow:

- Do organizational cultures, servant leadership style, trust in public sector organization influence sharing tacit knowledge?
- Do organizational culture and servant leadership influence trust among employees in an organization?
- Does trust mediate the positive influence of organizational culture and servant leadership on sharing tacit knowledge?

**LITERATURE REVIEW**

**Knowledge Management.** Knowledge identification is in light of the analysis and any knowledge description in internal and external organizational environment. Knowledge acquisition is a process to get knowledge from an external organization. Knowledge development includes all business aimed to develop capability which organization has not yet. The type of knowledge development process is among other new skill development, new product, better ideas, and more efficient processes. Knowledge distribution is a process of the existing knowledge transfer and distribution in an organization.

Knowledge utilization process is a beneficiary process of all knowledge owned by the organization in a productive way for organizational benefits. Knowledge retention process includes selection, storage, and knowledge updated periodically. Knowledge retention is an important process to prevent the loss of knowledge from the organization. This knowledge retention depends on the use of all storage media owned by organization efficiently. Knowledge target defines organization major knowledge and determines the type and level of skill which will be needed by an organization. Knowledge assessment process plays a role to assess the improvement of a learning process. Knowledge target will be a reference in a process of knowledge assessment (Probs et al., 2000).

**Tacit knowledge.** Tacit knowledge was a type of knowledge which was difficult to be expressed, explained and transferred, and practice in nature as well as being in the specific context (Nonaka, 1991; Polanyi, 19660. Moreover, Nonaka (1991) explained that tacit knowledge was personal in nature and difficult to be stated in a real form, thus it was very hard to be communicated with others. Nonaka (1991) also stated that there were two dimensions in tacit dimension, that was technical dimension including proficiency, and
cognitive dimension "the know-what" consisting believe, idea, and value which was commonly considered insignificant.

One of the interesting characteristics of tacit knowledge was the gap between its value on the one hand and the elusive nature on the other. The high value arising from the facts being the source of this knowledge comes from can be known but difficult to declare. An elusive nature of tacit knowledge can be derived into at least two reasons; (1) someone does not fully aware of tacit knowledge owned, and 2) the lack of someone's intensity in the efforts of bringing the knowledge becomes explicit.

Sharing Tacit Knowledge. Tacit knowledge is an important element in industry collaboration both as a factor initiating collaboration and succeeding that collaboration. Tacit knowledge is a key factor of competitive superiority in collaboration. Tacit knowledge transfer only can be done through personal interaction and observation. A method can be used to sharing tacit knowledge is a mentoring program. At the mentoring program, the receiver can interact personally with source party and make an observation to the application of tacit knowledge conducted by the source party at the same time (Faust, 2007).

Sharing tacit knowledge is a knowledge transfer owned by an experienced individual in a particular field but is difficult to be expressed and more practice in nature (Nonaka, 1991: Polamyi, 1996). Sharing tacit knowledge truly depends on the special level of someone's social relations. Nonaka (2000) emphasized that tacit knowledge can be transferred into formal language, electronic storage towards tacit knowledge will be difficult to get a place, and for that reason, it enables something to lose the knowledge. Alwis et al., (2004) stated that tacit components of innovation only can be developed through practical experience, or personal interaction with an expert having experience or relevant knowledge, both internal and external organization and social network.

Measurement of Sharing Tacit Knowledge. Measurement of sharing transfer knowledge can be done by a similar approach to the measurement of knowledge transfer, but there is a little difference. Not all tacit knowledge can be captured by a verbal report, which is commonly used to measure knowledge. Performance-based measurement approach is more appropriate to measure tacit knowledge than approach measuring knowledge directly (Argote and Ingram, 2000). There are five knowledge storages of the organization i.e. (a) individual member, (b) organizational chart and function, (c) standard operating procedure and organizational practices, (d) organizational culture, and (e) physical structure of working place (Argote and Ingram, 2000).

METHODS OF RESEARCH

This was an explanatory research. Explanatory research can explain the relationship between the variable in a causal relationship (Saunders et al., 2009). This research was conducted at government office under the expectation of being able to increase the performance of integrated service unit that directly relates to the community or shareholder. Later on, relationship prediction among the variable was conducted based on the analysis of similar previous research. The current conceptual paper was aimed to explain the relationship in a detailed way among the variable in a cognitive way.

RESULTS AND DISCUSSION

Organizational culture was a collection of result from the various cultures in society brought by previous staff which was agreed on as behavior guidance that has to be agreed (Pettigrew, 1979). As a result, community culture and organizational culture will create an attitude value, individual, assumption behavior and expectation reflected in an organizational behavior in which the workers perform their duty. Stoddart's (2007) research significantly found the impact of collaborative culture and group-oriented in a behavior of sharing knowledge. The sense in a community helps the organization to achieve a more-collaborative-culture and team-oriented, which in its turn help to encourage sharing knowledge.
For that matter, collaborative and team-oriented organizational culture was expected to influence employee involvement in the behavior of sharing knowledge. Stoddart's (2007) research found that the impact of collaborative and team-oriented culture has an influence on the behavior of sharing knowledge. Supiah and Sandhu (2011) found that organizational culture has an influence on the behavior of sharing tacit knowledge both good and bad influence. Considering the previous research result in relation to the organizational culture and the behavior of sharing knowledge, then it can be concluded a proportion like this below:

**Organizational culture has a positive influence on sharing tacit knowledge.**

Servant leadership was a leadership style realized by specific practices from servant-leaders (Keith, 2008). There were seven specific practices of servant leadership: personal awareness, listening, changing pyramid, building colleague, training not controlling, mobilizing energy and another smart potential, having a foresight (Keith, 2008). Song et al., (2015) stated that collaboration between servant leadership and knowledge will increase organizational achievement which in this field is company's selling achievement. In addition, Dehaven (2007) stated that managers who practice servant leadership style were a reflection of their value to share knowledge, build a relationship and develop others' ability. Therefore, according to those several findings, it can be proposed a proposition like this below:

Servant leadership has a positive influence on sharing tacit knowledge.

According to Mayer et al., (1995), trust is a desire of the parties towards others' behavior based on the expectation that other parties can do a particular action to the trustee. According to Mayer (1993), there were three factors of someone's trust former to other that was ability, benevolence, and integrity. Mayer and Gavin (2005) led to trust in management to analyze the impact on achievement and the ability to commit staff's attention to the duty that has to be finished in order to add their company's value. Trust was found influencing the quality development of exchange relationship of employer-employee (Deluga, 1994; Brower et.al, 2000) and various knowledges (Yen and Chang, 2007). Trusts open an opportunity to get an access to the valuable knowledge and political resources, economy, and relational. At the end of the time, a stable and strong relationship from human, social and cultural capital was realized as a not limited competitive advantage (Savalainen, 2011). According to that explanation, the proposition concluded was as follow:

**Trust has a positive influence on sharing tacit knowledge.**

According to Appelbaum et al., (2004), organizational culture also has a direct relationship with trust; this research result stated that there was a significant relationship between organizational culture and trusts. In addition, leadership style in an organization also has a relationship on organizational culture and trusts. A study conducted by Wiewiora et al., (2014) stated that it was found a clue of relationship pattern between organizational culture, trusts and sharing knowledge mechanism. This research result releases that organizational culture influences view on trusts value during the process of sharing knowledge among the workers. According to that explanation so that the proposition is as follow:

**Organizational culture has a positive influence on trusts.**

Razaei et al., (2011) investigated that servant leadership and organizational trusts have a positive influence on leader trust and organizational communication as the mediator. On the other hand, Goh and Jie (2014) through their research suggested that organizational leader needs to train their servant leadership if want to improve their staff's trust so that the staff become more participates and support organizational activity. Trusts divided into effective and cognitive become a mediator of the relationship between servant leadership and organizational commitment. Up-to-down conventional leadership and hierarchy pyramid should not be a focus on the manager if want to get a staff with high trusts and commitment. As a result, it is proposed to be a proposition like this below:

**Servant leadership has a positive influence on trust.**

Someone's social relationship level influences one's level of trust to others. According to Burke et al., (2007), trust is a process resulted from a collaborative interaction between organizational player in a process of communication, cooperation and sharing information. Borges (2013) stated that organizational culture, personality, and social relationship have a
positive influence. In which social environment can improve closeness among the individual in one organization. Those findings influence proposition arrangement like this below:

Trust mediates the influence of organizational culture on sharing tacit knowledge.

While Schaubroeck et al., (2011) found the relationship result of leadership style to the team performance will be stronger when there were a communication and trust within. According to those findings, the proposition was as below:

Trust mediates the influence of servant leadership on sharing tacit knowledge.

This research result can give a contribution in theory application deepening developed in a research related to the sharing tacit knowledge in the previous researchers. This research was a development of the existing model by combining 4 research variables i.e. organizational culture, servant leadership, trust, and sharing tacit knowledge. Considering previous research, sharing tacit knowledge was influenced by two organizational factors (Supiah and Sandu, 2012; Borges, 2013), leadership style (Singh et al., 2008; Song et al., 2015) and trust (Renzl, 2008; Hostle & Field, 2010). However, there was no previous study combining those four variables in one concept.

This study is still limited to conceptual and theoretical analysis. However, a conceptual analysis will have a maximum result in the future empirical study. Therefore, this study limitation is expected able to conduct an empirical study on the next research.

CONCLUSION

According to the analysis of previous research, it can be concluded that in a government organization, it needs sharing tacit knowledge to increase service quality to the community. In addition is found an indication of a positive relationship between organizational culture, servant leadership and trust to the behavior of sharing tacit knowledge among the workers. More is found that trust as mediation is able to improve the relationship between the organizational culture and servant leadership to the behavior of sharing tacit knowledge.

REFERENCES

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THE ADOPTION LEVEL OF BOKAR PROCESSING AND THE EFFECT TO THE INCREASING FARMERS' INCOME: A CASE STUDY OF RUBBER FARMERS IN KAPUAS REGENCY, CENTRAL KALIMANTAN, INDONESIA

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ABSTRACT

The aim of this study is, first, to analyze the adoption rate of farmers who take the program of bokar (bahan olahan karet rakyat or community’s rubber material) processing implemented in the form of Bokar Processing and Marketing Unit (Unit Pengolahan dan Pemasaran Bokar or UPPB) and, the second, to analyze the effect of adoption rate on rubber farmer's income. The method used to determine the sample of this study is disproportionate stratified random sampling method so that a total of 134 families is obtained as respondents. The first objective was analyzed by using descriptive statistics with semantic differential scale. The second research objective was analyzed by multiple regression methods with Statistical Analysis System program (SAS 9.1 for Windows version). The results show that the average farmers’ adoption rate is 26.48 among the lowest and maximum score. Therefore, it can be concluded that the adoption rate of the farmers in Kapuas Regency is categorized as moderate or in transition to the implementation of the program. The income from bokar has a significant and positive impact on the adoption rate of the rubber farmers because the UPPB members (farmers) have already adopted the technology that is recommended for bokar processing.

KEY WORDS

Adoption, rubber farmers, bokar bersih program, rubber price, income.

Central Kalimantan is one of the rubber-producing provinces in Indonesia. In 2013, the total area of Public Rubber Plantation, Private Plantation (Perkebunan Besar Swasta or PBS), and State Plantation (Perkebunan Besar Negara or PBN) in Central Kalimantan is 269,700 hectares with a total of production by 227,042 tons. In this case, the Central Kalimantan Provincial Government remains focus to assist the development of community rubber plantation because its existence is very helpful for people's lives. Community rubber plantation is considered not only sustain lives but also create employment opportunities (BPS, 2014).

The government, continuously, have designed good policies at a microeconomic level related to the welfare of the rubber farmers (BPS, 2014) which one of them is the Regulation of the Ministry of Agriculture number 38 of 2008 and the Regulation of the Minister of Trade number 53 of 2009. The program of rubber quality improvement continues to support rubber farmers to the farmers’ income.

The National Program related to the Regulation of the Ministry of Agriculture number 38 of 2008 or known as Bokar Bersih National Movement (Gerakan Nasional Bokar Bersih or GNBB) and the Regulation of the Minister of Trade number 53 of 2009 in Central Kalimantan socialized since 2010/2011. In the realization, the government formed a group of Bokar Processing and Marketing Unit (Unit Pengolahan dan Pemasaran Bokar or UPPB). This program is one of the policy instruments or government efforts to improve the quality of
rubber (rubber material) so that it can increase the income of rubber farmers through dry bokar processing and as an effort to minimize the risk of rubber prices.

In relation to such matters, farmers are certainly different from each other in receiving innovation or adoption delivered through various programs. It is expected that an acceptance of innovation is not merely a knowledge but to actually implement on farming activities. The acceptance of innovation can be observed directly or indirectly by others as a reflection of changes in attitude, knowledge, and skills (Mardikanto, 1988).

From the description above, this research is important to be done due to the policy from the government through bokar bersih program implemented in the form of Bokar Processing and Marketing Unit (UPPB) especially for the adoption rate of rubber farmers towards the program.

The aim of this study is, first, to analyze the adoption rate of the farmers who take bokar bersih program in bokar processing which is implemented in the form of UPPB and, the second, to analyze the impact of the adoption to the rubber farmers' income.

**MATERIALS AND METHODS OF RESEARCH**

The study is focused on Kapuas Regency, Central Kalimantan Province. The location was determined purposively based on the most number of UPPB among the other districts. The method to determine the sample was disproportionate stratified random sampling method. Furthermore, as many as 30% respondents who are UPPB members and 10% respondents who are not UPPB members were determined randomly (random sampling). By that, the representatives are expected to represent the population. The total number of farmers are 134 consisting of 63 farmers who are members of UPPB and 71 families who are the non-member of UPPB. The data in this research include primary data and secondary data.

The first objective of this research was assessed by using descriptive statistics with instruments in the form of questionnaires referring to the Regulation of the Ministry of Agriculture number 38 of 2008, the factors affecting bokar quality from latex (Budiman, 2000), as well as the supervision record of bokar processing and marketing by the Plantation and Forestry Office of Kapuas Regency in 2015. The measurements were performed by using several items of questions with semantic differential scale (Sugiyono, 2015) based on indicators or questions on adoption variables with three variables (Y) such as bokar processing (Y1), farmer institution (Y2), and bokar marketing (Y3). The differential semantic scale is arranged in a continuum line that has a positive to negative gradation. Then, for the quantitative analysis, the determination used is: (a) a score of 5 for Strongly Agree/Complete/Appropriate (positive); (b) a score of 4 for Agree/Complete/Appropriate (positive); (c) a score of 3 for Neutral; (d) a score of 2 for Disagree/Complete/Appropriate (negative); (e) a score of 1 for Strongly Disagree/Complete/Appropriate (negative). Then, the validity and reliability of the research instrument are tested to meet the criteria of validity and reliability.

The measurement techniques are grouped into categories of low, moderate/in transition, and high. The criteria of the farmers' adoption rate are: low if the average score of respondents ≤ maximum score; moderate/in transition if the dominant total score is between the lowest score and maximum score; high if the dominant total score of the average score ≥ maximum score.

The factors that are suspected to affect the adoption rate of the farmers implemented in the form of UPPB are analyzed by using multiple regression method with SAS (Statistical Analysis System) 9.1 for Windows version with the equation:

\[ \text{ADOPB} = a_0 + a_1 \text{HBR} + a_2 \text{LLK} + a_3 \text{TIBR} + a_4 \text{UMR} + a_5 \text{TPDIKP} + a_6 \text{LAMKR} + a_7 \text{JART} + \mu \]

Hypothesis:
- \( H_0: \beta_i = 0 \)
- \( H_a: \beta_i \neq 0 \)
The criteria for the test are: If $t_{hit} > t_{tab}$, then $H_0$ is rejected and $H_1$ is accepted. This means that, partially, the exogenous variable has significant effect on endogenous variable on the $\alpha$, vice versa.

Where:

- ADOPB = Adoption of UPPB activity (Score)
- HBR = Bokar Price (IDR)
- LLK = Rubber Land Area (Ha)
- TIBR = Bokar Total Revenue (IDR/Year)
- UMR = Age (Year)
- TPDIKP = Husband/Male Education Level (Year)
- LAMKR = Rubber Farming Experience (Year)
- JART = Family Member (Person)

**RESULTS AND DISCUSSION**

*Adoption of the Rubber Farmers.* The development of bokar quality has been issued through the Regulation of the Minister of Agriculture number 38/Permentan/OT.140/B/2008 dated 12 August 2008 concerning Guidelines for Processing and Marketing of Rubber Materials (Bokar) which is followed by the Regulation of the Minister of Trade number 53/ M-DAG/PER/10/2009 concerning Supervision of Export Quality of Indonesian Rubber Standard Export Commodity. To identify the implementation of the program, the adoption of the application level of the farmers to bokar processing can be seen by adjusting and following the guidelines from the Regulation of the Minister of Agriculture number 38 of 2008, the factors that affect the quality of bokar from latex (Budiman, 2000), and the supervision record of bokar processing and marketing conducted by the Plantation and Forestry Office of Kapuas Regency in 2015. The identification of farmers’ adoption rate on bokar processing policy is done through the identification of farmer application on tapping system, tapping equipment and processing facilities, bokar hygiene, water quality, use of freezer, bokar processing, and processing and storage room. If it is generalized, the farmer's adoption rate on bokar processing is presented in Table 1.

Partially, according to Table 1, the results of the research illustrate that the implementation of bokar processing in tapping system (Y1.1), tapping equipment and processing facilities (Y1.2), bokar hygiene (Y1.3), water quality (Y1.4), the use of a freezer (Y1.5), and bokar processing (Y1.6) leads to a positive continuum. However, only the existence of bokar processing and storage room (Y1.7) that does not comply the recommendation of total gradation value by 46.03% which leads to the negative continuum. This is because the temporary storage space provided is not sufficient to accommodate the bokar. Given the limited temporary storage room, some farmers dry their bokar in respective places with para-para made of wood which is less qualified for a storage room. The drying process of the bokar is done by air-dried and should not be exposed to direct sunlight.

Based on Table 1, it can be explained that there are differences in behavior between the members and non-members of UPPB because the non-members are completely untouched by the program and still do the farm conventionally. Nevertheless, some farmers are found to already adopt the recommendations by keeping the bokar hygiene, use freezer, and process the bokar as recommended by UPPB members.

Institutional support for farmers is a unity manifestation factor of individuals who are members of farmer group.

The result of the implementation of farmer institutional policies (Y2) to UPPB organizational structure (Y2.1), the existence of internal quality supervisor (Y2.2), the implementation of the training committee and participants (Y2.4), and activeness in the price information (Y2. 7) is in a positive continuum.
Table 1 – The Adoption of Respondents towards Bokar Processing Policy

<table>
<thead>
<tr>
<th>Number</th>
<th>Indicators</th>
<th>Score Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tapping System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Question (Positive-Negative):</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Apply the tapping pattern/flow (Positive),</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>There is no tapping pattern (Negative).</td>
<td></td>
</tr>
<tr>
<td>4.00</td>
<td>4.00</td>
<td>100.00</td>
</tr>
<tr>
<td>3.81</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>1.87</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Tapping equipment and processing facilities</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Use tapping equipment from clean stainless-steel materials and clean and sharp tapping knives.</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Use simple materials (mineral water bottle, oil/soap can).</td>
<td></td>
</tr>
<tr>
<td>5.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>4.58</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>3.01</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>1.11</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Bokar Hygiene</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Examine the dirt that comes from twigs, skin, leaves, etc. as directed.</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Left to dry.</td>
<td></td>
</tr>
<tr>
<td>4.76</td>
<td>90.48</td>
<td></td>
</tr>
<tr>
<td>3.81</td>
<td>90.48</td>
<td></td>
</tr>
<tr>
<td>1.43</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Water quality</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Clean water.</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Water ditches.</td>
<td></td>
</tr>
<tr>
<td>4.76</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Freezing materials</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Use freezing materials from Ant Acids / Sintas / Specta / Durap, etc. as recommended.</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Traditional freezing materials as tawas, umbi gadung, umbi hutang.</td>
<td></td>
</tr>
<tr>
<td>5.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>4.58</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>3.96</td>
<td>63.49</td>
<td></td>
</tr>
<tr>
<td>2.63</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Bokar processing</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Bokar is dried according to the product types (Sheet/lump).</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>soaked.</td>
<td></td>
</tr>
<tr>
<td>6.19</td>
<td>34.92</td>
<td></td>
</tr>
<tr>
<td>1.59</td>
<td>63.49</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Processing and Storage Room</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Bokar processing and storage room is qualified as the recommendation (no water leak, good air circulation, non-leaking roof, and no direct sunlight).</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Not qualified.</td>
<td></td>
</tr>
<tr>
<td>4.86</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>3.81</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>1.87</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

However, the farmers' knowledge relating to the existence of SOP of tapping, processing, and storage of bokar (Y2.3), bokar collection (Y2.5), and participation in bokar drying (Y2.6) leads to a negative continuum. This means that the institutional activity on the component is still not as expected.

The identification of the farmers’ adoption rate on bokar marketing policy is done by identifying the application of farmers’ knowledge to the components of bokar purchasing and marketing activities and partnership with buyers in relation to transportation costs and the sharing of sales proceeds.

Partially, the research results of bokar marketing policy (Y3) on farmer’s purchasing and marketing adoption to the knowledge and existence of purchase records (Y3.1.a), product stock records (Y3.1.b), payments to member records (Y3.1.e), the knowledge of the relationship with the buyer (Y3.2), knowledge and agreement on transportation costs (Y3.3), as well as knowledge on the revenue share (Y3.4) show a positive continuum. However, the knowledge of the required technical shipment (Y3.1.c), the knowledge of sales records including the quality of sold products (Y3.1.d) has a negative continuum. This means that the institutional activity still run not as expected.

Based on Table 4, the highest adoption rate is 30.67 and the lowest score is 21.67. Meanwhile, the average score of the farmers is 26.48 which in between the lowest and highest score. It can be concluded that the adoption rate of farmers in Kapuas Regency is moderate or in the transition towards the implementation of the program and technological improvement. The activities conducted by farmers in Kapuas Regency need to be improved so that the implementation of the program can actually be felt by farmers in the farming activities.
Table 2 – The Adoption of Respondents towards Farmers Institutional Policy

<table>
<thead>
<tr>
<th>Number</th>
<th>Indicators</th>
<th>Score Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a) Complete as recommended. b) Incomplete.</td>
<td>5. 3.17, 0.00</td>
</tr>
<tr>
<td>2.</td>
<td>Internal Quality Supervisor a) Available as recommended. b) None.</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>3.</td>
<td>a) Available as recommended. b) None.</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>4.</td>
<td>Training for member and committee a) Available as recommended. b) None</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>5.</td>
<td>a) Collect bokar together by looking at the processing pattern as recommended. b) Individual.</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>6.</td>
<td>a) Dry bokar together by looking at the processing pattern as recommended. b) Individual</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>7.</td>
<td>a) Following the development of bokar price information b) Not keep up with price information</td>
<td>5. 0.00, 0.00</td>
</tr>
</tbody>
</table>

Table 3 – The Adoption of Respondents towards Bokar Marketing Policy

<table>
<thead>
<tr>
<th>Number</th>
<th>Indicators</th>
<th>Score Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a) There is purchase record of each farmer b) No record</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>2.</td>
<td>a) There is a record of product stocks b) No record</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>3.</td>
<td>a) There is a required technical shipment b) No requirements</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>4.</td>
<td>a) There is a sales record including the quality of sold products b) No record</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>5.</td>
<td>a) There is a payment record to the member b) No record</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>6.</td>
<td>a) There is a partnership with factory b) No partnership</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>7.</td>
<td>a) There is an agreement on the cost of transportation and the wage of unloading workers. b) No agreement.</td>
<td>5. 0.00, 0.00</td>
</tr>
<tr>
<td>8.</td>
<td>a) Agree with the revenue sharing for transportation costs and wage of unloading workers. b) Disagree.</td>
<td>5. 0.00, 0.00</td>
</tr>
</tbody>
</table>
Table 4 – Highest and Lowest Adoption Rate of Rubber Farmers in Kapuas Regency, Central Kalimantan

<table>
<thead>
<tr>
<th>Number</th>
<th>Variables</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Highest</td>
</tr>
<tr>
<td>1.</td>
<td>Bokar Processing (Y1)</td>
<td>31</td>
</tr>
<tr>
<td>2.</td>
<td>Farmers Institutional Level (Y2)</td>
<td>28</td>
</tr>
<tr>
<td>3.</td>
<td>Bokar Marketing(Y3)</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>30.67</td>
</tr>
</tbody>
</table>

Source: Result of Primary Data Analysis, 2017

Analysis of Cost, Income, and Revenue of Bokaro The cost, income, and revenue earned by farmers from rubber farming activities in one year of the production process are presented in the form of a farming system, which can be seen in Table 5.

Based on the performance of farming in Table 5, it can be concluded that there is a large difference in income between farmers of UPPB members and non-UPPB members. This happens due to the difference in the price of higher valued products based on the shape and quality of the products. The UPPB members obtain IDR 12,968,128.39/hectares every year while the non-members obtained IDR 8,814,397.90/hectares every year. The results of input-output analysis on UPPB members obtained a value that is equal to 1,62. This means that every rupiah inculcated by the members of UPPB will generate income equal to 1,62 rupiah. This result is bigger than the output of the non-members. The benefit-cost ratio shows a value of 5.27 which means that every rupiah of a capital increase of UPPB members will get an additional value of 5.27 rupiah.

Table 5 – Farming activity, Average Cost, Income and Revenue of Bokar in Kapuas Regency

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Rubber Farming</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>UPPB</td>
</tr>
<tr>
<td>1.</td>
<td>Output Price of Bokar at Farmer Level (IDR/Kg)</td>
<td>6463-7100</td>
</tr>
<tr>
<td>2.</td>
<td>Explicit Cost:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Urea fertilizer (IDR)</td>
<td>158,538,46</td>
</tr>
<tr>
<td></td>
<td>b. NPK fertilizer (IDR)</td>
<td>156,027,03</td>
</tr>
<tr>
<td></td>
<td>2. c. Decline of Tapping Tool Value (IDR)</td>
<td>170,362,99</td>
</tr>
<tr>
<td></td>
<td>d. Use of Freezing Material (IDR)</td>
<td>253,733,77</td>
</tr>
<tr>
<td></td>
<td>e. Marketing Cost (IDR)</td>
<td>281,974,62</td>
</tr>
<tr>
<td></td>
<td>Total Explicit Cost (IDR)</td>
<td>1,020,636,87</td>
</tr>
<tr>
<td>3.</td>
<td>Implicit Cost:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Male Workers (IDR)</td>
<td>5,409,639,13</td>
</tr>
<tr>
<td></td>
<td>b. Female Workers (IDR)</td>
<td>2,204,095,81</td>
</tr>
<tr>
<td></td>
<td>Total Implicit Cost (IDR)</td>
<td>7,613,734,94</td>
</tr>
<tr>
<td>4.</td>
<td>Total Cost (3 and 4) (IDR)</td>
<td>8,634,371,81</td>
</tr>
<tr>
<td>5.</td>
<td>Production (Kg):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Male</td>
<td>1693,04</td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
<td>686,12</td>
</tr>
<tr>
<td>6.</td>
<td>Income (IDR)</td>
<td>13,988,765,26</td>
</tr>
<tr>
<td>7.</td>
<td>Revenue (IDR)</td>
<td>12,968,128,39</td>
</tr>
<tr>
<td>8.</td>
<td>Output Input Ratio</td>
<td>1,62</td>
</tr>
<tr>
<td>9.</td>
<td>B/C Ratio</td>
<td>5,27</td>
</tr>
</tbody>
</table>

Source: Result of Primary Data Analysis, 2017.

The Effect of Adoption Rate on Farmers Income. In this research, the analysis is performed with Statistical Analysis System Program (SAS) based on the influence of rubber farmers’ adoption rate (ADOPB) on the characteristics related to farming factors such as bokar price (HBR), rubber area (LLK), total revenues of bokar (TIBR), husband age (UMR), husband education level (TPD1KP), farming experience (LAMKR), number of household members (JART), and membership status at UPPB (STAGOT). The discussion that is in accordance with the objectives of the research is the effect of the adoption variable and the
income of the farmers with the assumption that other factors besides the income variable are ceteris paribus. The more detailed data are presented in Table 6 below.

Table 6 – The Results of Equation Parameter Estimation of Adoption Level and the Factors of Farming and Rubber Farmers Characteristics

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Parameter Value</th>
<th>t-count</th>
<th>Significance Level</th>
<th>DW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interception</td>
<td></td>
<td>66.59279</td>
<td>8.39</td>
<td>&lt;.0001</td>
<td></td>
</tr>
<tr>
<td>HBR</td>
<td></td>
<td>0.04451</td>
<td>2.10</td>
<td>0.0294</td>
<td></td>
</tr>
<tr>
<td>LLK</td>
<td></td>
<td>5.12573</td>
<td>2.54</td>
<td>0.0003</td>
<td></td>
</tr>
<tr>
<td>TIBR</td>
<td></td>
<td>1.389E-6</td>
<td>2.74</td>
<td>0.0070</td>
<td></td>
</tr>
<tr>
<td>UMR</td>
<td></td>
<td>0.21070</td>
<td>2.39</td>
<td>0.0095</td>
<td></td>
</tr>
<tr>
<td>TPDIKP</td>
<td></td>
<td>0.272830</td>
<td>1.38</td>
<td>0.1711</td>
<td></td>
</tr>
<tr>
<td>LAMKR</td>
<td></td>
<td>-0.082089</td>
<td>-0.84</td>
<td>0.0244</td>
<td></td>
</tr>
<tr>
<td>JART</td>
<td></td>
<td>-0.04428</td>
<td>-0.09</td>
<td>0.9255</td>
<td></td>
</tr>
<tr>
<td>STAGOT</td>
<td></td>
<td>12.16977</td>
<td>8.46</td>
<td>&lt;.0001</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>0.77954</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Count</td>
<td></td>
<td>54.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the coefficient of determination (R²) is used to determine the accuracy of the model used in the percentage of dependent variables which can be explained by the independent variables. From the analysis, the value of the coefficient of determination (R²) is 0.77954 meaning that 77.954% variation of adoption variable (dependent variables) can be explained by the variables in the model (independent variable) while the rest of 22.046% will be explained by other variables outside the model.

F-test is used to determine the effect of all independent variables on the dependent variables. Based on the F-count analysis, the F-test is known to be 54.81. This value is greater with a significance level that is less than one percent. This means that the independent variables included in the equation affect the dependent variables.

The result of autocorrelation test with Durbin Watson (DW) criterion test shows a number of 1.713735 which is between 1.55 and 2.46 (Misbahuddin and Hasan, 2013). This can be said that there is no autocorrelation in the structural equation.

Furthermore, the t-test is used to know the influence of independent variables partially to dependent variables. Based on Table 6, it can be seen that the value of t-arithmetic in the variable of bokar revenue (TIBR) is 2.74. This gives a significant effect on the level of
application or adoption where the effect is positive and significant at the error rate of five percent. Therefore, based on the partial analysis of the adoption equation, the variable of bokar revenue affects the adoption variable. This happens because the UPPB members who have adopted the suggested technology in bokar processing already in transition to technological improvements even though all the recommended components not really been adopted by the farmers. Moreover, this happens because they need to increase the activity of the group. The normal distribution of P-P plot from the regression of adoption variables to the factors affecting the adoption rate can be seen in Figure 1.

In Fig. 1, the adoption rate of rubber farmers can be said to be normally distributed. This can be seen from the distribution of data that spread around the diagonal line and follow the direction of the diagonal line.

CONCLUSION

The adoption rate of the farmers who followed the bokar bersih program in bokar processing which is implemented in the form of Bokar Processing and Marketing Unit (UPPB) is classified in the category of moderate/in transition to the implementation of the program although it still needs more improvements. This program is very beneficial for farmers as one of the efforts to improve technology as well as farmers’ income. This is done to stimulate farmers who are the members of the UPPB towards the efforts to improve farming and to create better and sustainable bokar processing.

The adoption rate has an effect on the increase of farmers’ income which can be seen from the coefficient of determination value (R²) that is equal to 0.77954 which means that 77.954% variation of the adoption variable (dependent variables) can be explained by the variables in the model (independent variable) and the rest 22.046% will be explained by another variable outside the model.

The result of F-test analysis shows a number of 54.81 with an error rate that is less than one percent. The partial influence of independent variable to dependent variable is examined by using t-test. Based on the result of the analysis, it can be seen that bokar revenue has a significant effect on the adoption rate of rubber farmers where the effect is positive and significant at the error rate of five percent. By that, based on the partial analysis of the adoption equation, the variable of bokar revenue affects the adoption variable. This is because UPPB farmers who have adopted the recommended technology on bokar processing have been in transition to technological improvements although all recommended components have not really been adopted by farmers. This also happens because the farmers want to increase their group activities.

RECOMMENDATIONS

The improvement of bokar cultivation and processing facilities is very needed for rubber farmers in Kapuas Regency. The efforts to increase the income of rubber farmers need to be supported by the use of adequate facilities at the level of bokar cultivation and processing because adequate facility and infrastructure are one of the compliments both in production and processing level. By that, it is expected to increase latex productivity and bokar processing productivity.

It is essential to have institutional strengthening at the farmers level, especially for young farmers through various non-formal education in the form of skills related to the development of rubber processing business. The development of product competitiveness at the local level through established economic organizations is intended to increase the income and welfare of rubber farmers.

In consideration that the marketing in the research location is part of the effort that influences the rubber farmers, it is necessary to improve the road infrastructure and transportation in order to support the transportation from and to the factory or final sales location.
REFERENCES

WORK STRESS (CAUSES, IMPACTS AND SOLUTIONS): A CASE STUDY
ON THE NET. YOGYAKARTA EMPLOYEES

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ORCID: 0000-0001-8827-2139

ABSTRACT
The purpose of this research is to know the causes of the emergence of the stress, and the impact or effects that appear due to stress. The results of research show the factors triggering the emergence of stress: demands and high work pressure; work overload; the inter-personal relationship (including disputes with colleagues); buildup of work; overtime; disagreements among the leadership; lack of appreciation from superiors; complexity of the work; the lack of help from colleagues and superiors; and the discipline of the time.

Key words
Stress, impact, stress solutions, media workers.

The media industry is currently very rapidly in Indonesia after the reform era, even often seen as offsetting amongst the people. In addition to rewarding in terms of the economy, the media industry is also useful as a place to work for the people and industries of television, often involving the workforce in large numbers. This is certainly very helpful to relieve the Government's burden in terms of unemployment (Hidayat and Prakosa, 1997).

Mass media emerged as a highly influential force. The submission of information through the mass media such as newspapers, television, radio, and movies have shaped human knowledge and opinions regarding various events or things that concern people's lives. The mass media has been present at every moment of our lives regardless of time and distance even the presence of the mass media can affect a person's behavior and way of life. Among the various mass media, television media is media that is effective in forwarding the message. Information, news and entertainment media content is a highly anticipated television audience, because television media can accommodate your needs and provide a variety of information, (Severin and Tankard, 2001).

In the world of work, including in the media industry, there is the possibility of emerging issues with respect to the work and the conditions that can trigger the appearance of stress. Either consciously or not, the work that person does, like a job in the production section of the program or in the news (journalist) as well as administrative and financial work in office, potentially inflicting stress on him. For example, the burden of work and the deadline of the superior overload or under load work, and others. It can appear in the span of a short or long, because people dabbling in the workplace of more than eight hours per day.

Information is currently a need that is very important and cannot be separated from human life. The curiosity is human nature became the biggest driving factor will be such a need. Man looking for information for a variety of purposes of life. In addition to adding to the knowledge that can broaden the horizon of thinking, information also serves as one of the considerations in decision making (Hidayat & Prakosa, 1997).

In the world of work, including in the media industry, there is the possibility of emerging issues with respect to the work and the conditions that can trigger the appearance of stress. Either consciously or not, the work that person does, like a job in the production section of the program or in the news (journalist) as well as administrative and financial work in office, potentially inflicting stress on him. For example, the burden of work and the deadline of the superior, overload or underload work, and others. It can appear in the span of a short or long, because people dabbling in the workplace of more than eight hours per day.
A study mentions three of 10 journalists suffered post-traumatic stress disorder (PTSD) after working in dangerous tasks, depression, anxiety, and problems in interpersonal relationships also were reported. The research is supported by the discovery of Feinstein dkk (2002) who found that nearly 30 percent of reporters stationed in conflict areas show signs of post-traumatic stress. The profession of journalist also has a high safety risk threat. Many of the events that befell reporters covering news in the area of conflict, as in natural RCTI Reporter Ersa Siregar was killed in a firefight between TNI with GAM in the Peureulak area of NAD in 2003. Other problems also add to the workload of reporters is the low level of well-being. The final results of the Research Alliance of independent journalists (AJI) about the welfare of journalists still shows low levels of income of journalists. Research done in the 17 cities reveal the average earnings of journalists between Rp 900,000,-to Rp 1.4 million per month. But the sad thing is still a reporter found his salary under Rp 200,000 per month.

Based on data from the National Institute of Occupational Health and Safety (NIOSH) in 2010, there are around 40% of workers reported that their work is very stressful; the next 25% are they view their jobs as the main sources of stress in their lives; and 75% of workers believe that the job is now more stressful compared to previous employment; 29% of workers feel very stress at work; and the last of the 26% of workers said that "I quite often or very often felt saturated or feel stress against her work." This data simply open our view that this adult work stress have become important issues in the world of work that if allowed to happen will be able to affect the quality of life of many people, both in terms of productivity of work or personal life. More than 25% "often" or "always" experience stress, 8% of people "always" experience stress, whereas 5% "never" experienced stress, at least it was said to be the speaker.

While the facts of the International Labour Organization (ILO) revealed that about 10% of workers are experiencing depression, stress and anxiety in the United States, United Kingdom, Germany and Finland. In Finland, there are 50% of workers reported signs of stress. In the United Kingdom, 3 out of 10 workers are experiencing mental disorders due to work.

Before discussing further, first we need to understand what the meaning of stress in the eyes of the researchers and what things that trigger the appearance of stress. The term stress is seen as a response to common and non-specific to any physiological or psychological demands emanating from neither outside nor within him, it is called a stressor. The stress is experienced when a situation perceived or judged to exceed the abilities or resources. Psychological stress is a relationship between the individual and the environment that are valued by individuals exceeding the abilities or resources that it owns and threatens the well-being of the individual.

Sources of stress or stressor can equal or different in each individual, depending on how the individual perceive it. Many previous studies which find out what are the stressor in the world of work. Life is full of potential, namely stressor incident or situation and the changes in life that produces stress, (Lazarus, 1995). Approach to Life Events proved that changes in one's self whether good or bad, can trigger the appearance of stress. The importance of cognitive assessment in response to stress and the everyday job turns out can produce stress. According to her everyday stress though are light but are accumulative and eventually become a source of stress that weight.

Stress basically can be divided into two, namely "eustress good stress/" (stress) and "bad stress/distress " (negative stress or bad). We know that stress is not good for your health, especially if too much. But as it turns out, too little is also not ideal. Research tells us that a little stress is good for your health and is not always bad. This is called with the "good stress/eustress". Is Eustress that really motivate you and help you move on. This usually occurs during the period of transition to better things; You may get a big promotion at work; Could a baby have come into your life; Maybe you moved into your dream home or; It is possible that all your dreams come true and a stranger who you have never met is thinking you are a pretty good writer and you’ve received your first publishing contract. These are all examples of the extraordinary events of the long-awaited, but also events that can cause the
body to become exhausted. Our body does not know the difference between distress and eustress.

In addition, work stress is more often associated with the emergence of health complaints compared with financial problems or family problems. The total costs that must be incurred related to the health and productivity of employees who are experiencing the stress of work in America is estimated at $50-$150 billion per year. Forty percent of the turn-over of employees caused by work stress, and experts predict the company will have to pay 150% of salaries for new hires replacement employees who resigned due to work stress.

**LITERATURE REVIEW**

Stress is the result of transactions between individuals with their environment. Stress cannot be generated from the individual or from its surroundings, but rather from the interaction between the two. The stress is experienced when a situation perceived or judged to exceed the abilities or resources. Psychological stress is a relationship between the individual and the environment that are valued by individuals exceeding the abilities or resources that it owns and threatens the well-being of the individual.

According to Soewondo (2010), there is no definition of stress are common. Understanding the stress depends on what approach will be used. Stress can sometimes be seen as a stimulus or trigger a response, or the interaction between the individual and the environment. The concept of stress as the stimulus is described as a stimulus in the environment faced by individuals and is considered disruptive. This is as it has been submitted, i.e. events that threaten such as hurricanes, plague, the death of the family, and others.

The concept is the next stress is seen as a process of transactional relationships, not to mention as a stimulus or just a response only. According to Soewondo (2010), eustress is a good or positive stress, for example as an achievement of the meaning, and then fall in love, as well as won the game. However, if the stressor is unwanted then cannot be managed properly then it can lead to distress or stress the negative and potentially triggers the appearance of stress. Distress is a negative stress, for example, is less or excessive stimulation, bored, tired, exhausted, the demands are too high, and excessive workload.

Lazarus and Folkman's (1984) in Soewondo (2010) explain that psychological stress is a relationship between an individual with the environment that will be perceived exceeds the ability of its own and threatens the well-being of individuals such. Here is a model of stress from Lazarus and Folkman:

![Stress Model Diagram](image)

**Figure 1 – Model Stress Lazarus and Folkman, 1984 (quoted from Soewondo, 2010)**

In this model introduced the term coping, coping with itself is a process where individuals try to manage the perceived gap between the demands of origin of individuals or the environment with existing capabilities in the face of stress. A coping is a cognitive and behavioral efforts that keep changing to specifically manage the demands of a heavy or exceeds the ability of the person. Coping with emotions and can focus on the problem. In coping with the focus on individual emotions, trying to reduce the negative emotions or reactions to relieve the pressure of the emotions evoked by stressor in a way, avoid releasing emotions, relax, or blame yourself. Coping will only focus on the problem, and
thereafter was to resolve the issue, look for associated information, and then perform an action directly, change your mindset or viewpoints and motivation, or make a new plan.

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Coping with emotions and can focus on the problem. In coping with the focus on individual emotions, trying to reduce the negative emotions or reactions to relieve the pressure of the emotions evoked by stressor in a way, avoid releasing emotions, relax, or blame yourself. Coping will only focus on the problem, and thereafter was to resolve the issue, look for associated information, and then perform an action directly, change your mindset or viewpoints and motivation, or make a new plan. According to Davis, Eshelman and M'Kay (2008), there are four sources of stress in General, namely:

- Environment that demands a person to be able to adjust to that individual. We have always claimed to be able to adjust itself against noise, air pollution, weather, traffic density, etc.
- Social Stressor, for example such demands will be the time and the requirement to give full attention towards it, in the job interview, and specifies a priority which will be made in advance in the work, presentation work, personal conflicts, financial problems and lost/the death of someone we love and care about.
- Physiological Stressor. Can be described as rapid growth in children adolescents, menopause in women, lack of exercise, the less nutrition, less time sleeping, the emergence of diseases, injuries, and aging can occur in all people. Physiological reaction of this kind is our response to the environment and threats as well as social changes can trigger stress symptoms such as muscle tension, headaches, abdominal pain, anxiety and depression.
- Sources of stress from the mind. Our brains are always interpreting the complex changes to the body, the environment, and we need to know when the right time to provide a response to the emergence of the trigger source of stress. And also how we can label and interpret what we’re facing and what we will face in the days to come may make us experience stress or we can also feel relaxed. For example, as I interpret the arrival of tops to your desk, because you feel blundered in the job given to you then will be able to bring up a response to anxiety, fear, and tense. However, if you interpret it as mediocre, then stress response itself will not appear.

The combination of a variety of stressor (stressor in the workplace and outside work) can lead to tension or stress, affect morale and lowering the quality of work. Effects of stress will be more felt on workers aged over 45. Work stress can decrease the performance of your workforce and increase the turn-over of employees in the company, (Suls and Martin, 2005). Work stress can reduce a person's concentration, lower productivity, an increase in the frequency of errors in work, high rates of injury on the job, the high level of attendance and irritability as well as increase conflicts with co-workers and supervisors. Someone who was in a situation of distress often feels faster emotions, and the emotions are often tipped with unpleasant. Weiten et al. (2009) mentioned the response of the usual negative emotions appear as follows:

- Temper: Stress often lead to anger and intensitasnya ranging from mild to uncontrolled angrily.
- Anxious: this can be caused because of the pressure to present themselves, the threat that frustrating, or uncertainties associated with changes in the situation.
- Sad: Sometimes the problem is a frustrating stress this can also cause a person grieving.

Could not complete the work that has been given by its leader, can cause a person to feel guilty, while death and divorce can also cause a very deep sadness. However there is just someone who can also feel more positive emotions in stressful situations and emotions
that can improve one's endurance in the face of stress. As already explained, stress often gives rise to a very strong emotional reactions. The response cause physiological changes. Though when a person undergoes stress, then we will soon realize that our heart beat faster, and a little difficult to draw breath, and sweating more than usual. The emotional and physiological response to stress tend to occur directly and cannot be predicted. While the other is a big part of response behaviors include coping with which refers to active efforts to control, reduce, or tolerate the demands arising from stress, (Quick et al, 2013).

Stress management is a skill that allows one to anticipate, prevent, manage, and recover from the stress of the perceived threat due to threats and incompetence in coping with (Smith, 2002). Emotion management techniques such as meditation, yoga, is progressive relaxation; techniques to manage a better lifestyle with sports, eat regular and healthy, or do not consume alcohol or cigarettes; as well as the techniques done to address aspects of behavior such as time management. There are four approaches to stress of work, namely:

- Approach through meditation; This approach needs to be done to the way employees are concentrated to the natural mind, relaxes muscular work, and calming emotions. This meditation can do for 15-20 minutes. Regular meditation is done in a special room. A Muslim employee regular Dzuhr prayers after doing so through prayer and remembrance to Almighty God.
- Approaches social support; This approach is done through activities that aim at providing social satisfaction to employees. For example: play games and joked.
- Approach Through Biofeedback; This approach is carried out through medical guidance. Through the guidance of physicians, psychiatrists, and psychologists, so expect employees can eliminate the stress that had befallen him.
- Approach to personal health; This preventive approach is the approach before the onset of stress. In this case the employees in continuous periods of health check, do the muscle relaxation, nutrition, and exercise settings regularly.

Detecting the causes of stress and reaction form, then there are three patterns in coping with stress, including:

- Harmonious Pattern; Harmonious pattern is a pattern deal with stress with the ability to manage time and harmoniously and does not give rise to a variety of obstacles. With this pattern, the individual is able to control various preoccupations and challenges with how to set the time on a regular basis. The individual is always the face of the task exactly, and if he needs to delegate certain tasks to others by giving full confidence. Thus, the harmony and balance between the pressure that is received with the given reaction. Likewise against the harmony between himself and his environment.
- Healthy Patterns; Healthy pattern is a pattern deal with stress the best IE with the ability to manage behavior and actions so that the presence of stress does not cause the disorder, but will become more healthy and growing. Those who belong to this group are usually able to manage time and busy life in a good way and regularly so it does not need to feel there is something pressing, although the actual challenges and pressures.
- Pathological Patterns; Pathological patterns is the pattern facing stress with various disorders impacting physical or social-psychological. In this pattern, the individual will face numerous challenges in ways that do not have the ability to manage tasks and regularity and time. In this way may give rise to dangerous reactions because it can cause a variety of problems.

**METHODS OF RESEARCH**

The methods used in this research was the qualitative approach with descriptive analysis method, a design that gives it easy for researchers to record, monitor and follow the process of an event or activity of an organization as it is in a certain time brackets and further
on to interpret the research problem to answer. The method was chosen because it allows doing research and gathering information about the sources of stress in depth and comprehensive. As explained by Locke, Spriduso and Silfeman in Creswell (1994:147): “Qualitative research is interpretative research. The US is such the biases, values and judgement of the researches become explicitly stated in the research report. Such openness is considered to be useful and positive, "while the descriptive analysis, a method is a method used to describe or analyze a research results but is not used for make wider conclusions" (Taylor et al., 2015).

Research Instrument; in qualitative research, which became the instrument or research tool is the researchers themselves so researchers must be "validated". Validation against the researchers, include; understanding qualitative research methods, mastering insights against a field that is examined, the readiness of the researchers to tap into the object of research, both academically as well as logically. Qualitative researchers as a human instrument function sets the focus of the research, selecting informants as a data source, perform data gathering, assessing data quality, data analysis, interpret the data and make conclusions upon his findings. The subject of the research is the ones that will be made for canvassed by researchers. The object of the research is the place will be used as research or who became the focus of a research. In this research that became the subject of research is the 10 employees of the NET. and its object is located in the NET. Yogyakarta.

Determination of the Informant; Informant in research is the person or the perpetrator who really know and control problems, as well as get involved directly with the research issues. By using qualitative research methods, then the researcher is closely associated with contextual factors, so in this case the sampling is made as much information from various sources. The intent of both of the informant is to multiply the information that formed the basis of the theory of design and construction. In qualitative research, it is becoming a major consideration in data collection is the selection of informants. In qualitative research does not use the term population. The sampling technique used by researchers is a purposive sample. Purposive sample is the technique of determination of samples with specific considerations, (Patton, 2005).

Qualitative research does not question the number of informants, but it could depend on whether or not the right selection key informant, the diversity and the complexity of social phenomena are examined. Thus, the informant is determined by the technique of snowball sampling, which is the process of determining the informant upon previous informant without specifying the amount for sure with digging up the research topic related information required. Search the informant will be discontinued after the research information was considered adequate already. As for the criteria of the determination of the key Informants (key informants), in the giving of information and data that is precise and accurate regarding stress management on several journalists NET. These. The informant was needed in research this is the employee's NET. Yogyakarta, which consists of 10 journalists and divided into 6 journalists male and 4 female reporter.

The technique of data collection was the way researchers to obtain data in a research. Because this research is qualitative research then the data obtained must be deep, clear, and specific. Data collection can be obtained at one of the results of observation, interview and combined/triangulation. Data is information about the something object of research that put more emphasis on this aspect of the matter, everything that is only associated with the description of a fact which is found researchers on site research.

Data Analysis Techniques; Qualitative data analysis is an attempt made by way of working with data, organizing data, categorize it into a unit that can be managed, process, looking for and find patterns, find what is important and what is learned, and decide what can be told to others, (Miles et al., 2013). Based on the definition above it can be concluded that the initial steps of data analysis is collecting the data, compiled systematically, then presented the results of his research to other people. The stage of the analysis of qualitative data is as follows:

- Read/study the data, marking the key words and ideas that exist in the data.
- Learn key words of it, attempting to find themes that originate from the data.
• Renders the 'model' was found.
• Coding has been done.

Data analysis starts by conducting in-depth interviews with key informants, namely someone who really understand and know the situation the object of research. After conducting interviews, analysis begins by creating a transcript of the interview, with the way the play back the recording of the results of the interview, listen carefully, and then write down the words that are heard in accordance with what is record such. After the researchers wrote the interview results into the transcript, then researchers should read carefully and then do the reduction of data. Researchers make the reduction of data by creating abstraction, i.e. take and record information-useful information in accordance with the context of research or ignore words that need not be so obtained the gist of wording only, but the language matches the language informants.

The abstraction that was made in the form of units which are then classified based on taxonomy of domain research. Domain analysis is gaining public and thorough description of the object/research or social situations. Researchers obtained this domain with questions how to do grand and minitour. Meanwhile, a domain is very important for researchers, because as a foothold for further research. Regarding the analysis of the taxonomy that is by selecting a domain and then spelled out into more detail, so that its internal structure can be known.

Data Reduction (Reduction Of Data); Data reduction is not a thing apart from the analysis. Data reduction is defined as the process of selection, concentration on simplification, and transformation of data emerging from rough notes written in the field. Data reduction activities take place continually, especially during the qualitative-oriented projects underway or during data collection. During data collection, reduction, i.e. stages occur make a summary, encode, browse the theme, making cluster-cluster, create the partition, and writing memos. Data reduction is a form of analysis that sharp, classify, direct, dispose, and organize data in such a way so that conclusions can be drawn and verification final. Data reduction or transformation process continued steadily after field research, to complete the final report is composed. So in qualitative research can be simplified and transformed in various ways: through strict selection, through the summary or description, classified in a wider pattern, and so on.

Data Display (Presenting Data); At this stage, researchers developed a description of organised information to draw conclusions and taking action. The presentation of the data is often used in this research is a form of narrative text. The intention of the text is a narrative description of the information that researchers have been classified previously regarding the perception of about the performance of librarians who later formed conclusions and further the conclusions presented in text form narrative.

Conclusion/Verifying (Withdrawal Of The Summary); Researchers trying to draw conclusions and verify by looking for the meaning of any symptoms of acquired from the field, record the regularity and the configuration that may exist, plot of causality phenomenon and proportions. At this stage, the authors draw conclusions from data that has been inferred before, and then match the notes and observations made at the time of the author's research.

RESULTS OF STUDY

The NET. Yogyakarta is the representative office of NET Mediatama, based in Jakarta, and the NET. Yogyakarta's own new stand for one more year. The number of employees who became the subject of the study amounted to 10 people.

And here is the result of a summary of the sources of stress (stressor) obtained from the results of the interview of the source: Demands and high job pressure; Overload of work; inter-personal Relationship (including disputes with colleagues); The backlog of work; Overtime; Depth-leadership; Lack of appreciation of the leadership; the complexity of the work; The lack of help from colleagues and leadership; Discipline of the time.
Table 1 – Subjects description

<table>
<thead>
<tr>
<th>Subject</th>
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<tr>
<td>A • The Demands And High Work Pressure</td>
<td>B • Overload Of Work</td>
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<td>• Overtime</td>
<td>• Inter-Personal Relationship</td>
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<tr>
<td>• Lack Of Sleep</td>
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<td>• Anxious</td>
<td>• Less Comfortable</td>
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<td>• Less Comfortable</td>
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<td>• Sensitive</td>
<td>• Prayer</td>
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<td>• Prayer</td>
<td>• Sharing With Friends</td>
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<td>• Drinking Coffee</td>
<td>• Leave Work</td>
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<td>• Sharing With Friends</td>
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<td>C • Salary Does Not Match</td>
<td>D • Overload Of Work</td>
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<td>• Demands And High Work Pressure</td>
<td>• Demands And High Work Pressure</td>
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<td>• Fatigue</td>
<td>• Incoming Lazy Work</td>
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<td>• Sharing With Friends</td>
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<td>• Sports</td>
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<td>• Leave Work</td>
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<td>E • Inter-Personal Relationship</td>
<td>F • Depth-Leadership</td>
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<td>• Headaches</td>
<td>• Discipline</td>
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<td>• Does The Spirit Of Work</td>
<td>• Time Anxious</td>
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<td>• Lazy Entered Work</td>
<td>• Fatigue</td>
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<tr>
<td>• Prayer</td>
<td>• Sharing With Friends Or Through Social Media</td>
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<tr>
<td>• Watch Television</td>
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<td>G • The Demands And High Work Pressure</td>
<td>H • Lack Of Help From Colleagues</td>
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<td>• Lack Of Appreciation</td>
<td>• And Leadership</td>
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<tr>
<td>• Anxious</td>
<td>• Overload Of Work</td>
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<td>• Shortness Of Breath Chest</td>
<td>• The Demands And Pressure Of Work</td>
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<td>• Want To Upset</td>
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<td>• Sharing With Friends</td>
<td>• A Work Furlough</td>
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<td>• Do His Personal Hobby</td>
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<td>I • Demands And High Work Pressure</td>
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<td>• Time Anxious</td>
<td>• Lazy Time Entry Work</td>
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<td>• Headache</td>
<td>• No Smoking</td>
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<td>• With Family</td>
<td>• Working Spirit</td>
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<td>• Shopping Cart</td>
<td>• Listening To Music</td>
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<td>• Rest At Home</td>
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Sources of stress are also resulted in the appearance of the impact or effects to the health of the employee’s NET. Yogyakarta, either psychologically or physically impaired person. The following is the impact/effects of the stress inflicted upon the results of the interview against the subject: The tense atmosphere; Feeling uncomfortable; Easily fatigued; Anxiety; Easy sensitive; Lack of sleep; Saturation; The headache; Lazy work entry; Spirit of the work.

And of all explanations of factors trigger the appearance of stress and the effects that appear due to stress this, here is the solution they (the subject) are doing at the time of the stress: Sports; Serve the Lord; Chat with Family; Shopping; Play With Friend; Drink coffee; Time off Work; Sleep; Watch TV.

**DISCUSSION OF RESULTS**

The result of this research shows that 10 of the subject has trigger the emergence of sources of stress (stressor) works in an environment that could potentially cause the stress on themselves. High job demands became one of the many sources of stress mentioned by the subject. When deciding to join a company, of course, the work is routine stuff that should be done by everyone, no exception by the employees NET. However, sometimes the given work demands exceed the ability of someone to do it, and finally came the stress.

The source of the stress normally arises from external factors, ranging from the environment in which they work, as well as employee relations with superiors, and a sure source of stress that may arise from this type of work or the burden of his work. As is the case in this study which addresses the issue of work stress experienced by the employee's NET, after conducting an analysis of the sources of stress that appear on the employee's NET, then later the virtue of 10 sources of stress that exists in some the employee is. Among
them are the following: demands and high work pressure; Work overload; The inter-personal relationship (including disputes with colleagues); Buildup of work; Overtime; Depth-Chairman; Lack of appreciation of the leadership; Complexity of the work; The lack of help from colleagues and leadership; and the discipline of the time.

Be employees working in the world of television is indeed to be ready with the risks that can lead to the appearance of stress, let alone working for a news division. Reporter spearheading from news coverage in the media, they are required to keep on hand for 24 hours and even they should be ready to be sent on duty wherever it (including assigned should be ready in the conflict-prone), not to mention coupled with the risk of losing a life when in charge of covering something dangerous.

Workers in the retail sector that is in Jaipur India have problems the stress that arises from their workload is high. From the journal authors can conclude that the workload can be a source of stress, and that the results are then equal to what the author found on NET some employees of Yogyakarta that workload too heavy resulting in a sense of stress that interferes with the activities and lives of individuals.

The work has a high workload and time pressure (deadline) high make individuals feel pressured and stressful (Davis & Newstrom, 1989). If the workload is too high, the work hours of pressing and the job containing high risk is a factor that can cause stress. The profession of journalist also has a pretty tight competition, while the presses that can accommodate such professionals have very small amounts. Journalists are not able to convey information to the Office as soon as possible and because the news does not appear in the media where he worked the next day would be at risk of losing his job. This is because the newspapers they will contain news items not actual so that in the end will be left readers. If the workload is too high, the work hours of pressing and the job containing high risk is a factor that can cause stress.

Journalists can be categorized into a job that has a high work stress levels because of the workload, the working time and the risk of insistence that high. Zaenuddin (2007), suggests that journalists must be able to work under pressure. This is related to the problem of the time. Journalists should be prepared to work under time pressure. That is, the work of the journalist both in its status as a reporter or editor it is always limited by time.

Some of the effects arising out of employee stress on NET, such effects will indeed vary in each individual. Not all subjects will feel the same effect with other subjects, there are some subjects experience health disorders (ranging from headaches, lack of sleep, dizziness) or interference on the side of his psychic (such as easy-sensitive, feeling uncomfortable). The effect of the stress this again varies for each individual, not all people experience the same interference with findings from researchers about work stress on the employee's NET. The stress here is a little annoying in the life of the subject, such as sleep deprivation. When a subject does not have enough time to sleep, it is then that occurs is the domino effect against his work, it has not been coupled with factors trigger stress which will appear in the Office.

Indeed the effect of the stress that arises almost most of the attack on a person's health, the effect will be felt directly (e.g., headaches, and dizziness). Not to mention it will appear an inefficient provision in relation with its surroundings, a sense of stress or frustration this will be something that Scotch on someone. Such feelings of irritability, this effect will also make connections with surrounding disturbed. The combination of a variety of stressor (stressor in the workplace and outside work) can lead to tension or stress, affect morale and lowering the quality of work. Work stress can reduce a person's concentration, lower productivity, an increase in the frequency of errors in work, high rates of injury on the job, the high level of attendance and irritability as well as increase conflicts with co-workers and supervisors.

Stress increases when bosses or co-workers socially become insensitive to the needs of others or demean others and too critical of the work produced by others. In addition, employees will experience stress if he felt unappreciated by others or feel no progress in his work. Plus more if they don't get the recognition or promotion work from companies that they believe that they deserve it. The question of factors trigger the appearance of stress and its
effects on the performance of employees. This stress will bring up various side effects such as: impaired health, lifestyle, personal lives of employees. And it will also have an effect on performance as well as their commitment. In this journal then obtained the results that trigger stress due to low wages, excess workload, competition with fellow employees, management, low support factors (appreciation), work environment, a long working time, knowledge the target is low, high, and it's all have implications for performance negatively to work.

The previous description can describe how and what they feel is natural as well as working in the world of television, and almost all of them experience problems similar to stress triggers them. Well that's a factor of pressure, and the complexity of the work that they do, they are almost the same complain how the attitudes of Jakarta (Jakarta NET) in their work. Working as an employee of the media especially television is indeed to be ready with all their risks. Risks such as overtime, salaries are not appropriate (subjective), pressure is a matter of preaching, not to mention individual issues like relations inter-personal which the emergence of saturated taste, a sense of tired, until eventually led to the stress itself.

Stress management is a skill that allows one to anticipate, prevent, manage, and recover from stress because of the perceived threat and incompetence in coping with that done (Smith, 2002). Techniques of stress management techniques in this very much. Many of the things they do to get out of those situations, some of them seeking ways with sports, there are also later serve the Lord. The majority answered they would be main or do their hobbies when finished off the job, and even though it was only a temporary effect but simply help them to forget about the existing problems in the Office. Personal health approach is the approach before the onset of stress. In this case the employees in continuous periods of health check, do the muscle relaxation, nutrition, and exercise settings regularly.

Stress not only seen as a negative phenomenon that is permanent, but there is a positive side as well. Therefore, stress management is required to minimize the impact of this stress. There are several ways that can be done by the company to reduce the stress on employees, for example, is conduct an effective training and family gathering. In addition to the demands of the job, the working relationship with fellow co-workers or superiors also became one of the sources of stress for some employees of the NET. As is known, the working relationship with fellow co-workers or superiors not forever walking in accordance with desire. Often it appeared wrong in the work if it is not resolved can lead to strife and eventually gave rise to stress.

Based on the results of the interview to its subject, the disharmony in the leadership have taken small decisions and a lack of help from superiors while facing problems of work became one of the causes of the emergence of misunderstandings and disputes with tops on the NET. For example, from the results of the interview subject is aware that some feel the lack of discipline in terms of the time at their internship in work and difficult it is to set up a child apprentice to be able to do his job properly. It is a source of stress for those who can certainly affect relations inter-personal with kids their fruits, either in work or in private life. If you have this, they will be more prone to work stress, especially coupled with job demands that exceed the demands of the work of the sons of his apprenticeship and working pressure from their supervisors.

In addition, employees will experience stress if he felt unappreciated by others or feel no progress in his work. Plus more if they don't get the recognition or promotion work from companies that they believe that they deserve it. Similarly, according to Soewondo (2010) that identifies personal inter-relationships, either with fellow co-workers or superiors as one source of stress. Research results Soewondo (2010) is appropriate depends on the results of research on the tenth of this subject.

Based on the results of the interview, the subject undergoes physical complaints as well as mental stress. Dizziness, headaches and tightness in your chest is the physical complaints that are often experienced. In addition there is also a perceived mental complaints, such as feeling anxious, feeling lazy work or not in the mood to work, avoid any tops or avoid prosecution work that ultimately makes their stress and not to enter work or take a leave of absence a couple of days for refreshing with the family or just rest at home. This is in accordance with some expert opinion about the effects of work stress. According to...
Soewondo (2010), the effects of stress are physical disorders such as heart palpitations, migraines, high blood pressure, sweating, aching heart; such a change in attitude, and withdrew, feeling depressed, timid. While according to Lazarus (1993), in Weiten et al. (2009), the response of the usual negative emotions appear due to stress is feeling anxious. Anxiety can be caused by the pressure to present themselves, the threat of which make for frustrating, or uncertainties related to changes in the situation. The effects of work stress are mentioned by Soewondo and Lazarus appeared in ten subjects of research.

Work stress can reduce a person's concentration, lower productivity, an increase in the frequency of errors in work, high rates of injury on the job, the high level of attendance and irritability as well as increase conflict with colleagues. The effects of work stress also appears on the subject, although none of them who decided to resign from the NET, but the existence of an intention to not go work on the next day became one of the indications of the inconvenience of working that does not cover the possibility it could lead to a decision to resign from the NET.

The conclusions of the source of the stress of appearing on 10 employees NET Yogyakarta of which is as follows: demands and high work pressure; Work overload; The inter-personal relationship (including disputes with colleagues); Buildup of work; Overtime; Depth-Chairman; Lack of appreciation of the leadership; Complexity of the work; The lack of help from colleagues and leadership; and the discipline of the time. Be employees working in the world of television is indeed to be ready with the risks that can lead to the appearance of stress, let alone working for a news division. Reporter spearheading from news coverage in the media, they are required to keep on hand for 24 hours and even they should be ready to be sent on duty wherever it (including assigned should be ready in the conflict-prone), not to mention coupled with the risk of losing a life when in charge of covering something dangerous.

In a conversation at the time of the interview against the subject matter then found some complaints of this workload. Those who work in television, complained that most of the workload they have received already outrageously heavy, often then the workload that can even be torturing myself once. Finally, any work that it must have to individually-san-typical of that of the good functioning of its work as well as the burden of his work. Like other journalists, perhaps not just journalists who feel a high load, but other similar jobs felt the burden of his work. For example, those who work as employees of the hospital, in the traffic police force, or even friends who worked in the factory as workers, they also have the burden of work and sources of stress.

Be employees of a television is indeed required to be ready whenever and wherever she is placed, not even that coverage task is rarely life threatening. It is become part of life in the television employees, especially those who work in the Division of news coverage or journalists. The requirement to always be ready and not had their working time which is not infrequently lead to the emergence of the stress, they are required to always timely sending of news, they are required to always "zero mistake" when working, not to mention the risk cannot be assembled with the family when the important moments.

As for the effects of the perceived work stress on the tenth of the subject was physical disorders such as a sense of tightness in your chest, dizziness and headaches; a change in attitude as avoiding tops or avoid work; changes in behavior such as could not be concentration; and attendance. The effects appear more inclined to attack physically impaired, such as dizziness and headaches. That's because a high job demands and should soon be completed, a high workloads well confiscated their thoughts and energy. The television broadcasting media is different to others, because television is a medium that shows the visual and audio simultaneously. Therefore, any broadcast quality to look fine. It is to be one of the factors why the television employees should work without error and pay attention to ethics-ethics in broadcasting, to create a good impression results required precision in every editing process an information and the program. Thoroughness that is what makes some employees being stressed, because if there is the slightest error then the effect will be very long and affect the quality of news coverage.
There are many ways to minimize or reduce the appearance of this stress; this research was obtained from several ways to slightly reduce the effect. Some of them are with sports, pray, play with friends, and even transmit their respective hobbies. For 10 employees NET Yogyakarta claimed to prefer chatting with friends for a bit to reduce stress. Although there are other things that are done as well playing, sports and even shopping. The activities were able to reduce the stress they feel, though not entirely disappear. Because, the next day in the office, then they should be prepared to get a new task is not impossible and would be a factor in the emergence of a new stress triggers.

CONCLUSION

Work in the world of television should be ready with all kinds of forms of risk, especially for working in representative offices. Although the quota area only 30% of the national broadcast (based on the broadcasting ACT), but still the preaching in the area became very important, and his work was not then reduced. The stress did indeed once again could not be avoided by any individual, whether it's working or not working.

REFERENCES

ABSTRACT
This study aims to analyze the effect of government expenditure and private investment on employment and unemployment in Indonesia, and employment opportunities on the unemployment rate in Indonesia. The path analysis is used as a method of data analysis. The results show that government expenditure and private investment have a significant and positive correlation to employment; this means that an increase in government expenditure and private investment will increase employment as well. Furthermore, private investment has a significant and negative correlation to the unemployment rate; this means that an increase in private investment will reduce the unemployment rate. Government expenditure has no effect on unemployment rate in Indonesia because government expenditure focuses on the development of basic infrastructure and has not yet targeted the economic activities of the community.

KEY WORDS
Government expenditure, private investment, employment opportunities, unemployment.

The increasing number of our population, to date Indonesia’s population is estimated to reach 250 million people (Sudibyo, 2013), has become one of the causes of the high rate of unemployment in Indonesia. Central Bureau of Statistics estimates that Indonesia’s population will continue to increase to 273.2 million people in 2025. However, this high number does not make Indonesia as one of the countries with good quality human resources. The quality of good human resources depends on the education achieved by a person or a society. According to Purnomo (2010), quoting Suparno (2009), the human resource factor becomes important as it determines the competitive advantage of a country.

Keynes in Sukirno (2008) states that the role or intervention of the government is indispensable if the economy is fully regulated by a free market activity, as the economy does not reach full employment levels nor it reaches such stability. One form of intervention is through a fiscal policy. In this case, Keynes implies expansive fiscal policy through tax reductions and the addition of government expenditure.

Zulhanafi et al. (2013) suggest that government spending significantly affects unemployment. If government expenditure increases, like capital expenditure to improve infrastructure, it will increase output, and the increased output will increase the demand for factors of production, one of which is labor; thus, such a situation would lead to a decrease in the unemployment rate. Conversely, if government spending decreases, it will hamper the process of production of goods and services (output) so demand for factors of production will also decrease causing the unemployment rate to increase.

In addition, investment from private parties also determines the production or economic activities that will improve the welfare of the community (Tjiptoherijanto, 1996). Investment is a factor affecting economic development, as it affects employment opportunities. Investment will encourage production process (output) and output needs human resources in the process. Thus, the relationship between investment and employment is close.

The amount of investment in a country or region describes the amount of economic activity, and the economic activity illustrates the production process. Investment is crucial for the sustainability of economic development or long-term economic growth. Production activities create job opportunities and increased community income, which in turn increases market demand (Tambunan, 2001).
Based on these explanations above, then the research problems are:

- Do government expenditure and private investment affect employment opportunities in Indonesia?
- Do government expenditure and private investment affect the unemployment rate in Indonesia?
- Do job opportunities affect the unemployment rate in Indonesia?

**LITERATURE REVIEW**

**Unemployment Definition.** Unemployment happens when one does not have a job but he/she is actively looking for one in the last four weeks (Kaufman and Hotchkiss, 1999). Unemployment is a situation where a person belonging to the workforce wants to get a job but they have not had the chance (Sukirno, 1994). Unemployment may occur due to an imbalance in the labor market. This indicates that the number of labor offered exceeds the amount of labor demanded.

According to Kuncoro (2000), using the labor force approach, unemployment is divided into three types. The first type is frictional unemployment, a type that arises because workers are still looking for suitable jobs. One is unemployed not because there is no job. This unemployment is not a problem and can be solved with economic growth. The second type is structural unemployment, a type of unemployment that arises due to changes in structure and economic conditions. Unemployment is difficult to overcome because it is associated with a country's development strategy. However, this unemployment can be overcome by conducting training to create skilled labor. The third is seasonal unemployment, i.e. unemployment occurs due to seasonal factors, for example, industrial workers who rely on orders. This unemployment also does not cause problems although there is no empirical evidence to support it.

Samuelson (1992) defines unemployment (unemployed) as a person who is not working but keen to find a job or being called back to work in his/her previous place of work. In other words, someone is said to be unemployed if he or she is not working and (a) trying to find a job for the last four weeks, (b) just being discharged from work and waiting to be recalled, or (c) preparing for a job application for the following month. In addition, there is involuntary unemployment and voluntary unemployment. Voluntary unemployment is those who do not want to work at the prevailing wage rate in the labor market; this group does not want to work because of low wages or other factors such as high levels of education that tend to choose to become unemployed rather than work with low wages. Involuntary unemployment are those who are not absorbed in economic activity because of limited job opportunities.

**Unemployment Types.** Here is the list of unemployment based on the types:

- **Open unemployment**—it is a type that emerges because of lower employment growth than workforce growth, resulting in more and more workers not getting jobs. These workers in the end are not included in economic activities; they are unemployed in a real and full time,
- **Underemployment**—it is a situation where workers work under normal working hours, usually about 36 hours per week. Those who work less than the working hours are grouped into underemployed groups.
- **Disguise unemployment**—it is a type that arises because the number of workers in an economic activity is more than the actual needs to produce efficient production. In theory, this arises because the Marginal Productivity of the company is below zero but the company or organization keeps adding workers due to various considerations.
- **Seasonal unemployment**—this mostly occurs in the agricultural sector. For example, during the rainy season, fisherman, and rubber tapper cannot work. This also happens to farmers during the dry season.

**Employment Opportunities.** Economists often argue that the macroeconomic has four main objectives: a) achieving and maintaining full employment, b) maintaining price stability,
c) increasing economic growth (national income growth), and d) achieving international balance of equilibrium (Suparmoko; 2000).

Full job opportunities are in demand as it uses all production factors, which means a higher number of goods and services available to the community. Expenses arising from unemployment and loss of goods and services of an economy are borne by different groups of people, especially those who have lost their jobs. Thus, the society does not want some people suffering from job loss. Unemployment is not only about the source of life, but also about the prestige or self-esteem of a person in society; it even can disrupt the social balance.

Population growth is quite high in Indonesia and the labor force exceeds the existing employment opportunities. Such a situation leads to less labor demand from labor supply; it will eventually lead to unemployment and low wage rate.

The demand for labor depends on the available employment opportunities in the economy as a whole. Factors influencing labor demand are the growth of saving and investment, both domestic and foreign. The greater the savings, credit, and capital exploited for industrial expansion, the better the growth of the industry, i.e. the products are increasing. Industrial expansion requires the addition of work force, which means increasing employment opportunities (Sartika, 2005).

The low economic growth rate is even made worse with high population growth; the two affects much on the welfare of society. High population growth is positively correlated with workforce growth; if the economy has not enough capacity to absorb labor, it will give rise to various economic problems significant to the economy as a whole. The welfare of the community must become a priority for the government. Thus the level of community welfare can be known from the level of aggregate demand.

Employment Opportunities and Investment. Theorists and development practitioners respond varies to the issue of investment. The opinion on the importance of investment in supporting the development of developing countries began with the discovery of the growth model after World War II in the 1950s and 1960s by some development experts such as Rostow and Harrod-Domar. According to Rostow, any attempt to take-off requires the mobilization of domestic and foreign savings with the intent to create sufficient investment to accelerate economic growth. Harror-Domar argues that national income growth is positively related to savings ratio, and vice versa, negatively associated with COR or ICOR (Capital Output Ratio or Incremental Capital Output Ratio) (Todaro, 2000).

Investment is a key determinant of economic growth; it will boost output significantly and will automatically increase demand for inputs, which in turn will increase employment and public welfare as a consequence of increased incomes received by the community (Makmun & Yasin, 2003).

Investment should be seen as the main driving force for economic growth, creating employment opportunities and enhancing international competitiveness rather than simply covering shortages of financing (Sinar Harapan, 2003). Thus, investment is expected as a resource mobilization to create or increase production capacity or income in the future. According to Lewis (1993), investment is the demand for goods and services to create or increase production capacity or income in the future. Investment has two main objectives, i.e. replacing part of the damaged capital (depreciation) and adding amount to the existing capital or net investment. Investment is the most frequent element of GRDP. When expenditure on goods and services falls during a crisis, a large part of the decline is due to a drop in investment expenditure.

According to Dornbusch (1999), investment is an expenditure intended to increase or maintain stock of capital goods. The capital stock consists of factories, machinery, offices, and other durable products used in the production process. Capital goods also include residential housing and supplies. Investment is the expenditure added to the components of this capital goods.

Investment expenditure is intended to gain profits from the investment expenditure. Investment is the second largest expenditure component after consumption; although investment expenditure is smaller than consumption expenditure, the unstable nature of
investment expenditure makes an increase (fluctuations) at the level of income, output, and employment. The motive of the investment is to make a profit from the Investment. Two important factors that determine investment success are the level of net profit expected by the company from investment expenditure and interest rate factors (Wijaya, 1997). Economic growth will lead to increased public incomes. In economic theory, people’s income will be spent on consumption and the rest is on saving. These savings will be lent to entrepreneurs for investment purposes (Arsyad, 1999).

Associated with the above conditions, investment can be seen as having two sides. The first side affects the level of national income and employment rate, while the other side affects the national production capacity. The first premise or effect of the investment (Keynes’s cross-sectional model), IS-LM, and aggregative supply demand in principle discuss the first investment effect, while the second investment effect is the main subject of the theory of economic growth known as Growth Theory (Reksoprayitno, 2000).

Opportunities and Government Expenditures. In the economic perspective, fiscal policies have various objectives in directing the country’s economic activity, namely to increase economic growth, to stabilize the country, to make equitable distribution of income, and to increase employment opportunities (Dornbusch and Fisher; 1994; Taggart et al., 2000). Nevertheless fiscal policies have such a big impact on economic activities. The direct impact of government activities on the state economy can be seen from the government spending; thus, mismanagement of government expenditure will be harmful for the economy of the country.

Another problem that may be caused by fiscal policy inappropriateness is crowding out, meaning that increased government spending will actually decrease private investment (Chang et al., 2002). Thus it can said that an increase in the budget deficit may also result in the growth of subsequent government spending (Ahmed and Kenneth, 2000). Increased government spending can have an impact on various macroeconomic indicators of the country. To make the country’s economic activity at its optimum level with the support of the private sector, an efficient fiscal management and an optimum level of government expenditure are both required. The process of such mechanisms occurs continuously so that the country’s economy is experiencing glory (Arestis et.al., 2002).

If government spending is able to guide the country’s economy, an increase in government spending will increase economic activities with increased investment. Increased investment will also have an impact on increasing output, employment, exports, taxes, government revenue, and current transactions (Sriyana, 2006).

The causal relationships that exist in macroeconomics are principally the relationships of aggregative economic variables, among which many are questioned, such as national income, employment, household consumption, saving, national investment, money supply, international balance, national capital stock, and government debt. The relationship between the variables above is used to solve the existing problems. For example, to reduce unemployment, government expenditure should be increased, or otherwise, to increase government spending then unemployment rate must be reduced. Thus, there is a causal relationship between the increase in government expenditure and the decrease in unemployment and also a relationship between the decrease of taxes with unemployment (Reksoprayitno, 2000).

According to Barro (1997), fiscal policies have a role to influence steady state growth; the theory implies a relationship between government size, growth rate, and savings. Barro divides the model into two, productive and non-productive government expenditure. Variations in the share of productive government expenditure have a positive impact on economic growth and savings. Meanwhile, unproductive government expenditure decreases economic growth; the reason is that unproductive government spending has no direct effect on the productivity of the private sector so there is no stimulus to invest that causes the slow growth in the economy due to lack of investment.
METHODS OF RESEARCH

The data used in the analysis includes quantitative data, with secondary data sources including data on: Government expenditures; Private investment; Employment opportunities; Unemployment rate.

Secondary data sources are related institutions, such as Capital Investment Coordinating Board, the Workforce Office or Central Bureau of Statistics, as well as reports related to this study.

This study uses time series data from 2010 to 2015 and path analysis. Path analysis is used to explain the relationship between variables with an intervening variable with the aim to know the direct or indirect effect of a set of independent variables (exogenous) to the dependent variable (endogenous) (Riduwan and Sunarto, 2015). The equation used is as follows:

\[
Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_1 \\
Y_2 = \beta_0 + \beta_3 X_1 + \beta_4 X_2 + \beta_5 Y_1 + \varepsilon_2
\]

Where:
- \(X_1\) = Government expenditure;
- \(X_2\) = Private Investment;
- \(Y_1\) = Employment Opportunity;
- \(Y_2\) = Unemployment;
- \(\beta_1...\beta_5\) = Regression coefficient of independent variables (\(X_i\));
- \(\beta_0\) = Intercept / Constants;
- \(\varepsilon_1\) = Error of the first equation;
- \(\varepsilon_2\) = Error of the second equation.

RESULTS AND DISCUSSION

Results of Path Analysis. Based on the data, calculation or data processing was then done using SPSS program. Here is the summary of path analysis

<table>
<thead>
<tr>
<th>Relationship among variables</th>
<th>Beta Path Coefficient</th>
<th>t Value</th>
<th>F Value</th>
<th>Determination Coefficient (R²)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 against Y1</td>
<td>0.004</td>
<td>3.930</td>
<td>27.792</td>
<td>0.778</td>
<td>Significant</td>
</tr>
<tr>
<td>X2 against Y1</td>
<td>4.305</td>
<td>4.867</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
<tr>
<td>X1 against Y2</td>
<td>-0.052</td>
<td>-1.815</td>
<td>5.146</td>
<td>0.807</td>
<td>Not Significant</td>
</tr>
<tr>
<td>X2 against Y2</td>
<td>-82.189</td>
<td>-2.846</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
<tr>
<td>Y1 against Y2</td>
<td>-11.342</td>
<td>-2.653</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
</tbody>
</table>

Note:
- \(X1 = \) Government expenditure, \(Y1 = \) Employment Opportunity, \(X2 = \) Private investment, \(Y2 = \) Unemployment.

The above table describes the first equation of the regression model with individual or partial test. For the relationship of government expenditure and employment opportunities, the t value is 3.930 and significance value is 0.013; because the significance value is < 0.05 (the probability value), then \(H_0\) is rejected and \(H_a\) is accepted. This means that government expenditure has a significant effect and positive correlation to employment opportunities in Indonesia. For the relationship of private investment and employment, the t value is 4.867 and significance value is 0.006; because the significance value is < 0.05 (the probability value), then \(H_0\) is rejected and \(H_a\) is accepted. This means that private investment has a significant effect and positive correlation to employment opportunities in Indonesia.

Then, we proceed with the second equation of the regression model with individual or partial test. For the relationship of government expenditure and unemployment, the t value is 1.815 and significance value is 0.084; because the significance value is > 0.05 (the
probability value), then $H_0$ is accepted and $H_a$ is rejected. This means that government expenditure has no significant effect and has a negative correlation to unemployment in Indonesia. For the relationship of private investment and unemployment, the $t$ value is 2.846 and significance value is 0.001; because the significance value is < 0.05 (the probability value), then $H_0$ is rejected and $H_a$ is accepted. This means that private investment has a significant effect and positive correlation to unemployment in Indonesia.

**DISCUSSION OF RESULTS**

*The Effect of Government Expenditure on Employment Opportunities in Indonesia.* In the economic perspective, fiscal policies have various objectives in directing the country's economic activity, namely to increase economic growth, to stabilize the country, to make equitable distribution of income, and to increase employment opportunities (Dornbusch and Fisher; 1994; Taggart *et al.*, 2000). According to Barro (1997), fiscal policies have a role to influence steady state growth; the theory implies a relationship between government size, growth rate, and savings.

The results of the study show that government expenditure has a significant and positive correlation to employment in Indonesia. This is in line with research conducted by Wahyuni (2004) examining the role of government in economic growth in 20 Asia-Pacific countries with similar economic backgrounds from 1980 to 2000. The study shows that the coefficient share of government expenditure on GDP is negative. Furthermore, the results of the study also show that government expenditure has a positive effect on employment in Indonesia. This means that if the government raises its expenditure (fiscal expansion), it will create an increase in employment opportunities in every region in Indonesia. The total government expenditure is the total income of the community. Similarly, government expenditure will increase aggregate demand and through the demand, production or aggregate supply will increase so employment can be recognized through the size of the government expenditure multiplier (Boediono, 1998).

The direct impact of government activities on the state economy is attributed to the size of government expenditure; thus, if the management of government expenditure is not good, it will harm the economy. If government expenditure is able to guide the improvement of the country's economy, an increase in government expenditure will increase economic activities with increased investment. The increase in investment will increase output, employment, exports, taxes, government revenue, and current transactions (Sriyana, 2006).

*The Effect of Private Investment on Employment Opportunities in Indonesia.* One important indicator for analyzing the economic development in a country is economic growth, as measured by the difference in gross domestic product of a year with the previous year (Setiawan & Handoko, 2005). More specifically, Todaro (2000) mentions that the accumulation of capital and population growth associated with the amount of labor force and technological progress is a major component of economic growth. Capital accumulation will occur if part of present income is saved and invested to enlarge the output in the future. According to Adam Smith (in Kuncoro, 1997), the accumulation of capital will determine the rapid or slow economic growth in a country. The capital is collected from the savings made by the community. The accumulation of capital generated from savings helps the economic actors to invest into the real sector, in an effort to increase its income.

The results of the study indicate that private investment has a positive and significant effect on employment in Indonesia. This means that an increase in private investment will increase employment opportunities in Indonesia. However, investment has no effect on employment opportunities in Indonesia. This is in line with the theory that investment is a key determinant of economic growth, as in addition to create significant output increases, it will also automatically increase input demand, which in turn will increase employment and public welfare as a consequence of rising incomes accepted by the society (Makmun and Yasin, 2003).

*The Effect of Government Expenditure on Unemployment in Indonesia.* In the economic perspective, fiscal policies have various objectives in directing the country's
economic activity, namely to increase economic growth, to stabilize the country, to make equitable distribution of income, and to increase employment opportunities (Dornbusch and Fisher; 1994; Taggart et al., 2000). If government expenditure is able to direct the improvement of the country’s economy, an increase in government expenditure will increase economic activities with increased investment. Such an increase in investment will also increase employment opportunities (Sriyana, 2006).

The results of the study indicate that government expenditure has no significant effect and is negatively correlated to unemployment in Indonesia. This means that an increase in government expenditure still cannot reduce the unemployment rate. This is because government expenditure still focuses on the development of public infrastructure that has no direct relationship with the economic activities of the community. The results of this study are contrary to Rum’s (2007), entitled “An Analysis of the Factors Affecting Open Unemployment in Indonesia from 1980 to 2007”, where government expenditures have a negative and significant impact on unemployment. This means that the higher government expenditure, the lower open unemployment will be.

The Effect of Private Investment on Unemployment in Indonesia. Investment is a determinant of economic growth, because, in addition to driving significant output increases, it also increases input demand, which in turn will increase employment and community welfare because of the increased income received by the society (Makmun and Yaksin, 2003). Investment causes an increase in the production of goods, which also affects labor demand; this leads to increased employment to reduce unemployment. The existence of investments will encourage the creation of new capital goods that will absorb new production factors, i.e. creating new jobs or employment opportunities that will absorb workforce, which in turn will reduce unemployment (Prasojo, 2009).

The results of the study indicate that private investment has a significant and negative correlation to unemployment in Indonesia; this means that an increase in private investment will reduce the level of open unemployment in Indonesia. This is in line with Harrod-Domar’s theory that looks at the effect of investment in a long time perspective. According to these two economists, investment expenditure (I) not only has an effect (through a multiplier process) on the aggregate demand (Z), but also on the aggregate supply (S) through its effect on production capacity in order to reduce unemployment rate (Boediono, 1999). The amount of investment in an area will certainly have an impact on the number of unemployed in the area, as the investment will help to expand business through an increase in the capital used and labor used. Thus, it is expected that investment can reduce the number of unemployment.

According to Pratiwi (2005), investment that has a multiplier effect has an impact on the improvement of welfare, as measured by the increase of income. This means that if the income increases, the amount of goods and services consumed will increase as well. If the demand for goods and services increases, it will increase employment opportunities and reduce the unemployment rate. Reduced unemployment is due to the absorption of the labor force in investment projects.

CONCLUSION AND SUGGESTIONS

Based on the findings and discussion, the following conclusions are drawn:

Government expenditure affects employment in Indonesia, but it does not affect unemployment. This means that if the government raises its expenditure (fiscal expansion), it will increase employment opportunities. However, the considerable government expenditure on infrastructure development makes it not yet able to reduce the unemployment rate.

The results show that private investment has a positive and significant impact on employment and unemployment in Indonesia. This means an increase in private investment will increase employment opportunities and decrease unemployment at the same time.

Suggestions:

Considering that government expenditure has no effect on unemployment, the policy must be made to support investment, so (private) entrepreneurs will be more inclined to
expand their business, which tend to create employment opportunities. However, government-financing policies should be more directed development or community empowerment.

Investment and government expenditure are both important in economic development so the government needs to revise the allocation of expenditure; expenditure should be focused on productive aspects. The government must also revise the amount or percentage of taxes for the industrial sector, as it will affect the cost of input or production capacity, thus reducing employment opportunities.

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THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP, ORGANIZATIONAL CULTURE AND ORGANIZATIONAL COMMITMENT ON EMPLOYEE SATISFACTION OF PT. BANK MANDIRI (PERSERO), TBK OF JEMBER AREA

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ABSTRACT
The purpose of this research is to know the influence of transformational leadership, organizational culture, and organizational commitment on performance through work satisfaction of Mandiri Bank employees of Jember Area. Sampling uses census method to all employees of L5 Mandiri Bank of Jember Area amounted to 70 people. This research uses quantitative research method with explanatory research approach. The data obtained from the questionnaires of respondents tested using path analysis test (Path Analysis). The result of this research shows that transformational leadership has a direct influence on work satisfaction of employees of Mandiri Bank in Jember Area. The results also explain that transformational leadership affects on performance through work satisfaction, organizational culture affects the performance through work satisfaction, and organizational commitment affects the performance through work satisfaction.

KEY WORDS
Transformational leadership, organizational culture, organizational commitment, work satisfaction.

Banking is one of the sectors that sustain the Indonesian economy in the non-oil sector. The development of the banking industry according to the Deposit Insurance Corporation (LPS) in the Economic and Banking Report 2016, it grows to 5.04% in December 2016 compared to December 2015. Mandiri Bank as a red plate bank in Indonesia certainly has a big share in the growth increase in the banking industry. With a market share of 25.24% of the total banking in Indonesia, and it successfully books a profit of Rp. 20.3 trillion with total assets of Rp. 900.56 trillion, then Mandiri Bank deserves the title as the largest bank in Indonesia.

PT. Bank Mandiri (Persero) Tbk was established on October 2, 1998 and it continues to transform the organization. The stage of reorganization of Mandiri Bank has now entered the third transformation which began in 2015 with a primary vision to become one of the best banks in Asia. The real step of reorganization is with the addition of managerial level closer to the local level and to the implementing staff. Originally, the nearest managerial level for branches in the region was the 3rd layer (L3) leadership officer domiciled in the region / provincial capitals. This third transformation establishes the leadership of layer 4 (L4) based in big area or city in charge of Branch and Business Unit placed in big area or city. L4 employees as employees of leadership in addition to obtaining authority from the Region, they also served to oversee the L5 leaders and executives to meet the Key Performance Indicator (KPI) by sticking to the organizational culture of Mandiri Bank, namely TIPCE. The L4’s Chief officer is the head of Branch and Head of Business Unit which coordinates directly with the 5th Layer Manager (L5) that is the Customer Service Officer and Professional Staff Officer. Based on this, the researchers are interested in examining the leadership attitude of leadership transformational L4 employees with respondents from the L5 leadership as direct subordinates of L4 leadership employees.
The organizational culture of Mandiri Bank is a guide for all employees in running their respective job descriptions. Employees who hold customer trust and integrity and professional meet the needs of customers in the service will certainly lead to work satisfaction for employees. For customers, Mandiri Bank will also have confidence and a sense of comfort which will affect Mandiri Bank’s performance in terms of service, business, and profit.

Organizational culture according to Zhang and Li (2013) is a system of values, beliefs, and habits with its formal structure to produce organizational behavior norms as a guide in carrying out tasks to achieve organizational goals, so it can be correlated that the organizational culture which is implemented properly will support achieving organizational goals effectively and improving company performance. The statement is supported by the results of Sabri et al. (2011) research showing that organizational culture plays a role in improving the work satisfaction of teachers at universities and higher education institutions in Lahore, Pakistan. In line with the results of Owoyemi and Ekoaba (2014) research, it reveals that organizational culture has a significant effect on both financial and non-financial performance for local government employees in Lagos, Nigeria.

Mandiri Bank certainly realizes that employees are also a valuable asset to develop the company. Employees are living organisms that enable the functioning of an organization and become an important element in management to achieve goals, so that the involvement and sense of ownership of employees within the company should also be considered to increase organizational commitment of employees. Mandiri Bank always involves all layers of its employees in determining the bottom-up policy, either in the form of formal meetings or representatives of the Mandiri Bank Employees Union (SPBM). In addition, Mandiri Bank also yearly rewards employees from each region who perform well in the Mandiri Excellence Award (MEA) event. It is done to increase the organizational commitment of employees and make employees feel to be the part of Mandiri Bank, so that it will increase employees’ work satisfaction followed by increasing employee performance.

In the midst of today’s global banking competition, Mandiri Bank as a State-Owned Bank with the greatest asset in Indonesia certainly still needs to improve the management of good human resources, especially from the side of transformational leadership, organizational culture, organizational commitment, and work satisfaction. Leaders who have transformational traits will increasingly improve work satisfaction and employee performance after this third stage of Mandiri Bank’s transformation in 2015, as the new leadership level of layer-4 (L4) allows leaders closer to their employees and coordination areas. The organizational culture of Mandiri Bank in the form of TIPCE that is already inherent, can help accelerate Mandiri Bank in achieving internal and external performance with customers and stakeholders. Massive organizational commitment among employees, enable to increase employee satisfaction and performance. Similarly, work satisfaction that is good enough to be felt by employees, will encourage Mandiri Bank to achieve the main objectives of the company in the field of service improvement, business or market share, and profit.

Research related to transformational leadership, organizational culture, and organizational commitment, work satisfaction, and performance has been widely applied in various business sectors, both in academic, communications, and government. This research is a renewal because it covers all the variables mentioned above which is also a factual phenomenon that is related to reorganization in Mandiri Bank of Jember Area. Based on this, the researchers are interested in examining the influence of transformational leadership, organizational culture, and organizational commitment on performance through work satisfaction of employees of Mandiri Bank of Jember Area.

Research Problems. Based on the background, the following problems can be formulated: 1) does transformational leadership have direct influence on work satisfaction of employees?, 2) does organizational culture have a direct influence on employee satisfaction?, 3) Does organizational commitment directly affect employee satisfaction?

Research Objectives. Starting from the description that has been explained in the background, then the objectives of this study are: 1) to know the direct influence of transformational leadership on work satisfaction of Mandiri Bank employees; 2) to know the
direct influence of organizational culture on employee work satisfaction of Mandiri Bank; 3) to know the direct influence of organizational commitment on work satisfaction of Mandiri Bank employees;

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Research Conceptual Framework. Based on research conducted by Sardjono et al (2014), it reveals that transformational leadership has a positive influence on work satisfaction. The results of Chamariyah et al (2015) suggest that transformational leadership has a significant influence on performance. It is supported by Ngadiman et al (2013) on the nature of transformational leadership that is the leader who devotes his attention to the problems faced by his followers and the development needs of each of his followers by giving encouragement and motivation to achieve his goals.

Ariyani et al (2016) states that all dimensions of organizational culture have a significant positive relationship on work satisfaction, as well as the results of research Chamdan (2013) which expresses organizational culture has a positive influence on employee performance. Organizational culture that is socialized with good communication can determine the company's overall strength, performance, and competitiveness in the long term. The establishment of good employee performance is generated when there is a good communication between all employees to form a strong internalization of organizational culture and is understood in accordance with organizational values that can lead to positive perceptions between all levels of employees to support and influence the climate satisfaction impact on performance (Mangkunegara, 2009).

Thamrin's (2012) study suggests that organizational commitment has a significant influence on work satisfaction and performance, supported by previous research from Koh et al (1995) that high organizational commitment can result in work satisfaction in employees, thus, it affects performance. Commitment can reduce the level of turn-over of employees because employees who are committed to the organization, work, colleagues, and leaders will be able to identify and have more efforts to increase their involvement in achieving organizational goals (Ariyani, 2016).

Kurniawan et al (2014) in his research states that work satisfaction has a significant influence on performance. In line with the research results of Thamrin (2012) that there is a positive influence on employee performance. Employee satisfaction can provide maximum benefits to the company in the long term because work satisfaction contributes to great improving employee performance indicators.

Hypothesis:

H1: Transformational leadership has a significant influence on work satisfaction.
H2: Organizational culture has a significant influence on work satisfaction.
H3: Organizational commitment has a significant influence on work satisfaction.

METHODS OF RESEARCH

This research activity is conducted on officer of L5 layer of Mandiri Bank in Jember Area. This research is a kind of quantitative research. It intends to explain the influence between variables through hypothesis testing and simultaneously explanation of how many variables, so that this research method utilizes explanatory method (explanatory research) which explains the causal relationship between independent variable and the dependent variable.

Data collection time is conducted in June 2017. The research location is Mandiri Bank of Jember Area which includes Mandiri Bank Branch of Probolinggo, Mandiri Bank Branch of Jember Alun-Alun, Mandiri Bank Branch of Sultan Agung, Mandiri Bank Jember Branch of Wijaya Kusuma, Mandiri Bank Branch of Jember Tanggul, Mandiri Bank Branch of Jember Ambulu, Mandiri Bank Branch of Bondowoso, Mandiri Bank Branch of Situbondo, Mandiri Bank Branch of Lumajang, Mandiri Bank Branch of Genteng, and Mandiri Bank Branch of Banyuwangi.
Population of this research is all officer of layer-5 (officer L5) of Mandiri Bank Area of Jember counted 70 people. The sampling technique used in this study is the census that uses the entire population as a sample. Data analysis method is done by Data Normality Test, Validity Test, Reliability Test, Path Analysis, Classical Assumption Test, and t-Test.

RESULTS OF STUDY

Hypothesis Test. To determine whether or not there is a direct influence between the independent variables on the intervening and the intervening variable on the dependent, or the indirect influence of the independent variable on the dependent through the intervening, the path analysis is analyzed using SPSS 20. In the causal step strategy, the hypothesis criteria (H0) is accepted if Sig <0.05 for direct influence, either simultaneously (Fcount), or partial (tcount value). To see the significance of indirect influence, Product of Coefficient strategy is used by looking at the value of z > 1.96. Here are the results of the path analysis test:

Table 1 – Transformational Leadership, Organizational Culture, and Organizational Commitment Influencing Work satisfaction (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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.416a</td>
<td>.173</td>
<td>.135</td>
<td>2.046</td>
</tr>
</tbody>
</table>

Predictors: (Constant), KO, KT, BO.

According to the table 1, it is known that the number of R square (R2) is 0.173 which means that the influence of transformational leadership, organizational culture, and organizational commitment on work satisfaction is 17.3%, while the remaining 82.7 % is influenced by other factors.

Table 2 – Analysis of Transformational Leadership, Organizational Culture, Organizational Commitment Path Analysis on Work Satisfaction (Output Coefficient)

<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 (Constant)</td>
<td>34,372</td>
<td>3,397</td>
<td>10,225</td>
<td>.000</td>
</tr>
<tr>
<td>KT</td>
<td>.135</td>
<td>.049</td>
<td>.309</td>
<td>2.731</td>
</tr>
<tr>
<td>BO</td>
<td>.092</td>
<td>.042</td>
<td>.298</td>
<td>2.560</td>
</tr>
<tr>
<td>KO</td>
<td>.083</td>
<td>.040</td>
<td>.264</td>
<td>2.055</td>
</tr>
</tbody>
</table>

Hypothesis 1 (H1): Transformational leadership has a significant influence on work satisfaction of employees of Mandiri Bank in Jember Area. Based on Table 2, it is known that transformational leadership variable (abbreviated as KT) significantly affects work satisfaction directly with Sig value 0.008 (< 0.05). It means that the transformational leadership variable (X1) has a significant influence on work satisfaction variable. The first hypothesis is accepted.

Hypothesis 2 (H2): Organizational culture has a significant influence on work satisfaction of employees of Mandiri Bank in Jember Area. Based on Table 2, it is known that organizational culture variable (abbreviated as BO) significantly affects work satisfaction directly with Sig 0.023 (< 0.05). It means that the organizational culture variable has a significant influence on the variable of work satisfaction. The third hypothesis is accepted.

Hypothesis 3 (H3): Organizational commitment has a significant influence on work satisfaction of Mandiri Bank employees in Jember Area. Based on Table 5.19, it is known that organizational commitment variable (abbreviated as KO) significantly affects work satisfaction directly with Sig 0.044 (<0.05). It means that organizational commitment variable has a significant influence on work satisfaction variable. The fifth hypothesis is accepted.
DISCUSSION OF RESULTS

The Influence of Transformational Leadership on Work Satisfaction. Based on descriptive analysis of transformational leadership variable and work satisfaction at Mandiri Bank employees of Jember Area, it is known that 65.7% of respondents state that leadership attitude has fulfilled transformational leadership characteristic, 65.1% respondents agree that work satisfaction has been reached. The level of staff education is also associated with the acceptance of transformational attitudes of leaders who then affect work satisfaction. All employees of L5 Mandiri Bank of Jember Area have been obtaining bachelor degree, both S1 (Undergraduate Program) and S2 (Master Program), so that the vision and mission, motivation, and encouragement of the leader's idea can be accepted well, which then it leads to the employees' satisfaction with their work.

Based on the calculation of the path, it can be seen that the leadership transformational positively affects employees' work satisfaction. It means that the more a leader has a transformational attitude, the more satisfied the employee will be for his work. Likewise on the contrary, the more a leader does not have a transformational attitude, then the satisfaction of the work is difficult to feel. The path calculation shows that the value of βX₂Z is 0.309, meaning that transformational leadership directly affects 30.9% of work satisfaction. 69.1% of work satisfaction influenced by variables other than transformational leadership variables, such as organizational culture, organizational commitment, motivation, compensation, training, and others.

After the reorganization, the L5 leadership officer as the respondent in this study is under the coordination of the L4 leadership officer who has the same authority and duty as the L3 leadership officer in the region or provincial capital. The closer the managerial level to employees and coordination areas in the area make employees easier to perform escalation of operational problems and human resources. Solicative answers submitted by L4's employee are faster to be obtained by employees than before the reorganization, so that work satisfaction increases.

Submission of the Key Performance Indicator (KPI) as Mandiri Bank's annual work objective by the L4 leadership officer is presented clearly making the team work more focused. The success of the KPI achievement step makes employees optimistic and satisfied with their work. Praise, awards in the form of a charter, and the announcement of the best employee during the morning briefing as a performance recognition initiative and employee award given by L4's employee are often conducted in branches or work units at Mandiri Bank; thereby, it increases employees' work satisfaction. The proximity and the open conducive atmosphere have been there between the employer (L4 employee) and subordinate (L5 employee) at Mandiri Bank of Jember Area, as well as the recognition for the employee who achieved the target makes the employee also achieve work satisfaction. To further improve employee work satisfaction, it can be exposed to a more intense presentation, evaluation, and monitoring of KPI in semi-formal environment, so that the atmosphere is open and conducive. Giving praise and recognition of employee achievement must also remain considered by way of appreciation in the form of a charter or announcement of outstanding employees at the closing of the forum.

The results of research are in line with previous research conducted by Belios and Kouostelios (2014) examining transformational leadership and work satisfaction in the banking sector, namely that transformational leadership proves to have a positive influence in increasing work satisfaction. Charismatic managers, clear mission vision, work appreciation, and employees' intellectual stimulation obtain positive reactions from their employees. Long et al (2014) in his research also proves that transformational leadership positively affects employment satisfaction of employees of local government companies in Johor, Malaysia. Leaders who have the goal of accomplishing and accompanying employees in achievement increase employees' satisfaction with their work.

The Influence of Organizational Culture on Work Satisfaction. Zhang and Li (2013) argue that organizational culture is a system of values, beliefs, and habits with its formal structure to produce organizational behavior norms as a guide in performing tasks to achieve
organizational goals. Organizational culture that is well implemented will support the achievement of organizational goals effectively. Given the history of Mandiri Bank which is a merger of 4 previous legacy banks, of course it is not an easy thing to equate the organizational culture of 4 different companies. The success of Mandiri Bank to build a strong corporate culture since 1998 is an indicator that the TIPCE culture of Mandiri Bank has been well implemented.

Descriptive analysis of organizational culture variables and work satisfaction in Mandiri Bank employees of Jember Area shows that 59.8% of respondents state that organizational culture has been implemented well in Mandiri Bank of Jember Area. In addition, 65.1% of respondents agree that work satisfaction has been achieved. The length of employment of employees is also related to the implementation of a consistent organizational culture that will trigger work satisfaction. All L5 employees of Mandiri Bank of Jember Area have been working at Mandiri Bank and have been in the leadership position of L5 for more than 1.5 years. The research result shown by Ekwutosi and Moses (2013) states that individuals who are in the organization for at least one year means have been aware, understand, judge, accept, and implement the culture of the organization.

The results reveal that organizational culture has a positive influence on work satisfaction. It means that the more an employee works by holding the organizational culture, employee work satisfaction will increase. On the contrary, the more employees ignore the organizational culture, then work satisfaction is not achieved. The calculation of the path shows that the value of $\beta \times Z$ of 0.298; it means that organizational culture directly affects 29.8% of employee's work satisfaction. 80.2% of work satisfaction is influenced by variables other than organizational culture variables, such as transformational leadership, organizational commitment, motivation, compensation, training, and so forth.

The organizational culture of Mandiri Bank is guided by all employees in running their respective job descriptions. Employees who hold customer trust and integrity and professional meet the needs of customers in the service will lead to work satisfaction for employees. Mandiri Bank's organizational culture also regulates mutual respect among employees. In addition, it is also to maintain mutual integrity of employees, both with subordinates and supervisors, so that employees' work satisfaction is maintained. The efforts to improve employees' work satisfaction through the implementation of TIPCE culture can continue to be developed, especially in the way that Corporate Culture Group of Mandiri Bank has set with 4:1 cultural groups. Cultural group of TIPCE 4:1 is implementing supervision among employees within the same work unit and reminding each other when there is an action in work that is not in accordance with the culture of Mandiri Bank's TIPCE.

The results of this study are consistent with Zhang and Li's (2013) research on the influence of organizational culture on employee satisfaction at a family company in coal production in Shanxi Province, China, outlining the result that there is a specific relationship between organizational culture and work satisfaction. In line with the results of research conducted by Sabri et al. (2011) that organizational culture plays a role in improving work satisfaction of teachers at universities and higher education institutions in Lahore, Pakistan. Organizational cultures that are made are supportive for teachers, thereby enhancing trust, respecting peer opinion, and high curiosity among teachers. The role of leadership that facilitates the way of organizational culture also makes the teacher's work satisfaction increasing.

*The Influence of Organizational Commitment on Work Satisfaction*. Based on descriptive analysis of organizational commitment variable and work satisfaction at employees of Mandiri Bank of Jember Area, it is known that 54.8% of respondents state commitment to the company and 65.1% of respondents agree that work satisfaction has been achieved. Furthermore, based on the value of path calculation, it can be seen that the leadership transformational positively affects employees' work satisfaction. It means that the higher the organizational commitment the employee has, the more satisfied the employee will be to his work. Likewise, on the contrary, the lower the organizational commitment the employee has, the satisfaction of the work is difficult to feel.
The path calculation shows that the value of $\beta X_2 Z$ is 0.264, it means that organizational commitment directly influences 26.4% of work satisfaction of employee. 73.6% of work satisfaction is influenced by variables other than organizational commitment variables, such as transformational leadership, organizational culture, motivation, compensation, training, and so on.

One of indicators of the high organizational commitment at Mandiri Bank is the low turn-over of employees. At L5 leadership level, there are 53 employees, which means 75% of L5's employees have been working for more than 5 years. The length of the employment period is followed by a sense of belonging and a sense of becoming the part of Mandiri Bank. To increase the organizational commitment of employees, Mandiri Bank also involves all layers of its employees in determining the bottom-up policy, either in the form of formal meetings or representatives of Mandiri Bank Employees Union (SPBM). The high organizational commitment of employees, especially the sense of belonging or affective commitment, makes employees satisfied with their work, both from colleagues, supervisors, work environment, and the work itself.

The results of this study support the results of previous research conducted by Inanc and Ozdilek (2015) on the academic staff of the Private University in Ankara, Turkey, revealing that to improve employees' work satisfaction; it is by increasing the organizational commitment of academics, especially affective commitment. To achieve this, the university conducts activities to enhance sense of belonging of the organization because academics who are emotionally attached to universities will be more satisfied with their work. Similarly, the study of Lok and Crawford (2001) on paramedics in Sydney exposing that 32 organizational commitment has a positive influence on work satisfaction.

CONCLUSION

Based on the results of the study conducted on Mandiri Bank employees of Jember Area, the conclusions are as follows:

Transformational leadership directly affects work satisfaction of employees of Mandiri Bank of Jember Area. The results of this study indicate that transformational leadership has a significant influence on work satisfaction. The higher the attitude of transformational leadership, the more increasing the work satisfaction.

Organizational culture directly affects work satisfaction of Mandiri Bank employees of Jember Area. The results of this study indicate that organizational culture has a significant influence on work satisfaction. The better the organizational culture which is applied, the more increasing the work satisfaction.

Organizational commitment directly affects employee satisfaction of Mandiri Bank employees of Jember Area. The results of this study indicate that organizational commitment has a significant influence on work satisfaction. The higher the organizational commitment, the more increasing the work satisfaction.

REFERENCES

ACCELERATION OF ECONOMIC POLICY AND IMPLEMENTATION STRATEGY
FOR DEVELOPMENT PLANNING IN POOR AREA

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ABSTRACT
The purpose of this study is to analyze and identify the basic sectors of the economy. The problems that arise are to determine the condition and potential of the economy, how the potential of basic sectors of the economy, economic growth, sectoral contribution, and transformation of economic structure, multiplier effect of the basic sectors to the economy and the prospect of the leading sectors of the economy. Kupang City of East Nusa Tenggara province in Indonesia was chosen as the location of the study to design the development process in this area because the planning process undertaken in this area is a combination of bottom-up and top-down planning approach.

KEY WORDS
Poor areas, economic policy, planning strategy, development structure.

Changes in development strategies can create a strong development and economic structure and be able to address the challenges that will be faced in the future (Alonso. 1968). Besides, with the integration of the world economy, the regional economy must prepare as well as possible in strengthening the foundation of the national economy towards the global economic struggle (Allison, Graham, 1968). The diversity of progress assessed by regions and sectors, partly because of the tendency of investment more oriented to urban areas or regions that have advanced because it has more support facilities and adequate infrastructure (Eichengreen, Donghyung, and Kwanho.; 2012). Thus it is clear that economic development will bring greater inequality and inefficiency if not addressed properly and seriously through a development planning policy (Dolgoff, & Feldstein, 2009).

Based on the economic conditions occurring in Kupang City, East Nusa Tenggara Province of Indonesia at present and taking into account the economic potential and its role to other regions, it can determine which sector is greater affect the structure of the regional economy in the future. Sectors that are expected to be a priority can be adapted to regional development policies. Therefore, no economic development policy is expected to conflict with the priority sectors in the regional economy. Although it is recognized that every policy is not always in line with the priority of economic forecasts, considering other aspects of the development of a region, but is expected to be considered in development planning (Boschma & Martin. 2010).

In connection with the description above, for the economy in Kupang City, East Nusa Tenggara Province Indonesia can develop optimally and able to increase income per capita, the policy of economic development planning strategy taken by the government needs to put priority scale on the economic superior sector in the region.

METHODS OF RESEARCH

The study was conducted using the Spatial Planning in Regions for Growing Economics (SPRING) approach with the result of the discussion to be used for the Framework's work to fit the local situation in the Kupang City the East Nusa Tenggara Province of Indonesia. Field data collection includes primary data as well as secondary data. Secondary data is collected and taken from the State Statistics Office (BPS) and others from relevant technical institutions. When there is a difference between the data from the BPS and the data from the technical institution then the data will be used from the BPS.
data is also obtained from the results of research conducted by research institutions that have been doing research in Kupang City of East Nusa Tenggara Province Indonesia.

Meanwhile, primary data will be collected using the Participatory Rural Appraisal (PRA) method, primarily using Semi-structural interview techniques (SSI) and Focus Group Discussion (FGD) techniques in urban and rural areas. SSI and FGD are conducted primarily to identify the issues and potentials of development in urban or rural areas (Konstantynova, & Wilson.; 2014). The preparation of state development plan with participation approach begins with analyzing the collected data and based on the result will be analyzed problem and development potential followed by analysis scenario development, policy formulation policy (POST) and Logical Framework, (LOGFRAME).

Step - rare Analysis The problems encountered are related to each other in a very complex relationship so to analyze it is required step-by-step as follows: 1. Identify the problem deductively through the situation analysis by reproducing identified priority issues. 2. Identify the problem through the FGD and SSI in which to work with the community. 3. Determine the relationship of the problem using the Table and the part of the causal relationship caused by the problem and the problems of FGD and SSI results with the community. 4. Determine priority issues by using matrix matrices by presenting problems as rows and matrices columns and hereafter assigning one value if in-line problems cause problems in columns and instead provide value 0 (Moodysson., Tripl., & Zukauskaite; 2015). Furthermore the bias or column values are summed to obtain the corrective factors used to determine the score for each problem.

Potential analysis is done with similar steps, but in potential analysis identified the potential and potential potential derivatives (Field and Burch, 1988). Whereas the potential of priority is analyzed by interacting matrix techniques between each potential potential and each potential priority thereby it will obtain the potential of the policy that should be prioritized for its development and the potential derivative of a given potential priority can be used to develop the fundamental potentials in addressing the major problems have been identified before.
The Group's Interest Analysis Steps are conducted by identifying the group of people most concerned with the issues and potential identified in relation to the interests of each group. Community groups are identified through situational analysis as well as through FGD and SSI.

Finally, some suggestions and suggestions will be presented in this study so that stakeholders at the Kupang City level of the Province of East Nusa Tenggara Indonesia and the central government are expected to design future development in Kupang City of East Nusa Tenggara Province Indonesia will be more beneficial to all members of the community.

RESULTS OF STUDY

Analysis and identification aimed at knowing the basics of the region in the regional economy needs to be done, without neglecting other sectors or non-base sectors. Baseline sectors have always had a multiplier effect or multiplier effect in the local economy, resulting in the stimulus of the economic activities of non-base sectors to grow and grow (Elhorst, de Haan, Zandberg; 2013).

For that reason, what will happen and what is expected from the structure of the economy in the future has a very important meaning, so that it can be used as a component in the basic framework and development strategy in the future. On that basis, to support the achievement of the economic development goals of Kupang City of East Nusa Tenggara in the future, especially in preparing for long term development within the framework of regional autonomy, it is necessary to use intensive method of economic planning in analyzing and evaluating regional economic potential and economic condition areas that have been achieved in the past 15 years, ie, 2001 to 2015.

Intensive analysis and evaluation of the potentials and conditions in question will identify which sectors have been well developed and the extent to which they contribute to the increase of people and local income (Frenken, Van Oort,., & Verburg 2007). Here also can be seen, what sector is actually a priority to be developed and whether it is in accordance with the policy that has been done by the government which is reflected in the Regional Budget Income (APBD) every budget year. The performance of the regional economic structure for 15 years can provide input for the government in Kupang City of East Nusa Tenggara Indonesia in determining the direction in preparing regional development planning in the future.

From the results of secondary data, direct observation in the field and interviews with selected villagers can be identified the potential of the physical environment and natural resources in the Kupang City of East Nusa Tenggara Province Indonesia which consists of the main potential ie service area, These include: erosion and flood, limited water resources, fires, more exploitation of natural resources, and income.

Therefore, to see the circumstances of each development plan must be properly understood for the user and its implementation in the field so that they are able to perform a practical approach that is well suited to the economic condition, in which the development is carried out. Through data that has been processed in the form of a logical thinking framework as it is presented. Therefore, the development priority in Kupang City of East Nusa Tenggara Province of Indonesia can be frozen into programs and projects that may be possible as a logical framework to see the potential of the problem. This logical sense framework is expected to be able to formulate a detailed design plan of the program and the description of the development project to be implemented.

**Strategy of planning and economic development policy.** The Policy of Law Number 22 Year 1999 of the Republic of Indonesia concerning Regional Government and Law Number 25 Year 1999 Concerning Financial Balance between Central and Regional Government, stipulates the emphasis of regional autonomy on districts and cities. Districts and municipalities are given wide authority as autonomous regions to regulate and manage the interests of local communities based on democratic principles, initiatives and aspirations of the people themselves, on the basis of equity and justice and in accordance with the conditions, potential and diversity of its territory. In particular, this authority is regulated in
Law Number 22 Year 1999 Article 11 stating that: (1). The Regional Authorities of the Regency and the City Area shall include all governmental authorities other than the authority exempted in article 7 and provided for in article 9., (2). Areas of government that must be implemented by districts and municipalities include public works, health, education and culture, agriculture, transportation, industry and trade, capital investment, environment, land, cooperatives and labor.

Thus, the law has given wider authority to the regions in terms of governance and development either in the planning, implementation, monitoring and evaluation phases. Including the authority to determine the policy direction and choose alternative ways of handling development in their respective regions. The economic development policy adopted by a region should be adjusted to the conditions and potentials of natural resources, human resources, facilities and infrastructure available in the region (Aba., Yussof, Saidatulakmal, 2015). This reality occurs because economic development does not always occur in the region simultaneously. Several sectors achieved rapid growth, while other sectors experienced slow growth and even decline (Arts, Vaan, 2010).

The economic growth of Kupang City of East Nusa Tenggara Indonesia shows that from 2007 to 2011 the economic growth rate was quite good in 2007 of 9.00%, in 2008 slowed to 7.45% and in 2009 also experienced a slowdown to 6.13% whereas in 2010 it accelerated to 8.23% and in 2011 reached 8.26%. Looking at the economic growth trend in Kupang City of East Nusa Tenggara Province Indonesia for the last five years with annual growth rate of 0.59% it can be predicted by the end of 2017 economic growth in Kupang City of East Nusa Tenggara Province Indonesia reaches approximately 11.46% (BPS, 2001 - 2015). This economic growth can be achieved if the assumption of security and order conditions can be maintained conducively, the increase of investment amount, the controlled amount of inflation and the increase of non-oil exports.

In this regard the role of planning is the key to a good process of economic development (Tödtling & Tripl., 2005). Economic development policy planning of each region should select priorities in sectors that match the capability and potential of the regional power. The principle of regional economy consists of two sectors, namely sectors that have advantages so as to contribute in a large portion of the proportion of exports of goods and services to other areas, these are referred to as basic activities activities, and activities that provide goods and services are limited to the needs of the region itself or not exporting, these are referred to as non-basic activities activities (Ruming, Davies, 2014).

The aim of the basic assessment of development planning is the process of implementation of the development of the participation and at the same time want to see the understanding of society on the terminology of participation development as well as the result of the implementation of the development in the form of participation (Approach.; 2003). Therefore, the purpose of the design is to provide basic action information, innovation, and solutions for the process of allocation of public resources and the optimization of available resources. Substantial or intense and robust strategic planning and technical or operational planning are in fact related to the macro (general) and micro (specific) systems, which are essentially a combination of socio-economic and environmental physics, and also include products arrangements resulting from political consensus, economic feasibility, and technical solutions to benefit society.

The important implications of designing are: (1) The ability of society as individual, family, and society as a perpetrator for the process of socioeconomic change, (2). The more accommodative socio-politics of the community and market development processes, (3). Development of development institution capacity, (4). Availability of basic, innovative, and technical information can be used as a decision maker for stakeholders.

_Economic structure in the formation of GRDP in 2001-2015._ The contribution of every economic sector in Kupang City of East Nusa Tenggara Province Indonesia in the formation of GRDP can illustrate the economic structure of Kupang City of East Nusa Tenggara Province of Indonesia. The contribution of the sector is the contribution or share given by each sector to the Kupang City GRDP in the East Nusa Tenggara Province of Indonesia. In the period 2001-2015 the economic structure in Kupang City of East Nusa Tenggara
Province Indonesia has not changed much. The manufacturing, trading, restaurant and hotel sectors, Transportation and Communications, Banks and Financial Institutions and services sector continue to dominate the economy in Kupang City of East Nusa Tenggara Province Indonesia to date and become the leading sector as the economic base for the period.

In the period 2001-2015, economic growth in Kupang City of East Nusa Tenggara Province Indonesia is still considered stable and fluctuating, with the highest growth in 2002, and the lowest in 2005, excluding 2003 and 2010 (table 1).

Table 1 – Growth of GAV and GDP of Kupang City Based on Constant Price 1993, 2000 and 2010, Years 2001-2015

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Sector 1</th>
<th>Sector 2</th>
<th>Sector 3</th>
<th>Sector 4</th>
<th>Sector 5</th>
<th>Sector 6</th>
<th>Sector 7</th>
<th>Sector 8</th>
<th>Sector 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2001</td>
<td>4.06</td>
<td>1.78</td>
<td>5.07</td>
<td>2.42</td>
<td>6.03</td>
<td>25.41</td>
<td>19.76</td>
<td>6.13</td>
<td>29.34</td>
</tr>
<tr>
<td>2</td>
<td>2002</td>
<td>3.85</td>
<td>1.64</td>
<td>4.77</td>
<td>2.25</td>
<td>5.69</td>
<td>24.76</td>
<td>21.33</td>
<td>5.73</td>
<td>29.98</td>
</tr>
<tr>
<td>3</td>
<td>2003</td>
<td>5.33</td>
<td>2.11</td>
<td>3.71</td>
<td>1.17</td>
<td>8.27</td>
<td>29.11</td>
<td>14.32</td>
<td>5.09</td>
<td>30.89</td>
</tr>
<tr>
<td>4</td>
<td>2004</td>
<td>5.29</td>
<td>2.11</td>
<td>3.71</td>
<td>1.17</td>
<td>8.14</td>
<td>29.12</td>
<td>14.40</td>
<td>5.04</td>
<td>31.03</td>
</tr>
<tr>
<td>5</td>
<td>2005</td>
<td>5.20</td>
<td>2.02</td>
<td>3.49</td>
<td>1.01</td>
<td>8.25</td>
<td>30.58</td>
<td>14.84</td>
<td>4.75</td>
<td>29.86</td>
</tr>
<tr>
<td>6</td>
<td>2006</td>
<td>5.16</td>
<td>2.00</td>
<td>3.49</td>
<td>1.00</td>
<td>8.12</td>
<td>30.55</td>
<td>14.92</td>
<td>4.70</td>
<td>30.05</td>
</tr>
<tr>
<td>7</td>
<td>2007</td>
<td>5.10</td>
<td>2.02</td>
<td>3.43</td>
<td>1.09</td>
<td>8.18</td>
<td>30.30</td>
<td>15.23</td>
<td>4.65</td>
<td>29.99</td>
</tr>
<tr>
<td>8</td>
<td>2008</td>
<td>5.09</td>
<td>1.98</td>
<td>3.39</td>
<td>1.19</td>
<td>7.89</td>
<td>30.23</td>
<td>15.41</td>
<td>4.86</td>
<td>29.97</td>
</tr>
<tr>
<td>9</td>
<td>2009</td>
<td>4.83</td>
<td>1.69</td>
<td>3.09</td>
<td>0.87</td>
<td>7.49</td>
<td>30.05</td>
<td>16.56</td>
<td>5.90</td>
<td>29.52</td>
</tr>
<tr>
<td>10</td>
<td>2010</td>
<td>3.32</td>
<td>1.62</td>
<td>2.19</td>
<td>0.32</td>
<td>2.25</td>
<td>31.14</td>
<td>17.43</td>
<td>12.65</td>
<td>29.08</td>
</tr>
<tr>
<td>11</td>
<td>2011</td>
<td>3.19</td>
<td>1.55</td>
<td>2.08</td>
<td>0.32</td>
<td>2.13</td>
<td>31.10</td>
<td>18.15</td>
<td>12.79</td>
<td>28.69</td>
</tr>
<tr>
<td>12</td>
<td>2012</td>
<td>3.05</td>
<td>1.49</td>
<td>2.09</td>
<td>0.33</td>
<td>2.09</td>
<td>31.10</td>
<td>18.26</td>
<td>13.01</td>
<td>28.57</td>
</tr>
<tr>
<td>13</td>
<td>2013</td>
<td>2.98</td>
<td>1.45</td>
<td>2.05</td>
<td>0.34</td>
<td>2.06</td>
<td>31.47</td>
<td>17.91</td>
<td>13.35</td>
<td>28.39</td>
</tr>
<tr>
<td>14</td>
<td>2014</td>
<td>2.93</td>
<td>1.39</td>
<td>2.01</td>
<td>0.36</td>
<td>2.04</td>
<td>31.19</td>
<td>18.39</td>
<td>13.63</td>
<td>28.04</td>
</tr>
<tr>
<td>15</td>
<td>2015</td>
<td>2.93</td>
<td>1.35</td>
<td>1.98</td>
<td>0.37</td>
<td>2.03</td>
<td>31.20</td>
<td>18.79</td>
<td>13.63</td>
<td>27.72</td>
</tr>
</tbody>
</table>

Table 2 – Percentage Distribution Per Sector Contribution to Kupang City Regional GDP on the basis of Constant Price 1993, 2000 and 2010, 2001-2015 (%)

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Sector 1</th>
<th>Sector 2</th>
<th>Sector 3</th>
<th>Sector 4</th>
<th>Sector 5</th>
<th>Sector 6</th>
<th>Sector 7</th>
<th>Sector 8</th>
<th>Sector 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2001</td>
<td>62.31</td>
<td>26.2</td>
<td>46.55</td>
<td>14.21</td>
<td>80.66</td>
<td>447.31</td>
<td>255.7</td>
<td>125.91</td>
<td>441.12</td>
</tr>
</tbody>
</table>

Notes: Sector 1: Agriculture; Sector 2: Mining and Quarrying; Sector 3: Processing Industry; Sector 4: Electricity, Gas and Water Supply; Sector 5: Building; Sector 6: Trade, Hotel and Restaurant; Sector 7: Transportation and Communication; Sector 8: Finance, Leasing and Corporate Services; Sector 9: Services.

While the contribution of each economic sector to GRDP varies, where sector Trade, Hotel and Restaurant has the largest contribution to GRDP in Kupang City of East Nusa Tenggara Indonesia Province in the period 2001-20015 table 2.

The economy in Kupang City of East Nusa Tenggara Indonesia Province in 2015 has decelerated compared to the growth of previous years. The growth rate of Kupang city
GRDP by 2015 reaches 6.65 percent, while in 2014 it is 7.00 percent. The highest economic growth was achieved by the field of Electricity, Gas and Water Supply 9.54 percent. In the data above shows the entire economic field of GDP in 2015 experienced a positive growth. The other three business fields that experienced high growth were 8.93 percent of the transportation and communication business, the trade, hotel and restaurant fields recorded 6.67 percent and the field of finance, leasing and business services 6.63 percent.

GRDP per capita in Kupang City of East Nusa Tenggara Province Indonesia has increased every year as the population increase over the period of 2001-2015, where the year 2015 is Indonesia Rupiah / IDR. 7,234,165 (table 3).

Table 3 – Population, GRDP and GRDP Per Capita Kupang City, East Nusa Tenggara Indonesia, Years 2001-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>PGRDP</th>
<th>GRDP Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>245300</td>
<td>530,987,287</td>
<td>1992407</td>
</tr>
<tr>
<td>2002</td>
<td>252550</td>
<td>580,374,680</td>
<td>2009782</td>
</tr>
<tr>
<td>2003</td>
<td>259900</td>
<td>1,420,566,692</td>
<td>4801430</td>
</tr>
<tr>
<td>2004</td>
<td>262699</td>
<td>1,509,818,272</td>
<td>5016983</td>
</tr>
<tr>
<td>2005</td>
<td>271882</td>
<td>1,584,715,912</td>
<td>5114180</td>
</tr>
<tr>
<td>2006</td>
<td>279124</td>
<td>1,668,042,356</td>
<td>5239736</td>
</tr>
<tr>
<td>2007</td>
<td>286299</td>
<td>1,767,529,907</td>
<td>5613091</td>
</tr>
<tr>
<td>2008</td>
<td>292922</td>
<td>1,890,777,450</td>
<td>5787903</td>
</tr>
<tr>
<td>2009</td>
<td>299518</td>
<td>2,045,332,810</td>
<td>6104116</td>
</tr>
<tr>
<td>2010</td>
<td>336239</td>
<td>7,094,195,026</td>
<td>6172893</td>
</tr>
<tr>
<td>2011</td>
<td>348673</td>
<td>7,701,370,220</td>
<td>6240176</td>
</tr>
<tr>
<td>2012</td>
<td>358382</td>
<td>8,291,239,644</td>
<td>6305329</td>
</tr>
<tr>
<td>2013</td>
<td>368199</td>
<td>8,890,995,786</td>
<td>6578325</td>
</tr>
<tr>
<td>2014</td>
<td>384112</td>
<td>9,513,553,099</td>
<td>6723542</td>
</tr>
<tr>
<td>2015</td>
<td>390877</td>
<td>10,145,836,797</td>
<td>7234165</td>
</tr>
</tbody>
</table>

Viewed from the components of population change that birth rates indicate a tendency to decline, while relative mortality rates are declining. Life expectancy also shows an increase, which means that there is an increase in the health of the population or increase the awareness of the people's knowledge of healthy living. Workforce issues are one of the difficult issues to be solved by the current economic and financial crisis. The data available in the labor department in the Kupang City of East Nusa Tenggara Indonesia by the BPS of Kupang City of East Nusa Tenggara Province, Indonesia showed that the number of job seekers is much greater than the availability of existing jobs. Every year job seekers and new workforce tend to increase, while new job growth is not as fast as the growth of the labor force, as a result of increasing unemployment each year. This statement illustrates that the primary business field must remain the mainstream of the regional economy by continuously expanding the economic base sector in the industry and services sectors.

Finally, basically the key values in planning policy evaluation activities are market rationality and socio-political rationality, which influence the planning process and action. It has the goals of values such as openness, responsibility, justice, and participation or democracy. Its open-ended planning is an easy-to-understand planning process, where information on technical information and technical inputs and information is available and access is open, and stakeholders can know what role is played in decision-making or engaging in planning action.

Responsible planning has the characteristics of others being accountable and accepted by the community, in accordance with established goals, efficient use of resources, effective in solving problems, providing flexibility and convenience, and seeing the public's interest. Fair planning has its characteristics, among others, to see the balance between individual rights and to provide the poor people with access and the ability to obtain the necessary resources. Participating planning can be characterized as a plan that adopts interactive, equality, and cooperative principles in the decision making process together by considering the aspirations of all stakeholders who are interested in the well-being of the public.
DISCUSSION OF RESULTS

Based on the results of the study, the baseline assessment of development planning in Indonesia is generally and especially in the Kupang City of East Nusa Tenggara Province, witnessing the central government to play a dominant role in the development and planning of the country as a whole. This is because the federal government has the capability of funds coming from oil and foreign and domestic aid loans. Meanwhile, government at the state level as well as the community or the private sector does not have the capability. That is why the federal government plays a role in almost every kind of development activities including planning. The community and the private sector only follow government plans, either as suppliers, contractors or subcontractors from government projects (Morgan, 2007). As such, the federal government stands in the forefront, while the community or the private sector supports from behind. Development planning is also conducted thoroughly and centrally and has a special organization, namely the National Development Planning Board.

Planning activities should be of interest to the community and workers at various levels of government, and there is a link between macro and micro-planning activities (Dunn.; 2004). This is the link between the round of public management and the round of project management undertaken by the public sector and the private sector. In particular, the process of regional and city design process should be transparent, responsive, and participatory as an embodiment of good governance principles that can support the achievement of community welfare goals, regional economic growth, and environmental sustainability.

Improved institutional capacity building is a must through: (i) New values that are transformed in the context of planning action. (ii) Development of planning methods and processes to respond to the dynamics of society as well as socio-economic and spatial-geographical changes. (iii). Develop vertical and horizontal working relationships between stakeholders in a harmonious manner in the design process at central and regional level. (iv). Improved human resource capability to effectively manage the functions and functions of design agencies or organizations both at the central and regional levels.

The evaluation of the district development planning with the approach to designing participation in the Kupang City of Nusa Tenggara Province Indonesia is essentially in the process of implementation, in particular the design process of the proposed strategy and development program which will certainly be adapted to the local physical, economic, social and cultural conditions. The strategies and programs presented in this study are expected to be further and more detailed studies involving all official institutions from central level, state to region and even to the village level. The design should not be done until the project level, but must reach the strategy and program. The consideration being used is that in order to arrange a project it is necessary to analyze the problem, potential, and importance of the group in more detail.

CONCLUSION

The ability to improve the design basis should also be followed by a thorough understanding of aspirations and actual needs the community as individuals, families and communities as perpetrators in the ongoing process of social transformation; the development of community participation methods in the public decision-making process of the planning and implementation of democratic plans, openness and accountability (Choguill.; 2003). To improve the planning institution, concrete steps need to be taken by coordinating and consistent with other planning processes, clarifying the division of tasks and the relationship between macro and micro-planning activities at various levels of government, changing the way the planning agencies work at various levels of government, and increasing the capacity and capabilities of resources human designer.

In order to be able to implement the policy planning upgrade, a number of strategic steps need to be taken by the planning agency, namely: (i). Increasing the capacity of designers involved in various planning activities, the designing agency should be able to take
initiatives for insights, knowledge, and skills using new methods in the design process, (ii). Improved working relationships between institutional and planning organizations, the institute needs to interact stakeholders will be able to develop better planning processes for the benefit of the community, (iii). Enhancing services to the public requires enhanced information and communication activities that involve the development of science and technical knowledge in designing activities, and providing feedback information to design agencies or organizations, including design education institutions.

Community participation in the development process, especially in urban areas, is no longer a paradigm, but it is already a city planning science development plan phiyslophi. The cities in Indonesia in general and especially in the Kupang City of East Nusa Tenggara Indonesia have been developed and developed with the old paradigm, with a top-down planning and sectoral approach. The results of the development are more than the needs of a group of people with a small percentage (exclusive society), while the needs of a larger society (marginal society) are neglected and affected.

REFERENCES

INTELLECTUAL CAPITAL ON FINANCIAL PERFORMANCE AND FIRM VALUE OF BANK SECTOR COMPANIES LISTED AT INDONESIA STOCK EXCHANGE IN PERIOD OF 2008-2012

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ABSTRACT
This study is aimed to the influence of Intellectual Capital on Financial Performance and Firm Value of bank sector companies listed at Jakarta Indonesia Stock Exchange in period 2008-2012. This unit data is represented by the audited company's financial statements and historical data of stock prices in Indonesia Stock Exchange. Financial statement data and historical data of the company's stock price used are from the year of 2008 to 2012. Companies sampled in the study only companies which meet the sampling criteria as 130 companies. Data analysis used in this study is Generalized Structured Component Analysis. Results of research indicate that Intellectual Capital significantly influences Financial Performance, and Intellectual Capital significantly influences firm value.

KEY WORDS

The era of global economy challenges companies to be more competitive to lead to knowledge-based resources as a major factor in maintaining a competitive advantage (Kiong and Lean,). With the advent of the knowledge-based economy, intellectual capital compared to physical and financial capital becomes a major factor in creating corporate value and maintain competitive advantage (Al-Musalli and Ku-Ismail, 2012). The emergence of “new economy” that is principally driven by developments in information technology and science has also sparked growing interest in the disclosure of intellectual capital (Petty and Guthrie 2000, Bontis 2001).

The entry of foreign companies into the Indonesian market demands domestic enterprises to further improve the value and performance to face increasing competition. In the improvement process, companies need relevant information on the measured elements not only tangible assets, but also intangible assets in order to disclose the value and performance. In addition to improving the disclosure of financial statements and the disclosure of intellectual capital, a company also needs to carry out the implementation and management of good corporate governance. The acknowledgement related to the influence of intellectual capital on the creation of value and competitive advantage of the company has increased, but an exact proportion for the intellectual capital has been still being developed. Pulic (2000) suggests an indirect measurement of the intellectual capital on the efficiency of the value added generated by the intellectual ability of the company (Value Added Intellectual Coefficient - VAIC).

In the developing countries, such as in Indonesia, the presence of banking industry becomes very important in the process of economic development. The focus of the selection sub-sector bank as the research object in this study was due to some reasons, namely (a) bank is a business sector that is “intellectually intensive” (Joshi et al, 2012); (b) bank also includes service sector, where customer service is very dependent on the intellect, mind, intelligence of the human capital; (c) bank is an institution that is known as risk-taking entity (van Oorschot, 2009); (d) bank in conducting its operational activities is more associated with risks as compared to manufacturing companies and other enterprises; and (e) banking is considered to have a high level of regulation as stipulated by the Regulations of Bank Indonesia.
Similarly, a study conducted by Chen et. al. (2005). By using the model of Pulic (VAIC) to test the relationship between Intellectual Capital on Financial Performance and Firm Value with a sample of companies that go public 4,254 at Taiwan Stock Exchange in 2002. The results showed that intellectual capital influence significant correlation with the financial performance and Firm value. Similarly, research conducted by Tan et.al (2007) using a sample of 150 companies on the stock exchange of Singapore, a result consistent with the research of Chen et.al. (2005) that Intellectual Capital is associated positively with Financial Performance.

Accounting conservatism emphasized that the company's investment in intellectual capital are presented in the financial statements, resulting from the increase in the difference between the market value and book value. So, if for example the market efficiently, then investors will give a high value to the company that has the intellectual capital is greater (Riahi-Belkaoui; Firer and Williams, 2003). In addition to the intellectual capital is a scalable resource to increase competitive advantages, then the intellectual capital will contribute to the company's financial performance (Harrison and Sullivan, 2000; Chen et al. 2005). Further Phusavat K. et al. (2011), researching about the Interrelationships between intellectual capital and performance, concluded that intellectual capital is positive and significantly affect the performance of manufacturing companies in Thailand. The study calculates the performance of intellectual capital using the method of VAIC.

Wang (2011), doing research on measuring intellectual capital an its effect on financial performance in the Taiwan Stock Exchange, concludes that: VAIC has a positive relationship with the ROA and stock value. Maditinos M. et al. (2011), doing research on The impact of intellectual capital on firms market value and financial performance at the company are registered in (the Athens Stock Exchange (ASE), the result of research found that Intellectual capital (human capital efficiency) has a significant relationship with financial performance and firm value. However, Intellectual Capital is believed to be instrumental in the improvement of financial performance and firm value. Firer and Williams (2003), Chen et al. (2005) and Tan et al. (2007), Wang (2011) and Maditinos et al. (2011) have proved that intellectual capital (VAIC) have influence positive against financial performance manufacturing and firm value. Measuring the performance of Intellectual capital using the method of VAIC by Pulic, VAIC (1998) as a measure of the ability of the intellectual manufacturing (corporate intellectual ability), Intellectual Capital (VAIC) influential not only positively against performance manufacturing the current year, even Intellectual Capital (VAIC) can also predict future financial performance (Chen et al., 2005; Tan et al. 2007; Bontis 2002). Were, therefore, research on intellectual capital has been done by Mosavi, et al. (2012) on a company in Iran, the results show that there is a positive and significant relationship between Intellectual capital, financial performance and firm value.

**METHODS OF RESEARCH**

The unit of analysis is the companies in banking sector listed on the Indonesia Stock Exchange by retrieving data from ICMD, financial statements, and annual reports of the companies. The research location is companies in banking sector located operating in the territory of the Republic of Indonesia and listed on the Indonesia Stock Exchange in 2008-2012 periods. Sample was chosen through purposive sampling, under the following criteria:

- The company listed on the Indonesia Stock Exchange during 2008 to 2012
- The company whose shares are actively traded on the Indonesia Stock Exchange during the study period
- The company has information about publication of financial statements and annual reports on a regular basis during the period 2008-2012.
- The company must implement corporate governance, consists of a proportion of the Audit Committee, and the proportion of independent commissioner.
- Each annual report and financial statements must contain disclosure of intellectual capital.
Based on the above criteria, there were 26 companies meeting the criteria. As many as 9 companies have not been listed on the Jakarta Stock Exchange since 2008. The number of samples can be seen in Table 1. Samples were companies in banking sector listed on the Stock Exchange until 2007 and are still active in 2008 and 2012 with the complete continuous annual report, financial statements, and ICMD (Indonesia Capital Market Directory) from 2008 to 2012. The number of sample is as much as 26 for 5 years, equal to 130 samples.

The type of data is quantitative and secondary data. Data for this study were obtained from the financial statements and annual report downloaded from the site www.idx.co.id. The data used in the research is documentation, by collecting, recording, and calculating data related to the study.

Table 1 – Sample of Companies in Banking Sector

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Bank Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AGRO</td>
<td>Bank Rakyat Indonesia Agro Niaga Tbk.</td>
</tr>
<tr>
<td>2</td>
<td>BABP</td>
<td>Bank ICB Bumi Putera Tbk.</td>
</tr>
<tr>
<td>3</td>
<td>BACA</td>
<td>Bank Capital Indonesia Tbk.</td>
</tr>
<tr>
<td>4</td>
<td>BBKP</td>
<td>Bank Bukopin Tbk.</td>
</tr>
<tr>
<td>5</td>
<td>BBNI</td>
<td>Bank Negara Indonesia (Persero) Tbk.</td>
</tr>
<tr>
<td>6</td>
<td>BBNP</td>
<td>Bank Nusantara Parahyangan Tbk.</td>
</tr>
<tr>
<td>7</td>
<td>BBRI</td>
<td>Bank Rakyat Indonesia (Persero) Tbk.</td>
</tr>
<tr>
<td>8</td>
<td>BCIC</td>
<td>Bank Multiara Tbk.</td>
</tr>
<tr>
<td>9</td>
<td>BDMN</td>
<td>Bank Danamon Indonesia Tbk.</td>
</tr>
<tr>
<td>10</td>
<td>BEKS</td>
<td>Bank Pundi Indonesia Tbk.</td>
</tr>
<tr>
<td>11</td>
<td>BKSW</td>
<td>Bank Kesawan Tbk.</td>
</tr>
<tr>
<td>12</td>
<td>BMRI</td>
<td>Bank Mandiri (Persero) Tbk.</td>
</tr>
<tr>
<td>13</td>
<td>BNBA</td>
<td>Bank Bumi Artha Tbk.</td>
</tr>
<tr>
<td>14</td>
<td>BNGA</td>
<td>Bank CIMB Niaga Tbk.</td>
</tr>
<tr>
<td>15</td>
<td>BNII</td>
<td>Bank Internasional Indonesia Tbk.</td>
</tr>
<tr>
<td>16</td>
<td>BLNI</td>
<td>Bank Permata Tbk.</td>
</tr>
<tr>
<td>17</td>
<td>BSWD</td>
<td>Bank Swadesi Tbk.</td>
</tr>
<tr>
<td>18</td>
<td>INPC</td>
<td>Bank Artha Graha International Tbk.</td>
</tr>
<tr>
<td>19</td>
<td>MCOR</td>
<td>Bank Windu Kentjana International Tbk.</td>
</tr>
<tr>
<td>20</td>
<td>NISP</td>
<td>Bank NISP OCBC Tbk.</td>
</tr>
<tr>
<td>21</td>
<td>SDRA</td>
<td>Bank Himpunan Saudara Tbk.</td>
</tr>
<tr>
<td>22</td>
<td>BVIC</td>
<td>Bank Victoria Internasional</td>
</tr>
<tr>
<td>23</td>
<td>MAYA</td>
<td>Bank Mayapada Internasional</td>
</tr>
<tr>
<td>24</td>
<td>MEGA</td>
<td>Bank Mega Tbk</td>
</tr>
<tr>
<td>25</td>
<td>PNBN</td>
<td>Bank Pan Indonesia Tbk.</td>
</tr>
<tr>
<td>26</td>
<td>BBCA</td>
<td>Bank Central Asia Tbk.</td>
</tr>
</tbody>
</table>

Source: Data Processed, 2014.

**Intellectual Capital.** Intellectual capital in this research is the intellectual capital performance as measured by value added created by the indicator of Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA). The combination of these three value added is symbolized by the name of VAIC Pulic Model (19) with three indicators:

**Value Added Capital Employed (VACA)**

VACA is a comparison between the value added (VA) with physical capital works (CA). This ratio is an indicator for the VA made by a unit of physical capital. (Pulic 1998), with the following formula:

\[ VACA = \frac{VA}{CA} \]

**Value Added Human Capital (VAHU).** VAHU is how much VA formed by workers’ expenses. The relationship between VA and HC indicates the ability of HC to make a value on a company. (Pulic 1998), with the following formula:
VAHU = \frac{VA}{HC}

Structural Capital Value Added (STVA). STVA shows the contribution of structural capital (SC) in the formation of values. SC is VA subtracted by HC. HC contributes to the formation of greater value contribution SC (Pulic, 1998) with the following formula:

STVA = \frac{SC}{VA}

Where:
- VA: total sales and other income minus the burden and costs (other than personnel expenses);
- CA: funds available (equity, net income);
- HC: personnel expenses;
- SC: value Added minus human capital (personnel ex-penses);
- Those ratios are calculation of intellectual ability of a company. This formulation is the number of coefficients previously mentioned. The result is a new and unique indicator, VAIC. VAIC indicates the ability of intellectual capital of organization that can also be considered as BPI (Business Performance Indicators).

Financial performance. Financial performance is a measure of the company achievements, in the form of financial statements of the companies in a given period, e.g. annual financial statement. In the study, financial performance was measured by indicators of ROA and ROE.

Return on Assets (ROA). It reflects the company’s business benefits and efficiency in the utilization of total assets. ROA can be calculated by the following formula (Brigham and Houston, 2011):

\[
\text{ROE} = \frac{\text{Net Income After Tax}}{\text{Total Asset}} \times 100\%
\]

Return on Equity (ROE). It is a profitability ratio associated with investment gains. ROE measures how much income one company can produce every penny of the shareholders’ capital. It indicates the strength of income from the book value of shareholders’ investments and it is used when comparing two or more firms in an industry continual (Van Horne, 1989). Thus, the formula to find ROE according to Chen et al. (2005) is as follows:

\[
\text{ROE} = \frac{\text{Net Income Before Tax}}{\text{Total Equity}} \times 100\%
\]

Firm Value. Firm value is a specific condition that achieved by a company as a description of public confidence in the company after going through several years, i.e. since the company was founded until now. Firm value in this study was measured using the following indicators:

The ratio of the market price and the book value or the Market-to-book ratio (MBR). This ratio is a ratio that measures the value of the company given by the financial market to the management and organization of the company that continues to grow. Ratio also shows a comparison of the market price of equity to book value of equity. This measurement is formulated as follows:

\[
\text{Market – to – book ratio (MBR)} = \frac{\text{market price of equity}}{\text{book value of equity}}
\]

Tobin’s Q. Tobin’s Q is a more accurate measure on the effectiveness of management in utilizing resources in its economic power (Weston & Copeland, 1997). Tobin’s Q in this study
is the market value of equity plus the book value of debt divided by the book value of equity plus the book value of the debt.

\[
\text{Tobin's } Q = \frac{\text{Market Value Equity} + \text{BV of Debt}}{\text{Book Value Equity} + \text{BV of Debt}}
\]

**Closing Price.** Closing Price is the final price of shares traded on a particular trading day (can be daily, weekly, monthly, and quarterly), which is included in each annual report (quarterly). The closing price is the most up-to-date price information in assessing the stock until trading is open again on the next trading day (Investopedia, 2013). The price of a stock reflects all information known by the public about the expected future gains from the stock (Salvatore, 2005). Closing Price refers to the size of the formula (Patell, 1976):

\[
\text{Closing Price} = \log_N CP
\]

**Inferential Statistical Analysis.** Methods of data analysis used in this study, i.e. the descriptive and statistical analysis, i.e. Generalized Structured Component Analysis (GSCA). As for consideration using the program GSCA in this study because the type of the variables examined in addition to the reflective variable is also a formative variables with a small number of samples. While the GSCA is an analysis tool that can be used to analyze the various types of variables are variables that either reflective or formative variables.

**RESULTS OF RESEARCH**

**Intellectual Capital Variable.** Disclosure of Intellectual capital variable \((X_2)\) has the following indicators: Value added Capital Employed (VACA) \((X_{2,1})\), Human Capital Coefficient (VAHU) \((X_{2,2})\), and Structural Capital Coefficient (STVA) \((X_{2,3})\). Descriptive analysis results on each indicator show that Value Added Capital Employed (VACA) had -0.37 minimum and 0.89 maximum value and an average of 0.21. This illustrates that the average banking sector companies listed in the Stock Exchange has been utilizing the capital employed, whose added value can be created by one unit of physical capital. If one unit of CE (Capital Employed) produces greater returns than other companies, it means the company better utilizes its CE (Pulic, 1998).

Based on the concept of Resources Theory (RBT), in order to compete with other companies, a company needs asset management capabilities in both physical assets and intellectual assets. VACA is a form of company’s ability to manage its resources in the form of capital assets. With good management of capital assets, it is believed that the company can increase the market value and performance. Thus, the utilization of better intellectual capita disclosure is part of the intellectual capital disclosure of a company.

Human Capital Employed Coefficient (VAHU) has a minimum value of 0.02, a maximum value of 5.77, and an average of 1.22. Thus, the banking sector companies listed on the Stock Exchange in 2008-2012 had average of 1.22 funds expended for labor to create value added. The relationship between VA with Human Capital Employed indicates the ability to create value in the company.

Based on the concept of Resources Theory (RBT), in order for companies to compete, high quality human resources are needed. Additionally, companies must be able to manage the quality of resources to the maximum in order to create value added and competitive advantages that may ultimately improve the financial performance and corporate value.

Structural Capital Coefficient (STVA) has a minimum value of 7.80 and a maximum of -5.56, and an average of -0.25. This shows -0.25 contribution of structural capital (SC) in value creation. STVA measures SC needed to produce 1 rupiah of VA and is an indication of how the success of the SC in value creation. SC is not a measure independent as HC in the value creation process. That is, the greater the contribution of HC in value creation, the smaller the contribution of SC in this regard. Further, SC is VA subtracted by HC (Pulic, 1998).
**Financial Performance Variable (Y1).** Financial Performance Variable \((Y1)\) is indicated by ROA \((Y1.1)\) and ROE \((Y1.2)\). ROA average of 1.20 showed the company's capability to conduct efficient use of total assets for the company's operations. This showed that the banking sector companies listed at the Indonesia Stock Exchange in 2008-2012 had averaged ROA of 1.20, giving an overview to the investors on how the companies converting the money that had been invested in net income. In short, ROA was an indicator of the profitability of the company in using its assets to generate a net income.

ROA is calculated by dividing the net income by the average total assets of the company. The higher the ROA, the company is more efficient in using their assets. This means that the company can make money (earnings) more even with little investment.

The average Return on Equity \((Y2.2)\) of banking sector companies listed at the Indonesia Stock Exchange in 2008-2012 was 14.5; this means that on every rupiah in equities of banking sector companies listed at the Indonesia Stock Exchange will generate income of 14.5% per year. The greater ROE, it will be better for the company.

**Firm Value Variable (Y2).** Variable of Firm Value \((Y2)\) in this study was measured by three indicators, namely the Market-to-book ratio (MBR \((Y_{2.1})\)), Tobin's Q \((Y_{2.2})\), and the Closing Price \((Y_{2.3})\). Market-to-book has a minimum value of -1.74, a maximum value of 8.55, and average of 1.81. This shows that the banking sector companies listed in the Stock Exchange in 2008 to 2012 have stock value 1.81 times greater than the book value of equity held by the company. This ratio measures the value of firm value given by financial market to the management and organization of the company that continues to grow (Weston & Copeland, 1997). This ratio also shows a comparison of the market price of equity to book value of equity.

Tobin's Q has a minimum value of 0.14, a maximum value of 1.70, and an average of 0.52. This indicates that the market value of the company's assets divided by the cost of replacement is 0.52. A company with a high Q ratio tends to have attractive investment opportunities or competitive advantages, which are significantly superior (or both) (Ross, et.al 2008). Tobin's Q average value of 0.52 indicates the feasibility to invest in banking sector companies listed in the Jakarta Stock Exchange.

Closing Price 5.1 has a minimum value of 1.69, a maximum value of 4.02, and an average value of 2.79. This shows that the banking sector companies listed on the Stock Exchange in 2008-2012, in average have good Closing Price and good prospects. Closing Price is the final price at which securities are traded on a given trading day (Investopedia, 2013). The Closing Price is the most up-to-date assessment of securities to trading resumed on the next trading day, the price of a stock reflects all known information about the expected profit in the future of the stock (Salvatore, 2005).

**Confirmatory Factor Analysis.** The Intellectual Capital VAHU \((X_{1.2})\) had a value of loading/weight 0.461, VACA \((X_{1.1})\) 0.419, STVA \((X_{1.3})\) 0.368. This indicates that VAHU was a dominant indicator that explains the intellectual capital variable, followed by the VACA and STVA had the lowest contribution to the intellectual capital. The indicator of ROA \((Y1.1)\) has a value of loading/weight of 0.537 and ROE \((Y1.2)\) has a value of loading/weight of -0.537. This indicates that the ROA and ROE have the same dominant contribution to the financial performance even though they have the opposite direction (affecting positively or negatively).

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Loading/Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(X_{1.1})</td>
<td>0.419</td>
</tr>
<tr>
<td>2.</td>
<td>(X_{1.2})</td>
<td>0.461</td>
</tr>
<tr>
<td>3.</td>
<td>(X_{1.3})</td>
<td>0.368</td>
</tr>
</tbody>
</table>

Table 1 shows that indicator of Human Capital Coefficient (VAHU) \((X_{2.2})\) has a value of loading/weight of 0.461 and Value Added Capital Employed (VACA) \((X_{2.1})\) has a value of loading/weight of 0.419, and Structural Capital Value Added \((X_{2.3})\) has a value of loading/weight of 0.368. This indicates that the indicator of Value Added Human Capital (VAHU) \((X_{2.2})\) is a dominant indicator that explains the variable of intellectual capital, followed
by Value Added Capital Employed (VACA) \((X_{2.1})\) and Structural Capital Value Added \((X_{2.3})\) with lowest contribution to the Intellectual Capital.

Table 2 – Loading Factor Indicator of Variabel financial performance

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Loading/Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Y1.1</td>
<td>0.537</td>
</tr>
<tr>
<td>2.</td>
<td>Y1.2</td>
<td>-0.537</td>
</tr>
</tbody>
</table>

Table 2 shows that the indicator of ROA \((Y_{1.1})\) has a dominant loading/weight value of -0.537, ROE \((Y_{1.2})\) has a loading / weight value of -0.537, is a dominant indicator and ROA \((Y_{1.1})\) and ROE \((Y_{1.2})\) have the same dominant contribution weighting toward financial performance. Although it has the opposite direction.

Table 3 – Loading Factor Indicator of Firm Value Variable

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Loading/Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Y2.1</td>
<td>0.450</td>
</tr>
<tr>
<td>2.</td>
<td>Y2.2</td>
<td>0.414</td>
</tr>
<tr>
<td>3.</td>
<td>Y2.3</td>
<td>0.420</td>
</tr>
</tbody>
</table>

Table 3 shows that the indicator of MBR \((Y_{2.1})\) has a dominant loading/weight value of 0.450, Closing Price \((Y_{2.3})\) has a loading / weight value of 0.420, and Tobin’s Q \((Y_{2.2})\) has a loading/weight value of 0.414. This indicates that MBR \((Y_{2.1})\) is is a dominant indicator and Closing Price \((Y_{2.3})\) affects Firm value, followed by Tobin’s Q \((Y_{2.2})\) having the lowest contribution to the Firm Value.

**GSCA Analysis.** The results of the analysis provide FIT value of 0.315 or variables included in the model are able to explain the diversity or the phenomena of 31.5%, the rest (68.5%) is explained by variables not included in the model (Table 4). Testing the hypothesis in this study is done by looking at the paths on the significant structural model. The pathways of significant relationships (influence) can be seen in the coefficient path using the t test \((t\text{-}test)\). The results of research hypothesis testing are as follows (Fig. 1):

- Intellectual capital has significant effect on financial performance.
- Intellectual capital has significant effect on firm value.

Table 4 – Estimation and P value of each path coefficient

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>n/n</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>p</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1-&gt;Y1</td>
<td></td>
<td>0.750</td>
<td>0.035</td>
<td>21.56</td>
<td>0.000</td>
<td>significant</td>
</tr>
<tr>
<td>X1-&gt;Y2</td>
<td></td>
<td>0.418</td>
<td>0.032</td>
<td>12.98</td>
<td>0.000</td>
<td>significant</td>
</tr>
</tbody>
</table>

![Figure 1 – Path Diagram](image_url)
DISCUSSION OF RESULTS

Effect of Intellectual Capital on the Financial Performance. The disclosure of intellectual capital has significant influence on the financial performance in the banking sector companies listed at the Indonesia Stock Exchange 2008-2012. Given the path coefficient was positive, it means that the disclosure of Intellectual capital will be able to improve the financial performance of the banking sector companies. The findings of this study were consistent with previous studies by Chen et al. (2005), Tayles et al. (2007), Cohen S and Kaimenakis N, (2007), Wang (2011), Maditinos et al. (2011), Karacan and Ergin (2011), Wu et al. (2012), which states Intellectual capital disclosure has positive and significant impact on the financial performance of the company. It can be said that any changes in the intellectual capital disclosure variable in the banking sector companies listed at the Indonesia Stock Exchange to 1, it will lead to changes in the financial performance variable of the banking sector companies amounted to 75.8%, and vice versa if there is a decrease.

Effect of Intellectual Capital Disclosure on Firm Value. Results of analysis generates path coefficient of 0.418 and P 0.00, so it can be said that the intellectual capital disclosure have significant effect on firm value in anking sector companies listed on the Jakarta Stock Exchange 2008-2012. The significant effecta and positive path coefficient means that the disclosure of intellectual capital will improve the financial performance of the banking sector companies listed on the Stock Exchange amounted to 41.8% and vice versa. The findings of this study are consistent with previous studies (Lie, et.al 2010, Chen, et.al 2005, Ulum 2009).

Disclosure of intellectual capital variable is able to significantly affect firm value. This may be because the market response to the implementation of intellectual capital disclosures can directly be felt. Influence of intellectual capital disclosures on firm value, even though new to the category of the company in general and corporate banking sector in particular, especially using the VAIC (Value Added Intellectual Coefficient), can be seen in the annual financial statements of the company making investors can directly understand the value added of the company itself. To increase firm value or the market value of a company, value added is needed and can be created by developing the company’s disclosure of intellectual capital. Good intellectual capital disclosure gives positive signal on the management of a company, the investor will give a positive response, and with a positive response from investors, demand for shares can be expected. Investors will providepositive legitimacy for companies with high disclosure of intellectual capital; in other words, investors will judge that the company that owns and revealing intellectual capital as a whole as a company that has good adherence to regulations from both the government or from other parties (Ulum,2009).

RECOMMENDATIONS

Suggestions for management and practitioners are described as follows. Owners and management of companies are advised to carry out the banking sector business based Likewise, it is advisable to disclose intellectual capital with the approach of Value Added Intellectual Coefficient (VAIC) in accordance with Indonesian accounting standards or international accounting standards.

Practitioners who use the intellectual capital, such as managers, especially in knowledge-based companies, need to know the importance of intellectual capital and knowledge as an important factor affecting the ability of the company to compete in the global market.

Finance Services Authority and the Indonesian Institute of Accountants may set a basic standard and regulations in a particular approach to the disclosure of intellectual capital through Value Added Intellectual Coefficient (VAIC) approach.

CONCLUSION

Intellectual capital disclosure has significant influence on the financial performance of the banking sector companies listed at the Indonesia Stock Exchange in 2008-2012. It
means that the intellectual capital disclosure through Value Added Intellectual Coefficient (VAIC) may have significant influence to improve financial performance with the indicators ROA and ROE. Intellectual capital has significant effect on firm value in banking sector companies listed on the Stock Exchange in 2008-2012. Likewise, it is advisable to intellectual capital with the approach of Value Added Intellectual Coefficient (VAIC) in accordance with Indonesian accounting standards or international accounting standards.

Practitioners who use the intellectual capital, such as managers, especially in knowledge-based companies, need to know the importance of intellectual capital and knowledge as an important factor affecting the ability of the company to compete in the global market.

Financial Services Authority and the Indonesian Institute of Accountants may set a basic standard and regulations in a particular approach to the disclosure of intellectual capital through Value Added Intellectual Coefficient (VAIC) approach.

The advice given in this study based on the research findings and the limitations of the study in the next Researcher to suggest using other indicators to measure the company's financial Performance variables such as Return on Investment (ROI), growth in revenue (GR), debt to equity ratio and others.

ACKNOWLEDGEMENTS

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EFFORTS TO IMPROVE WELFARE BASED ON AQUACULTURE TOWARDS THE COMMUNITY ECONOMIC DEVELOPMENT

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ABSTRACT
This study aims to produce a continuous improvement model of river basin community welfare by applying the moral values of the society culture. The subject of research is the community of the river Kahayan River Palangkaraya. Based on the results of research can be concluded that the aquaculture based eco-business activities can be done by applying the moral values of the river society culture, so that all economic activities do not damage the environment. The Kahayan River has a high economic potential for business activities can be done by applying the moral values of the river society culture, so that all economic activities do not damage the environment. The Kahayan River has a high economic potential for the people living around it. However, the current condition has been greatly reduced due to various obstacles encountered, including environmental damage in the upper river, due to refinery plantation companies (accompanied by high levels of pesticide use and chemical fertilizers and intensive cultivation), illegal gold mining, deforestation, illegal use of poison while fishing, industrial and household waste disposal into the Kahayan river.

KEY WORDS
Aquaculture, economic independence, moral values, culture, community.

The region of Pahandut is now very developed. In this village has a lot of stands of shopping centers, traditional markets, moll, small, medium, and large industries, shops, hotels and homes. Some of the shops and houses made of wood are built behind the banks of the Kahayan river that divides the city of Palangkaraya. The wooden houses, currently standing firmly lined the banks of the Kahayan river, are increasing in number each day until they become densely populated slums.

Access roads in densely populated villages on the banks of the Kahayan River Pahandut village is only a 1.5 meter wide wooden “ulin” or commonly called ‘Puntun’ by the local community. Although sturdy, his voice galloping when crossed by two-wheeled vehicles. When passing by, the biker is better to stop succumbing than to lose balance and fall from a height of about two meters to the surface of the tidal swamp. The wooden houses are almost similar to each other and the long alleys are also twisted into their own scenery and even for newcomers, the branched and twisted alleys cause confusion. Electric cables, television antenna cables, and a variety of clothes that are dried in front of the house also add to the chaos of existing environmental conditions. The density of the inhabitants is also seen from the number of children who play and run in the narrow alley and the mothers who sit chatting with neighbors on the terrace of his house that coincide directly with the wooden pathway.

The continuous population growth in Palangkaraya City as a logical consequence of the urbanization process brings a serious spatial impact to life, namely the demand for space in order to meet the needs of settlements, residential or trade and services. However, with limited land conditions in Palangkaraya City, the higher density of buildings with irregular distribution. So cause pressure on the surrounding area, especially on the riverbank area Kahayan. The Kahayan riverbanks in Pahandut urban village have been looted by residents by pegged, sold and established various permanent buildings and wooden houses.
The spread of urban communities towards the swamp area Kahayan river which initially the price is still relatively cheap, causing the emergence of illegal buildings that the number has not counted again. In addition, with the increasing price of urban land and accompanied by the economic weakness of most people in Palangkaraya City, forcing urban residents to utilize empty land such as Kahayan river banks by building illegal settlements. The current condition that occurs is, the utilization of the Kahayan River is increasingly out of control, both in terms of quality and quantity. Utilization of areas that are not covered by government supervision such as the river Kahayan this, is one of the problems faced by the City of Palangkaraya.

Settlements on the banks of the Kahayan can also be said to be "marginal settlements" or "illegal settlements", because they occupy land that should not be for buildings. This fact also reinforces the view that there is no monitoring and control of land use on the banks of the Kahayan River by the Government in this case the Central Kalimantan Irrigation Service Office. Uncoordinated land use and escape from the supervision of the government of Palangkaraya City and Central Kalimantan Province so as to spur more uncontrollable conversion of conservation land into a wake up area, which creates riparian areas of unsuitable land use, with permanent and semi-permanent buildings along the right and left bank of the river.

**THEORETICAL REVIEW**

Ife (1995) says empowerment aims to increase the power of disadvantaged. Swift and Levin (1987) tend to interpret empowerment as a reallocation of power. Empowerment as a way in which people, organizations, and communities are directed to power over their lives. (Irwansyah, 2012: 23).

Empowering the community is an effort to improve the dignity of the Indonesian society in general and the Alalak people, especially those in the present condition, are not able to escape from the poverty trap and backwardness. In other words, empowering is enabling and self-sustaining society. (Wrihatnolo & Dwidjowijoto, 2007, Irwansyah, 2012).

In the conventional sense, the concept of empowerment as a translation empowerment contains two definitions, namely (1) to give power or authority to or give power, transfer power, or delegate authority to another party; (2) to give ability to or to enable giving ability or empowerment. Explicit in this second sense is how to create opportunities to actualize one's empowerment. (Wrihatnolo & Dwidjowijoto, 2007, Irwansyah, 2012). River Water Region (KTAS) is a unity of land / area adjacent to the riverbanks, which still has the dominant influence of water edge characteristics both morphologically and ecologically. Functionally KTAS as unit of territory and or part of city area have main function as ecological function. Kaqasan TAS is a conservation area that is expected to be able to "filter" and protect river water resources. In reality, the current KTAS ecological function has begun to disappear because the utilization of KTAS is solely intended for residential, commercial, and non-environmental sustainability functions. This implies a tendency to decrease the visual quality and ecological quality of the area's environment (Wikantiyoso, 2010).

Efforts to control and protect the environmental quality of the River Bank (TAS) has actually been done by the government with the issuance of several laws and regulations related to it. The laws and regulations are as described on page 3 ahead. The technical regulations governing the utilization of the KTAS are set forth in the Technical Guidelines for Building and Environmental Arrangement in the Waterfront Area, issued by the Director General of Human Settlements of the Ministry of Public Works of 2000.

A strategic area is an economic region that potentially has a multiplier effect that is cross-sectored, cross-spatial (cross-regional) and cross-cutting. Thus, the development of strategic areas has a centrifugal effect because it can effectively move the economic development of other sectors, the development of the region around it and the ability to move the economy of society widely, in the sense of not limited to the economy of certain classes only (Irwansyah 2012: 21).
Efforts to assess its potential that could have a multiplier impact on other sectored developments and target areas require careful study of the potential linkages. A region and a commodity are considered strategic if they have strong backward and forward linkages. Backward, it is expected that the development of a strategic area can absorb labor and spur the growth of input provider activities both in the form of input products (raw materials, raw materials and equipment) and supporting products (Irwansyah, 2012: 21).

The river border or floodplain exists between the river ecosystem and the terrestrial ecosystem. Based on the Decree of the President of the Republic of Indonesia No. 32/1990 on the Management of Protected Areas, river basins are defined as areas along the left and right of the river, including artificial river / primary irrigation canals, which have important benefits for maintaining river functions. The border area covers the river bank area that is part of the river body that only flooded during the rainy season and the border area that is outside the riverboat that is the area that catches the river water in the rainy season and has a soil moisture higher than the soil moisture in the terrestrial ecosystem. Flooding in the river basin during the rainy season is a natural event that has important ecological functions in maintaining the environmental balance and soil fertility.

The river border is often referred to as a river bank. But actually there is a difference because the river banks is a riverside area that flooded during the flood so that the banks of the river is also called a flood plain. While the river border is a floodplain area plus the width of avalanche of river cliffs (sliding) that may occur, the width of the ecological slope, and the required security width associated with the location of the river such as settlement areas and non-settlements).

Cultural landscape (cultural landscape) is everything that is in the outer space that is close and can be seen. According to this definition, the cultural landscape environment is all that has been intervened or changed by humans (Melnick 1983). It also means a term that denotes an area of landscape composed by human culture. Culture is the creation, work and human initiative that affect their lives. Thus the cultural landscape is all part of the face of the earth that has been intervened or changed by humans.

Tishler (1998) points out that the natural landscape formed by human activity forms a cultural landscape. Cultural landscape is a place in nature that has a significant relationship with human activities, reflects the important traces of human culture, provides important information about the ancestors.

Cultural landscape according to Tishler (1982) is a geographical region that features the expression of a natural landscape by a particular culture, where culture is its agent, natural region as its medium and cultural landscape as a result.

Ecology is a unique, balanced condition that plays an important role in conservation and land use and development to suppress problems arising as a result of human-caused global change (Forman and Godron 1996). The river ecology is linked to existing parts of the river, including the borders, banks and the river body itself.

Conservation activities are conservation activities. Conservation is defined as the whole process of managing a place so that the cultural meaning it contains is well preserved. Conservation may include all maintenance activities in accordance with local circumstances (Budihardjo 1989). The conservation motive is protecting our cultural heritage that has cultural value. If the relics of the past are not protected by the rules, then the processes of natural change will change or even eliminate them, plus more rapid development (Aini, 2005).

Housing on the banks of the river is a reflection of the limitations of urban land so that not all communities can enjoy adequate facilities and can live on suitable land (Evert, 1982). Communities who live around the banks of the river are structurally incapable communities so that although the land they occupy is not sloping, the riverside area is still inhabited (Guinness 1986; Aini, 2005).

Development strategies that refer only to the growth paradigm and "equity" have proven to be vulnerable to social problems. The development approach should be accompanied by the value of sustainable development or sustainable development in order to foster self-sustaining capacity of the community. This means that development must be
human-centered (people-centered development). This strategy will foster community participation in development.

Since aquaculture efforts are almost all located in coastal areas, small islands, rural and border areas, the aquaculture development and business will generate new centers of economic growth and prosperity throughout the Unitary Republic of Indonesia (Dahuri, 2016).

The aquaculture sector for Indonesia is like "The Sleeping Economy Giant" (Dahuri, 2016). He further explained that the aquaculture sector can be concrete and in the short term (2016 - 2019) produce high economic growth (> 10% per year), create large jobs, support food and pharmaceutical sovereignty, and prosper the people sustainably; then we should now focus on implementing 3 national programs based on superior aquaculture commodities. I.e. marine culture commodities that have high production potential, expensive selling price, relatively easy technology, needed by domestic (export) consumer and export, and generate big profit. On the basis of these criteria, the leading commodities for the cultivation at sea include duck grouper, tiger grouper, grouper, snapper, lobsters, barks, green shells, abalone, sea cucumbers, shellfish pearls, and various species of seaweed.

Main commodities for cultivation in brackish waters (shrimp ponds) include tiger shrimp, vanamme prawns, prawns, milkfish, salt tilapia, mud grouper, crabs, crabs, and some Gracillaria seaweed.

Leading commodities for aquaculture in freshwater, including ponds and fish alongside rice trees include golden fish, tilapia, carp, freshwater, prawns, freshwater lobster, various fish and ornamental plants.

METHODS OF RESEARCH

The research model used is action research with model development. The data were obtained by doing measurement before the research, followed by giving the action in the form of program implementation, followed by post-development measurement and model test. Data were obtained using measurements with questionnaires, participatory observations, and in-depth interviews. Data were analyzed with multi strategic approach. The research was conducted on the river Kahayan of Palangkaraya since May-August 2017.

RESULTS AND DISCUSSION

Utilization of riverbank Kahayan at this time experiencing the tendency of uncontrolled use of space, density, and ecological functions resulting in decreased quality of the physical environment and quality of river water. Slum settlements along the banks of the Kahayan River that cross the middle of Palangkaraya city, is an unpleasant sight and eventually cause a very serious problem in its utilization. River basin areas in their control face serious problems such as: (1) high density of buildings with minimal environmental infrastructure; (2) the quality of the scenery is very dirty; (3) vulnerability to flood hazard; and (4) household waste disposal that pollutes Kahayan river water resources. This situation occurs, among others, due to planning efforts, design, and controlling the utilization of the Kahayan River that is still sectored. The efforts of structuring the area already inhabited by thousands of people become very difficult and require a serious effort involving all parties involved.

This is as a logical consequence for urban growth that is not well laid out, and a poor anticipation of the growing urbanization flow every day. This is certainly contrary to the river basin area regulations that should not be erected. Spatial use in riverbank area, generally experiencing the tendency of uncontrolled distribution of buildings in the watershed which has an impact on the degradation of river quality. In addition, people who occupy the river banks, generally throw garbage and household waste directly into the river water bodies. In fact, the river is one of the important sources of clean water in life.

Currently, the existence of the river that passes in the city of Palangkaraya is not done control and supervision of the development of rivers and river banks, it is evident that the number of illegal buildings erected on the banks or in the watershed. This causes the
occurrence of narrowing of river bodies, and can even cause other dangers such as river water pollution, flooding, sedimentation, and others.

Lots of community activities riverbank Kahayan River is not environmentally friendly, among others:

1) Throwing garbage under the house in the form of swamp. The swamps under the house of the Kahayan River are large trash can that holds all domestic waste into water bodies such as kitchen waste, soft drink bottles, plastic bags, baby diapers and sanitary napkins, mattresses, used clothes, children's toys already broken, flip-flops, various foams, Styrofoam, so that at low tide, garbage strewn around the poles. Not to mention the added industrial waste, municipal waste, mining waste, and various other chemical wastes that is very damaging to the ecosystem. as a result the neighborhood is becoming rundown, mosquitoes, mountainous garbage, and odor;

2) Transferring functions to settlements, business activities, and industries. There are no sterile regions of the river that cross the city of Palangkaraya from buildings and various business and residential activities. Current conditions, all very worrying because the condition of the river Kahayan in the city of Palangkaraya increasingly filled building houses and small industries.

3) Fishing activity using electric current and potassium toxicity. The result of this activity is not very environmentally friendly is the number of dead fish that are not feasible for consumption.

The picture of the economic condition of the very poor, with the condition of the houses on stilts over the swamp (river border), the majority of which is very concerning, with a slum physical environment, densely populated, dirty and hot, is a sight directly found by anyone who enters the riverbanks Kahayan Pahandut, Palangka Raya.

Poverty in the riverbanks is also a result of low public revenues, as they rely solely on odd jobs with uncertain income. The education level of the overwhelming majority of people is also very low as the cause of the poverty cycle. The number of school age 6-18 year is 2438 people. The number of those who graduated from high school was only 242 (9%), finished junior high school (12%), and the rest 950 (27%) only had elementary education. The number of people who are illiterate, illiterate, and blind figures as much as 12% coming from groups of parents and elderly.

Currently, the Kahayan River is still being used as a transportation route for residents to collect the produce from Bahaur Village in Pulang Pisau Regency to be brought back to Palangka Raya and sold to the market. The community also utilizes the Kahayan River as a "tourist infrastructure along the Kahayan river", using a boat whose size and color varies. People living on the riverbanks of the Kahayan River still depend a lot on their lives on the benefits of the river. Despite the growing era, people here also make the river as a means to live activities with various sides, such as social, economic, and cultural. In addition, the Kahayan River provides a variety of natural gifts, namely fish for eat. In other words, the Kahayan River Flow if managed properly, has tremendous potential and can produce excellent economic value.

Communities around the Kahayan River, in addition to fishing, also use the river for bathing, washing, and for everyday purposes. Unfortunately, nowadays with many palm oil plantation companies, the river area becomes polluted by fertilizer waste and various oil palm plantation medicines.

*Empowerment of Aquaculture Economy.* Types of fish that can be selected in empowerment through aquaculture cultivation is the cultivation of black tilapia fish. Researchers and teams chose black tilapia species because they were able to provide greater benefits than other fish farms. In addition, tilapia also includes fish species that are not difficult to maintain, pest-resistant, fast big, and high success rate in maintenance. From the harvest, obtained a high profit, because the market demand for tilapia is also very high. Every sitting on the ground restaurant, restaurant, seller in traditional market, supermarket in Palangkaraya city, really need tilapia in big amount.

This shows how open the business opportunity of tilapia fish. Tilapia on the market is in the price range Rp25.000-Rp30.000 per kg. Fish named Latin
Oreochromis niloticusini when it comes to traders, the price can reach Rp35,000 per kg. Tilapia fish prices are relatively stable, rarely a price decline. Whatever the number of crops of tilapia from cultivators, all will be absorbed by the market, let alone enter the month of Ramadan fasting and holiday and holidays. Fish this value in addition can be consumed directly by fried, picked, can also be made of fish dumplings, and nugget. Raising Aquaculture with floating ponds has many advantages compared with land pond. Aquaculture with floating ponds is able to produce larger fish than fish farming which is done by using ground pool. The price of tilapia cultivated in Aquaculture with floating ponds does not smell mud or soil because the cage does not touch up to the bottom of the river and the tributaries are always flowing and changing.

Ecobusiness Institutions. The above developed institution belongs to the group, since it is formed by the group. The community is also managed, turned on, and liven up with various activities by the group. In essence, the community is also fully utilized for the benefit of the group.

Anyone who has a aquaculture with floating ponds business can be a member of a group. Thus, the association as a joint-owned institution of all members of the aquaculture farming group will be able to: 1) be an excellent container in increasing the community's motivation to become a cage farming entrepreneur, 2) to be the center of activity and coordination of all members of the community in doing various activities, 3) be a source of information to gain knowledge, 4) as an institution that will distribute various assistance that at any time come from companies and local government assistance, and 5) as a vehicle to increase households through the ability to breed fish cages this was never imagined in their minds.

Moral values of the Community of River Basin Region. The various moral values that need to be implanted to all the people living in the Kahayan River Basin are 1) not to dispose of the garbage into the river, because it will pollute or contaminate the river, which in turn will cause the river bank. The river border of swamp beneath the houses becomes very shabby, many mosquitoes, when the dry season of garbage mounts, smells unpleasant, and greatly disturbs the beauty of the densely populated environment, 2) does not cut down the forest on a large scale, because it will cause erosion, flooding, and siltation of rivers, 3) not catching fish with rajas, because all fish both large and small are dead, so the sustainability of community protein source from freshwater fish is threatened. Water-soluble toxins can also kill various other aquatic animals, so the river water ecosystem becomes damaged. Toxins that dissolve in the river water will also kill the community's pet fish in the cage. Similarly, fish caught using toxins are unfit for consumption. 4) The community is expected not to catch fish using strum. Stun Fish is a tool used to find fish by giving a shock (voltage) electricity generated by batteries Aki (accumulator) to the fish in the water so that the fish become limp or even dead then captured. Catching fish with strum, will cause small fish to die and ecosystems become damaged. This moral value in accordance with Law No. 5/1990 on the Conservation of Natural Resources and Ecosystems article 21 and Article 40, prohibits the search for fish with stun, poisoned or using explosives. Violation of Law No. 5/1990, the perpetrator may be subject to fine of 100 million or maximum imprisonment of five years. 5) Communities should not engage in illegal gold mining by destroying forests, as forests will become damaged, erosion, flooding, and swallowing of streams significantly. River water becomes very turbid brownish, unsightly, and will affect the habitat of water, especially fish. 6) The public should not give a variety of medicinal plants in excess, because it will carry the flow of water into the river and will poison various types of freshwater fish. Includes washing tools used to spray various pesticide drugs in the river, as it would be very dangerous for various river ecosystems. Poisoned water will flow in all directions including flows to fish breeder cages, which will lead to high mortality rates in the cage. 7) The community should not burn the forest, because the forests will be barren which will result in the silting of the river, evident after the heavy rain of river water becomes very turbid, as a sign of soil content that dissolves into the river is very high. 8) Communities also do not dispose of company waste, industrial waste, mining, urban, household, and various Toxic Hazardous Materials (B3) into the river, because it will damage the river ecosystem. Also do not dispose of non-B3
waste, so it does not cause pollution of ecosystem of aquaculture area. 9) People also do not throw stools into the river, or do not dispose of in the river. 10) People do not throw away chicken carcases, rats, dogs, cats and other dead animals. 11) Communities do not collect and trade bar land for personal gain. 12) communities also do not catch fish in the traditional way, or by making aquaculture with floating ponds fish that are environmentally friendly, and not doing reforestation in river banks.

Moral values that are still adhered to and moral values that have been violated can be tabulated as follows:

<table>
<thead>
<tr>
<th>Moral values are still adhered to</th>
<th>Moral values that have been violated</th>
</tr>
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<tbody>
<tr>
<td>Do not throw stools into the river, or do not waste in the river</td>
<td>Throw garbage in the river</td>
</tr>
<tr>
<td>Do not throw away chicken carcases, rats, dogs, cats and various other dead animals</td>
<td>Look for fish with poison</td>
</tr>
<tr>
<td>Do not dispose of company waste, industrial waste, mining, urban, household litter, and various</td>
<td>Reforestation in river banks</td>
</tr>
<tr>
<td>Toxic Hazardous Materials (B3) to the river</td>
<td>Not dispose of company waste, industrial waste, mining, urban, household litter, and</td>
</tr>
<tr>
<td></td>
<td>various Toxic Hazardous Materials (B3) to the river</td>
</tr>
<tr>
<td>Not burning the forest</td>
<td>Not burning the forest</td>
</tr>
<tr>
<td>Not doing illegal gold mining</td>
<td>Not doing illegal gold mining</td>
</tr>
<tr>
<td>Not giving a variety of medicinal plants in excess</td>
<td>Not giving a variety of medicinal plants in excess</td>
</tr>
<tr>
<td>Not cutting down forests on a large scale</td>
<td>Not cutting down forests on a large scale</td>
</tr>
<tr>
<td>Not plotting and trading for plots for personal gain</td>
<td>Not plotting and trading for plots for personal gain</td>
</tr>
</tbody>
</table>

Source: Primary Data (2017), processed.

Targets for the socialization of fish cultivation, cultivation training, mentoring, and the formation of community associations according to Dahuri (2012) are to increase the productivity, efficiency and sustainability of all existing aquaculture business. Thus, the profits of his business can prosper the business actor in a sustainable manner. To achieve the target, all aquaculture business units must meet the economies of scale, ie the size of business units that can generate income for business actors. Each business unit must use state-of-the-art technologies that are environmentally friendly and apply the best Aquaculture Practices (BAP). BAP includes: (1) choosing the right business location, (2) the use of superior seeds or seeds (disease-free, disease-resistant, and fast-growing); (3) quality feeding; (4) water and soil quality management, (6) pest and disease control, (7) bio security, and (8) the area and intensity of cultivation technology does not exceed the carrying capacity of the local environment. (5) The design and construction of cages (other cultures) In addition, it should adopt an integrated supply chain (hatchery and feed system - enlargement - industrial post-harvest - market) approach. This approach is crucial to ensure the stability of the selling price of aquaculture products that are beneficial to the farmer and affordable to the consumer (as per the economy), and the sustainability of the entire business of the aquaculture business system.

According to Dahuri (2012) for the above programs to succeed in a sustainable manner, it must be supported by the following programs.

First is the need to have a Regional Spatial Protecting aquaculture business area on the banks of the river so that it does not switch function to land use as industrial area, urban, and settlement development.

Second, pollution control either through industrial effluent, dumping, run-off, household waste, and other media. Therefore, all industrial activities, mining, urban, settlement, and other development sectors are prohibited to dispose of B3 (Hazardous Toxic) waste directly into the natural environment of the river. Non-B3 waste must also be limited in volume, so as not to cause pollution of aquatic ecosystems or aquaculture farms. This can be realized, among others, by applying zero waste technology, and 3 R (Reduce, Reuse, and Recycle) technologies for industry, mining, urban and other development sectors.

Third, prepare and implement mitigation and adaptation programs on Global Climate Change and other natural disasters. Fourth, the government should encourage state-owned
enterprises, private companies, and cooperatives to produce all aquaculture production facilities (such as seeds, seeds, feed, vaccines, medicines, floating net aquaculture with floating ponds materials, and automatic feeder), the price is relatively cheap, and the amount sufficient to meet the needs of the aquaculture business. In addition, the government, together with the three national economic sectors, must also guarantee the market of all aquaculture products at prices in accordance with economic value.

Fifth, the government must improve existing fisheries logistics infrastructure and systems, and build new ones as needed across the city. Sixth, there should be a special credit scheme to spur development and aquaculture business with relatively cheaper interest and more soft requirements. Seventh is the revitalization and development of institutional and R & D activities (research and development). Finally, the improvement of human resources of aquaculture through education, training and counseling is systematically and continuously programmed.

Aquaculture is one solution that can be done, given the production that can be controlled both with innovation technology and capacity. The Kahayan River that divides the city of Palangkaraya especially in Pahandut Village has huge potential for the development of freshwater aquaculture sector.

Fishery cultivation that cultivated community will be influenced upstream environmental management and river water pollution levels and socioeconomic conditions of society. However, with a fishery business in a region will be a source of additional income and open new jobs for the community, but on the other hand fishery business can affect the environment of the previously balanced environment to be disrupted as a result of some of the cultivation process itself (Putri et al, 2014).

The growing of fishery aquaculture business in Kahayan River Basin cause more and more people are getting interested to participate in doing aquaculture business. In addition to affect the environment, also give influence to the community.

CONCLUSION AND SUGGESTIONS

Based on the results of research can be concluded that the aquaculture based eco business activities can be done by applying the moral values of the river society culture, so that all economic activities do not damage the environment. The Kahayan River has a high economic potential for the people living around it. However, the current condition has been greatly reduced due to various obstacles encountered, including environmental damage in the upper river, due to refinery plantation companies (accompanied by high levels of pesticide use and chemical fertilizers and intensive cultivation), illegal gold mining, deforestation illegal use of poison while fishing, industrial and household waste disposal into the Kahayan river.

Based on these conclusions can be recommended for the community, should cultivate aquaculture with floating ponds fish in an environmentally friendly way by upholding the moral values of the culture of the community to increase their independence and welfare, so that it does not depend on the income from the odds business which the result is uncertain. To the nomination of palm oil plantation industry, gold miners, forest opener, should always do business in an environmentally friendly manner while still applying cultural moral values of society, by not burning forests, massive forest clearing, provide chemical fertilizer to the oil palm plantation that will cause landslides, river siting, and river water pollution. To the company around the riverbank Kahayan, should always do business by applying moral values by not throwing industrial waste into the river Kahayan, and always give his CSR funds as improving the welfare of the community in the form of assistance fish cages, fish seeds, fish feed, fish medicines, and so on.

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CONTROVERSY OF MARRIAGE PADA GELAHANG IN BALINESE HINDU COMMUNITY IN KARANGASEM REGENCY

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ABSTRACT
Marriage Pada Gelahang has become controversial issue among Balinese Hindu community in Karangasem Regency. The controversy include various aspects related to marriage Pada Gelahang. This study reveals the controversy that is directed at three main issues, namely causes, forms, and implications. This research is designed as a qualitative research with descriptive-interpretative approach. Data were obtained through interviews, focus group discussions, and document studies, then analyzed with theories of social change, reception, social system theory, and family evolution theory. This study concludes that the causes of Marriage Pada Gelahang are different perspective toward social change in customary (adat) system; the discourse of inheritance rights for women; reflection of knowledge and experience; and Hindu marriage law.

KEY WORDS
Controversy, marriage, Pada Gelahang, Balinese Hindu community.

For Balinese Hindu community, a marriage system is related to a patrilineal system (father’s line or purusa). In the patrilineal system, the family tree is drawn from the father’s lineage (purusa) which can then be drawn straight up to certain ancestors. The patrilineal system indicates the importance of the existence of a male heir (sentana purusa) in a family that will continue the rights and obligations of parents or ancestors in social, customary, cultural and religious activities (Geriya, 2000).

In this patrilineal system, the absence of boys (sentana purusa) is often a serious problem. This condition brings out an unusual type of marriage (alternative) such as nyentana and pada gelahang. Marriage pada gelahang is a type of marriage that sets the status of purusa to both bride and groom. That means, both bride and groom have the rights, obligations and responsibilities to continue the obligations of parents and ancestors in two families, so also called negen dadua or gelahang bareng (Windia, 2012).

Marriage pada gelahang in Karangasem is still reaping a controversy in community, (Ekasana, 2012). This is suspected to be one of the factors why only few Balinese Hindu in Karangasem carry out this type of marriage (Gelgel, 2013). Controversy in Marriage pada gelahang can be seen from the emergence of perceptions of some Balinese Hindu community in Karangasem regency who consider that the marriage pada gelahang is not in accordance with the values inherited and it is considered to damage the existing customary (adat) system in Bali (Anom, 2010). Most of Balinese Hindu in Karangasem Regency considers that marriage pada gelahang is still taboo or inappropriate. Nevertheless, the data show that there are only 2 (two) families who perform this type of marriage pada gelahang (Windia, 2012). The controversy encompasses various aspects, both sacred and supernatural (niskala) so that it is interesting to be investigated further in the perspective of religion and culture.

METHODS OF RESEARCH

This study uses qualitative research methods that rely on data collected in the field in the form of narrative and descriptive illustration (Sugiyono, 2005).
The location of this research is in Karangasem Regency with the focus on Balinese Hindu society which is tied to the customary (adat) tradition system. Data were gathered through interviews, focus group discussions (FGDs), and document studies. There are three steps in analyzing qualitative data: data reduction, data presentation, and verification (Hennink et. al., 2010).

The Causes of Controversy of Marriage Pada Gelahang in Balinese Hindu Society in Karangasem Regency. One of the factors that causes controversy of Marriage pada gelahang in Balinese Hindu community in Karangasem regency is the difference perceptions of Hindus society about social change in customary (Adat) system. Parties who receive (pro) marriage pada gelahang tend to see that customary (adat) system must adapt to social change in order to maintain its existence. This view gave birth to a perception that marriage pada gelahang as part of social change should be adopted by the customary (adat) system (Dyatmikawati, 2013). On the other hands, those who reject marriage pada gelahang view that the customary (adat) system has a mechanism to address social change in society. In this case, marriage pada gelahang can not be adopted by customary (Adat) system because it is considered to disturb the balance and social order.

Another cause of controversy of Marriage pada gelahang in Balinese Hindu community in Karangasem regency is the difference perceptions about women's inheritance rights discourse. The party receiving the marriage pada gelahang holds that the inheritance rights (kepurusa) in Balinese customs has not been fully able to accommodate families who do not have male heir (Sentana Purusa). Marriage pada gelahang is seen as the best solution when marriage nyentana can not be done. Meanwhile, those who reject the marriage pada gelahang see that the Bali customary (adat) law about inheritance rights has accommodated the issue of inheritance rights to girls without going through marriage pada gelahang. In this case, inheritance systems that include family inheritance (duwe nak lingsir) and joint property (gunakaya) already have their own rules and system of inheriting. When inheritance has been interpreted economically, then marriage pada gelahang is viewed only as a way of a person to protect his private property (Mantra, 1996). The shift of orientation in the meaning of inheritance rights for women is not separated from the influence of materialism and individualism in modern society marked by the dominance of material value and the broadest appreciation of individual freedom.

The reflection of individual knowledge and experience also cause controversy of marriage pada gelahang because it creates conflicting perceptions. The pro-marriage pada gelahang party reflects on their knowledge and experience that this type of marriage is a rational choice of social dilemmas faced by society and is not contradictory to the legal norms, both national law, customary (adat) system, and Hinduism. In contrast, the counter-marriage pada gelahang party has developed a perception according to their knowledge and experience that this marriage has a perceptual characteristic that is not in accordance with the need for integration and harmony of the customary (adat) system, both structurally and functionally (Nordholt, 2010). The complexities and problems that arise in marriage pada gelahang are a major reflection.

Another cause of controversy in marriage pada gelahang in Balinese Hindu community in Karangasem regency due to the differences in perception about Hindu marriage law. Parties who receive marriage pada gelahang tend to use a textual approach that marriage pada gelahang can be referred to Hindu religious texts, especially the concept of putrika and the implementation of its religious ceremonies. On the contrary, those who reject marriage pada gelahang tend to use a contextual approach that although marriage pada gelahang is justified according to of Hinduism, but can not be applied simply in the social life of religious society without considering the aspects of adat, social, and cultural. A more philosophical view as a reason for rejecting marriage pada gelahang is that this marriage is contrary to the basic tenets of Hinduism for marrying Purusa with Purusa (Artayasa et. al., 2004).

The Forms of Controversy of Marriage Pada Gelahang in Balinese Hindu Society in Karangasem Regency. One of the forms of controversy of marriage pada gelahang in Balinese Hindu society in Karangasem regency is about the rights and obligations for either bride or groom in customary (adat) system. Parties who accept marriage pada gelahang see that customary (adat) rights and obligations can be established through an agreement
involving two families and customary (adat) “Prajuru”. Hence, customary rights and obligations for parties whom carry out marriage pada gelahang can be fulfilled without changing the social system. On the other hands, Those who disagree with marriage pada gelahang view that the establishment of customary (adat) rights and obligatons for people who conduct marriage pada gelahang through agreement potentially violate the rules (awig-awig) and very difficult to implement. In other words, if the customary (adat) rights and obligations are accomodated, there will be a big change in their customary system which can lead to disruption of order, balance, and social harmony in a cultural village (Pakraman).

The controversy of marriage pada gelahang over legal position and status shows a different response to the Supreme Court’s (MA) decision No. 1331 K / Pdt12010 which is based on the view of progressive and conservative law. Parties who accept marriage pada gelahang tend to use the progressive law point of view that the rule of law must follow social development and change. Therefore, in the absence of customary (adat) law that has not yet accommodated marriage pada gelahang, formal law must be applied to provide legal certainty to a marriage system. On the contrary, the counter party tends to use a conservative perspective that the prevailing customary (adat) law is still relevant to society so that deviation from customary law is unacceptable. Development and social change must be regulated through customary (adat) systems so that the law position and status of marriage pada gelahang must be established through customary law, not merely formal law.

Another form of controversy of marriage pada gelahang is unpredictable conditions, especially death, divorce, and children. Parties who approve (pro) marriage pada gelahang hold that these conditions can occur to anyone, and can be overcome by making an agreement between two families. On the contrary, the counter parties see that many consequences will be received by both couple (bride and groom) when the unpredictable condition happen to them and ultimately the adat party also bear it.

Another form of controversy in marriage pada gelahang is related to supernatural (niskala) aspects. In this case, the procession of mapamit ceremony becomes a debate between the pro and the counter of marriage pada gelahang. For the pro-marriage pada gelahang, the absence of this tradition of mapamit is seen as a way to keep the status of “purusa” either for bride or groom in both families. Conversely, for those who cons see that the absence of mepamit ceremony will result in various aspects of niskala, such as kawitan system, soroh, death ceremony (pitra yadnya), and so on.

Controversy of Marriage Pada Gelahang on Religion and Culture of Balinese Hindu Society in Karangasem Regency. Redefinition of religious traditions is an implication that occurs due to the entry of new thinking systems as the modernization. In this case, the change of knowledge system, values, religious action are a necessity for the society touched by modernization in their life. Given the marriage pada gelahang is associated with various religious aspects of Hindus, such as the genealogical religious ties (merajan, sanggah gede, panti, dadia, paiton, and padharman), territorial religious bonds (kahyangan desa or kahyangan tiga), or ceremonial pitra yadnya (Ngaben, nyekah), so this implication can be widespread in the redefinition of religious traditions on these aspects. Therefore, if the views of pro-marriage pada gelahang parties are accepted and evolved in society, then the redefinition of religious traditions necessarily occurs in various religious aspects in marriage and which are related to it.

The strengthening of traditional religious systems in the context of marriage is a necessary implication from the counter-marriage pada gelahang parties opinions. The reinforcement of traditional religious system is a response to the introduction of new religious ideas related to marriage pada gelahang that is seen to weaken the existence of adat. This reinforcement is realized through a rejection attitude based on rational argumentation on the basis, process, and consequence of marriage pada gelahang. In addition, through affirmation that in the Balinese customary (adat) system there is a mechanism to overcome the absence of sentana purusa problem and not contrary to the basic concept of Hinduism.

Restructuring the patrilineal system becomes a necessary implication if the views of pro-marriage pada gelahang parties are accepted by the Hindu Balinese customary system in Karangasem Regency. The restructuring of the patrilineal system can be an 'alternative patrilineal system' especially regarding the purusa rights and obligations in Balinese
customary systems. A fundamental restructuring of the patrilineal system may also occur within the context of an inheritance system, such as the adoption of a parental system in the Balinese customary inheritance system by establishing the status of purusa in women and men who carry out marriage pada gelahang.

Controversy of Marriage pada gelahang has implications on social disintegration between pro and contra parties. Social disintegration is a latent potential for social conflict if the views of pro parties are forced into the customary system. Conversely, the counter will build new social integration as a form of resistance as well as an instrumental process in the formation, representation and maintenance of social structures.

RESULTS AND DISCUSSION

This study found facts about controversy of Marriage pada gelahang in Balinese Hindu Society in Karangasem regency, as follows:

- The idea of marriage pada gelahang is rejected by most people in adat society in Karangasem regency.
- The philosophical reason for its rejection mainly leads to a marriage between purusa and purusa which is considered to violate Hinduism.
- The rejection of marriage pada gelahang is also caused by cultural psychic factors, such as fear of niskala's consequences.
- The rejection of marriage pada gelahang is also based on the view about the disappearance of some elements of Balinese culture in marriage tradition, such as language manners (ngeroas) and visiting manners (masadok).
- Alternative types of marriage pada gelahang that is relatively accepted found in Kukuh Cultural Village, namely the marriage “Gelahang Bareng” by families who are still bound in one sanggah gede.

The theoretical findings in this study can be explained as follows:

- This research affirms the theory of social change postulate that it has brought the entry of new ideas about marriage pada gelahang which creates controversy in the Balinese customary system. Controversy is a natural social process that occurs as a result of socio-cultural change in a society.
- This research also affirms the reception theory that individual acceptance of an object is determined by the individual's cultural framework.
- This study affirms the theory of social systems assuming that the controversy of marriage pada gelahang takes place within the scope of social system (adat system) so that the acceptance and rejection of the marriage is always associated with the regularity and balance of the system.
- This study revises or clarifies the evolutionary theory of Bachofen family which states the parental system as the ideal type of kinship system. This theory is not entirely acceptable in the context of controversy of marriage pada gelahang in Balinese Hindu society in Karangasem Regency. Given the status for both the bride dan groom as purusa does not mean that this marriage is a parental system. The term 'purusa' in this context clearly shows the effect of the patrilineal system or rather patrilineal in the ‘other’ form. However, this theory is also not entirely wrong because the idea of parental system is implicitly entered into marriage pada gelahang because with the status of both as a purusa, the next line of kinship can be drawn from both the ‘mother’ line (female purusa) and ‘father’ (male purusa).

CONCLUSION

The causes of controversy of marriage pada gelahang in Balinese Hindu society in Karangasem Regency because the differences in perception towards: (1) social change in adat system; (2) the discourse of inheritance rights for female; (3) reflection of knowledge and experience; and (4) Hindu marriage law.

The forms of controversy of marriage pada gelahang in Balinese Hindu Society in Karangasem regency are the differences or conflict opinions on aspects: (1) customary rights
and obligations; (2) legal status and position; (3) unpredictable conditions; and (4) niskala aspects.

The implications of controversy of marriage *pada gelahang* in Balinese Hindu society in Karangasem Regency against religion include: (1) the redefinition of religious traditions; and (2) the strengthening traditional religious systems. Cultural implications include: (1) restructuring the patrilineal system; (2) social disintegration and integration.

**RECOMMENDATIONS**

Based on the conclusion and findings of this study, the researcher sees that the rejection of marriage *pada gelahang* which mostly come from people and *prajuru Adat* in Karangasem regency is an undeniable socio-cultural reality. The rejection reflects the strong desire of Adat societies to maintain the traditional order with considerations that both are theoretically and practically reasonable. Observing this, the researchers stated that marriage *pada gelahang* in Karangasem Regency is unacceptable or at least needs to be reviewed. This contra attitude was taken by the researcher in order to maintain harmony in community and sustainability traditions, customs, culture, and religion in Karangasem Regency. Furthermore, it is also suggested to the related parties as follows:

- To the academicians and other researchers it is suggested to use the results of this research as a scientific information, reference and referral to develop other similar studies.
- For the Balinese Hindu community, especially in Karangasem Regency, this research can be used as scientific information, reference, and referral in addressing marriage *pada gelahang* case.
- It is advisable for customary (Adat) leaders to read the results of this study as a scientific information, reference, and consideration in formulating the thoughts or decisions concerning marriage *pada gelahang* and the traditional marriage system in Bali in general.
- For Hindu religious institutions, it is suggested that the results of this study can be used as reference and guidance in Hindu religious development, mainly related to marriage.
- For the Central Government, the Provincial Government of Bali, and the Government of Karangasem Regency, it is recommended to use the results of this research as reference, guidance and basic considerations in formulating policies related to the development of Hindu customs, culture and religion in rapid and massive social change. The policy can then be a solution of Hindus in dealing with various problems, especially related to marriage *pada gelahang*.

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THE INFLUENCE OF SME EMPOWERMENT TOWARDS SUSTAINABILITY
OF BATIK BUSINESS: A STUDY OF HANDMADE MANGROVE BATIK SME
AT SURABAYA, INDONESIA

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ABSTRACT
Main responsibility in development program is creating an empowered society or creating society possessing energy, power or skill. The power is exhibited through physical, material, economic, institutional, cooperation, intellectual power and collective commitment aspect in implementing SME empowering principals. The business unit included in Micro, Small and Medium Enterprise (SME) is the breath of regional and national economy. Related to the matter, it is necessary to study SME empowerment by employing case study method. Research object is Mangrove Batik SME, Surabaya. The empowerment in batik small enterprise has been done by leagues/institutions through advising and developing in Surabaya, East Java has not been able to increase its competitiveness. The study aims to examine and analyze the influence of SME empowerment towards business sustainability. The object of the study is the businessman of mangrove batik in East Surabaya. The locations of the study are Kedung Baruk, Wonorejo, and Gunung Anyar areas. Total population and sample of all respondents are 58 mangrove batik businessmen. Data analysis method employed in the study is PLS (Partial Least Square) by using SmartPLS 2.0 program. The result of the study shows that SME empowerment significantly influences the business sustainability of mangrove batik businessmen in Surabaya city.

KEY WORDS
SME empowerment, business, sustainability, handmade mangrove batik.

Geographically, Indonesia is an archipelago country possessing basic in developing extractive sectors such as agriculture, plantation, fishery and poultry. It is related to the development program which aim is shaping individual and society to become independent. The independence includes independent in thinking, acting and controlling their desire. Small-Medium Enterprise (SME) sector is a string of business in the middle of economic crisis. Currently, about 99% the majority of business actors are SME businessmen which continuously grow significantly. Hence, SME becomes business sector which is able to become the support of stability of the national economy. The government could support SMEs by implementing various innovations to increase performance thus enable them to produce highly competitive products. Sulistiyani (2004) explains that etymologically empowerment originally comes from roots "power" means energy or ability. Considering the explanation, thus empowerment is meant as a process for receiving energy, power or ability, and or process of giving energy, power or ability from a party which has power to a party which has less or no power yet.

According to Winarni (2006), originally, small business is characterized as: (1) Usually in from of individual business and has not been in form of company firm, (2) Legal aspect of the business is weak, (3) Organizational structure is simple and task dividing is not in standard, (4) Most of the businesses have no financial report and do not separate personal's wealth and company wealth, (5) Management quality is low and it is rare to have business plan, (6) Main source of capital is personal capital, (7) Human resources are limited, (7) Owner has strong personal bound with the company, thus all duties of company have also become duties of the owner. Based on data from Statistics Indonesia (BPS) (2013), the population of small-medium enterprises (SME) was 42.5 million units or 99.9% of total national business actors. SME gives a significant contribution towards employees' hiring as
much as 99.6 percent. Meanwhile, SME contribution towards Gross Domestic Product (GDP) is 56.7 percent. Nevertheless, SME classic problems are a general obstacle which becomes basic causes. Limited access towards productive sources is mainly caused by difficulty in accessing capital from formal financial sources, lack of technology acquisition resulting in low productivity and low quality products, limited raw material and quality of human resources which have not been able to meet requirement whether in the form of formal education side or knowledge and skill, low rate of partnership structure with big companies, unclear product standardization to meets customers’ desire, low product quality control, lack of export knowledge, and limited marketing network. The success of enterprise sector business becomes the contributor of Gross Regional Domestic Product (GRDP) in economic growth. GRDP is strongly influenced by three elements such as government as policy and strategy maker, conducive market, and reaction or response of business actors (Sudantoko, 2010).

In the last five years, the structure of Gross Regional Domestic Product (GRDP) Surabaya develops in each sector dominated by commerce, hotel, and restaurant as well as manufacturing industries. This conditions encourages every economic sectors, which in turn, encourages small medium enterprises businesses development in East Java especially in Surabaya city. Another SME weakness is lack of information access, especially market information (Ishak, 2005). It becomes an obstacle in distributing products since limited access to market information will cause low market orientation and competitiveness at the global level. The empowerment in small batik industries especially Handmade Batik Mangrove SME which has been done by leagues/institutions through advising and developing in Surabaya, East Java, has not been fully able to increase the competitiveness. But government effort in supporting handmade mangrove batik SME is done by empowering SME of each sub-district to the district level and synergizes with other government institutions to increase income. The existence of business actors as well as owners and crafter of handmade mangrove batik, generally the influence of role model (patron) has relationship pattern which has positive, negative even original which encourages in creating an asymmetric relationship (Legg,199 in Nuryadin,2010). Thus by creating the way of empowering economy through handmade mangrove batik SME businessmen is able to achieve sustainability and survive in the business. Pranarka and Vidhyandika (1996) explain that the process of empowering contains two tendencies. First, the process of empowering which emphasizes the process of giving or diverting some power, dominance to society in order to empower an individual. In the current era of reformation and decentralization, demand towards empowering players who have sufficient ability becomes stronger. Businessmen of handmade mangrove batik SME as business owners feel that empowerment is not only demanded to enrich knowledge, but it also demanded to increase skill in designing empowerment program for SME. The success of SME empowerment will be realized if all stakeholders together have role according to their responsibilities whether as a regulator which includes regional government, SME business actors, thus success and advancement of SME will be soon implemented. Based on the background and descriptions above, it is important and beneficial to analyze whether SME empowerment significantly influences the sustainability of mangrove batik business in Surabaya city.

LITERATURE REVIEW

The ability of SME empowerment actors is ability expected to be able to empower society. The ability of the empowerment actors is measured by three aspects, they are: (a) knowledge/cognitive, (b) attitude/effective and (c) skill/psychomotor. The process of empowerment is a cycle or process in involving society to corporate informal groups or non-formal groups to investigate problems, plan, implement and evaluate towards the program which has been planned together. The process of empowerment is measured through (a) quality and quantity of society involvement starting from investigating or analyzing problems event, (b) program planning, (c) program implementation, and (d) involvement in evaluation continuously. (Widjajanti, 2011). The purpose of empowerment is to increase the power of weak and unfortunate people (Ife, 1995:56)
Aristoteles' thought in economic development is related to prosperity, stating that income and wealth are not final purposes but as devices to get other purposes in inventing new innovation in "Capability" approach (Sen, 1999) in Todaro and Smith (2011: 22-23) which means that capability to function has role to decide wealth or not a person's status. The capability becomes freedom owned by a person related to the choice of function which depends on the person's personal traits (the change of personal traits becomes function or pace in society) and level of the control for certain commodity. Sen states that economic growth should not be viewed as purpose. Development should pay more attention to the effort of increasing life quality. The condition is possible to involve society in a form or participation which makes community-based on economic development appears (Gitosaputro and Kordiyana, 2015) whether in the process or in utilizing the result which is still discriminated only for current groups of capital owners.

Mardikanto(2013) stated that development without prioritizing society's active role will cause society empowerment losing its soul and trapped in social engineering. It places society only as an interest supportive object, whether it is for government bureaucracy, society social leagues, or other donors which take society name for their personal or their groups purposes. Garna (1997) in Zainuddin (2014) depicts generally the existence of relationships between development and industrialization, they are 1) the used material for industrialization and development process is in one line event to increase prosperity, 2) industrial development as effort of increasing quality of human resources and ability in utilizing natural sources, 3) industrial development will trigger and mutually relates to development in other sectors which can broaden job vacancies which are expected will increase income and buying power of society, and 4) imbalance will occur in economic development which is harmful economically or non-economically. According to Santoso (2009) in order for small-medium business realize independent regional economic development, it requires all parties possessing interests (stakeholders) or all society elements (government, businessmen, universities as well as society and society leagues) to be involved in planning, implementing, executing, controlling, monitoring, and evaluating. Al Teszler in Firatri (2015) explains that the effort of empowering SME should be seen as something internalized in the whole process of economic development. In the context of regional development, Husaeni (2011) views the internalization effort can be facilitated through formulating policy process which is done by Development Planning Agency at Sub-National Level. Huseini (2011) states that regional are developed based on the main competitiveness it is not based on their most reliable export products which had been done at this time. The thought is based on the condition that not all regions have excellent natural sources. Hayter (2000) states that SME adds multiplier effect which will create connection/relation. Small industry is an activity conducted in society homes whose workers are family members, neighbors without bounding to time and workplace (Tambunan, 2010).

Society empowerment (Slamet2000) in Theresia et.al (2014) is defined as development advising process which Mardikanto(2010) defines as: “Social, economic and political change process to empower and strengthen society ability through togetherness which is participative, in order to change attitude towards all stakeholders themselves (individual, groups, institutions). These stakeholders are involved in the development process for the sake of more empowered, independent and participative life which becomes more prosperous continuously.” Paul (1987) in Priyono and Pranarka (1996) states that empowerment means fair power dividing in order to increase political and power awareness in groups which are assumed to have a low ability as well as widening influencing power towards process and its development result. Khan (1997:44) in Purnama (2007:92) states that empowerment is a tie in the relation among personnel which is continuous in developing trust between society and government.

According to Foster in Darsono and Ashari (2005: 101), bankruptcy an obstacle which exhibits the existence of terrible liquidity problems which cannot be solved unless through rearranging company’s structure and operation. Bankruptcy usually defines as a failure of the company in running its company operation to make a profit. According to Hanafi and Halim (2003: 261), information related to the prediction of business sustainability is important for
parties which are related such as loan givers, investors, government, accountants, and management.

CONCEPTUAL FRAMEWORK OF THE STUDY

The present study focuses on the variable of SME empowerment as well as its level of influence towards variable of business sustainability. The writer is interested in analyzing the level of relation between each variable based on the existed condition on mangrove batik SME industry in East Surabaya city, as its sales production has not been absorbed by market optimally.

![Diagram showing the relationship between SME Empowerment (X1) and Business Sustainability (Y) with a correlation coefficient of 0.822. S]

Hypotheses of the Study:
The Influence of SME Empowerment towards Business Sustainability. Government involvement in empowering SME is regulated clearly in Act No. 20 in 2008 about SME. The Act contains general regulation, foundation, principals and empowerment objectives, criteria, creating a business condition, business development, funding and guarantee, partnership, empowerment coordination, administrative sanction, and criminal determination. In order to empower SME, the involvement of stakeholders strongly decides the success. Joshua Abor and Peter Quartey study (2010) discuss characteristics, a contribution of SME towards economic growth and its obstacles to SME growth in developing countries especially in Ghana and South Africa. In the study, it is revealed that SME I Ghana and South Africa have many similarities in terms of characteristics and their economic roles. But two things make them different, in terms of capacity and regulation. In empowering SME, the obstacle is factors such as lack of access to precise technology, limited access to international market, the existence of Act and regulation which obstructs the sector, low capacity of the institution and lack of skills and management training, and financial access is a major problem for SME. It also occurs in a study conducted by Ni Putu Eka Lestari (2014) entitled Empowerment Strategy of SME Crafted Woods in Bali which analyzes chain value of the crafted wood industry in Gianyar, Bali. The study analyzed industry of crafted wood Gianyar, Bali strategic position. In the result of chain value, there are still numerous lacks of raw material supply from Bali Island. Meanwhile, in downstream, lack of support from government becomes an obstacle in distributing products. In an analysis of SWOT, the result of mapping in quadrant II indicates that strategy increases the ability and investment to increase quality and capacity of production in order to achieve efficiency. The result of AHP was obtained which revealed that marketing process becomes priority factor which decides prospects of crafted woods in Gianyar, Bali. Based on the explanation above, it is assumed that SME empowerment has an influence towards business sustainability thus proposed hypothesis was:

H1: The increase of SME empowerment can increase business sustainability more.

Operational Definition:

SME Empowerment. SME empowerment is an effort to actualize potential which has already been owned by the SME itself. Therefore, the main of the approach of SME empowerment is emphasizing the importance of independent SME as a self-organized system. The approach of SME empowerment is expected to be able to give the role to the individual (Singarimbun.1989:46) UU No.20 Year 2008):

- Funding;
- Media and infrastructure;
- Business information;
• Partnership;
• Business legalization;
• Business opportunity;
• Institution support.

Business Sustainability. Business sustainability is a condition where companies/industries/business actors are still able to run in defending their business operational including are able to increase their business profit achievement, develop and maintain sources for future needs (Olson et.al, 2003 in Utami, 2007). According to Ali Hasan (2008:239) and Kurniasari (2011), realization is real action or existence of movement/change from already made or implemented plan:

- Availability of raw material;
- Availability of capital;
- Human resource development;
- Product innovation;
- Promotion necessity;
- Customer demand.

METHODS OF RESEARCH

The study is an explanatory study which is meant to give an explanation of the causal relationship between variables through hypothesis examination as well as elaborate. The study employed quantitative approach. Locations of the study are in Kedung Baruk, Wonorejo, and Gunung Anyarin East Surabaya city. The study was done in 6 months. The analysis method of the study employed is PLS (Partial Least Square) by using SmartPLS 2.0 M3 program. (Ghozaliand Latan, 2012:18). The total sample is 58 respondents of mangrove batik businessmen.

RESULTS AND DISCUSSION

Recapitulation of the Study Result:

<table>
<thead>
<tr>
<th>Influence between Variable</th>
<th>Coefficient Path</th>
<th>T: Statistic</th>
<th>P-Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME Empowerment-&gt;Business Sustainability</td>
<td>0.822</td>
<td>5.579</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

H₁: The Influence of SME towards Business Sustainability.

A score of the correlation coefficient is 0.822 whose mark is positive and its t-statistic score is 5.579> 1.960 or value 0.000 < 0.05 indicating that the result of analysis between SME empowerment with business sustainability is proven to have a positive correlation and it significantly has influence. It means a higher score of SME empowerment will be able to increase business sustainability. Therefore the hypothesis proposed in the study is able to be accepted and it is supported by empirical fact. The result of the study gives a meaning that SME empowerment in business actors or owners of handmade mangrove batik is measured from funding, media, and infrastructure, business information, partnership, business legalization, business opportunity, as well as institutions, support directly give influence towards business sustainability. The result of the study is in line with a study by Joshua Abor, Peter Quartey (2010), which discusses characteristics and SME contribution towards economic growth as well as its obstacles for SME growth in developing countries especially in Ghana and South Africa. It revealed that SME in Ghana and South Africa have many similarities in terms of characteristics and their economical roles. But the differing factor is in terms of capacity and regulation. Empowerment is a process in where people become sufficiently strong to participate, divide monitoring and to influence occurrences as well as leagues which influence their life. Empowerment emphasizes on people to acquire skill, knowledge and adequate power to influence their life and other people life which becomes their attention (Parsons, et al., 1994:106) Main purpose of development implemented by the government is to increase the living standard of society. Various businesses from various
sectors are continuously developed as an effort to achieve the purpose. But occasionally, failure occurs in its implementation, such as uneven distribution of implementation, especially in society. It occurs because the main approach in development is implemented by marginal society and rural society. The development planning possessed top down planning trait.

Sabirin (2001) explains that to empower society of low or small business group could be conducted by providing an affordable business funding source. One of the strategies of funding for this group is microcredit business. The micro-funding institution is an institution which provides financial services to society with low income and it includes the poor group. The micro financial institution has specific trait since it relates funding demand of poor society with fund availability. Product design of mangrove batik in East Surabaya city is one of image forming aspects. The company is also more aware of the importance of marketing value of product design, especially its appearance design.

Limitation of the Study. The study was done limitedly on handmade mangrove batik businessmen in Surabaya city thus the result of the study cannot be generalized since the result would be different if it was done on the different object.

CONCLUSION

SME empowerment of mangrove batik businessmen in East Surabaya city are able to produce batik products innovatively based on model development in the market. The finding provides the solution in the form of businessmen or owners of handmade mangrove batik skill in empowerment role will be effective to be able to increase society empowerment independently supported by capital information and raw material source, support of media and infrastructure, if society previously increases its empowerment.

Businessmen of mangrove batik in Surabaya already have the proactive attitude towards smoothness of process and have good feedback towards products of mangrove batik in the future thus they can anticipate the continuity of production. Continuous business is a business which is able to produce whether it is based on order and or is able to sell the products to market continuously with all existing limitation.

SUGGESTIONS

In order to increase the empowerment, SME society is not adequate enough to develop merely physical capital, but it should increase the quality of human resources as success requirement in doing empowerment with similar SME partners. In this reformation era, society should be able to take a decision in conducting new business for the future.

SME necessarily needs to be given support in form of technology/precise tools to encounter the problem of the unmatched amount of production caused by weather factor and SME limitation in production activity obstacles.

REFERENCES

THE EFFECT OF NON-PERFORMING LOAN, CAPITAL ADEQUACY RATIO, LOAN TO DEPOSIT RATIO AND OPERATING EXPENSES TO OPERATING INCOME ON DEPOSIT PORTFOLIO OF NATIONAL SOCIAL SECURITY ON EMPLOYMENT (BPJS KETENAGAKERJAAN) FOR PERIOD OF 2015-2017

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ABSTRACT
The objective of this research is to examine and analyze the impact of non-performing loan, capital adequacy ratio, loan to deposit ratio and operating expenses to operating income to the portfolio of deposit of BPJS Ketenagakerjaan. Sampling was conducted with a census sampling method during 2015-2017. The results show that capital adequacy ratio have positive significant influence on deposit of BPJS Ketenagakerjaan.

KEY WORDS
Deposit, social security, employment, non-performing loan, capital adequacy ratio, loan to deposit ratio, operational expenses.

The financial sector plays a very important role in fostering economic growth of a country. The financial sector becomes the locomotive of real sector growth through capital accumulation and technological innovation. More precisely, the financial sector is able to mobilize savings and channel it to those in need through credit provision. They provide a variety of financial instruments to the owners of funds with high quality and low risk. It will increase investment and ultimately accelerate economic growth. One of the institutions in the financial sector is a banking institution. According to the banking law No. 10 of 1998 Article 1 (2), it is explained that the meaning of a bank is a business entity that collects funds from the community in the form of savings and distributes to the community in the form of credit and or other forms in order to improve the standard of living of many people.

The function of banks in channeling funds from depositors to borrowers is not without risk. Debtor risk cannot pay off the loan and the interest is called credit risk. The failure of banks in lending will cause losses that may affect the ability of banks to provide funds to meet the withdrawal of customer deposits. Risk management in banking financial institutions becomes one of the important elements, both concerning the success and the failure of the bank's business. Based on Bank of Indonesia regulation Number 11/25/PBI/2009 of 2009, it is that with the increasing complexity of bank products and activities, the risks faced by banks will increase, with risks faced by banks need to be balanced with the quality of risk management implementation.

For savers or depositors in the bank, it is needed caution because saving money in the bank is not without risks, especially the security risks of the deposit money. In the relationship between banks and depositors, the depositors are not fully aware of the true state of the bank. It makes the depositors unable to make the right decisions. It is called asymmetric information. On the other hand, the occurrence of asymmetric information manifested in the form of high transaction costs and information costs in financial markets can be minimized if the financial sector functions efficiently (Levine, 1997).

Outline of National Social Security on Employment (BPJS Ketenagakerjaan) Investment Policy. BPJS Ketenagakerjaan is a financial institution in an insurance family that receives premiums from participants. This premium is the main source of BPJS revenue and
is used to pay the claims of the participants. BPJS should invest this premium income in various financial assets. Money lenders in the bank including National Social Security on Employment (BPJS Ketenagakerjaan) wants their money in the bank to be secure and can be taken back when needed or at maturity. These depositors want the bank to keep the money healthy. To protect the interests of these depositors, the banks must be arranged to stay healthy.

Deposit of National Social Security on Employment (BPJS Ketenagakerjaan) in various banks is an investment, and then National Social Security on Employment needs to analyze the extent to which money invested in the deposit is safe. Not only whether the bank is healthy or not but also seen the risks facing the bank. In accordance with the theory of investment of National Social Security on Employment (BPJS Ketenagakerjaan) should consider two factors: risk and return.

Many types of risks can cause a bank unable to meet withdrawal of funds by customers. These risks can cause losses to the bank so that the bank is unable to meet the withdrawal of funds by the customer. In general, the risks faced by banks include Credit Risk, Market Risk, Liquidity Risk, and Operational Risk. According to Bank of Indonesia Regulation Number 11/25/PBI/2009 of 2009, there are several risks in the banking sector, namely credit risk, market risk, operational risk, liquidity risk, strategic risk, reputation risk, legal risk, and compliance risk.

The depository customer must realize that saving money in the bank is not always safe if the bank is not healthy because it is not good at managing the risks. All depositors including National Social Security on Employment (BPJS Ketenagakerjaan) should be aware of the risks facing the bank and analyze the results of bank risk management before deciding to cooperate in the placement of deposits. Risk management in banking financial institutions becomes one of the important elements, both concerning the success and the failure of the bank's business. Based on Bank of Indonesia regulation Number 11/25/PBI/2009 of 2009, it is that with the increasing complexity of bank products and activities, the risks faced by banks will increase, with risks faced by banks need to be balanced with the quality of risk management implementation.

Based on the support of the theory according to Kamau and Njeru (2015), there are several risks faced by banks such as: credit risk, liquidity risk, and operational risk. Syafii and Rusliati (2016) expose risks directly related to the banking business such as market risk that may affect third party fund collection, credit risks arising from the failure of customers to meet their obligations, and operational risks resulting from inadequate internal processes, human error, system failure, and or any external event affecting bank operations (Basel II).

According to Saeed (2014), it is argued that banks need to manage risk in an integrated manner and to create the system, management structure required to achieve these objectives, Bank of Indonesia requires four risks: market risk, credit risk, operational risk, and liquidity risk. The biggest investment result of National Social Security on Employment (BPJS Ketenagakerjaan) employment currently is obtained from Deposits, the researcher is interested in this because in general the investment that produces the maximum return is usually from property, bonds and if the condition of normal or good markets then the stock has a high potential return. By this, the researcher conducts study whether these four risks have the same effect as previous researchers on the placement of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio or not at all.

**Research Problem.** Based on the background that has been previously explained, then the problems in this study are as follows:

- Does NPL faced by banks affect the amount of deposits placed by National Social Security on Employment (BPJS Ketenagakerjaan)?
- Does CAR faced by the bank affect the amount of deposits placed by National Social Security on Employment (BPJS Ketenagakerjaan)?
- Does LDR faced by banks affect the amount of deposits placed by National Social Security on Employment (BPJS Ketenagakerjaan)?
• Does Operating Expenses to Operating Income affect the amount of deposits placed by National Social Security on Employment (BPJS Ketenagakerjaan)?
• Do NPL, CAR, LDR, Operating Expenses to Operating Income simultaneously affect the amount of deposits placed by National Social Security on Employment (BPJS Ketenagakerjaan)?

**Research Objectives.** The objectives of this research are:
• To know how the impact of NPL on the deposit placement amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio;
• To know how the impact of CAR on the deposit placement amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio;
• To know how the impact of LDR on the deposit placement amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio;
• To know how the impact of Operating Expenses to Operating Income on the deposit placement amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio;
• To know how NPL, CAR, LDR, Operating Expenses to Operating Income affect simultaneously the amount of deposit placement portfolio by the impact of credit risk on the deposit placement amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio.

**METHODS OF RESEARCH**

**Research Type.** Based on the research objective which is to know how the effect of NPL, CAR, LDR and Operating Expenses to Operating Income on National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio. Therefore, the type of research used is causal research. Sekaran and Roger (2013) states that a study included in causal research is to prove the causal relationship of several variables. Causal research usually uses experimental method that is by controlling the independent variables that will affect the dependent variable on the planned situation.

**Research Model.** This study examines the effect of credit risk, market risk, liquidity risk, and operational risk on the amount of deposits placed by National Social Security on Employment (BPJS Ketenagakerjaan) at banks. The form of equation used can be seen in Eq. (1).

$$Y_{it} = a_i + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$  \hspace{1cm} (1)

Where:
• $Y_{it}$ = Total deposits owned by BPJS in bank i year t;
• $X_{1it}$ = NPL faced by bank i year t;
• $X_{2it}$ = CAR faced by bank i year t;
• $X_{3it}$ = LDR faced by bank i year t;
• $X_{4it}$ = Operating Expenses to Operating Income faced by bank i year t;
• $a_i$ = Constants;
• $\beta_1$, $\beta_2$, $\beta_3$, and $\beta_4$ = Regression Coefficient;
• $\varepsilon_{it}$ = Error.

**Population and Sampling.** The population in this study is a banking company listed as a cooperation Bank of National Social Security on Employment (BPJS Ketenagakerjaan) in managing investments, especially in the money market from 2015 until 2017. The population in this study is a banking company registered as a bank deposit of National Social Security on Employment (BPJS Ketenagakerjaan) of 29 banks. Sample selection procedure in this study is to use census sampling that is all the population used as a sample by the
researcher. A list of banks listed as Deposit Bank of National Social Security on Employment (BPJS Ketenagakerjaan) can be seen in Table 1.

Table 1 – Banking Companies that are Research Sample

<table>
<thead>
<tr>
<th>No</th>
<th>Bank Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PT Bank Mandiri Tbk</td>
</tr>
<tr>
<td>2</td>
<td>PT Bank Negara Indonesia Tbk</td>
</tr>
<tr>
<td>3</td>
<td>PT Bank Tabungan Negara Tbk</td>
</tr>
<tr>
<td>4</td>
<td>PT Bank Rakyat Indonesia Tbk</td>
</tr>
<tr>
<td>5</td>
<td>PT Bank Aceh Syariah Tbk</td>
</tr>
<tr>
<td>6</td>
<td>PT Bank Sumut</td>
</tr>
<tr>
<td>7</td>
<td>PT Bank Nagari</td>
</tr>
<tr>
<td>8</td>
<td>PT Bank Sumselbabel</td>
</tr>
<tr>
<td>9</td>
<td>PT Bank Lampung</td>
</tr>
<tr>
<td>10</td>
<td>PT Bank Jambi</td>
</tr>
<tr>
<td>11</td>
<td>PT Bank BJB</td>
</tr>
<tr>
<td>12</td>
<td>PT Bank Jateng</td>
</tr>
<tr>
<td>13</td>
<td>PT Bank Sulteng</td>
</tr>
<tr>
<td>14</td>
<td>PT Bank Sulutgo</td>
</tr>
<tr>
<td>15</td>
<td>PT Bank Sulsebar</td>
</tr>
<tr>
<td>16</td>
<td>PT Bank Kalbar</td>
</tr>
<tr>
<td>17</td>
<td>PT Bank Kalsel</td>
</tr>
<tr>
<td>18</td>
<td>PT Bank Papua</td>
</tr>
<tr>
<td>19</td>
<td>PT Bank Bali</td>
</tr>
<tr>
<td>20</td>
<td>PT Bank Kepri</td>
</tr>
<tr>
<td>21</td>
<td>PT Bank NTT</td>
</tr>
<tr>
<td>22</td>
<td>PT Bank Bengkulu</td>
</tr>
<tr>
<td>23</td>
<td>PT Bank NTB</td>
</tr>
<tr>
<td>24</td>
<td>PT Bank DKI</td>
</tr>
<tr>
<td>25</td>
<td>PT Bank Muamalat</td>
</tr>
<tr>
<td>26</td>
<td>PT Bank BTPN</td>
</tr>
<tr>
<td>27</td>
<td>PT Bank CIMB Niaga</td>
</tr>
<tr>
<td>28</td>
<td>PT Bank Maluku</td>
</tr>
<tr>
<td>29</td>
<td>PT Bank Sultra</td>
</tr>
</tbody>
</table>

Data Collection. Data collection in this research is by method of documentation and literature study. Data collection in this research is done by documenting the recorded annual data listed for NPL, CAR, LDR, BOPO data obtained from www.infovesta.com and for data of National Social Security on Employment (BPJS Ketenagakerjaan) Deposit Portfolio obtained from official website www.bpjketenagakerjaan.go.id.

Panel Data Estimation Model. Panel Data Estimation Model according to Wanner and Pevalin as cited by Sembodo (2013) mentions that there are two approaches used in estimating the model of panel data ie model without the influence of the individual (common effect) and the model with the influence of the individual (fixed effect and random effect).

Selection of Panel Data Regression Estimation Model. Chow test is used to select one model on panel data regression, ie between fixed effect models with common effect model. The test procedure is as follows (Baltagi, 2005).

- Hausman test is used to select random effect model with fixed effect model. The initial hypothesis is that there is no correlation between model error with one or more explanatory variables. The test procedure is as follows (Baltagi, 2008: 310).
- Breusch-Pagan Test, according to Rosadi (2011) Breusch-Pagan test is used to test the effects of time, individual, or both.

Panel Data Regression Analysis. Panel data regression analysis is based on selected regression model (from common, fixed, and random effect). This research data analysis method uses panel data analysis as a data processing tool using Eviews software. The analysis using the data panel is a combination of time series and cross section data. By accommodating the information model both related to cross section and time series
variables, panel data can substantially decrease the omitted variable problem, a model that ignores the relevant variables (Wibisono, 2005).

**Hypothesis Test.** This test is done to know whether there is influence of Non Performing Loan, Capital Adequacy Ratio, Loan to Deposits Ratio and Operating Expenses to Operating Income to the Bank’s financial performance in commercial banks in 2015 to 2017 period. To test the effect of the independent variable (X) to the dependent (Y) both partially or jointly is done with the determinant coefficient (R2), statistical tests (t-test), and test F (F-test).

**RESULTS OF STUDY**

*Descriptive Statistics Analysis.* This research is banking which is included in Bank cooperation with National Social Security on Employment (*BPJS Ketenagakerjaan*) in period of 2015 until 2017. Banks included in the Bank during the research period are 29 Banks, therefore, the data used in this study are 29 data. Data processing utilizes Eviews 10. The data in this study included secondary data obtained from official sites of infovesta, Bank of Indonesia and National Social Security on Employment (*BPJS Ketenagakerjaan*). Data obtained is quantitative data for both independent variable data and dependent data. The following descriptive statistics of NPL, CAR, LDR, BOPO and Deposit Placement of National Social Security on Employment (*BPJS Ketenagakerjaan*).

<table>
<thead>
<tr>
<th>PENEMPATAN</th>
<th>C</th>
<th>NPL</th>
<th>CAR</th>
<th>LDR</th>
<th>BOPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1156.057</td>
<td>1.000000</td>
<td>1.372644</td>
<td>19.58195</td>
<td>78.10632</td>
</tr>
<tr>
<td>Median</td>
<td>534.5000</td>
<td>1.000000</td>
<td>0.830000</td>
<td>19.39000</td>
<td>75.48000</td>
</tr>
<tr>
<td>Maximum</td>
<td>6999.000</td>
<td>1.000000</td>
<td>6.810000</td>
<td>29.09000</td>
<td>111.4900</td>
</tr>
<tr>
<td>Minimum</td>
<td>23.00000</td>
<td>1.000000</td>
<td>0.010000</td>
<td>12.78000</td>
<td>51.94000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>1512.443</td>
<td>0.000000</td>
<td>1.316511</td>
<td>3.795416</td>
<td>13.49156</td>
</tr>
<tr>
<td>Skewness</td>
<td>2.061400</td>
<td>NA</td>
<td>1.459441</td>
<td>0.392908</td>
<td>0.368484</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>6.519770</td>
<td>NA</td>
<td>5.283073</td>
<td>2.857799</td>
<td>2.524223</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>106.5252</td>
<td>NA</td>
<td>49.77957</td>
<td>2.311765</td>
<td>2.789379</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000000</td>
<td>NA</td>
<td>0.000000</td>
<td>0.314780</td>
<td>0.247910</td>
</tr>
<tr>
<td>Sum</td>
<td>100577.0</td>
<td>87.000000</td>
<td>119.4200</td>
<td>1703.630</td>
<td>6795.250</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>1.97E+08</td>
<td>0.000000</td>
<td>149.0553</td>
<td>1238.846</td>
<td>15653.90</td>
</tr>
<tr>
<td>Observations</td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

From Table 2, the researcher will examine the calculation result of minimum, maximum, average, and standard deviation from NPL, CAR, LDR and BOPO data found in all banks that have cooperation with National Social Security on Employment (*BPJS Ketenagakerjaan*). The description is below:

- From Population Data used as sample, it shows NPL has an average value of 1.372644 with a standard deviation of 1.316511. The highest NPL of 6.81% is NPL at *Bank Muamalat* in 2015 and the lowest NPL of 0.01% is NPL at *Bank Kalbar* in 2015.
- From Population Data used as sample, CAR has an average value of 19.58195 with a standard deviation of 3.795416. The highest CAR of 29.09000 by 2015 and the lowest of 12.78000 by 2017.
- From Population data used as sample reveals LDR has average value of 78.10632 with standard deviation of 13.49156 LDR is 111.49 highest is the LDR at *Bank BTN* in 2017 and the lowest of 51.94 is the LDR at *Bank Bengkulu* in 2015.
- From Population data used as sample shows BOPO has average value of 78.88782 with a standard deviation of 10.77628. The highest BOPO of 134.12 is BOPO at *Bank Muamalat* in 2015 and the lowest is 39.45 is BOPO at *Bank BRI* in 2017.
- From Population data used as sample shows Deposit Portfolio (Placement) has average value of Rp 1,156 trillion with a standard deviation of 1.512 trillion. The
highest deposit of Rp 6,999 trillion is in BNI Bank in 2017 and the lowest of Rp23 billion is the placement of deposits at Bank Sumselbabel in 2017.

**Selection Result of Appropriate Model Regression.** From the three models examined which are Common Effect model, Model Fixed Effect, and Random Effect Model, the test results are presented below:

Chow Test Results (Chow Test). This research uses panel data type, thus to choose the type of model that will be used need to be tested first. Initial test done in this research is by doing Chow test which is to determine whether this method use common effect or fixed effect. Chow test formulation is:

- Ho: Appropriate model of common effect;
- Ha: Appropriate model of fixed effect.

If the resulted F statistic number or the Cross Section Chi-square number has a Prob of less than 5%, then Ho is rejected which means the model of the fixed effect is appropriate. If the resulted F statistic number or the Cross Section Chi-square number has Prob greater than 5%, then Ho is accepted which means the common effect model is appropriate.

### Table 3 – Chow Test Result

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>12.251955</td>
<td>(28,54)</td>
<td>0.0000</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>173.572838</td>
<td>28</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

*Source: Eviews.10
Level of significance: \( \alpha = 5\% \)

H0 is rejected because of Prob value Cross-section Chi-square (0.0000) <\( \alpha \) (0.05) so that the method used is fixed effect. Furthermore, because H0 is rejected, then the next step is to create a regression random effect and conduct hausman test to select fixed effect or random effect.

Hausman Test Result (Hausman Test). Hausman Test is a test used to determine the best method between fixed effect or random effect. In this test, the null hypothesis (H0) is a random effect, while the alternative hypothesis (H1) is a fixed effect. Here is the hypothesis statement of hausman test:

- \( H_0 \) = random effect model is appropriate;
- \( H1 \) = fixed effect model is appropriate.

If the Chi-square statistic number resulted has a Prob less than 5%, then Ho is rejected which means the fixed effect model is appropriate. If the resulted Chi-square statistic number has Prob greater than 5% then Ho is accepted which means the random effect model is appropriate.

### Table 4 – Hausman Test Result

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>6.978233</td>
<td>4</td>
<td>0.1370</td>
</tr>
</tbody>
</table>

*Source: Eviews 10.*
The value of *Prob.Cross Section Random* (1,000) > (0.05) so that model used is *random effect* then H0 accepted. Then, it is proceed with *Lagrange Multiplier* test to determine whether we still choose *random effect* or *common effect*.

Test of Lagrange Multiplier (Lagrange Multiplier Test). *Lagrange Multiplier Test* is a test used to determine the best method between common effect or random effect. In this test, the null hypothesis (H0) is the common effect, while the alternative hypothesis (H1) is the random effect. Here is the hypothesis statement of Lagrange Multiplier test:

- If, the value Breush-Pagan Value Cross Section > α, then it is common effect;
- If, the value of Breush-Pagan Cross Section < α, then select random effect.

<table>
<thead>
<tr>
<th>Lagrange Multiplier Tests for Random Effects</th>
<th>Test Hypothesis</th>
<th>Cross-section</th>
<th>Time</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breush-Pagan</td>
<td>56.48780</td>
<td>1.553571</td>
<td>58.04137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0000)</td>
<td>(0.2126)</td>
<td>(0.0000)</td>
<td></td>
</tr>
</tbody>
</table>

The Breush-Pagan Cross Section value is 0.000 < 0.05, therefore H1 is accepted which means the best estimation method is still Random Effect.

*Hypothesis Testing*. Hypothesis test is done based on selected model that is *random effect* model.

<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>C</td>
<td>320.7993</td>
<td>143.728</td>
<td>2.176788</td>
<td>0.0339</td>
</tr>
<tr>
<td>NPL</td>
<td>110.3300</td>
<td>166.2427</td>
<td>0.063659</td>
<td>0.2097</td>
</tr>
<tr>
<td>CAR</td>
<td>25.9502</td>
<td>33.4875</td>
<td>0.7400</td>
<td>0.4627</td>
</tr>
<tr>
<td>BOPO</td>
<td>-28.2588</td>
<td>12.86532</td>
<td>-2.16245</td>
<td>0.0324</td>
</tr>
<tr>
<td>LDR</td>
<td>5.771721</td>
<td>10.91313</td>
<td>0.528679</td>
<td>0.6032</td>
</tr>
</tbody>
</table>

Based on Table 6, it can be seen from prob F-statistic that this model is a good enough model to use because prob F-statistic < α (α = 5%) that is equal to 0.0000. Hence, H0 is rejected and H1 is accepted because the F-statistic prob is 0.0000. The *Adjusted R² value* indicates the extent to which variations of the dependent variable are able to be explained by the independent variable, or in other words, how the model can explain the movement of the dependent variable. The value of *Adjusted R² value* between 0-1, the closer to 1, then the
model's ability to explain the movement of the dependent variable is better. The result of model estimation used resulted Adjusted $R^2$ value of 0.868083. It means that the model used can explain the dependent variable or deposit portfolio of 86.80%.

$$Y = 3207.993+110.3300 X1+25.9506 X2+5.7717 X3 – 28.2558 X4$$

The result of hypothesis testing for credit risk variable (NPL) has coefficient of 110,330 which shows the positive direction of NPL variable to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). A sig value of 0.5097 greater than alpha ($\alpha = 0.05$) indicates that NPL has an insignificant effect on the number of National Social Security on Employment (BPJS Ketenagakerjaan) portfolio deposits. Thus, Ha1 which states that there is a significant impact between Non Performing Loan (NPL) on the Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) at the banks which are in cooperation with National Social Security on Employment (BPJS Ketenagakerjaan) is rejected, H01 accepted that there is no significant impact between Non Performing Loan (NPL) to Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) at the banks which are in the cooperation with National Social Security on Employment (BPJS Ketenagakerjaan).

The result of hypothesis testing for Capital Adequacy Ratio (CAR) has coefficient of 25,95062 which shows the positive direction of CAR variable to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). A sig value of 0.0002 smaller than alpha ($\alpha = 0.05$) indicates that CAR has a significant effect on the amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio. Therefore, Ha2 which states that CAR has a significant positive influence on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) is accepted.

The result of hypothesis testing for variable Loan to Deposit Ratio (LDR) has coefficient of 5,771721 which shows the positive direction of LDR variable to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). Sig 0.0032 value smaller than alpha ($\alpha = 0.05$) indicates that LDR has a significant impact on the amount of deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). Thus, Ha3 which states that there is a significant impact between Loan to Deposit Ratio (LDR) to National Social Security on Employment (BPJS Ketenagakerjaan) Deposit Portfolio at bank that cooperates with National Social Security on Employment (BPJS Ketenagakerjaan) is accepted, H03 is rejected reveals that there is no significant influence between Loan to Deposit Ratio (LDR) Portfolio Deposit of National Social Security on Employment (BPJS Ketenagakerjaan) at the banks which are in cooperation with National Social Security on Employment (BPJS Ketenagakerjaan).

The result of hypothesis testing for Operational Expenses to Operating Income variable has a coefficient of -28,25583 indicating the negative direction of Operational Expenses to Operating Expenses variable to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). A sig 0.0324 sig value smaller than alpha ($\alpha = 0.05$) indicates that Operational Expenses to Operating Income has a negative significant effect on the amount of National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio. Therefore, Ha4 which states there is a significant influence between Operational Expenses to Operating Income on the Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) at the banks which are in cooperation with National Social Security on Employment (BPJS Ketenagakerjaan) is accepted, H04 rejected that there is no significant impact between Operational Expenses to Operating Income to the Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) at the banks which are in cooperation with National Social Security on Employment (BPJS Ketenagakerjaan).

**DISCUSSION OF RESULTS**

The Impact of Non Performing Loan (NPL) on Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). Based on the research that has been
described above, NPL to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) does not significantly affect the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). It may be due to interest offered by banks in cooperation with National Social Security on Employment (BPJS Ketenagakerjaan) is not too concerned. NPLs are the most important interest offered by the bank concerned. This research is proven by the results of t test of 0.5097 greater than alpha (α = 0.05). It is supported by Kamau and Njeru's (2015) research which states tahNPL does not have effect on customer placements in banks and Bayyoud and Sayyad's (2015) study which states that credit risk does not have significant effect on investment in banks.

The Impact of Capital Adequacy Ratio (CAR) on Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). Based on the research described above, CAR on the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). From the research, it is found that CAR has a significant positive effect on National Social Security on Employment (BPJS Ketenagakerjaan) deposit portfolio shown by t test result of 0.0002 which is smaller than alpha (α = 0.05). It is supported by research by Paul R Masson, Tammim Bayoumi dan Hossein Sammiei (2014) the result CAR have a positive significant to saving money in the bank and Abu Hanif Md. Noman, Sajeda Pervin, Mustafa Manir Chowdhury& Hasanul Banna (2015) the result that have significant between CAR on performance bank and decision to saving money in the bank.

The Impact of Loan to Deposit Ratio (LDR) on Portfolio Deposit of National Social Security on Employment (BPJS Ketenagakerjaan). Based on the research described above, LDR to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) has a significant positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). The sig value shown by the t test of LDR is 0.0032 which is smaller than the alpha (α = 0.05). It means that the higher the LDR of the bank, the more likely deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) in a bank in a particular bank will remain high, but it still considers the limits issued by Bank of Indonesia. The results of this study are supported by the research of Almekhlafi, Almekhlafi, Kargbo & Hu (2016), Saaddaoui and Boujelbene (2015) and Mutava and Ali (2016) stating that liquidity risk positively affects bank performance.

The Impact of Operational Expenses to Operating Income on Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). Based on the research described above, the Operational Expenses to Operating Income on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) has a significant negative effect on the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). The sig value shown by the t test is 0.032 smaller than the alpha (α = 0.05). It means that the higher the Operational Expenses to Operating Income of the bank, the possibility of the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) in a bank is lowered, due to a large burden by the bank that could adversely affect earnings deposit of National Social Security on Employment (BPJS Ketenagakerjaan) or it will affect the interest rate reducer provided by the bank. It is supported by Muhammad Fahlro Rozi Syafii dan Ellen Rusliat (2016), Maytham Huseen Saeed (2014) and Yara Nurintan (2016) that the result have the negative impact to decision saving money in the bank.

The Effect of Non Performing Loan, Capital Adequacy Ratio, Loan to Deposit Ratio and Operational Expenses to Operating Income on Deposit Portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). Based on the results of the research described above, NPL, CAR, LDR and Operational Expenses to Operating Income simultaneously affect the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). It is indicated by the result of t-test for prob F-statistic α (α = 5% ) that is equal to 0,0000. Therefore, H0 is rejected and H1 is accepted because the F-statistic prob is 0.0000.
CONCLUSION

Based on data analysis and hypothesis testing that has been done, then conclusion can be drawn as follows:

NPL, CAR, LDR and Operational Expenses to Operating Income variables have a significant effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period of testing period is 2015 until 2017. It can be concluded that NPL, CAR, LDR and Operational Expenses to Operating Income have a significant effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan). The amount of contribution of the influence of independent variables on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) of 83.57% while the rest of 16.43% influenced by other variables outside the research variables. Therefore, the first research hypothesis that NPL, CAR, LDR and Operational Expenses to Operating Income simultaneously have a significant effect on the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) is acceptable.

NPL variable partially has an insignificant positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 to 2017. It can be concluded that NPL partially does not have a significant influence on the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 until 2017. The amount of contribution of NPL influence on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) of 0.5097%; thus, the research hypothesis that NPL negatively affecting deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) is rejected.

CAR variable partially has a positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 to 2017. It can be concluded that CAR partially has a significant positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 until 2017. The amount of contribution of the effect of the CAR on the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) of 0.0002; therefore, the hypothesis stating that market risk does not affect the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) is rejected for CAR variable.

LDR variable partially has a positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 to 2017. It can be concluded that Loan to Deposit Ratio partially has a significant positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 until 2017. The amount of contribution of effect of LDR on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) equal to 0.0032 so that hypothesis which states that LDR have positive effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) is accepted.

Operational Expenses to Operating Income partially have a negative effect on deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 until 2017. It can be concluded that Operational Expenses to Operating Income partially has a significant negative effect on the deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) period 2015 until 2017. The amount of contribution of effect of BOPO to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) equal to 0.032 so that hypothesis which states that Operational Expenses to Operating Income has negative effect to deposit portfolio of National Social Security on Employment (BPJS Ketenagakerjaan) is accepted.

Therefore, the BI Rate, SB SUN, LDR and BOPO can be used as an alternative to analyze the total placement of deposits in investing, but the NPL cannot be used as an alternative in analyzing the shares to decide the placement of deposits in investing because it is still unexplained in National Social Security on Employment (BPJS Ketenagakerjaan).
REFERENCES

COMPETITIVENESS ANALYSIS OF FURNITURE INDUSTRY PRODUCTS IN PAPUA

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ABSTRACT
The objective of this study is to analyze the influence of product, infrastructure, government policy, human resource, and science and technology on the competitiveness of furniture industry in the city and regency of Jayapura. The population of this study is 265 furniture industry business people and companies in the city and regency of Jayapura, from which 120 are selected as the sample through proportional sampling so that the sample is able to represent all characteristics in the population. This study uses descriptive analysis and Structural Equation Modelling to answer the research problem and assess the hypotheses. The results of this study show that product has a significant influence on competitiveness at 1.00, that infrastructure has a significant influence on competitiveness at 1.604, and that government policy has a significant influence on competitiveness at 0.815. Furthermore, human resource and science and technology have a very significant influence on competitiveness at 1.269 and 1.012 consecutively.

KEY WORDS
Product, competitiveness, city, business, furniture.

In the spirit of equal right as citizens, small industry should grow and develop along with bigger industries, so this industry can give a significant contribution to the local, regional, and national economic growth. Furniture industry, which is a sub sector of small industry, is also expected to contribute considerably to the progress of economic development.

There are many small industries that have the potential to become a great business. However, other parties, such as the government, should participate in fostering them, particularly by solving problems frequently hinder them. The characteristics of small industries are small in business scale, limited in capital, usually using family members as labors, low in technology and market access, and traditional in management.

The modern economic theory was started in the time of Harrod and Domar. It emphasizes that economic growth is determined by two main components: investment and capital output ratio. Therefore, capital is an important in growth. Arthur Lewis (in Kartasasmita, 1997) emphasizes on surplus of labor by saying that productivity of high number of labor and low cost improves the amount of new investment. Further, small business is directed to improve competitiveness in order to become a strong and competitive business. In addition, small industry should emphasize more on employment improvement to develop the business.

The condition in Indonesia today is that non-metropolitan regions are potential for the growth of small industries that fulfill the demand of local market. However, small industries in rural areas do not develop significantly, where some of them are stagnant and even stop producing due to various problems. Small industries working in the regency and city of Jayapura work in various business units; one of them in furniture business.

The quantity of furniture industry in the regions increases and the business is scattered in some regions of urban industrial centers. This is very positive due to the fact that the existence of this industry has a strategic role for the development of settled industry and links between the production process and its down-stream industry. This because the availability of its raw material, i.e. wood and leather, is abundant in Papua. However, furniture business in the city and regency of Jayapura is still hindered by the following obstacles:

1. The business is still low in creativity, causing lower esthetic and unique products.
2. Transportation to and from remote areas is still poor, electricity is still unreliable, low number of markets.
3. Government regulation tends to slow down the bureaucracy for business permit application, financial access for small business is very limited, and the government barely helps small industries make business partnership.
4. The education and the skill of human resource are low.
5. The availability and the use of science and technology are still limited.

Those are the main problems regarding the competitiveness of furniture industry in Papua. Therefore, it can be concluded that linkage needs mutual help and mutual benefit between small and medium and big industries followed by the role of small industry in supporting the need of medium and big industry for various components of their production result needs. However, the relationship between the two business groups has not reached a firm and controlled balance.

Competitive strategy is the search for beneficial competitive position in a competition, the fundamental arena where competition takes place. The objective of competitive strategy is to determine a beneficial position that can be defended against forces that determine industrial competition. There are two main questions that determines the option of competitive strategy; they are:

- Is the attractiveness of the industry able to generate long-term profit with the production factors at hand?
- Does the competitive strategy determine the relative competitive position in an industry?

The two questions above are inseparable in determining the appropriate competitive strategy. A company that is in a very attractive industry might not gain an attractive profit if it chooses a poor competitive strategy.

Industrial attractiveness and competitive strategy can actually be shaped by the company. This makes the choice of competitive strategy challenging and exciting. Although industrial attractiveness, which, some part of it, is a reflection of the company, has a little influence, competitive strategy has a great power to make industry become less or more attractive (Porter Michael, 2004).

The opinion that the competitiveness is the foundation of regional economy that must be developed. This opinion is not exaggerating since the city and regency of Jayapura have many small industries that are less developed. Along with the era of decentralization and local economic development, the role of small industry is relevant for the success of the decentralization implementation.

Thus, it is necessary to conduct a research regarding industrial competitiveness, particularly in furniture industry, in order to improve working capability that, in the end, can improve success. Therefore, the objectives of this research are:

- to analyze and identify the influence of product on the competitiveness of furniture industry in the city and regency of Jayapura,
- to analyze and identify the influence of infrastructure on the competitiveness of furniture industry in the city and regency of Jayapura,
- to analyze and identify the influence of government policy on the competitiveness of furniture industry in the city and regency of Jayapura,
- to analyze and identify the influence of human resource on the competitiveness of furniture industry in the city and regency of Jayapura, and
- to analyze and identify the influence of science and technology on the competitiveness of furniture industry in the city and regency of Jayapura.

LITERATURE REVIEW

Competitiveness Theory. The concept of comparative advantage was initially introduced by David Ricardo in the early nineteenth century. The keyword is comparative, which is defined as relative. The meaning is that, for national scope, the economy of a
country must produce goods that are relatively more efficient in its production and export the goods, and the country must import goods that are relatively smaller in profit (Theodorus Kuncoro, 2007).

The concept presented by David Ricardo is developed by Porter Michael (1990) in his theory entitled Competitive Strategy; Technique for Analyzing Industries and Companies, which is used as the grand theory of this study. Porter Michael stated that competitive advantage developed from values that can be created by a company for its customer, surpassing the cost of the company in creating it (product value > product cost). Further, he mentioned that superior value came from price offered lower that competitors.

Factors that Influence Competitiveness. In a competition, there is sometimes a company that is in a weaker position, and there is a company in a stronger position. there are companies with strength, and there are companies with weaknesses. In other words, a company has competitiveness if the company controls 50% of the market. There are also companies categorized into monopolist, which have absolute control (100%) over the market.

Agus Maulana (1990) asserted that, in the era that is full of competition nowadays, a businessperson who wants to open a new industry should answer the following questions.

1. Since no raw material means no production, is the raw material for the industry is adequate?
2. Since infrastructure is the basic facility that supports the process of an industry, is the infrastructure that supports the industry adequate?
3. Since government policy can either hinder or increase the process of a business, do applicable government policies give opportunities to the industry?
4. Since human resource is the motor for the activity, in management, technical, and labor matters, is the human resource at hand able to run the industry?
5. Since science and technology is the basic element for the ability to create or produce goods, is the existing science and technology able to process and produce goods?
6. Since market is the place to sell produced goods, is the market of the product sufficient?

The six matters above are necessary for a businessperson in planning to open an industry. Agus Maulana further stated that if a business starts to work, the next thing to be considered is whether the product can compete with other product from similar industry in the market.

Asrofi Almuhanam (2013) stated that there are several factors that influence a product in having competitive advantage in global and regional market. They are:

1. availability and quality of raw material,
2. availability and quality of human resource,
3. availability and quality of science and technology,
4. availability and quality of infrastructure, and
5. support of government policy.

Theodorus Kuncoro (2007) stated that science and technology of an individual or a business institution improves the chances of its owner to produce superior products. Relevant to the opinion of four experts above, Piter Abdullah et al. (2012) mentioned in their book six variables that influence the competitiveness of small industry. They are raw material, product quality, human resource, science and technology, infrastructure, and government policy.

Porter Michael concluded that several countries succeed in certain industries the environment the industries originating from is visionary, dynamic, and challenging. He added that there are four important domestic variables that are individually and compositely determine the competitiveness of a country. They are the condition of its infrastructure, the condition of its human resource, the condition of its science and technology, the condition of its product, and competitive strategy in small industry.

Terence in Tulus Tambunan (2011) assumed that the scope of competition where a company is engaged in is the characteristic and behavior of certain business competitors and key determinant the strategy and sustainability of the company. However, new managers, in
general, can do validation after they know the real condition faced by the company. Based on the descriptions above, there two important things. They are:

1. to survive in the competition, strategy developers should know more than just relevant implementation measurement in an industry. They must develop ways to obtain validity regarding relationship among them. A way that can be developed is a strategic map that describes the measurement of gains (e.g. return on investment and market share),

2. tactics and strategies that deals with the existing reality regarding competitors’ gain. This data give an adequate assurance so that this kind of mapping strategy can be developed for industries that are capable of performing it.

Notes:

<table>
<thead>
<tr>
<th>X1</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>X11</td>
<td>Efficiency of Production Process</td>
</tr>
<tr>
<td>X12</td>
<td>Esthetic</td>
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<tr>
<td>X13</td>
<td>Uniqueness</td>
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<table>
<thead>
<tr>
<th>X2</th>
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<tr>
<td>X21</td>
<td>Transportation facilities</td>
</tr>
<tr>
<td>X22</td>
<td>Market facilities</td>
</tr>
<tr>
<td>X23</td>
<td>electricity, telephone lines, clean water</td>
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<table>
<thead>
<tr>
<th>X3</th>
<th>Government Policy</th>
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<tr>
<td>X31</td>
<td>Ease of business licensing</td>
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<td>X32</td>
<td>Financial aid</td>
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<td>Skill</td>
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<tbody>
<tr>
<td>X51</td>
<td>Development activities</td>
</tr>
<tr>
<td>X52</td>
<td>Tools availability</td>
</tr>
<tr>
<td>X53</td>
<td>Experts availability</td>
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</table>

<table>
<thead>
<tr>
<th>Y</th>
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<td>Y1</td>
<td>Price</td>
</tr>
<tr>
<td>Y2</td>
<td>Quality</td>
</tr>
<tr>
<td>Y3</td>
<td>Innovation</td>
</tr>
</tbody>
</table>

Source: Dong-Sung Cho-Chang Moon (2013), Munro-khim (2009); Piter Abdullah et al. (2012), summarized and developed by the author.

Figure 1 – Concept on the Relationship among Variables Together with Their Indicators:
RESULT OF STUDY

Chi-Square = 70.484  AGFI = 0.888
Probability = 0.066  TLI = 1.039
CMIN/DF = 0.926  CFI = 1.000
GFI = 0.929  RMSEA = 0.000

Figure 2 – Result of Modified SEM

Referring to the result of modified SEM above, the following structural equation is formulated:

\[ D.S = 1.00 P_r + 1.60 I.S + 0.82 K.P + 1.27 SDM + 1.02 I.T \]
The result of the assessment on the modified model indicates eligible coefficients. The result of the assessment on the modified model is elaborated in figures presented in the table below.

### Table 1 – The result of the Assessment on the Modified SEM

<table>
<thead>
<tr>
<th>Model Relevance</th>
<th>Criteria</th>
<th>Coefficient</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>Small</td>
<td>70.40</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>Significance Probability</td>
<td>≥ 0.05</td>
<td>0.66</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.00</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.93</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.89</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2.00</td>
<td>1.93</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.95</td>
<td>1.04</td>
<td>Fulfilled</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.95</td>
<td>1.00</td>
<td>Fulfilled</td>
</tr>
</tbody>
</table>

Source: Research result, 2017.

Based on the table above, it can be concluded that the model does not contain correlation mistakes among covariant. Therefore, the newly obtained model has fulfilled the elements of model relevance and integration, so analysis can proceed.

The modification results in a new model, as seen in the modified model above. The next step is performing model measurement test or confirmatory factor analysis, which is used to measure the relationship between latent variables and their indicators, which is by comparing the loading factor coefficient with the significance level at α= 5%.

**Assessment Result (Measurement Model/Confirmatory Factor Analysis).** After performing model relevance assumption test above, which found that the new model has a good relevance, data analysis is performed to obtain a clear description about the relationship of each indicator in each variable. To identify it, the following tables of Loading Factor Confirmatory Model and Critical Ratio are used.

### Table 2 – Regression Weight (Loading Factor Confirmatory) Model

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Variable</th>
<th>The best Standardized Estimate (loading Factor) &gt; 0.4</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X11</td>
<td>Production</td>
<td>0.48</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>X12</td>
<td>Production</td>
<td>0.41</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>X13</td>
<td>Production</td>
<td>0.58</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Infrastructure</td>
<td>0.46</td>
<td>Positive</td>
</tr>
<tr>
<td>1</td>
<td>X21</td>
<td>Infrastructure</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>X23</td>
<td>Infrastructure</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Government Policies</td>
<td>0.43</td>
<td>Positive</td>
</tr>
<tr>
<td>1</td>
<td>X31</td>
<td>Govt. Policies</td>
<td>0.71</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>X32</td>
<td>Govt. Policies</td>
<td>0.71</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Resource</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td>1</td>
<td>X41</td>
<td>Human Resource</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>X42</td>
<td>Human Resource</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>X43</td>
<td>Human Resource</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Science and Technology</td>
<td>0.40</td>
<td>Positive</td>
</tr>
<tr>
<td>1</td>
<td>X51</td>
<td>Science &amp;Tech.</td>
<td>0.61</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>X53</td>
<td>Science &amp;Tech.</td>
<td>0.61</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Competitiveness</td>
<td>0.73</td>
<td>Positive</td>
</tr>
<tr>
<td>1</td>
<td>Y1</td>
<td>Competitiveness</td>
<td>0.73</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>Y2</td>
<td>Competitiveness</td>
<td>0.54</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>Y3</td>
<td>Competitiveness</td>
<td>0.55</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Source: Research result, 2017.
### Table 3 – Critical Ratio Indicator of Product, Infrastructure, Government Policies, Human Resource, Science and Technology, and Competitiveness

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Estimate</th>
<th>CR condition</th>
<th>Probability (P) condition</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Factor Product</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X11 → Product</td>
<td>0.858</td>
<td>3.100</td>
<td>0.002</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>X12 → Product</td>
<td>0.753</td>
<td>2.895</td>
<td>0.004</td>
<td>Significant</td>
</tr>
<tr>
<td>3</td>
<td>X13 → Product</td>
<td>1.000</td>
<td>4.025</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
<tr>
<td></td>
<td><strong>Factor Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X21 ← Infrastructure</td>
<td>0.952</td>
<td>2.760</td>
<td>0.006</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>X23 ← Infrastructure</td>
<td>1.000</td>
<td>3.678</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
<tr>
<td></td>
<td><strong>Government Policies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X31 ← Govt. Policies</td>
<td>0.942</td>
<td>4.019</td>
<td>* ****</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>X32 ← Govt. Policies</td>
<td>1.545</td>
<td>5.597</td>
<td>* ****</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td><strong>Human Resource</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X41 ← Hum. Res.</td>
<td>1.000</td>
<td>2.468</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
<tr>
<td>2</td>
<td>X42 ← Hum. Res.</td>
<td>0.991</td>
<td>3.436</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>3</td>
<td>X43 ← Hum. Res.</td>
<td>0.856</td>
<td>3.175</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td><strong>Science and Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X51 ← Science &amp; Tech</td>
<td>1.000</td>
<td>2.754</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
<tr>
<td>2</td>
<td>X53 ← Science &amp; Tech</td>
<td>1.731</td>
<td>3.013</td>
<td>0.003</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td><strong>Competitiveness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Y1 ← Competitiveness</td>
<td>1.239</td>
<td>4.645</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
<tr>
<td>2</td>
<td>Y2 ← Competitiveness</td>
<td>0.331</td>
<td>4.098</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
<tr>
<td>3</td>
<td>Y3 ← Competitiveness</td>
<td>1.000</td>
<td>3.465</td>
<td>* ****</td>
<td>Very Significant</td>
</tr>
</tbody>
</table>

Source: Research result, 2017

### DISCUSSION OF RESULTS

Referring to the data analysis above, which is the result of modified SEM, the following path coefficient showing the influence of product, infrastructure, government policies, human resource, and science and technology on the competitiveness of furniture industry product in the city and regency of Jayapura is obtained.

For the purpose of discussion, the chart of path coefficient of the influence of independent variables on dependent variable needs to be attached with table of calculation, SE, C. R., and probability as follows.
Table 4 – The Influence of Independent Variables on Dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Path Coeff.</th>
<th>SE</th>
<th>C.R</th>
<th>Probability</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>Product</td>
<td>1.000</td>
<td>0.421</td>
<td>2.011</td>
<td>0.002</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Infrastructure</td>
<td>1.604</td>
<td>1.019</td>
<td>2.574</td>
<td>0.023</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Gov. Policies</td>
<td>0.815</td>
<td>0.279</td>
<td>2.924</td>
<td>0.034</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Human resource</td>
<td>1.269</td>
<td>0.097</td>
<td>2.125</td>
<td>0.008</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>Science &amp; Tech.</td>
<td>1.012</td>
<td>0.499</td>
<td>2.026</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Source: Research result, 2017.

Based on the assessment using AMOS 4 through Structural Equation Modelling (SEM) and Path and Multiple Regression analysis above, the following is the discussion.

The Influence of Product on the Competitiveness of Furniture Industry Product.

The result of Structural Equation Modelling (SEM) using AMOS 4 (as seen in table 6.1 and 6.2) shows that the critical ratio of the influence of product on the competitiveness of furniture industry product is 2.011 (fulfilling the requirement of >1.96). The values of path coefficient of 1.00 define the magnitude of the influence, standard error of 0.421 defines the positiveness of the influence, and probability of 0.002 defines the significance of the influence.

Based on the result analysis above, the influence of product on the competitiveness of furniture industry product is positive and significant, and the magnitude of the influence is 1.00. This finding is supported by the descriptive analysis that has been conducted previously, because, of the three indicators used to measure product, only efficiency of production process that is in medium level, while Aesthetic and uniqueness is still low.

Aesthetic and uniqueness that is not present in local furniture product is in variations of types and modification of models in products of living room chairs and tables, office cabinets and tables, and kitchen cabinets and shelves.

This finding supports the result of Gale Brandeley T (1995) that profits are earned by a company because it provides high quality products with attractiveness in aesthetic and uniqueness. Higher efficiency in its production process will increase selling revenues and lower the cost, so customers will be more interested in choosing the product compared to that of the competitors.

This finding also supports David A. Garvin (1997) that identifies that the quality of a product is observable from eight dimensions; they are artistic, uniqueness, durability, fineness, material availability, appropriateness with local preferences, appropriateness with needs, and price level.

The Influence of Infrastructure on the Competitiveness of Furniture Industry Product.

The result of the assessment shows that the influence of infrastructure on the competitiveness of the product. This is shown by the value of path coefficient, which is 1.604, that shows the magnitude of the influence, with the probability of 0.015 that shows a significant value, and the standard error value of 1.109 that shows the positiveness of the influence.

The value of the path coefficient of 1.604 shows that the influence of infrastructure on the competitiveness of the furniture product is quite reasonable because, in fact, the infrastructure in the city and regency of Jayapura is not sufficient to support competitiveness that requires good infrastructure, electricity, telecommunication, and water supply. Therefore, improvement in the availability of clean water and electricity in furniture industry center is needed because the state’s water and electricity company in Papua, in general, can only support household needs. In fact, furniture industry in the city and regency of Jayapura is still attached to residential activities.

This finding is also supported by the fact that the infrastructure is very low in improving competitiveness of furniture industry product, which is shown by the total score of 349, lower than medium score of 360.

The low influence of infrastructure in supporting competitiveness of furniture industry product can be seen from three indicators that are used to measure the condition of the infrastructure. Electricity, telephone lines, and clean water, in fact, are lower than medium category. However, market and transportation are above medium category.
This finding supports the theory of Glueck William F and Jauch CH (2001) that external environment (infrastructure) influences business development, which in turn, will influence competitiveness. Good infrastructure will make companies easy to develop themselves and serve their customers. This means that development and improvement in customer service will create better competitiveness for the companies.

Further, Glueck William asserted that infrastructure, in supporting the competitiveness of industry, should be based on the principles of 1) physical capital in the form of infrastructure, in its quality and quantity, must support regional economic activities; 2) natural capital in terms of geographical condition and natural resource contained in it should be able to support the existing industrial production.

This finding is also relevant with the result of Theodorus Kuncoro (2007) that the influence of infrastructure is quite reasonable because, in fact, the infrastructure in the city of Pasuruan, i.e. road, electricity, telecommunication, and clean water, is quite sufficient for metal industry competition. However, addition of clean water facilities in metal small industry center is needed because the water company (PDAM) can only supply 34 units of industry. The total units of industry in this city is 873, which means that the water company can only serve 4% of the industry.

The Influence of Government Policy on the Competitiveness of Furniture Industry Product. The result of the assessment of the influence of government policies on the low competitiveness of furniture industry product shows that the Critical Value ratio is 2.294, which has fulfilled the requirement of >1.96. The value of path coefficient, which shows the magnitude of the influence, is 0.815, the value of standard of error, which shows the positiveness of the influence, is 0.279, and the value of probability is 0.034, showing that the influence is significant.

Based on the analysis result above, the influence of government policies on the competitiveness of furniture industry product in the city and regency of Jayapura is positive and significant with influence magnitude of 0.815.

This finding is supported by the descriptive analysis that has been conducted previously, which is the empirical condition in the field, because, of the three indicators, only one indicator whose position is slightly above medium, which is easiness in business licensing (total score of 363). Two other indicators, i.e. financial aid and business partnership are below medium criteria (total score of, respectively, 353 and 339). Therefore, it can be concluded that government policies do not contribute much to improve furniture industry in the city and regency of Jayapura in terms of competitiveness.

This finding supports Supriyono (1999) and Glueck William F and Jauch CH (2003), who suggested that competitiveness in various kinds of industry from a region is actually inseparable from policies applied by the government of the region. It means that the more the policies taken by the local government focused on the development of industry, the better the possibilities of the products from the industry in the region to have competitiveness against similar products from other regions or countries. Siagian (2005) also said that the condition of government policies influenced the competitiveness of a product.

This finding is also relevant to the result of Badudu M (2007), who conducted a research in several major cities in Indonesia, and Tajerin (2004). They found that policies applied by the government will be very influential on the competitiveness of an industrial product.

The Influence of Human Resource on the Competitiveness of Furniture Industry Product. The result of the analysis on the influence of human resource on the competitiveness of furniture industry product in the city and regency of Jayapura shows that the critical ratio is 2.011 (fulfilling the requirement of >1.96). The values of path coefficient of 1.269 define the magnitude of the influence, standard error of 0.097 defines the positiveness of the influence, and probability of 0.008 defines the significance of the influence.

Based on the analysis result above, the influence of human resource on the competitiveness of furniture industry is positive and very significant with influence magnitude of 1.269.
This finding is supported by the descriptive analysis that has been conducted previously, which shows that, of the three indicators that are used to measure the influence of human resource on furniture industry, there are two indicators whose position are slightly above medium; they are number of labors (364) and skill (361). However, education is below medium criteria (336). Therefore, it can be concluded that human resource gives a moderate contribution in improving furniture industry in terms of competitiveness.

This finding is relevant with the result of two researchers; they are Djiwanto (2012) and Suparyadi (2004). They found that the quality of competitive advantage of industrial product is very much influenced by the quality and quantity of labors used in the industry. Further, Suparyadi (2004) explained that the quality of human resource depends on the education of skill at hand.

This finding also supports the opinion of two experts; they are Dong-Sung Cho-Chang Moon (2013) and Kartasasmita Ginanjar et al. (1990). They include human resource as one of the factors that are very important in influencing the competitiveness of an industrial product.

The Influence of Science and Technology on the Competitiveness of Furniture Industry Product. The result of the assessment of the influence of science and technology on the low competitiveness of furniture industry product shows that the Critical Value ratio is 2.028, which has fulfilled the requirement of >1.96. The value of path coefficient, which shows the magnitude of the influence, is 1.012, the value of standard of error, which shows the positiveness of the influence, is 0.499, and the value of probability is 0.004, showing that the influence is very significant since the value is approaching 0.

Based on the analysis result above, the influence of science and technology on the competitiveness of furniture industry product in the city and regency of Jayapura is positive and very significant with influence magnitude of 1.012.

This finding is supported by the descriptive analysis that has been conducted previously, which is the empirical condition in the field, because the total score of the three indicators that are used to measure the condition of science and technology are below medium. The lowest score is availability of experts (335), followed by development activities (341), and availability of tools (351). Therefore, it can be concluded that the most influential indicator in the category of science and technology is availability of experts, with the total score of 335.

This finding supports the opinions of several experts, i.e. Porter Michael (2004), Eduardus Tandellin (2002), and Sugiyono Dirgantoro (2012). They asserted that the higher the science and technology used or owned by any industry will improve the chance of the industry to produce goods with high competitiveness. This means that science and technology used in the production determines the competitiveness of an industrial product.

This finding is also relevant with the result of Theodorus Kuncoro (2007), and Asrofi Almuhanam (2013). They found that the availability and the good use of science and technology will influence the competitiveness of an industrial product.

CONCLUSION

The conclusion of this study is that the influence of product, infrastructure, government policies, human resource, and science and technology on the competitiveness of furniture industry in the city and regency of Jayapura is positive at various levels. The order of the influence of each factor based on the magnitude of the influence is as follows:

- Infrastructure with significant influence at 1.604.
- Human resource with very significant influence at 1.269.
- Science and technology with very significant influence at 1.012.
- Product with significant influence at 1.00.
- Government policies with significant influence at 0.815.
SUGGESTIONS

To the Government. The government must gain trust from related parties regarding the furniture industry product from the city and regency of Jayapura that the product is the featured product of the region through:

- Local fiscal policies (local budget) that are prioritized to support the business of small furniture industry in forms of assistance program (provision of experts) particularly that deals with technology transfer; and
- Information network facility that can inform the potential and ability of the furniture industry in improving their marketing access.

To Small Industry. Must emphasize more on the (high) aesthetic in all products:

- Must show uniqueness in all products, and
- Must establish business network among small furniture industries, which can help improve marketing distribution channel.

To Other Researchers:

- Follow up research is needed by including factors other than product, infrastructure, government policies, human resource, and science and technology, so the role of the other factors in improving competitiveness can be identified, and
- Follow up research regarding competitiveness in industries other than small furniture industry is also needed.

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A LONG, WINDING AND STEEP ROAD FOR COLLABORATIVE GOVERNANCE IN INDONESIA

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ABSTRACT
This paper discusses whether collaborative governance always has positive impacts for inclusive policy-making processes and it also has positive effects on performance, success, and sustainability of policies as argued by its supporters? This paper argues that the argument is not always correct. Although collaborative governance has the potential impact to produce creative problem solving through consensus of parties involved and to create public value and innovation, the concept has also the opportunity to be hampered and thus cannot achieve the expected positive outcomes, due to several challenges and/or obstacles.

KEY WORDS
Collaborative governance, government, Indonesia, policy.

In the development of contemporary governance, the idea of collaborative governance emerges as an important and ideal approach in encouraging the optimization of governance and public policy processes. The idea of collaborative governance comes like a “cure” which is capable to heal various pathologies of policies, either from the politicization of regulation, enlargement and constraint of budget, or the failure of policy implementation (Ansell and Gash, 2007). More explicitly Kallis, Kiparsky and Norgaard (2009) say that collaborative governance is an adaptive management in order to ensure the implementation of a government program, while Sorensen and Torfing (2012) argue that the collaborative governance is a new idea and a practical innovation as a force or power in public sector implementation and as a trigger for better policy making process.

Empirical studies show the benefits and positive impacts of collaborative governance1 where collaborative governance is an ideal approach to improving the quality of governance, public service delivery, and public policy performance amid government constraints on resource capacity, the source of funding and networks. Several findings on empirical studies also show that collaborative governance is often associated with good outputs and outcomes. The use of collaborative governance can increase the political legitimacy and the level of public trust significantly to the performance of government. In addition, some of the existing research found that there is still absent of any refutation or explanation of weaknesses of the idea of collaborative governance because they only explain the lack of effectiveness of the collaborative process2.

1 For example the application of collaborative governance in the program of water supply in California (Judith E. Innes, et al, 2006); in water resources management policy in Mexico (Sergio Graf Montero, 2006); policy on improving people’s welfare in Korea (Sunhyuk Kim, 2010); in the forest rescue program in North Quensland (George R. Sranko, 2011); in labor protection policy (Nidhi Vij, 2011); in a low carbon tourism program (Heather Zeppel, 2012); in a sustainable city achievement policy in Western Australia (Margaret Gollagher and Janette Hartz-Karp, 2013); in the development of health and education in West Java (Jatti Indriati, 2015); and collaboration in disaster management in Yogyakarta (Muchammad Zaenuri, 2016)

2 See, for example, the effectiveness of collaboration in establishing minimum wages in Bandung (Elisa Susanti, 2016), and the findings of the effectiveness of collaboration in the management of international migrant workers in Yogyakarta (Izzul Fatchu Reza, 2014).
The process of governance and public policy using collaborative governance can be characterized by six elements, namely the initial role of the government, the participation of non-state actors, collaborative decision making, formal arrangement, consensus building, and common issues on policy or public services (Ansell and Gash, 2007). These six characteristics of collaborative governance are also part of the principles of good governance. According to Davis and Keating (2000), the concept of good governance describes how the system of governance takes place, referring to a broader range of roles, not just the government role but also the role of non-governmental organizations and civil society. This means that the interaction of actors (government and non-government organizations) in collaboration will contribute to the realization of good governance.

Similarly, the definition of collaborative governance is explained by Balogh, et al. (2011) where collaborative governance is not only limited to government and non-government stakeholders but it is also formed by multipartner governance which are private sector, community and society built by the synergy of stakeholder role in the hybrid plan arrangement as well as co-operation between public private social-private. Balogh, et al., (2011: 2) say that:

“the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished”.

Meanwhile, Robertson and Choi (in Kumorotomo, 2013) define the idea of collaborative governance as a collective and egalitarian process where every participant in the idea has substantial authority in decision making and where every stakeholder has equal opportunity to reflect on his/her aspirations in the process. The concept becomes a written rule that each collaborating party has the same position and opportunity in the process of taking and executing public policies.

Dwiyanto (2011: 251) explains in detail that in collaborative cooperation there are vision, goals, strategies, and activities among parties. All parties are independent, have the authority to make decisions independently and have the authority to manage their organizations, although they are subjects to collective agreements. In line with Dwiyanto’s (2011) definition, Sink (in Purwanti, 2016) describes collaborative processes where organizations have an interest in a particular problem, trying to find a commonly defined solution which can not be achieved independently. Therefore collaboration also means the choice of strategy to accelerate the achievement of interests or goals.

The Failure of Policy: A Case Study. Empirically, the application of collaborative governance in various countries and regions in Indonesia has been very much done in the practice of a particular policy such as the policy of moving the capital governmental city of Lampung Province. Although, the policy was not directly claimed using the collaborative governance approach, as outlined by Ansell and Gash (2007), the policy of moving the capital government area of Lampung Province is an example of an activity that refers to the criteria of collaborative governance characterized by; first is the initial role of the government (the initial idea was originated from Lampung Governor), second is the inclusion of non-state actors (the involvement of private parties and communities), third is the joint decision-making processes (role-sharing arranged in master plan documents), fourth is the formal organization (establishment of an official forum called the Planning Coordination Team and the Area Management Board), fifth is the achievement of a collective consensus between the parties (the issuance of Local Regulation Number 2, year 2013 on the Development of Lampung New Town as a legal umbrella), and sixth is there is a policy issue collaborated (i.e. the policy of moving the capital government area of Lampung Province).

Since the formulation process and implementation of the policy on moving the capital governmental city of Lampung Province, there were several activities which can be associated to the idea of Emerson (2012), referring to the use of collaborative governance. According to Emerson (in Ulibarri, 2015), the policy process where there is an interaction among parties resulting outputs, agreements, and actions, is the core process and the main component of the collaborative framework which he calls it as the dynamics of collaboration.
In addition to reviewing the collaborative process and interaction between collaborators, the aspect of output, the form of consensus, and collaborative actions are important elements in the dynamics of the collaboration.

In another perspective, Sangkala (2012) considers that one important feature of responsive and collaborative governance is the involvement of actors outside the state. The collaborative relationships among government, private sector and community under responsive and collaborative governance are built on the principle of democracy that emphasizes on the values of equality, freedom of cooperation, and freedom to express ideas and thoughts about what are considered important in supporting the success of public policies and services. In this context, the government positions the public and private sectors as the owner of the government because they are considered having capability to work together in achieving development (Sangkala, 2012).

By having a highly dynamic process\(^3\), the implementation of policy to move the capital governmental city of Lampung Province which was started in 2010 with the process of moving until the year of 2032 under the total investment of 3.1 trillion rupiah is implemented smoothly. During the moving process, the existence of the formal forum which is the Area Management Board under government regulation number 2, Year 2013, and cooperation with other parties that have been established during the period of 2010 – 2014 have proved to be a driver of policy implementation process. The ongoing implementation process of the policy in the period of 2010 – 2014 has been changed at the end of 2014 when there was a change of Governor of Lampung in June 2, 2014. Due to limited local budget, the implementation of the five-year on going policy was stopped by the new elected Governor of Lampung.

The case of termination of the policy on moving the capital governmental city of Lampung Province becomes an interesting case. The collaborative governance approach, which is theoretically considered to be a prominent strategy in facing politicization of regulation, swelling and constraints on budgets, as well as the failure of implementation, still cannot be guaranteed for the policy sustainability. In other words, the theory of collaborative governance is an ideal concept claimed by its proponents so that the concept is always associated with good outputs and outcomes, but it is not something smooth in Indonesia; at least in the case of moving the capital governmental city of Lampung Province.

*The Diversity Scope of Collaborative Governance.* Collaborative governance has a wide range of scopes, for example Booher (2004) and Zadek (2006) focus on the importance of components or elements of collaboration; Huxam and Vangen (2008) focuses on the stages and terms of successful collaboration; Linden (2002) offers a model to evaluate collaborations, as well as Balogh (2011) and Ansell and Gash (2007) propose models or designs of the process of collaborative governance.

In the scope of the components/elements in the collaboration, Booher (2004: 34) proposes collaborative governance in four key components of collaboration with final result to achieve outcomes. Booher (2010) says that:

> “Four of the most important in collaborative governance: public policy consensus building, community visioning, consensus rule making, and collaborative network structures. They all reflect key similarities: emphasis on diversity and interdependence, processes that support dialogue and deliberation, the building of trust and ongoing capacity to collaborate in the face of continuing uncertainty and change, and the search for solutions that embody good outcomes for the public”

While Zadek (2006) discussed the elements of collaborative governance as follows:

> “Collaborative governance life cycles have two key element or phases. First, the design of public policy increasingly involves business and civil society inputs, including specialized knowledge and crucially, lobbying to secure specific outcomes. Second, the implementation of public policy often requires the explicit support of non-state actors in terms of resources for...”

\(^3\) For example, the replacement of the capital governmental city location from Natar to Jati Agung due to incompatibility between the provincial government of Lampung with PTPN VII, the replacement of the head of the new city management agency, and the change of potential investors from Malaysia and Korea to Lippo Group.
and implementations pathways. With the growing importance of multiple actors during the implementation phase, their leverage also tends to increase over policy design*.

Zadek’s above statement shows that collaborative governance consists of two important elements: collaboration design and collaborative implementation. Design in collaborative governance is an activity in a policy in which there is involvement of private sector and civil society besides state actors (state), as part of its authority. Stages in the design of collaboration include understanding and lobbying in order to produce specific outcomes. The second element is the implementation of collaboration which also involves the various sectors.

In the scope of stages, Huxam and Vengen (in Wanna, 2008) put forward the stages of collaboration in seven perspectives. All stages are also called as the prerequisite for the success of collaboration, namely, (a) managing aims, as the initial stages of collaboration, (b) managing power, as balancing the power among stakeholders, (c) managing trust, as building trust among stakeholders, (d) managing ambiguity and complexity, as the clarity of the role of stakeholder involvement in collaboration, (e) managing collaborative dynamics, as managing the dynamics of collaboration, (f) managing leadership media, as the awareness that the leadership is not the party to always have, and (g) managing leadership activities where there needs a leadership role to ensure the continuity of collaboration.

Meanwhile, Linden (2002) explains that collaboration will work if its implementation fits within the framework of collaboration. He outlines the collaborative framework as follows: (1) the basic are in place, (2) the principal have open trusting relationship with one another, (3) the stakes are high, (4) the participants include a constituency for collaboration, and (5) the leadership fellow collaborative principles. These five theoretically require the existence of trust and open relationships among stakeholders involved in collaboration, stakeholder involvement is not only in the formulation of the agenda but also in the implementation, and the existence of high leadership support as an important element in the principle of collaboration. One important aspect is the basic clarity on the need for collaboration.

Henton (in Susanti, 2016) proposes a model for evaluating collaboration using six aspects: (1) a representative, requiring various ideas from the community to achieve a discussion process; (2) deliberation, defined by a mutually respectful discussion among stakeholders that will result in the exchange of argument so that all arguments must be heard. Differences in point of views should be respected and understood to obtain the same understanding: (3) concrete ideas, is an approach to bring discussion into specific problem and the decision to solve the problem; (4) ideas taken seriously, this is where the involvement of the public must be ensured to be useful for the formulation of policies; (5) sustainable collaborative partnerships, which occurs when the process of collaboration can take place continuously in a formal forum established for consultation and decision making; (6) tied to implementation, this is where the outcome of the agreed decision can be implemented.

Several scopes above provide an answer to the definition of collaborative governance. The complexity of answers in general can explain that collaboration is a form of cooperation (O’Flynn and Wanna, 2008); thus, collaborative governance is the process and structure in public policy, involving actors constructively coming from different levels, both at the administrative level and/or agency public, private institutions, and civil society in order to achieve common public goals.

Why Collaborative Governance. The argument underlying the importance of collaborative governance is that governments face internal and external challenges in governance and public policy processes. Internally, the government will not be able to perform the optimal functions of the government if the government only relies on the ability of self-owned resources. A study by Goldsmith and Eggers (2004) shows that the government in overcoming public problems does not always have enough resources. Therefore, there is the need for the government to make cooperation among parties due to limited in order to implement the project plan and program activities. This internal situation is also exacerbated by the high level of sectoral ego which occurs in most of the public institutions. Thus, the
right solution to overcome the problem of structural and sectoral-egos is through collaboration (Killian, 2012).

Collaborative governance is needed due to the lack of synchronization and coordination in handling cases caused by weak of networking and cooperation among institutions (Gray, 1989). In Gray's perspective, collaboration is a union of appreciation, and/or material resources, such as information, money, labor, and other resources from two or more stakeholders which are considered to have capability to solve problems which cannot be handled by individual party. As a new breakthrough in the study of policy making, the concept of collaborative governance has been able to bring a progress to the policy making process which is different with mainstream approaches which are only understood as a technocratic problem. Instead, the collaborative governance is the result of interaction and dialogue among parties, influencing each other.

Externally, there is also the fact that the policy environment outside the government is constantly changing and dynamically shifting. The changes or shifts in the policy environment could be in the form of an increasingly widespread issues in the direction of abnormal, the form and the number of rising policy actors, the capacity of the actors outside the government, and the wider community’s responses or initiatives (Sudarmo, 2009). It is not an exaggeration if then O'Leary (2014) makes a collaborative governance as the most important choice for building a future public policy in a country.

Ansell and Gash (2007) assert that collaborative governance is ultimately the need of a government to formalize the involvement of the parties outside the government in a formal forum in order to achieve common goals through consensus and deliberative agreements in response to the failure of the downstream of policy implementation, to high costs, and to politicization of policy. Ansell and Gash (2007) explain that:

“A governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets”.

Challenges of Collaborative Governance. Although collaborative governance has the potential to produce a creative problem solving through consensus of the parties involved, and perhaps even to create public value and innovation. However, the collaborative governance process also has an opportunity to be hampered and the results of the collaborative governance also have the opportunity to not achieve the expected positive outcomes.

Ansell and Gash (2008) provide remarks about the possibility of the emergence of challenges in collaborative governance. They are the problem of time, trust, and interdependence. There is a remark that collaborative governance is a wasting time process because building consensus in particular issue will take time and can not be rushed. Collaborative governance may therefore not be a good strategy for every situation, which the government must make or implement a quick policy.

Regarding trust and interdependence, Ansell and Gash (2007) suggest that collaborative governance should consider the interactive effects of trust and interdependence. For example, in a high conflict situation, it shows low trust and it can then be organized collaboratively if the stakeholders are highly interdependent. Interdependence aspect leads to the desire to participate and develops a commitment to meaningful collaboration. Therefore, it is possible to build trust in high interdependence situations. Conversely, where the position of interdependence is weak, it will be difficult to effectively build trust. If one of stakeholders threatens to defect from the collaboration, then the commitment of all stakeholders may be changed, and this will make it difficult to develop a sense of ownership, understanding, or trust among parties/stakeholders.

Meanwhile, Plotnikof (2015) in the perspective of the role of public manager emphasizes the importance of communication and interaction of actors related to the implicit challenges in collaborative governance, namely social dynamics which is related to the ambiguity and complexity of membership, the tension of relationships among stakeholders, and the dominance of formal power structures. Social dynamics is considered as a major
challenge in collaborative governance. The ambiguity and complexity of membership is highlighted as an important element that challenges collaboration, because which groups should be involved and which are not involved, will never be a clear and simple entity. Thus, the accuracy of choosing collaborators and the consistency of the facilitation process from public managers are seen as a never-ending relational practice during the collaboration process.

In line with the risks of tension arising from social dynamics, power is also seen as an important challenge in collaborative governance. This means that the formal power structure in the hierarchy does not have to dominate, but it coincides with the power of the ongoing dynamics and social communication. Power in spite of having formal authority, resources, and discursive legitimacy, it can be a challenge if it does not dominate in defining roles, meanings, practices and outcomes of the collaboration.

Similar to Plotnikof (2015), the Government of Canada (in Sudarmo, 2009) explains that the potential for the hamper or collapse of collaboration is due to cultural, institutional, and political factors. Associated with cultural factors, collaboration can be failed due to cultural inclination dependence on procedures and not dare to take breakthroughs and risks. Thus, to create an effective collaboration, it requires public servants (especially leaders) to have the skills and willingness to enter into a pragmatically oriented partnership which is results-oriented.

In addition, collaboration on cultural factors can also be failed because it still retains top down by the government when collaborating with others. In other words, there is still dominance of the government, and this does not enforce the agreement based on the prerequisite of cooperation in egalitarian form of collaboration. Collaboration can also be failed if the participation of interest groups and other stakeholders is considered not as primary or not an important needed for collaboration so this will end up with the domination of only one party.

From institutional factors, collaboration may be failed due to the tendency of institutions involved in collaboration (especially actors in government) to apply hierarchical structures to other institutions involved in such cooperation or collaboration, such as the emphasis from the head of the region to the offices / agencies who are involved in the collaboration. In line with political factors, collaboration can also be failed because of the lack of innovation of leaders in achieving the complex and contradictory political goals. In addition, other factors that could lead to collaborative failure are changes in agreements, and differences of interests among stakeholders involved.

In collaborative governance, there can be a problem of power imbalance, where the decision-making process may be dominated by the most powerful actors concerning to their interests being addressed. Choi and Robertson (in Susanti, 2016) state that “a common concern about collaborative governance is that, the decision process may still be dominated by the most powerful actors and interests pertinent to the situation being addressed”. The problem of such imbalance leads to difficulties in decision making. To overcome this imbalance the key strategy is to develop effective collaborative governance through facilitating decision making among different stakeholders. Choi and Robertson (in Susanti, 2016) state that:

“As the size of the forum increase, however, participants are likely to face greater difficulty making collective decision. A key question for those interested in developing effective collaborative governance systems is how to facilitate decision-making dynamics among diverse stakeholders confronting complex problems”

Further, Choi and Robertson (2011) argue that consensus building process can help to balance the power among stakeholders. Through more resources, information, legitimacy, and/or prestige, it has enough to form a consensus-building process for stakeholders’ benefit. Choi and Robertson (in Susanti, 2016) explain that:

“The goal of achieving consensus among participants can help to balance their power, but those with more resources, information, legitimacy, and/or prestige have considerable capacity to shape the consensus-building process in a direction that favors their interests”
According to Ansell and Gash (2008), Plotnikof (2015), Government of Canada (2009), and Choi and Robertson (2011), there is an evident that although collaborative governance has the potential to produce creative problem solving with consensus building process from the parties involved as well as creating public value and innovation, this process has also the opportunity to be hampered and to not achieve the expected positive outcomes due to the challenges and/or obstacles.

Finding the Complexity of Challenges on Collaborative Governance. The important question related to the case in this paper is whether the challenges or impediments of collaborative governance in the government policy of Lampung Province concerns only aspects of time, trust, dependence, ambiguity, tension, and dominance of formal power structures as revealed by Ansell and Gash (2007) and Plotnikof (2015)? Apparently it is not. The dynamics of collaborative governance in the government policy of Lampung Province resulted in new other challenges or more complex obstacles which lead to three aspects: 1) the rationality of the substance or content of the policy, 2) the political preference or character of the actors, and 3) the emergence of free riders behind the policy.

Conceptually, so far there is no relationship between rationality or quality of policy content and the success of the collaboration process. The collaborative process model presented by Ansell and Gash (2008) with the emphasis on starting condition, institutional design, and facilitative leadership are proved to be highly managerial. The managerial approach is one aspect that makes the content of the policy content to be neglected. In practice, this aspect of policy content becomes one of the determinants of the collaboration process in the government policy on moving the capital government area. Thus, this becomes one of the challenges of collaborative governance that needs to be considered. The willingness of actors to collaborate and public support for policies are strongly influenced by their positive perceptions of content, substance, and rationality of policy objectives.

The story of the dynamics collaboration in the policy on moving the capital governmental city of Lampung Province shows that on of the aspect of background and policy objectives, efforts to move the capital government area of Lampung Province are perceived by the public as a very rational policy. As the capital of provincial government, Bandar Lampung City faces the limited ability to provide maximum public services due to constrained by the condition of government offices where the city is not conducive due to various problems and urban pressure, lack of land to increase or improve government facilities, and there is integrated government office area. For this reason, the policy on moving the capital government area is rational, as well as the assumption where problem on urban issues will increase in the future.

The question is then how is the relationship between rational policy and the challenge of the collaboration process? One of the factors which support the willingness of actors to collaborate is the understanding and agreement on the substance of the policy to be collaborated. The purpose of moving the capital governmental city of Lampung Province is considered as a practical step taken by the government in order to anticipate the urban problem of Bandar Lampung which is predicted to be more acute.

On the other hand, one of the most important debates during the collaboration process in planning is precisely on the content of the policy which is the legal status of a new city as a new place for the capital government which relates to the status of the City Government of Bandar Lampung and the status of the Regency of South Lampung administratively. The problem of administrative status is different from the substantive status directed to the new city as an independent city which is defined by Soegijoko (2005) where it is a city economically and socially which has been able to fulfill its own needs, or at least most of its population, and geographically located in its own territory is quite far from the existing city, and physically separated by non-settlement areas such as agriculture, forest, green lanes or other non-urban areas with a distance of approximately 80 kilometers. While Golany in Soegijoko (2005) states that a new city is a city planned, established and then developed completely over an entirely new territory after a city or other city has grown and developed first.
In addition to the administrative issue, the interesting debate is about the placement of the location with the assumption that the new capital government area of Lampung Province is planned to be an independent city. Based on various theories, the new self-contained city placement must be at least + 80 km from the nearest city at the moment. The distance location of the capital government area with the City of Bandar Lampung is currently no more than 25 km. This debate is one of the most frequent reminded by IAP of Lampung Area during the process of collaboration. The administrative and technical policy debates above do not last long, but these substantive issues of administrative and technical eligibility are very dynamic to be debated in the collaborative process, especially at the planning stage.

Moreover, the claim of success of the collaboration process in the policy on moving the capital government city of Lampung Province actually does not necessarily depict reality in the field. The point is that there is a hidden goal or agenda that most interested actors of the collaboration want to achieve. Actors, who are from the outset, have their own argumentation or self-interest using this means of cooperation to realize their hidden agenda. In this context, collaboration in policy is only an instrument used to work out in order to achieve covered purposes.

In this case, the issue of the policy on moving the capital governmental city of Lampung Province - with the support of mutual recognition that the policy is very rational - is the instrument to influence many parties or to make the issue of the policy on moving the capital city of the Lampung Province as a 'magnet' that can be an attraction to cover the hidden economic interests. On the other hand, there is a disensus where there are some provisions that are not adhered by the collaborators. The reason is because they feel that the provisions are detrimental to their side so that performing opportunistic actions contradict to the agreed consensus.

The empirical illustration of collaboration in sense of the policy on moving the capital city of the Provincial Government of Lampung leads to the understanding that collaboration is considered to be a place to achieve economic interests so that the collaborators have mutual agreement to act. The evidence of mindsets of some collaborators for only economic-oriented can be a foundation for them to cooperate.

Empirical findings in the field can then be interpreted as a logical consequence arising from the mindset that only focuses on how to get the goal (instrumental rationality) and not on what should be done. The cooperation of various actors as well as diverse of interests and motivations may be interpreted as absurd or a simple of mandatory from the embodiment of law or government regulation at the central level\(^4\), but this is possible if there is a common goal rooted in material-economic interests (Crai b, 1986) .

There are four categories of interests (political, economic, technical, and administrative), but in fact, the economic interest or economic-oriented remains a self-interest wrapped by the appearance of technical and administrative motives. For political motive, of course, the end of this motive is economic benefits. The fact is that this situation occurs in the dynamics of collaboration policy on moving the capital governmental city of Lampung Province.

In essence, all parties included in the collaboration forum (even parties outside the forum) in the policy on moving the capital governmental city of Lampung Province have different agenda, motivation, or interests. But, what can be drawn is that they want to achive the same benefit which is the economic benefit. This economic benefit will not be obtained if they neglect the attitude of egoism and sentiment. So the most rational action to take is to collaborate. Thus, collaboration has charateristic to lock and bind each party to gain benefits.

The assumptions of the motive of economic benefit that they will gain then override the sentiments and antagonisms among the actors. Consequently, they turn into mutual collaboration. In other words, mutual collaboration among stakeholders is intended to jointly enjoy the assumption of economic benefits. The risk, however, is that collaboration is not

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\(^4\) Some examples of multi-actor cooperation forums as mandatory manifestations, such as the Road Traffic and Transport Forum (established as mandate of Law No. 22 of 1999 on Road Traffic and Transportation) and the Watershed Management Coordination Forum (as mandated by Law No. 41 of 1999 About Forestry).
necessarily based on the willingness or the consciousness of collaborators to be active as part of the awareness of that collaborative governance is an approach to promote government flexibility and as recognition of that public issues are a common affair. Rather, underlying motive is rationality or reason where they will gain the economic benefits.

The story of how each actor uses rationality to gain economic advantage by exploiting the opportunity structure in collaboration leads to what is called the logic of rational choice. The logic of rational choice is a frame of mind that essentially emphasizes on that everything must be measured by efficiency, productivity, fluency, mathematical certainty, as well as profit and loss calculations. It means that rational individuals will always choose the best alternative from the various available alternatives. If in the case that through ostensibly act of collaboration, their interests will be gained greater rather than fighting with or opposing other actors, so the choice of the collaboration is best chosen (Green and Shapiro, 1994).

In addition to the agreement and understanding of the policy objectives, other factors that encourage collaboration are incentives. Incentives are deliberately given as an effort to encourage the emergence of participation. Incentives can be in the direct form such as money or goods and also incentives in the form of prestige, pride, and other psychological aspects. In addition to incentives, the assumption of the benefits that collaborators can gain is also an important factor to drive to the continuity of the collaborative process. In this perspective, collaboration is assumed as a way for achieving interests and therefore collaboration is the best choice rather than to compete. The illustration of consensus and economic rationality above in the case of collaborative policy of the government of Lampung Province confirms the truth of the assumption.

Is the motive or interest in the pursuit of the benefits from collaboration prohibited? Certainly, it is not. However, the aspect that needs to receive more attention beside the belief that the interests of collaborators are not mutually negotiable is the equitable distribution of benefits among parties. It should be assured that the benefits gained by collaborators during the process and the outcomes of the collaboration are equally shared. The role of the leader in the ongoing collaborative process is important in order to convince every collaborator in the sense that joint consensus will be linear with mutual benefits as well. Thus, the shared benefit will further strengthen the aspect of trust.

From Olson's (2012) view, incentives are given to those who are willing to realize collective goals or the public interest. This incentive can be used to deviate the benefits of actors which are outside collaborators. In Olson's perspective, they are referred to as free riders who only enjoy the results but do not get additional incentives as a consequence of willingness to realize the collective goals. The more extreme maximizing behavior of free rider phenomenon is when they essentially seek free opportunities internally and externally. Simply, this situation can be likened to the person who is trying to get to the destination without buying a ticket: they enjoy results without working hard.

In this case, this free rider behavior is not a moral issue and it is not prohibited because in the perspective of organizational behavior, it is normal due to the availability of the opportunity to do so. What needs to be considered, however, is not to disrupt the consensus and thwart the collaboration. Olson (2012) adds that free riders do not only appear from the outside, but also emerge from their own collaborators. Collaborators anticipate incentives obediently and abide by the applicable procedures. However, the goals set forth in the collaboration have never been their main concern.

In the empirical explanation of the policy on moving the capital governmental city of Lampung Province, the collaboration is in place due to the understanding of the goals, although there are also economic interests which seems to be hidden. When collaborators cooperate, at the same time, they are also doing tactics by doing dissensus on provisions they deem harming. The practice of free riding, therefore, is not only demonstrated by actors outside the formal forum, but property companies and village heads who do the business of land plots, as well as illegal farmers, collaborators using dissensus to maximize their benefits which they can receive.
CONCLUSION

The collaborative governance is actually an ideal approach with a series of formal procedures. Its proponents believe that collaborative governance potentially leads to creative problem solving with consensus from stakeholders and perhaps even also creating public value and innovation. Various collaborative governance challenges are related to time duration, trust, interdependence, ambiguity and complexity of membership, tension of relationships among collaborators, and the dominance of formal power structures which have been understood as factors that could hinder the collaborative governance process.

However, in the Indonesian governance today, the public policy is dominated by perceptions of the interests of individual holders of power; these challenges seem very managerial and procedural. The formal procedure tends to ignore the political dimension, which does not consider the effect of rationality on the content of the policy, undermines the preference of the political economic character of the actors, and denies the risk of free riders who have greater incentives or benefits than the parties involved in the collaboration. The dynamics of collaborative governance in the government policy of moving the capital governmental city of Lampung Province raises challenges or other more complex obstacles.

Therefore, in the perspective of collaborative governance practices in the local government through awareness of the traditional culture of the government where the perception of individual interests of the regional head (especially different political backgrounds) is more dominant than the rationality of the policy. Thus, there seem to be many steep roads to manifest the ideal of collaborative governance in Indonesia.

REFERENCES

THE INFLUENCE OF REGIONAL DEVELOPMENT FUNDING RESOURCES ON REGIONAL ECONOMIC GROWTH IN THE REGENCY OF LANNY JAYA IN PAPUA

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ABSTRACT
The objective of this research is to analyze and measure the influence of development funding resource on economic growth in primary, secondary and tertiary sectors in the regency of Lanny Jaya. This study uses descriptive analysis and multiple linear regression analysis. The results of this study show that the influence of development funding resource on the economic growth of primary sector in the regency of Lanny is as follows: simultaneously does not have any influence; partially, from the four funding resources, only general allocation fund influences the economic growth of primary sector in the regency of Lanny Jaya; this indicates that the government of Lanny Jaya do not contribute much and their effort in managing business in primary sector such as agriculture, plantation, fishery, and mining, is not optimal, so they still do the business independently and traditionally.

KEYWORD:
Developmental, funds, economic growth, regency, business.

General definition widely used to refer regional development planning has been presented by experts (e.g. (Raharjo Adisamita, 2010; Poemomosidi Hadjiaroso, 2001; and Robinson Tarigan, 2010). In general, they stated that regional development planning is a series of planning materialized into policies in various sectors aimed at increasing people’s living standard, improving work opportunity, enhancing economic growth, creating equitable development, and sectoring shifts of economic activity processes from primary to secondary and tertiary sector.

In its application, development is not only conducted by developing countries; developed countries also do the same. However, significant differences are present in the development carried out in both groups because problems in both groups are different. The problem in developing countries is that they are still trying to make their people able to survive. If this problem is settled, the next thing is building economic foundation in order to compete in national market. The problem of developed countries is sustainable expansion to support its well-established economy in order to reach welfare desired by all of their people.

Lanny Jaya is regency separated from Jayawijaya regency in 2008 located in the mountainous area of Papua province. As new regency, Lanny Jaya is still poor in facilities. Its geographical location that is far from provincial government, not to mention from national government, makes this regency is only accessible using small airplanes. This makes the economy of this region is very far behind older regions. Therefore, cost in this regency is very high, making its all economic subsectors unproductive, which leads to difficulties in increasing its people’s income and reducing the number of poor people.

This phenomenon is an irony since this regency is rich with natural resource potentials. Although a small part of its people has enjoyed its natural richness, quite high income, and luxurious life, the bigger portion of its population still live under the poverty standard. This shows an inequitable economic condition. The gap between the rich and the poor in this regency is still high.

The natural process above can be achieved if the existing development assumptions; participation in full potential usage, equal personal capability, and rational conduct of all actors, are fulfilled. However, those assumptions are frequently not facilitated in the existing natural process, leading to new problems in development, e.g. unemployment, poverty, and inequitable development that causes social gap in the society.
Funding resources of development have been received by regional governments after the autonomic regime; they are own source revenue (PAD), general allocation fund (DAU), special allocation fund (DAK), and revenue sharing fund (DBH). PAD is a funding resource that reflects the capability of a region in financing the development in its area. This means that higher capability of regional government in financing its development will improve the ability of the region to finance its developmental expenditures. DAU, DAK, and DBH are transferred funds from the central government to local government, the balancing fund between central and local government in autonomic era.

Research Objective:
- to analyze and measure the influence of development funding resources on the economic growth of primary sector in the regency of Lanny Jaya,
- to analyze and measure the influence of development funding resources on the economic growth of secondary sector in the regency of Lanny Jaya,
- to analyze and measure the influence of development funding resources on the economic growth of tertiary sector in the regency of Lanny Jaya.

LITERATURE REVIEW

Growth Theory. In understanding economic growth theory, the grand theory of this study is endogenous growth of Robert Solow and Dernburg Thomas, which will be enriched with various theories from other experts.

In his book, Dernburg Thomas (2005) mentioned that Robert Solow had developed his theory about endogenous economic growth in the late 1982 and early 1990. This theory is centered on accumulation of capital and its relation with saving. This analysis starts by an assumption that technological process does not occur in economic growth process. Therefore, the economy will reach long-term level from output and capital, which is commonly called as the steady state.

The state occurs in a condition where combination between per capita Gross Domestic Product (GDP) and per capita capital makes the economy remains in that position.

Concept of Development Based on Sector. This study refers to the definition that economic development is a continuous process toward changes in various sectors to increase per capita income, and the per capita increase must sustain for a long term accompanied with improvement in institution system in economy, social, politics, law, and culture. The definition of sectoral growth is elaborated in several books (i.e. Ahmad Sujana 2015, Raharjo Adisasmita, 2001, 2007; Budiono, 1999; Suwanno, 2006), suggesting that sectoral growth is changes in various sector to a better condition. Thus, growth is frequently used as an indicator of development in certain region or area. Suwanno (2006) and Raharjo Adisasmita (2001) stated that the development process in those sectors is divided into three groups as follows:

1. Primary sector is a sector that does not process raw material. Instead, it utilizes natural resource potentials such as soil and anything contained in it. This sector consists of agriculture, plantation, fishery, forestry, and mining, as well as other sectors that use natural resources.
2. Secondary sector is a sector that processes raw material either from primary or secondary business field into other goods with higher value. This sector consists of manufacturing industry, electricity, gas and water, waste, recycling, and construction.
3. Tertiary sector is a sector whose production is not in physical form but service instead. This sector consists of trade, car and motorcycle repairmen, transportation, warehousing, accommodation and catering, information and communication, finance and insurance, real estate, company service, governmental administration service, education service, health and social service, etc.

Similar to the definition according to the government of the regency of Lanny Jaya (BPPD Lanny Jaya, 2014), the sectors are defined and divided as follows.

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4. Primary sector is a business field that does not process raw material. Instead, it utilizes natural resource potentials such as soil and anything contained in it. This business field consists of agriculture, plantation, fishery, forestry, and mining.

5. Secondary sector is a business field that processes raw material either from primary or secondary business field into other goods with higher value. This business field consists of manufacturing industry, electricity, gas and water, waste, recycling, and construction.

6. Tertiary sector is a business field whose production is not in physical form but service instead. This business field consists of trade, car and motorcycle repairmen, transportation, warehousing, accommodation and catering, information and communication, finance and insurance, real estate, company service, governmental administration service, education service, health and social service, etc.

**Concept of Development Funding Resource Usage.** Laws regarding local autonomy and laws regarding special autonomy for Papua (Republik Indonesia, 2001) make the fund transfer system from the central government to Papua change significantly, since they enable regional governments to have the authority to exploit the potential of their regions to improve their financial capability.

According to Law number 25 of 2004, there are three fund transfers, or balancing funds; they are 1. Revenue Sharing Fund (DBH), General allocation fund (DAU), and Special allocation fund (DAK).

Other than those three types of balancing fund, another transfer is stipulated in Laws number 21 of 2001, which is Special Autonomy Fund. The law is expected to accelerate economic growth in sub national regions, especially those with good economic potentials. However, less potential regions can still develop themselves using balancing fund in forms of general allocation fund (DAU) and special allocation fund (DAK).

All parties involved in the formulation of Law number 21 of 2001 and number 25 of 2004 expected that the regulation will help all regions with high natural resource yet low in economy catch up their lag (Abigael Sundoyo, 2006).

Similar thoughts were also presented by Tri Sungkono (2010), who mentioned that the balancing funds (DBH, DAU, and DAK), together with own-source revenue (PAD), are beneficial as new strengths for a region, especially those that are still left behind, to develop their regions and to catch up their lag.

**Concept of Relationship between Central Finance and Regional Finance.** The constitution of Indonesia has mandated an extensive autonomy in the frame of the Unitary State of the Republic of Indonesia. Therefore, a fair and harmonious arrangement regarding financial relation, public service, the use of natural resource and other resources between central government and local government is needed. The arrangement will support the implementation of regional autonomy through the provision of funding resources based on the authority of central government, decentralization, deconcentration, and assistance task. Fiscal balance between central and local government is in form of financial system arranged based on a clear division of authority, task, responsibility among governmental levels.

The interaction between central and local government is carried out according to fiscal balance principle as stipulated in Law number 33 of 2004. The fiscal balance between central and local government is a fair, proportional, democratic, transparent, and efficient system of fiscal division. It is conducted to establish funding for decentralization implementation by considering the potential, condition, and the need of regions, as well as the amount of funding for deconcentration and assistance task.

Fiscal balance between central and local government is a state’s financial subsystem as a consequence of task division between the two. The balance is a part of an inseparable arrangement of the state’s financial system, which is meant to regulate funding system over government’s authority that is handed to, delegated to, and assisted by local governments. The distribution of the state’s financial resource to local governments is to implement decentralization based on task delegation from central government to local government by
considering the stability of national economic condition and fiscal balance between central and local government.

The fiscal relationship between central and local government for regional autonomy is established by giving freedom to local governments to carry out governmental tasks. Regulation number 33 of 2004 has set financing foundation of local governments as follows. According to paragraph 4, the accomplishment of local governments’ task regarding the implementation of decentralization is financed using the national budget (APBN).

The accomplishment of governmental tasks carried out by governors regarding the implementation of deconcentration is financed using the national budget. The Effectuation of governmental tasks carried out by governors regarding assistance task is financed using the national budget. The delegation of authority regarding the implementation of deconcentration and/or task assignment regarding the accomplishment of assistance task from central to local government is accompanied with fund transfer, which amount is based on the load of the authority delegated to and/or the tasks requested to be accomplished by the local government.

The acceptance of local government in establishing decentralization consists of local revenue and financing. Yani Ahmad (2006) mentioned in his book that local income sources have their own objectives as follows:

1. Own-source revenue (PAD) aims to provide authority to local government to finance the regional autonomy according to the potentials of the regions as the realization of decentralization.
2. Balancing fund (DBH, DAU, and DAK) aims to reduce fiscal gap between central and local government and among local governments.
3. Other revenues that enable local government to receive revenues, other than those from own-source revenue, balancing fund, and local government loan.

The sources of funding are:
1. Local budget surplus
2. Local government loan
3. Local government’s reserve fund
4. Result of separated sales of local asset

Own-source revenue (PAD) comes from local tax, local retribution, result of separated management of local asset, and other legal own-source revenue and aims to provide freedom to local governments to find and use resources to finance regional autonomy as the materialization of decentralization principle. The revenue is acquired by local government, levied based on local government regulation according to provisions of laws, and used for public interest.

**Concept of Gross Regional Domestic Product (GRDP).** In carrying out economic planning, states or regions certainly need various statistical data to determine the strategies and policies, so development targets can be met. This confirms the opinion of Djjoyohadikusumo S (1999), who stated that the strategies and policies of economic development taken in previous times must be monitored and evaluated, so quantitative description about the condition in the past and present, as well as targets to be achieved in the future, could be measured clearly and definitively.

Djjoyohadikusumo S (1999) also stated that, in its essence, economic development is a series of sectors and policies aiming at increasing people’s living standard, expanding employment, equalizing people’s income, increasing regional economic relationship, and sectoring shifts of economic activities from primary to secondary and tertiary sectors. In other words, the direction of economic development is sectoring so that people’s income increases significantly and is distributed equitably.

Raharjo Adisamita (1996), in his book about practical guidelines for calculating Gross Regional Domestic Product (GRDP) of regencies and cities, explained that the three approaches that can be used to calculate national or regional income are:
1. Production Approach,
2. Income Approach, and
3. Expenditure Approach.
Concept about Local Revenue. The concept of own-source revenue can be interpreted as local revenue that depends on the general economic condition and potential of the income source of a particular region. This is supported by Soekarwo (2003), who asserted that own-source revenue (PAD) is revenue that reflects the ability of a region to compile funding resources to finance the activity of concerned region. Therefore, it can be concluded that own-source revenue is regular revenue from sectors of local government in using various financial source potentials to finance the government’s tasks and responsibilities.

According to paragraph 6 of Law number 32 of 2004, own-source revenue comes from:
1. Local tax,
2. Local retribution,
3. Sectorization of local assets and separated result of local resource management,
4. Acceptance from service and other legal local income.

Mardiasmo (2000) defined local tax as tax levied by local government based on the tax regulation set by the local government to finance the activity of the region. According to Law number 34 of 2000 regarding local tax, tax is a routine contribution from individuals or organizations to local government not followed by equal direct compensations enforced based on applicable legal provisions used to finance local government and local development.

There are boundaries regarding tax presented by experts. However, the principle is similar in that tax is a payment that can be forced from citizens to the government without from which directly appointed compensation is provided (Suparmoko M, 2006). Based on the definitions above, it can be concluded that elements of tax are:
1. Public payment to government,
2. Based on laws,
3. Not followed by direct compensation,
4. Used for financing government’s expenditures.

RESEARCH FRAME AND HYPOTHESIS

Hypothesis:
1a. There is a simultaneous influence of development funding resources (PAD, DBH, DAU, and DAK) on the economic growth of primary sector.
1b. There is a partial influence of development funding resource (PAD, DBH, DAU, and DAK) on the economic growth of primary sector.

2a. There is a simultaneous influence of development funding resources (PAD, DBH, DAU, and DAK) on the economic growth of secondary sector.

2b. There is a partial influence of development funding resource (PAD, DBH, DAU, and DAK) on the economic growth of secondary sector.

3a. There is a simultaneous influence of development funding resources (PAD, DBH, DAU, and DAK) on the economic growth of tertiary sector.

3b. There is a partial influence of development funding resource (PAD, DBH, DAU, and DAK) on the economic growth of tertiary sector.

METHODS OF RESEARCH

The location of this study is the regency of Lanny Jaya, based on the consideration that this regency was established not long time ago, so the researcher is interested to see the influence of development funding resources on the economic growth of all sectors.

This research uses descriptive analysis and multiple linear regression analysis. In its analysis, sectoral GRDP is treated as the dependent variable, and development funding resources are treated as the independent variables. The sectoral GRDP used in this study is divided into three; primary, secondary, and tertiary. Thus, there will be three stages of multiple regression model of:

\[ Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon, \]

Where: \( Y_i \) = Amount of GRDP of each sector (primary, secondary, and tertiary); \( X_1 \) = Own-source revenue (PAD); \( X_2 \) = Revenue Sharing Fund (DBH); \( X_3 \) = General Allocation Fund (DAU); \( X_4 \) = Special Allocation Fund (DAK); \( \epsilon \) = Error.
Analysis on the Influence of Development Funding Resources (PAD, DBH, DAU, and DAK) on the Economy of Primary Sector. To identify the simultaneous influence of PAD, DBH, DAU, and DAK on the GRDP of primary sector in the regency of Lanny Jaya and to determine funding resource that has a dominant influence on the economy of primary sector in the regency, a model should be selected first. The objectives of this selection are to calculate the simultaneous influence of independent variables (PAD, DBH, DAU, and DAK) and to determine independent variable that has a dominant influence on the dependent variable, which, in this case, is the GRDP of primary sector in Lanny Jaya. Therefore, the first step is including all independent variables in the regression model, and the model is analyzed.

To identify the variable, of PAD, DBH, DAU, and DAK, that has the strongest influence on GRDP, this study uses Backward Elimination Method in selecting the model. The purpose of this step is to determine variables significant in influencing the economy of primary sector. Variables that are insignificant based on the first step of multiple linear regression, which can be determined from the obtained regression coefficient, will be excluded from the model, so the best model to identify variable with the strongest influence is obtained.

Therefore, it can be said that the result of Backward Elimination Method can be used to identify two issues; they are:
1. the simultaneous influence of the four funding resources on the Gross Regional Domestic Product (GRDP) of all sectors (primary, secondary, and tertiary sector) in the regency of Lanny Jaya in the period of 2008-2015, and
2. The variable that has the strongest influence on the Gross Regional Domestic Product (GRDP) of all sectors (primary, secondary, and tertiary) in the regency of Lanny Jaya in the period of 2008-2015.

Two answer the two aforementioned enquiries, four steps of multiple linear regression analysis is conducted using SPSS. The result is as follows.

Table 1 – Result of F test and t test for primary sector

<table>
<thead>
<tr>
<th>Model</th>
<th>Goodness of Fit test</th>
<th>Funding Resources</th>
<th>Coefficients</th>
<th>Partial test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
<td>(Constant)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4.148</td>
<td>0.136</td>
<td>422.972</td>
<td>1.384</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-0.245</td>
<td>0.056</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-1.672</td>
<td>-0.176</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.531</td>
<td>1.766</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.234</td>
<td>0.089</td>
</tr>
<tr>
<td>2</td>
<td>7.364</td>
<td>0.042</td>
<td>424.398</td>
<td>1.608</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-1.856</td>
<td>-0.241</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-1.530</td>
<td>2.037</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.234</td>
<td>0.112</td>
</tr>
<tr>
<td>3</td>
<td>13.757</td>
<td>0.009</td>
<td>440.569</td>
<td>2.224</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-2.124</td>
<td>-0.324</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.559</td>
<td>2.470</td>
</tr>
<tr>
<td>4</td>
<td>32.215</td>
<td>0.001</td>
<td>383.471</td>
<td>4.608</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.373</td>
<td>5.676</td>
</tr>
</tbody>
</table>

Result: Data processing in SPSS 13.

- First Step:

Because the objective of this step is to determine how development funding resource simultaneously influences the GRDP of primary sector, the four funding resources are included in the model. The regression model is as follows.

\[ Y_{1.1} = 422.972 - 0.245 \text{PAD} - 1.672 \text{DBH} + 1.531 \text{DAU} + 0.234 \text{DAK} \]

Using the equation above, the obtained constant value is 0.41, which informs that in the absence of development funding resource from PAD, DBH, DAU, and DAK, the GRDP of primary sector is still in the position of 422.972, or IDR 422,972,000,000. To determine
whether the model is appropriate for forecasting the GRDP of primary sector, Goodness od Fit test should be conducted. This test uses F test with hypothesis formulation as follows.

Ho: development funding resources (PAD, DBH, DAU, and DAK) do not influence the economy of primary sector.
Ha: there is, at least, one development funding resource (among PAD, DBH, DAU, and DAK) that influences the economy of primary sector.

Based on the SPSS output in the table above, the F value is 4.148 with the model significance value of 0.136. Therefore, this value is greater than the significance level in use (α = 5 %), so the null hypothesis is accepted.

The conclusion from the explanation is that the four variables of development funding resources do not influence the economy of primary sector. Thus, the next model needs to be found by excluding independent variable that has the least significance to the model. The most insignificant variable is identified by conducting parameter test partially. The test that is conducted is t test with the hypothesis formulation as follows:

\[
\begin{align*}
H_0: \beta_i &= 0 \\
Ha: \beta_i &= 0
\end{align*}
\]

The result of parameter test conducted partially suggest that the significant value of all development funding resource variables is greater than the predetermined significance level (α= 5 %). Therefore, it can be concluded that there is no relationship between development funding resource and the economy of primary sector, so one independent variable with the highest significance, which is PAD with the significance level of 0.959 (see table above), needs to be excluded.

- Second step:
  In this second step, analysis is performed by including three development finding resource variables; they are DBH, DAU, and DAK. PAD is excluded from the model because it has the highest significance level (0.959) in the t test above.
  The regression model using three development funding resource variables is as follows:

\[
Y_{1.2} = 424.398 - 1.856 \text{DBH} + 1.530 \text{DAU} + 0.234 \text{DAK}
\]

Based on the F test in the table above, the model produces F value of 7.364 at the significance level of 0.042. Because this value is greater than the predetermined significance level (two-way test α/2= 2.5 %), null hypothesis is accepted, which means that model with three development funding resource variables is not significant.

The least significant variable in this second step is DAK, marked by significance value of 0.916 in t test, so third step is needed, which is by excluding DAK from the model.

- Third Step:
  The third step is a regression model using two development funding resource variables; they are DBH and DAU, since DAK is excluded from the model because of its insignificance. This third model is written mathematically as follows.

\[
Y_{13} = 440.569 - 2.124 \text{DBH} + 1.559 \text{DAU}
\]

This model results in the statistic F value of 13.757 with the significance value of 0.009, which means that null hypothesis is rejected, or there is a parameter of development funding resource that does not equal to zero (sig<0). In other words, development funding resources, i.e. DBH and DAU, simultaneously influence the economy of primary sector in the regency of Lanny Jaya.

In addition, to identify which variable, between DBH and DAU, that is most significant in influencing the economy of primary sector in the regency of Lanny Jaya, partial-wise parameter test (t test) is conducted. Based on the t test result, DBH is not significant, so this variable is excluded from the model.
- Fourth Step:
This model is the final step and produces the strongest variable that influences the economy of primary sector in the regency of Lanny Jaya.

Using Backward Elimination Method and DAU as the variable that influences the economy of primary sector, this model produces coefficient of determination (R²) of 0.843. This coefficient of determination value can explain variations of primary sector GRDP at 84.3%. The remaining 15.7% is influenced other variables not included in this fourth model, e.g. DBH, DAK, and PAD. The fourth model can be written mathematically as follows:

\[ Y_{14} = 383.471 + 1.373 \text{DAU} \]

By observing the regression equation above, two information can be obtained; they are:

1. The constant value of 383.471 in the model above suggests that, if general allocation fund equals to zero (not available), the Gross Regional Domestic Product (GRDP) of primary sector in the regency of Lanny Jaya is only IDR 383,471,000,000.

2. The coefficient value of 1.373 in the model above indicates that, if the value of General Allocation Fund (DAU) increases for IDR 1,000,000,000 (one billion rupiahs), the economy in primary sector will increase for IDR 1,373,000,000.

Based on the analysis on the influence of development funding resources on the economy of primary sector, it can be concluded that, of four funding resources that are analyzed, i.e. PAD, DBH, DAU, and DAK, in the regency of Lanny Jaya, only DAU that influences the economy in primary sector. This is possible because, of four existing funding resources, DAU is indeed the biggest. The magnitude of influence from General Allocation Fund (DAU) in the economy of Lanny Jaya indicates that the dependency of this regency on central government is still very high.

Analysis on the Influence of Development Funding Resources (PAD, DBH, DAU, and DAK) on the Economy of Secondary Sector. Similar to the analysis process of primary sector that has previously been conducted, to identify the simultaneous influence of PAD, DBH, DAU, and DAK on the GRDP of secondary sector in the regency of Lanny Jaya and to determine funding resource that has a dominant influence on the economy of secondary sector in the regency, a model should be selected first. The objectives of this selection are to calculate the simultaneous influence of independent variables (PAD, DBH, DAU, and DAK) and to determine independent variable that has a dominant influence on the dependent variable, which, in this case, is secondary sector.

Three-step regression analysis model using SPSS is conducted, from which the result is as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Goodness of Fit test</th>
<th>Funding Resources</th>
<th>Coefficients</th>
<th>Partial Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
<td></td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>33.595</td>
<td>0.08</td>
<td>(Constant)</td>
<td>-0.421</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PAD</td>
<td>0.174</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DBH</td>
<td>-0.443</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>0.395</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>0.707</td>
</tr>
<tr>
<td>2</td>
<td>56.738</td>
<td>0.001</td>
<td>(Constant)</td>
<td>-1.434</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DBH</td>
<td>-1.313</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>0.396</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>0.707</td>
</tr>
<tr>
<td>3</td>
<td>102.369</td>
<td>0.000</td>
<td>(Constant)</td>
<td>-10.848</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>0.368</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>0.721</td>
</tr>
</tbody>
</table>

Data processing in SPSS 13.

- First Step:
Because the objective of this regression analysis step is to determine how development funding resource simultaneously influences the GRDP of primary sector, the four funding resources (PAD, DBH, DAU, and DAK) are included in the model. Therefore, the developed regression model is appropriate with the output of the table above. The result of F test and t test for secondary sector is as follows:

\[
Y2.1 = -0.421 + 0.174 \text{PAD} - 0.443 \text{DBH} + 0.395 \text{DAU} + 0.707 \text{DAK}
\]

Through the equation above, the constant is minus 0.41, which informs that in the absence of development funding resource from PAD, DBH, DAU, and DAK, the GRDP of secondary sector in Lanny Jaya will be in negative position (-0.421), or minus IDR 421,000,000,000.

Based on the goodness of fit test above, the significance value is 0.008. This value is smaller than the predetermined significance level, so it can be concluded that, in this model, development funding resource from PAD, DBH, DAU, and DAK simultaneously influence the GRDP of secondary sector in the regency of Lanny Jaya. However, after a partial-wise parameter test (t test) is conducted (see Table 5.13 above), PAD and DBH are not significant because the sig values of their partial test are, respectively, 0.721 and 0.676, which is greater than their t values, which are, respectively, 0.393 and -0.462. However, DAU and DAK are significant because the values of their partial test are, respectively, 0.021 and 0.077, which is smaller than their t values, which are, respectively, 4.497 and 2.626.

Of the two insignificant variables, PAD is the least significant because it has the highest significance value, which is 0.721. Therefore, PAD must be excluded from the model of the next step.

- Second Step:
  After excluding Own-Source Revenue (PAD) variable from the model, the regression equation in this second step becomes as follows:

\[
Y2.2 = -1.434 - 0.313 \text{DBH} + 0.396 \text{DAU} + 0.692 \text{DAK}
\]

Through the second step regression equation above, the constant is negative, i.e. -1.434, which informs that in the absence of development funding resource from DBH, DAU, and DAK, the GRDP in the regency of Lanny Jaya in secondary sector will be in negative position (-1.434), or minus IDR 1,434,000,000.

Referring to the result of goodness of fit test in the table above, the obtained significance value is 0.001. this value is smaller than the predetermined significance level (α= 5%). Therefore, it can be concluded that, in this model, development funding resource from DBH, DAU, and DAK simultaneously influence the GRDP of secondary sector in the regency of Lanny Jaya.

However, after a partial-wise parameter test (t test) is conducted, DBH is not significant because the sig value of its partial test is 0.716, which is greater than its t value, which is -0.391. However, DAU and DAK are significant because the values of their partial test are, respectively, 0.007 and 0.042, which are smaller than their t values (respectively 5.077 and 2.947).

Because Revenue Sharing Fund (DBH) variable is not significant, it must be excluded from the next step model.

- Third Step:
  After excluding Revenue Sharing Fund (DBH) variable from the model, the regression equation in this third step can be mathematically written as follows.

\[
Y2.3 = -10.848 - 0.368 \text{DAU} + 0.721 \text{DAK}
\]

Based on the third step regression equation above, the constant is negative, i.e. -10.848, which informs that in the absence of development funding resource from DAU, and
DAK, the GRDP in the regency of Lanny Jaya in secondary sector will be in negative position (-10.848), or minus IDR 10,848,000,000.

This third step regression model is the best model, which is using independent variable of DAU and DAK in the model.

Based on the goodness of fit test (F test) and partial-wise parameter test (t test) above, it is identified that DAU and DAK variables simultaneously and partially influence the GRDP of secondary sector in the regency of Lanny Jaya.

However, because the significance level on the constant value in the third model is not significant, marked by the sig value of = 0.404 > α = 5%, the best model is the model that does not include constant in the equation model.

After conducting data reprocessing to obtain the best model without constant, the following result is obtained.

Table 3 – Result of F Test and t Test for Secondary Sector without Constant

<table>
<thead>
<tr>
<th>Model</th>
<th>Goodness of Fit test</th>
<th>R-sqr</th>
<th>Funding resource</th>
<th>Coefficients</th>
<th>Partial test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
<td></td>
<td></td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>33.595</td>
<td>0.08</td>
<td>0.997</td>
<td>DAU</td>
<td>0.353</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>0.609</td>
</tr>
</tbody>
</table>

Based on the table above, the best regression model equation is obtained, which can be written mathematically as follows:

\[ Y2.3 = 0.353 \text{ DAU} + 0.609 \text{ DAK} \]

By analyzing the table above, it is identified that the simultaneous influence of DAU and DAK is 99.7%, and the remaining 0.3% is influenced by other factors not included in this model. After the assessment using goodness of fit test, it is identified that the value of F is 33.595 at the significance level of 0.08, which means that a simultaneous increase of development funding from DAU and DAK of IDR 1,000,000,000, the GRDP of secondary sector in Lanny Jaya will increase for IDR 33,595,000,000.

The result of partial analysis shows that the influences of DAU and DAK on the GRDP of secondary sector are 35.3% for DAU and 60.9% for DAK, and the remaining 0.38% is influenced by other factors not included in this model. Through the partial test in table 5.14 above, it is identified that the t value for DAU variable is 15.709 at the sig level of 0.00, which means that an increase in development funding resource from DAU for IDR 1,000,000,000 will increase the GRDP of secondary sector in the regency of Lanny Jaya of IDR 15,709,000,000.

Furthermore, the result of partial test also shows that the t value for DAK variable is 2.626 at the sig level of 0.09, which means that an increase in development funding resource from DAK for IDR 1,000,000,000 will increase the GRDP of secondary sector in the regency of Lanny Jaya of IDR 2,626,000,000. Therefore, it can be concluded that, of the four developments funding resources analyzed in this study (PAD, DBH, DAU, and DAK) simultaneously influence the Gross Regional Domestic Product (GRDP) of secondary sector in the regency of Lanny Jaya. Partially, the variable that has the strongest influence on the GRDP of secondary sector in the regency of Lanny Jaya is DAU followed by DAK.

Analysis on the Influence of Development Funding Resources (PAD, DBH, DAU, and DAK) on the Economy of Tertiary Sector. The process for analyzing tertiary sector is similar to the process of analyzing the previously discussed primary and secondary sector, in which, to identify the simultaneous influence of PAD, DBH, DAU, and DAK on the GRDP of tertiary sector in the regency of Lanny Jaya and to determine funding resource that has a dominant influence on the economy of secondary sector in the regency, a model should be selected first. The objectives of this selection are to calculate the simultaneous influence of independent variables (PAD, DBH, DAU, and DAK) and to determine independent variable that has a dominant influence on the dependent variable, which, in this case, is tertiary sector.
In the process, a four-step regression analysis model using SPSS is conducted, from which the result is as follows.

Table 4 – Result of F test and t Test for Tertiary Sector

<table>
<thead>
<tr>
<th>Model</th>
<th>Goodness of Fit test</th>
<th>Funding Resources</th>
<th>Coefficients</th>
<th>Partial test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
<td>(Constant)</td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>14.644</td>
<td>0.026</td>
<td>112.450</td>
<td>0.787</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PAD</td>
<td>0.732</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DBH</td>
<td>-0.988</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>1.192</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>1.520</td>
</tr>
<tr>
<td>2</td>
<td>25.588</td>
<td>0.005</td>
<td>85.359</td>
<td>1.300</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PAD</td>
<td>0.574</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>1.115</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>1.586</td>
</tr>
<tr>
<td>3</td>
<td>46.537</td>
<td>0.001</td>
<td>94.975</td>
<td>1.763</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>1.156</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAK</td>
<td>1.499</td>
</tr>
<tr>
<td>4</td>
<td>70.854</td>
<td>0.000</td>
<td>147.748</td>
<td>3.037</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DAU</td>
<td>1.190</td>
</tr>
</tbody>
</table>

Data processing in SPSS 13.

- First Step:
The regression analysis in this step is also to analyze the simultaneous influence of development funding resource on the GRDP of primary sector. Thus, the four funding resources will also be included in the model analysis. Therefore, the developed regression model is appropriate with the output of the table above. The result of F test and t test for secondary sector is as follows:

\[
Y3.1 = 112.450 + 0.732 \text{PAD} - 0.988 \text{DBH} + 1.192 \text{DAU} + 1.520 \text{DAK}
\]

Through the equation above, the constant is 112.450, which informs that in the absence of development funding resource from PAD, DBH, DAU, and DAK, the GRDP of tertiary sector will be at the position of 112.450 or remains at IDR -112,450,000,000.

Based on the goodness of fit test in table 5.15 above, the significance value is 0.026. This value is smaller than the predetermined significance level (α= 5%), so it can be concluded that, in this model, development funding resource from PAD, DBH, DAU, and DAK simultaneously influence the GRDP of secondary sector in the regency of Lanny Jaya.

However, after a partial-wise parameter test (t test) is conducted, PAD and DBH are not significant because the sig values of their partial test are, respectively, 0.744 and 0.838, which is greater than their t values, which are, respectively, 0.358 and -0.223. However, DAU and DAK are significant because the values of their partial test are, respectively, 0.060 and 0.305, which are smaller than their t values, which are, respectively, 2.941 and 1.233. In addition, DAU is the variable with the strongest influence.

Of the two insignificant variables, DBH is the least significant because it has the highest significance value, which is 0.838. Therefore, this variable must be excluded from the model of the next step.

- Second Step:
The regression equation, after the exclusion of DBH variable from the model, in this second step is as follows:

\[
Y3.2 = 85.359 + 0.574 \text{PAD} + 1.115 \text{DAU} + 1.586 \text{DAK}
\]

Based on the result of regression equation above, it is obtained that the constant is 85.359, which informs that in the absence of development funding resource from Own-Source Revenue (PAD), General Allocation Fund (DAU), and Special Allocation Fund (DAK),
the Gross Regional Domestic Product (GRDP) in the regency of Lanny Jaya in tertiary sector will be at the position of 85,359, or IDR 85,359,000,000.

Referring to the result of goodness of fit test in the table above, the obtained significance value is 0.005. This value is smaller than the predetermined significance level \( \alpha = 5\% \). Therefore, it can be concluded that, in this model, development funding resource from three resources; they are DBH, DAU, and DAK simultaneously influence the GRDP of tertiary sector in the regency of Lanny Jaya.

However, after a partial-wise parameter test (t test) is conducted, PAD is not significant because the sig value of its partial test is 0.749, which is greater than its t value, which is 0.343. However, DAU and DAK are significant because the values of their partial test are, respectively, 0.004 and 0.204, which are smaller than their t values, which are, respectively, 6.033 and 1.518.

Because PAD variable is not significant, it must be excluded from the next step model.

- Third Step:
The regression equation in this third step is formed after excluding PAD variable from the model. The regression equation in this third step can be mathematically written as follows:

\[
Y_{3.3} = 94.975 + 1.157 \text{DAU} + 1.499 \text{DAK}
\]

Based on the third step regression equation above, the constant is 94.975, which informs that in the absence of development funding resource from DAU and DAK, the GRDP in the regency of Lanny Jaya in tertiary sector will only be at 94.975, or IDR 94,975,000,000. This model also results in the statistical F value of 46.537 with the significance level of 0.001 (sig approaching 0). In other words, DAU and DAK simultaneously influence the economy of tertiary sector in the regency of Lanny Jaya.

Using partial-wise parameter test (t test), it is identified that both variable of DAU and DAK partially influence the Gross Regional Domestic Product (GRDP) of tertiary sector in the regency of Lanny Jaya.

In addition, to identify which variable, between DAU and DAK, that is most significant in influencing the economy of tertiary sector in the regency of Lanny Jaya, partial-wise parameter test (t test) is conducted. Based on the t test result, DAU is the most significant, so this variable is excluded from the model in the next analysis to get the best model.

- Fourth Step:
The equation in this fourth step is the best model in analyzing tertiary sector, which is obtained after excluding DAK from the model and can be mathematically written as follows:

\[
Y_{3.4} = 147.748 + 1.190 \text{DAU}
\]

This third step regression model is the best model, which is using independent variable of DAU in the model. Based on this fourth step regression equation, the constant is 147.748, which informs that in the absence of development funding resource from General Allocation Fund (DAU), the Gross Regional Domestic Product (GRDP) in the regency of Lanny Jaya in tertiary sector will only be at 147.748, or IDR 147,748,000,000. It is also obtained that the value in DAU variable is 1.190, which means that an increase in development funding resource from DAK for IDR 1,000,000,000 will increase the GRDP of tertiary sector for IDR 1,190,000,000.

**DISCUSSION OF RESULTS**

The Influence of Development Funding Resource on the Economy through Primary Sector. Based on the regression analysis, it is identified that, of four development funding resources in their relationship with the GRDP of the regency of Lanny Jaya, the following important findings are evident.
Development funding resources through primary sector simultaneously do not influence the economic growth or GRDP of the regency of Lanny Jaya. This is identified from the significance level of 0.136, which is smaller than the predetermined significance level (α= 5%). Therefore, hypothesis 1a, which states that there is a simultaneous influence of development funding resources (PAD, DBH, DAU, and DAK) on the economic growth of primary sector is rejected. This result contradicts the opinion of Suparmoko M, et al. (2006) that fund allocation from the central government in forms of DAU, DAK, and DBH, together with PAD, plays an important role in implementing regional development, particularly that deals with agricultural economic growth, reformation of farmers’ economic structure, and income equalization among economic sectors in one region or area.

Of the four variables that are analyzed, only two variables (i.e. DBH and DAU) that partially influence the economic growth or Gross Regional Domestic Product (GRDP) of the regency of Lanny Jaya, from which only DAU that has a significant influence, while the influence of DBH is insignificant. Therefore, hypothesis 1b, which states that there is a partial influence of development funding resource (PAD, DBH, DAU, and DAK) on the economic growth of primary sector, is also rejected. This finding contradicts the result of Sudirman (2013) that all development funding resources (PAD, DAU, DBH, and DAK) simultaneously and partially have a positive influence on the economic growth of all sectors in East Java. However, this finding supports the result of Prakosa (2004) that the predictability of DAU on regional expenditures remains higher than the predictability of PAD and other development funding resources.

The significant influence of development funding resource from DAU on the GRDP or the economy of Lanny Jaya is probably because the development funding resource from General Allocation Fund (DAU) is actually higher than that from other sources (PAD, DAK, and DBH) and because its allocation is mainly for primary sector, especially in agriculture and plantation. In addition, the high amount of DAU fund and its high influence on the economy indicate that the dependency of the regency of Lanny Jaya on the central government is still high. This finding supports the result of Arung Lamba (2013) that the role of central government in primary sector is still very much needed to increase farmers’ production, i.e. 45.55%, particularly in facility provision.

The Influence of Development Funding Resource on the Economy through Secondary Sector. There are several findings obtained from the regression analysis result regarding the influence of development funding resource on the economy of secondary sector in the regency of Lanny Jaya; they are as follows.

Development funding resources through primary sector simultaneously influence the economic growth or GRDP of the regency of Lanny Jaya. This is identified from the significance level of 0.008, which is smaller than the predetermined significance level (α= 5%). Therefore, hypothesis 2a, which states that there is a simultaneous influence of development funding resources (PAD, DBH, DAU, and DAK) on the economic growth of secondary sector, is accepted. This result supports the opinion of Ardiana Hutasoit (2014) that own-source revenue, together with balancing funds (DBH, DAU, and DAK), is essential for growth in all sectors in the province of North Sumatra, especially in secondary-sector occupations such as in processing industry, clean water provision, waste management and cleanliness, electricity provision, information and telecommunication, etc. This result also supports the opinion of Suparmoko M. et al. (2006) that fund allocation from the central government in forms of DAU, DAK, and DBH, together with PAD, plays an important role in implementing regional development.

Of the four variables that are analyzed, only two variables (i.e. DBH and DAU) that partially influence the economic growth or Gross Regional Domestic Product (GRDP) of the regency of Lanny Jaya, from which, of the two influential variables, only DAU that has a significant influence. Therefore, hypothesis 2b, which states that there is a partial influence of development funding resource (PAD, DBH, DAU, and DAK) on the economic growth of secondary sector, is also rejected. This result contradicts the opinion of Ardiana Hutasoit (2014) that own-source revenue, together with balancing funds (DBH, DAU, and DAK), is essential for growth in all sectors in the province of North Sumatra, especially in secondary-
sector occupations such as in processing industry, clean water provision, waste management and cleanliness, electricity provision, information and telecommunication, etc. However, this result supports the result of Soetojo (2012) that, different from primary sector, in secondary sector, of all sources of development expenditure fund in the province of West Sulawesi, the most influential ones are Revenue Sharing Fund and General Allocation Fund. This is probably due to the fact that both funding resources focus more on the development of secondary sector to accelerate industrial sector in the province.

The significant influence of development funding resource from general allocation fund and Revenue sharing fund on the Gross Regional Domestic Product or the economy of secondary sector in Lanny Jaya is because both development funding resources from DAU and DBH are high in amount compared to the other funding resources.

The Influence of Development Funding Resource on the Economy through Tertiary Sector. As in the influence of development funding resource on the economy through primary and secondary sector, there are also several important findings regarding the influence of development funding resource on the economy of secondary sector in the regency of Lanny Jaya; they are as follows.

Development funding resources simultaneously influence the economic growth of the regency of Lanny Jaya through primary sector. This is identified from the significance level of 0.026, which is smaller than the predetermined significance level ($\alpha = 5\%$).

Therefore, hypothesis 3a, which states that there is a simultaneous influence of development funding resources (PAD, DBH, DAU, and DAK) on the economic growth of tertiary sector, is accepted. This result supports the result of Davit Mandang et al. (2011) that the progress of business fields included in tertiary sector, such as trade, transportation, and various service fields, are inseparable from the role of reginal development funding resources (PAD, DBH, DAU, and DAK), both simultaneously and partially, which are really high in amount in the city of Surabaya. This result also supports the opinion of Ardiana Hutaisoit (2014) that own-source revenue, together with balancing funds (DBH, DAU, and DAK), is essential for growth in all sectors in the province of North Sumatra, especially in secondary-sector occupations such as in processing industry, clean water provision, waste management and cleanliness, electricity provision, information and telecommunication, etc.

Of the four variables that are analyzed regarding their influence on the economic growth or Gross Regional Domestic Product (GRDP) of the regency of Lanny Jaya, only two variables (i.e. DAU and DAK) that partially influence the economic growth or Gross Regional Domestic Product (GRDP) of the regency of Lanny Jaya through tertiary sector. However, of the two influential variables, only DAU that has a significant influence.

Therefore, hypothesis 3b, which states that there is a partial influence of development funding resource (PAD, DBH, DAU, and DAK) on the economic growth of tertiary sector, is also rejected. This result contradicts the result of Evan Salakori et al (2010) that, although all development funding resources in Gorontalo are influential on the economic increase in secondary field, only two of them have a significant influence; they are General Allocation Fund and Special Allocation Fund, from which General Allocation Fund (DAU) has the strongest influence. The influence of other funding resources is insignificant, so they are ignored in this study. This is probably due to the fact that those two sources are the highest in amount. However, this result contradicts the result of Davit Mandang et al. (2011) that the progress of business fields included in tertiary sector, such as trade, transportation, and various service fields, are inseparable from the role of reginal development funding resources (PAD, DBH, DAU, and DAK), both simultaneously and partially, which are really high in amount in the city of Surabaya.

The significant influence of development funding resource from DAU on the GRDP or the economy through secondary sector in the regency of Lanny Jaya is probably because the development funding resources from DAU are higher in amount than that from other funding resources.

Finding of Research Results. Simultaneously, of the three sectors being examined (primary, secondary, and tertiary), only two of them are influenced by development funding resources; they are secondary and tertiary sectors, but primary sector is not influenced.
This indicates that the government of Lanny Jaya does not help much and is not optimal in managing business in primary sector, e.g. agriculture, plantation, fishery, and mining, so the people have to traditionally do their business by themselves.

Partially, of the four funding resources being examined, the variable that has the biggest influence on each sector (primary, secondary, and tertiary) is DAU, followed by DAK and DBH. Nevertheless, PAD does not have any influence. Balancing funds from the central government in forms of DBH, DAU, and DAK are influential with different magnitude, but PAD, which is the revenue generated originally from the region, is not influential. This indicates that the dependency of the government of Lanny Jaya on the central government is still high. This finding supports the opinion of Arung Lamba (2013) that the role of the central government is still very much needed in all sectors, especially primary sector, so that the economy in Papua can increase, particularly in facility provision.

CONCLUSION

1. The influence of development funding resource on the economic growth of primary sector in the regency of Lanny Jaya is as follows:
   Simultaneously, there is no influence of development funding resources on the economic growth of primary sector in the regency of Lanny Jaya.
   Partially, of the four development funding resources, only DAU that influences the economic growth of primary sector in the regency of Lanny Jaya.
   This indicates that the government of Lanny Jaya does not help much and is not optimal in managing business in primary sector, e.g. agriculture, plantation, fishery, and mining, so the people have to traditionally do their business by themselves.

2. The influence of development funding resource on the economic growth of secondary sector in the regency of Lanny Jaya is as follows:
   Simultaneously, development funding resources influence the economic growth of secondary sector in the regency of Lanny Jaya.
   Partially, of the four development funding resources, only DAU and DBH that influence the economic growth of secondary sector in the regency of Lanny Jaya, but it is only DAU that is significant.

3. The influence of development funding resource on the economic growth of tertiary sector in the regency of Lanny Jaya is as follows:
   Simultaneously, development funding resources influence the economic growth of tertiary sector in the regency of Lanny Jaya.
   Partially, of the four development funding resources, only DAU and DAK that influence the economic growth of tertiary sector in the regency of Lanny Jaya, from which DAU has the strongest influence.
   1. Because simultaneously primary sector is not influenced by development funding resource, this indicates the government of Lanny Jaya does not help much and is not optimal in managing business in primary sector, e.g. agriculture, plantation, fishery, and mining, so the people have to traditionally do their business by themselves.
   2. Because partially all balancing funds from the central government in forms of DBH, DAU, and DAK are influential with different magnitude and PAD, which is the revenue generated originally from the region, is not influential, the dependency of the government of Lanny Jaya on the central government is still high.

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ABSTRACT
The implementation of the concept of creating a university virtual technology park proposed in this article will contribute to the expansion of the innovative segment of the Azerbaijani economy, client-oriented innovation projects, shortening the time at project development stages, improving the quality of project teams, attracting international experience and experts, significantly increasing the chances of technology projects.

KEY WORDS
Customer orientation, technology, incubator, cluster, transfer, infrastructure, investors.

UNIVERSITY VIRTUAL TECHNO PARK IS AN ENVIRONMENT FOR INNOVATIVE DEVELOPMENT OF SCIENCE

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With the aim of creating innovative economy in the country, modern realities require the development of an applied scientific and search mechanism in accordance with market demand, as well as the strengthening of the connection between science and production. This may be due to the emergence of innovative zones and technology parks for the development and application of science-intensive products, development of innovative production, strengthening measures in the direction of transfer and assimilation of advanced technologies. On the other hand, the birth of technoparks with modern production infrastructure is aimed at building modern complexes for developing new information technologies and conducting research, at increasing competitiveness, and ultimately, at the continuous and sustainable development of the country's economy [1].

The emergence of technology parks, as well as the continuous development of the non-oil sector of the country, is of great importance in solving such important tasks as the attraction of modern technologies and investments, increasing production of products by regions, and providing the working-age population with work. According to the exemplary situation, the technopark is a site that has administrative structures and material and technical base, as well as the necessary infrastructure for the purpose of developing or improving innovative products and high technologies for the program of customer orientation of the conducted experimental research works and application of their results in industry, services and other fields. To regulate the activities of the technopark, first of all, it is necessary to put in order the allocated site, then it is necessary to create its infrastructure, incubator and technology transfer centre. Then, in accordance with the activities, it is necessary to create services connected with the conducting of research and experience design work for the preparation, development and improvement of high technology and innovative products. Technopark is a centre uniting the interests of the state, society, science and small business. The multiplicity of this concept allows us to draw two important conclusions. The first is that a multifactor model lies in the basis of the creation and development of the technopark. The second - the success of the development of this model depends on the interest of all participants. This includes the possibility of implementing scientific developments, gaining new knowledge and additional material earnings by the university staff and its students. The creation of technoparks, as can be seen from Fig. 1, on the one hand, promotes the development of knowledge-intensive industries, and, on the other hand, attracts new investors to the market. It should be noted that attracting investments will stimulate the development of the region where the technopark is located [2].
The term "industrial park" in literature is sometimes identified with the term "technological park". However, they should be distinguished, and to be more precise, a technopark is a form of territorial integration of science, education and production in the form of a union of scientific organizations, various departments, educational institutions, manufacturing enterprises or their subdivisions [3].

Naturally, in the creation of industrial parks, one of the main goals is to accelerate the development of the private sector, expand entrepreneurial activity. This goal in universities is of a scientific nature, i.e. technopark is a source of realization of innovative ideas, which, along with it, performs the function of uniting, aimed at the search and development of business connecting the university with production. In general, the technopark is characterized by applied activities to create a small production business for the implementation of new ideas of scientists, engineers and entrepreneurs.

In general, the technopark is characterized by applied activities to create a small production business for the implementation of new ideas of scientists, engineers and entrepreneurs.

It is known that, regardless of the volume, the development of university-industrial relations should be culminated by the creation of technoparks. For the reason that in the result of the unification of science and production, the overall potential of the university ultimately manifests itself in the educational process, the model of science-study-business should be periodically reflected in the technopark. The main result of applied scientific work should be reflected in the client-oriented program. Technopark in the university should be such an industrial center that students can go through real practice, become professional specialists. In the offices of technology transfer and client-oriented technopark, the creation of new products, improving the quality and productivity, reducing the costs, consulting services for advertising, marketing, training, education, business planning, strategic development and etc. is planned. As a result, industrial enterprises are united with scientific and research organizations on the territory of the technopark.

Depending on the nature and scope of the functions performed, five types of technoparks are known:

- Innovation centers. These centers provide mainly assistance to new firms working with high technology. It is an incubator for enterprises engaged in assembly and
experimental-design work and provides organizations with financial support and assistance in solving technological and organizational issues.

- Scientific and research parks. These parks serve new and quite mature firms, maintaining close ties with universities or research institutes.

- Technological parks. These parks have at their disposal a whole network of knowledge-intensive firms and industries. But despite this, links with universities or research institutes are groggy.

- Technological centers. In other words, these are service enterprises created for the development of new high-tech firms. Their main task is to promote small-scale science-intensive business.

- Conglomerates (belts) of technological and scientific parks. The purpose of these parks is to turn entire regions into high-tech zones. The most famous conglomerate is the well-known Silicon Valley. The valley consists of many diverse research organizations, institutes, science-intensive and service firms. At present, Silicon Valley has exhausted its spatial capabilities. Its new research and industrial companies are moving to cities north of it. There are three main differences between conglomerates: the individuality of organizational forms; ways of solving problems; functional purposes [3, 7].

It should be noted that along with these types of technology parks, network technology parks are also being created. Recently, their number is growing rapidly. And this makes it possible to redistribute potential economic and social benefits from the created technopark among the cities of the region. Thanks to the network structure, the capabilities of the technopark are increasing, the values of the performance indicators of its activity are improving, and the range of services provided to it is expanding. In addition, the network structure of the technopark gives the advantage of being present in large cities, universities or other territories that are significant for the development of the technopark [4].

Foreign experience [5] shows that the most effective mechanism for activating innovation in the high-tech market is the creation of a technopark zone (table).

Table 1 – Dynamics of development of technoparks in the world economy

<table>
<thead>
<tr>
<th>Stages</th>
<th>Type of technopark</th>
<th>Purpose</th>
<th>Kernel</th>
<th>Sponsors</th>
<th>Type of Products</th>
<th>Access to a source of knowledge (university) or source of practical tasks (company)</th>
<th>Leading countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Technopark of the university, regional industrial technopark</td>
<td>Introduction of research development</td>
<td>University laboratories, integrated design and research departments</td>
<td>Universities</td>
<td>Innovative product</td>
<td>Access to a source of knowledge (university) or source of practical tasks (company)</td>
<td>United States, United Kingdom</td>
</tr>
<tr>
<td>II</td>
<td>Technological incubators, specialized technology parks, technology transfer centers</td>
<td>The client-oriented nature of scientific and technical developments</td>
<td>Office complexes of technological incubators</td>
<td>Governments of countries and regions, municipalities</td>
<td>Technologies and technological solutions</td>
<td>Rent of premises</td>
<td>European countries and countries in Asia</td>
</tr>
<tr>
<td>III</td>
<td>Network technopark, technoparks community</td>
<td>Creation of spaces of Internet communities for information exchange</td>
<td>Virtual networks, network departments of technoparks</td>
<td>Innovative brokers and agents and investment funds</td>
<td>Researches</td>
<td>Access to the community</td>
<td>USA</td>
</tr>
</tbody>
</table>

Compiled on the basis of [2, 4, 8].

The effectiveness of the implementation of scientific and technical products of universities can be enhanced by creating an innovative infrastructure with a specific functioning in the field of marketing management, i.e. regional technopark. Technopark as a way of interaction of scientific research institutions, universities and industry can be created from a network of independent infrastructure elements - business incubators. The universities of the region can organize on their own base business incubators for the
development of small innovative enterprises engaged in the development of priority areas of science. The main task of the technoparks is to provide a multifaceted support to small innovative enterprises in the scientific and technical sphere and in the field of high technologies. This support is especially important at the initial stage of their formation. Analyzing the various definitions of the innovation structure under consideration, we can make the following generalization: technopark in the university is a scientific and production territorial complex, the main goal of which is to create the most favorable environment for client-oriented research results in the university and production sphere. The main function of technology parks is to generate, create, grow and bring scientific inventions and developments to the stage of customer-orientation, launching into production.

Exploring the technopark as a subject of economic activity, one can point to a number of features:

1) a platform equipped with everything necessary for the establishment and development of enterprises in the region, including small enterprises mastering innovative technologies. The ultimate goal of the activities of such enterprises is the creation of prototypes and the sale of science-intensive scientific and technical products that can be organized on the basis of the university;

2) financial independence, which ensures interest in the profitable management of the economy, that is, control and support activities of tenants of this technopark;

3) organizational and legal form - joint-stock company or association, where the founder may be the owner of premises transferred to the technopark; a bank or an enterprise that allocates the first funds for the organization and arrangement of an industrial park; Local authorities interested in the innovative development of the region; small innovative enterprises of technical universities;

4) consistent implementation of three important tasks: obtaining innovations, organizing technological transfer, client-oriented research results;

5) innovative business school.

In the technopark, scientific and experimental development of new competitive science-intensive technologies is carried out. The ultimate goal of the Technopark's activity is to bring the scientific idea and high technology that has a high degree of risk to the stage of its introduction into mass production with the subsequent attraction of large financial investments for the production of the developed products.

Cooperation of specialized scientific centers and small innovative enterprises allows forming local scientific and production associations, continuously initiating scientific research, turning ideas into technological innovations, testing new technologies and introducing them into the production of high technology import-substituting products. At the same time, scientific research, connected with practice, becomes applied, and enterprises are enriched with scientific and technical achievements that increase competitiveness and product quality. The main direction is the development of customer-oriented technologies.

In the future, it is planned to launch a client-oriented technology program and support the creation of start-ups in universities and research centers, mechanisms for supporting the legal protection of the results of prospective commercial developments by development institutions, and implement measures on improving the efficiency of management on the results of intellectual activity. An important aspect of ensuring the economy leadership in the strategic direction of Azerbaijan 2020 is the quantitative growth of output of innovative products and the share of industrial enterprises engaged in the implementation of developments with a proportionate increase in research costs. The effectiveness of client-oriented processes of scientific and technical products of higher educational institutions can be enhanced by creating an innovative infrastructure with specific features of marketing management - a regional technopark. The International Association of Technology Parks offers the following wording: "A technology park is an organization managed by specialists whose main goal is to increase the well-being of the local community through the promotion of innovative culture and the competitiveness of innovative business and scientific organizations."
To achieve these goals, the technopark stimulates and manages the flow of knowledge and technology between universities, research institutes, companies and markets. It simplifies the creation and growth of innovative companies with the help of incubation processes and processes of removing new companies from existing ones (spin-off processes). In addition to high-quality space, the Technopark provides other services [5]. Technopark as a way of interaction of scientific research institutions, universities and industry can be created from a network of independent infrastructure elements - business incubators.

The problem is that when it comes to the areas of high technology development, for some reason they forget about the most important thing, about people who, in fact, are the bearers of ideas, the sources of new knowledge. One of the main goals of creating technoparks is to support innovators, start-up entrepreneurs. The criterion for effective work of the technopark is the quantity and quality of small and medium-sized firms that they have produced, and the number of successful entrepreneurs known in the country and abroad. It is impossible to overestimate the role of technology parks for young professionals, graduates and university professors. For them it is not only the realization of their knowledge, but first of all, the opportunity to create their own business in a science-intensive sphere, the transformation of ideas born in the departments of the university into a specific science-intensive product. That is why it is necessary that the government of the country, the Ministry of Education and the Academy of Sciences support university technopark.

In the presence of the domestic technoparks it is impossible to ignore their experience, not to notice them, start creating new technoparks, forgetting about the existing structures. It is necessary to pay attention to their funding, experience and existing problems, so as not to repeat the mistakes already made. As was already mentioned above, the creation of new technological zones requires a strong stimulation of their creators and participants. Any participating party should feel the real impact of the project, thereby closing the circle, the center of which is the technopark. We believe that the weak development of the domestic market of science-intensive products is a hindrance to the successful operation of technology parks. Entering the international level of our, even prospective entrepreneurs, is difficult. But this problem also has its own solution.

The creation of a virtual university technopark can serve as a tool for expanding the space and involving in it not only Azerbaijani, but also foreign investors. Another difficulty encountered in Azerbaijan is the weak economic knowledge of potential scientific and technical entrepreneurs, their inability to confidently navigate the issues of accounting, marketing, management, international economic cooperation, as well as the lack of professional skilled personnel in the field of technology. Creation of a strong team of interested people who possess technical and economic knowledge in aggregate can contribute to the successful advancement of the activity of technoparks, and vice versa, the absence or underestimation of any of these components doom the business to failure in advance. One of the ways of recreating entrepreneurship in the field of science and technology in Azerbaijan is the way of creating university business complexes [6].

In our opinion, this idea can not be considered hopeless, because we are talking about including in the process of creating an industrial park an active part of the population, that is, students, doctoral students, young scientists. The university technopark can contribute to the development of creativity and entrepreneurship in the innovation sphere, will make it possible to increase the effectiveness of the practical focus of the founding institutions. One can not ignore the fact that, unfortunately, universities have a frugal financial potential to deploy a full-fledged technopark. One of the ways out is to create a virtual environment for supporting entrepreneurship. At the present time, universities are well equipped with information technology and computer equipment, which, in turn, can create not only virtual training courses, firms, but also a virtual technopark that can widely use the computer networks of founding universities, a global network, qualified staff support simultaneous efforts of several universities through cyberspace for the decision of those or other scientific, scientific and technical problems, technological or commercial problems.

The creation of a virtual technopark contributes to the solution of all the above problems. And first of all, it saves time on the way of development of high technologies,
which, unfortunately, are not enough in our republic. Of course, the university virtual technopark can not, and should not be, a panacea for overcoming the technological backwardness of the country. Its creation, of course, will require an infusion of funds from the state and business, however, the main thing in the creation of the technopark is that its activities can give an impetus to the social and economic development of the Republic of Azerbaijan.

The purpose of creating a virtual joint technopark is to increase the efficiency and practical focus of scientific work carried out in founding universities, accelerate the implementation of innovative activities, promote the formation of private firms and companies created with the direct and indirect participation of teachers, scientists, engineers, doctoral students and university students, as well as Research Institutes. At the same time, the "virtuality" of the technopark provides it with wide use of computer networks of founding - universities of a virtual united technopark, the Internet, universities' efforts through cyberspace, which allows to unite scientists from different universities within the target groups for the solution of various scientific, scientific-technological problems with the subsequent client-orientatedness of their results.

Leading universities in the region can organize on their own base business incubators for the development of small innovative enterprises engaged in the development of priority areas of science. Technopark as an innovative structure with an orientation toward the implementation of marketing services will allow to solve such important tasks as obtaining innovations, organizing a technology transfer and customer-oriented research results.

The main goal of creating such a structure is to preserve the scientific potential of the region, ensure the comprehensive development of knowledge-intensive industries and increase the competitiveness of industrial enterprises at the city and regional levels.

Virtual Technopark is a specialized platform where scientific research, industrial enterprises, organizations and educational institutions representing knowledge-intensive, high technology, and innovative products are represented.

The basis of the exposition can be typical virtual platforms-stands of enterprises of participants, providing for the use of audiovisual display media of various advertising and marketing information, as well as technical documentation. Virtual platform, in fact, is an event for the identification and presentation of technologies, the development of which in production will provide enterprises and entrepreneurs of the city and region with competitive advantages in commodity markets and will allow effective promotion of scientific and technical products. Characterizing the innovation process in general terms, it is possible to present it as obtaining and client-orientation of the invention, new technologies, types of products and services, decisions of industrial, financial, administrative or of any other character, and other results of intellectual activity. If we consider a part of innovation activity in the form of an innovative project, we can distinguish two interacting parties - a university (a small innovative enterprise) and an external partner (entrepreneur). Intra-university work can be structured as an actual scientific research work of an applied nature and development of the technology of products production. The activity of an external partner is related to the development of output, the organization of marketing activities for the transition to mass production, the receipt of payment from customers and the receipt of funds to the settlement account of the university (sub-account of a small enterprise). At the same time, the entrepreneur assumes the main group of risks arising in the process of client-oriented project. The client-oriented nature of research activity is largely determined by the links between key participants in the innovation process - scientific organizations and universities, small firms, large corporations [6, 7].

It is proposed to create a virtual technology park on the basis of UTECA (Azerbaijan Technological University) with the involvement of various financial resources based on the interaction of small innovative enterprises. To build a technopark as a physical object, investments are needed for production areas, premises, transport. Creation of a virtual technopark based on UTECA will be an information space that unites small enterprises of the region at a distance, there will be less investment, on domain registration, hosting, site creation. A virtual technopark will unite various universities, scientists, one and the same
researcher, for example, can participate in several projects, developments and can be not only at the level of the region. If the entrepreneur wants to become a user of the technopark, he will need to get a virtual office at his disposal. Then you need to create a virtual exhibition, and in the end - to enter into real contracts and receive real money. The Technopark, located in the information space, will facilitate the unification of various innovative infrastructures that are territorially separated, will allow the same researchers to participate in several projects of various organizations, will increase the effectiveness of innovation activities within the region.

The formation of a virtual technopark in the region will help to solve existing problems and increase the economic and innovative potential of the university. The creation of a virtual industrial park causes the emergence of a number of advantages that are of great importance for the economy of the region, including the university: a reasonable investment of funds; the emergence of new jobs, the unification of several business technologies in one infrastructure, and, finally, the streamlining of traffic flows [8].

An important consequence of the creation of the technopark is the synergy of several technologies in the links of one economic chain: scientific development, implementation of prototypes, cooperation of small, large and medium-sized businesses, marketing research, exposition and exhibition opportunities and potential implementation.

A virtual technopark created on the basis of a university in the region will contribute to strengthening the interaction of the main market actors in the direction of customer-oriented innovation, positioning and promotion of scientific and technical products in Azerbaijan and abroad, and thereby increase the economic and innovative potential of the republic.

In the process of diffusion of innovations, the question arises as to the degree of perception of the results of intellectual activity by entrepreneurs. First of all, the result of client-oriented scientific and technical development interests the entrepreneur from the point of view of gaining profit from the introduction and implementation, taking into account a significant share of the risk associated with activities on new types of the market or offering a new product.

![Innovative model of the university](image)

Unfortunately, in Azerbaijan the processes of creation and management of technological projects have not yet reached the world level. What is being implemented today in the field of technology parks, as it is indicated above (the table), refers to the first or maximum to the second stage of development of technoparks. However, to create
technoparks of the 1st and 2nd stages of the development of technoparks, large premises, entire buildings with special equipment are needed. This requires large investments. A more effective solution of this problem is possible when creating technoparks of the third stage of development in the form of virtual technology parks. In this direction, Europe is moving forward. For example, the European Union plans to create a virtual distributed technology park "European Technological Institute" (EIT). This article describes the concept of creating a virtual distributed technology park as a technopark of the third stage of development based on the most advanced technologies and solutions tested in Europe. Analysis of innovative resources UTECA allowed to form an innovative model of the university, which includes the following structural elements, presented in Fig. 2.

Experience shows that it is in these structures that the innovative resources of the university are concentrated: unique scientific and educational equipment, modern information and communication technologies, and modern educational and methodological complexes. In addition, in such structures the intellectual potential of the university is concentrated, including experienced teachers, highly qualified and possessing modern skills for working with complex high-tech complexes engineering - technical personnel, as well as talented students and doctoral students.

Let's consider the general principles of the organization of university virtual technoparks. In the beginning, it should be noted that the main purpose of the system of a university virtual technology park is the information association of numerous subjects engaged in educational and scientific activities, i.e. creation of "information-subspace of education, science and hi-tech innovation business". This subspace is formed as the intersection of the country's common information space (cyberspace) and the global scientific and educational information space. The main blocks of the university virtual technopark are shown in Fig. 3.

![Figure 3 – The main blocks of the technopark](image)

The main element of the technopark is a laboratory that can be implemented as real equipment or as a virtual laboratory (network application or network service). At the same time, considering that the laboratory is the main component and the shared resource of a virtual technopark, the problem of standardization of this element arises. An effective solution to this problem will make it easy to integrate, reconfigure and scale up the information
resources of the technopark. The functional structure of the laboratory, the list of services provided by the laboratory, the interface between the remote user and the services of the laboratory, the composition and structure of the remote access node, including the number of network ports, routing protocols, requirements to the communication links (bandwidth, latency, packet loss, variation in packet delay, etc.) can act as objects of laboratory standardization. In our case, cluster is the unification of laboratories in the scientific areas or in accordance with innovative technologies. For example, the integration of various areas of scientific activity, including mathematical modeling of nanoobjects, experimental studies using unique equipment and the production of nanostructures are necessary for the realization of nanoproducts. Therefore, such integration is possible within the nanotechnology cluster, which includes the laboratory of mathematical modeling and the laboratory of nanotechnologies.

Let's consider also the logical organization of a university virtual technology park. Modern virtual technology parks have a hierarchical cluster organization (Fig. 4).

![Organizational structure of a virtual technopark](image)

The definitions of the laboratory and the cluster of technopark were given earlier. Here it is necessary to dwell more on the logical organization of the technopark. To implement the lower level of the technopark (the level of laboratories and clusters) it is proposed to use the virtual local area network (VLAN) technology. VLAN provides the ability to create logical groups of users or groups of laboratories on the scale of a virtual technology park. At the same time, the management of the technopark can organize laboratories in logical groups (clusters) regardless of the physical location of the laboratories. This is one of the main advantages of this technology - the ability to create clusters based on the direction of research or innovation activities of users of the technopark, without being tied to the network topology. Such organization of clusters allows to increase the efficiency of users of the technopark. VLAN technology provides a number of advantages:

- simplicity of reconfiguration of a logical or organizational structure of Technopark;
- adding or removing laboratories and clusters;
- use of limited resources of the technopark;
- high level of security.
The average level includes management of the technopark and an expert commission. The functions of the technopark managers include: solving the problems of scaling the technopark, reconfiguring the organizational structure of the technopark in accordance with the changing research program of innovative projects being implemented in the technology park, adding or removing laboratories and clusters. To carry out an independent scientific and technical expertise of innovative projects, expert commissions are being set up for scientific consulting of users in the technopark. Expertise and consulting is carried out in the on-line mode. The highest level of the technopark is the leadership, which includes representatives of the Ministry of Education or the Academy of Sciences of the Republic of Azerbaijan, Ministry of Industry, UTECA, i.e. those institutions that have integrated their innovative resources into the technology park.

The business component of the technopark or the platform of a virtual technopark should provide:
- search for partners implementing the business ideas;
- creation of a team for the implementation of the project;
- search for a laboratory or cluster for project implementation;
- implementation of the project in the technopark.

In Fig. 5 presents the algorithm for promoting a business idea from the moment of its inception to the moment of its implementation in the form of an innovative product and its subsequent client-oriented approach. Cluster structure of the technopark on the basis of modern network technology (VLAN, VPN, WAN, etc.) allows to implement effectively the procedure for promoting innovative business ideas in the technopark.

![Figure 5 – Scheme of client-oriented innovation ideas in the technopark](image)

One of the main components of the technopark is the educational component. As educational potential is concentrated in innovative structures of the university, it certainly needs to be integrated into the virtual information environment of the technopark for the implementation of educational services of the technopark, for example, educational consulting, professional development, and development of entrepreneurship skills of users of the technopark. Therefore, the platform of a virtual technopark should provide educational services. At the same time, distance learning technologies will be used, including technologies of network virtual means and interactive multimedia (video on demand, interactive television, videoconferencing).

Speaking about the peculiarities of the virtual united university technopark being created, it should be noted that the creation of a virtual joint technopark should be preceded
by a careful study not only of the scientific and entrepreneurial potential of universities and research institutes, i.e. participants, not only detailed elaboration of the concept and guarantee of the participants, but also the creation of a group of prospective entrepreneurs from among inventors, engineers, technologists, students, doctoral students, teachers and scientists of universities, other organizations related or ready to be bound by contractual relations with the technopark and its founders, a ready-made package of technologies intended for client-orientedness should be formed. In fact, several, and sometimes several dozen projects are preliminary worked out, which can bring profit in the coming years. So it turns out that the virtual aspect of the university technopark's activity consists not only in providing financial services to all willing entrepreneurs and in collecting in surplus their development in one database, which, as practice shows, with a high degree of probability, will remain unclaimed, but also in detailing all aspects of the creation of the company, its product and determine the market for its implementation even before the creation of the company itself and its material and financial support.

The implementation of the concept of creating a university virtual technology park proposed in this article will contribute to the expansion of the innovative segment of the Azerbaijani economy, client-oriented innovation projects, shortening the time at project development stages, improving the quality of project teams, attracting international experience and experts, significantly increasing the chances of technology projects.

**Conclusion.** Our university UTECA has a unique scientific potential. This potential is students, youth receptive to everything new. To this potential it is necessary to add considerable experience of the teaching staff in the organization of academic work, as well as fundamental and applied scientific research. In spite of the above mentioned difficulties, it is necessary to dispose of this powerful potential, to stop stream production of personnel, and to do everything to give graduates not only a diploma, but also a real opportunity to do their own work, for example, in a university virtual technopark. We do not consider this concept exhaustive, these are only the first attempts, the beginning of further careful study of the issue. The problem of creating innovative entrepreneurship and the infrastructure of its support is of a complex character and can not be solved solely by the forces and resources of the university. To solve it, we need legislative support, broad support of business circles - in general, we need much of that that we do not have today. And yet, you need to act.

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LEVEL OF ENCROACHMENT EFFECT TO EXCELLENT PUBLIC RELATIONS: A STUDY ON COMMUNICATION LEADERS ACTIVITY AT PT. TELKOM INDONESIA

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ABSTRACT
This research aims to reveal how far the three kinds of encroachment effect to excellent public relations practice. The phenomenon of public relations encroachment and application of excellence theory has been widely studied. Encroachment is a barrier to 10 factors of excellence to be applied properly. However, no research has been done on the extent of counting the correlation and the influence of encroachment (either authority encroachment, functional encroachment, or structural encroachment) on the application of excellence factors. Research conducted by sending an online questionnaire link to 55 communications leader at PT. Telkom Indonesia whose work location spread throughout the country of Indonesia. The dispersed questionnaire includes statements about authority encroachment, functional encroachment, structural encroachment, and 10 principles of excellence indicators. The results of research state that the level of excellent public relations at PT. Telkom Indonesia can't be categorized as excellent. One of the factors that influence the application of the principle of excellence has not been maximized is because the practice of encroachment is still found. The authority encroachment, functional encroachment and structural encroachment that occurred have a correlation and influence on the successful application of the principle of excellence with different levels. The authority encroachment ranks at the top in terms of correlation and its effect on the application of the principle of excellence, followed by functional encroachment, and then structural encroachment.

KEY WORDS
Communication, communication leader, public relations, authority encroachment, functional encroachment, structural encroachment, excellence theory.

Encroachment occurs when there is a non-public relations professional assignment to manage the public relations function (Dozier, 1988; Lauzen 1991, 1992; Laborde, 2005). Lauzen (1991) found two terms in her research findings, encroachment, and imperialism. As time flies, Lee (2005) divides the encroachment into three, namely: authority encroachment, structural encroachment, and functional encroachment. Encroachment authority involves assigning the wrong personnel to manage the public relations department, structural encroachment occurs when the public relations department is under the control of other departments within an organizational structure, whereas functional encroachment occurs when personnel or non-public relations units do the work that public relations functions. Laborde (2005) found that respondents in his study provided some specific examples of encroachment that they witnessed or experienced. The encroachment form invented by Laborde (2005) corresponds to three forms of encroachment that have been identified by previous studies conducted by Lee (2005). Basically, Lauzen's (1991) study that mentions two terms (encroachment and imperialism) is also in accordance with two of the three types of encroachment proposed by Lee (2005). Imperialism according to Lauzen (1991) is a functional practice performed by non-public relations, this is referred to as functional encroachment by Lee (2005). While the encroachment on Lauzen's journal is a structural position in the public relations department held by personnel with non-public relations education and professional background, in other words, it is called authority encroachment.

Encroachment becomes an obstacle for the public relations department to apply the principle of excellence and reduce the influence of public relations leaders in organizational strategy planning (Laborde, 2005). Other researchers, such as Broom & Dozier (1983), Kelly
(1994), dan Lauzen (1991, 1992, 1993, 1995), found that encroachment also limits the effectiveness and quality of public relations functions so that it only acts as a technical. It can ultimately eliminate strategic roles and keep the public relations position away from dominant coalition within an organization. Encroachment becomes a problem especially in the corporate hierarchy by making the role of public relations not as the main function so that distancing public relations from the strategic function so that public relations is not able to run its role excellently. The encroachment situation can be a barrier to the effectiveness of public relations or at least an indicator of the effectiveness of public relations activities based on the excellence theory is difficult to achieve if the encroachment occurs (Kriyantono, 2014). Whereas the theory of excellence describes how the function of public relations is best organized and practiced in an organizational environment, by acting strategically and independently within a company (Grunig, Grunig, & Dozier, 2002).

**LITERATURE REVIEW**

The excellence theory has been proved as a general public relations theory in the United States, Canada, and the United Kingdom (Grunig, 2008). The excellence theory is a normative theory of public relations practice in ideal conditions that put forward the existence of two-way communications. In Indonesia, public relations practices have grown along with the development of democracy (Kriyantono, Amrullah, & Destrity, 2017). Local wisdom in Indonesia itself has also consistent to apply the two-way symmetrical model (Kriyantono & Mckenna, 2017). In addition, to the practice of excellent public relations in Indonesia is also related to the term role designation. There are two terms that refer to the similar public relations practitioner in Indonesia, it is Public relations (PR) and Society relations (Humas). People who are referred to as PR turn out to have a better level of public relations better than those called Humas (Kriyantono, 2017). One of the inhibitors of the excellence theory can be applied properly is because of the encroachment phenomenon (Laborde, 2005).

About the encroachment phenomenon, many researchers in Indonesia and western countries have found that there are three kinds of encroachment that prevent public relations become excellent. The three kinds of encroachment that found in the former research are: (1) authority encroachment Lauzen, 1991; 1992; 1993; Kelly, 1994; Ruler dan Lange, 2003; Lee, 2005; Laborde 2005; Laborde & Pomper, 2006; Bronn, 2014; Silaen, 2017; Astuty, Setyastuti, Maulina, & Hanief, 2017; Verhoeven, 2014; Falkheimer, et al., 2017), (2) functional encroachment (Lauzen, 1991; Grunig & Grunig, 1991; Ha & Ferguson, 2015; Astuty, et al., 2017), and (3) structural encroachment (Putra, 2008; Prasetya, 2016; Kriyantono, 2015; Bronn, 2014; Verhoeven, 2014). Nevertheless, these studies have not discussed how much correlation and strength of influence of authority encroachment, structural encroachment, and functional encroachment to the application of the principle of excellence. In other words, no research has been done whether the three types of encroachment mentioned by Lee (2005) have the same or different strengths in influencing the successful application of the principle of excellence.

Kriyantono (2015) found that the organizational structure at high educational institutions still put the public relations in a variety of positions, but the management of college communications can be said properly enough. Experts and practitioners of public relations in Indonesia (Noeradi, 1993; Dahlan, 1994; Kharsadi, 1994 in Putra, 2008) speaks on the basis of their long experience as a public relations practitioner in an organization, as long as public relations officers have access to top executives, public relations positions in organizational structures are not important. Although according to some experts (Noeradi, 1993; Dahlan, 1994; Kharsadi, 1994 in Putra, 2008) the position of public relations in the organizational structure is less important than having access to top executives, but Putra (2008) adds that in order to gain access to top executives, a public relations officer must be a professional, they must have sufficient qualifications of competencies. This statement from Putra (2008) clearly illustrates that in order to reach top executives, a public relations practitioner must have the skill or competence, which means that it must minimize the authority encroachment. Silaen (2017) found that the authority encroachment causing the
principle of excellence could not be done properly. Several previous research studies conducted in western countries also mention about encroachment that occurred is influenced by lack of competence (Lauzen, 1992; Kelly, 1994; Bronn, 2014; Verhoeven, 2014; Falkheimer, et al., 2017). The former research findings explain that encroachment is the cause of the principle of excellence can’t be applied perfectly, but there are different statement between each kind of encroachment that affects the application of the excellence principles. Based on the description above, the researchers formulate research hypotheses as follows:

H1: Each type of encroachment (authority encroachment, structural encroachment, and encroachment functional) that occur in the organization have different strengths in influencing the application of the principle of excellence.

H2: Structural encroachment has less influence in effect the application of the excellence principles than the authority encroachment and functional encroachment.

H3: Authority encroachment have the highest influence in effect the application of the excellence principles than the functional encroachment and structural encroachment.

METHODS OF RESEARCH

This study was conducted using quantitative methods through questionnaires sent via online media (online survey) to a number of 55 communication leaders PT. Telkom Indonesia whose work location is spread all over Indonesia. The questionnaire consists of 53 statements that accommodate both encroachment and excellence indicators. Answers from the questionnaire were measured using a Likert scale with five categories.

Authority is the amount of power and rights delegated to a position (Allen, 1958). Lee (2005) explains that the competencies of public relations practitioners in managerial capacity influence the authority encroachment. Respondents in this study are the communication leader, where the managerial competencies are absolutely necessary. This is in line with the concept proposed by Lauzen (1992) which conveys that the higher level of implementation of public relations manager role proposed by Broom (1982), manager role aspirations, manager role competencies, and powerful public relations schema, can decrease the possibility of authority encroachment. Therefore, to know the existence of the authority encroachment, researchers use the concept offered by Lauzen (1992) as indicators of the statement in the questionnaire.

Lee (2005) explains that functional encroachment occurs when non-public relations departments perform public relations functions, so it means that functional encroachment does not occur when the public relations department performs its function properly. Therefore, to find out the functional encroachment, six major functions of public relations proposed by Cottone, et al (1985) and the scope of public relations role (Kriyantono, 2012) are used as indicators of functional encroachment levels. Cottone, et al (1985) states that the six major functions of public relations include large-scale events, communication with the public, management, media relations, logistics, and client relations. While Kriyantono (2012) states that the scope of public relations roles includes Publication and Publicity, Event, News, Community Involvement, Identity Media, Lobbying, and Social Investment, which is abbreviated as PENCILS.

To know the existence of structural encroachment, the researcher uses the concept from Lee (2005) which mentions that structural encroachment occurs when the public relations department is under another department in an organizational structure, this is also in accordance with statement from Verhoeven (2014) communication officers in secondary positions (eg under Human Resource and Communication or Marketing and Communications) are not included in the executive level as this usually indicates that communication is seen as a subordinate area. While in determining the indicator of excellence, the researcher uses ten principles of excellence theory proposed by Grunig, et al (1992).

The validity of each item statement is measured using the Pearson Product Moment Correlation formula and the result is valid at the level of significance at the 0.05 level.
Reliability of the questionnaire is calculated using Cronbach Alpha formula with values above 0.8. The Cronbach Alpha value above 0.8 indicates that the reliability of the questionnaire is good (George & Mallery, 2003). The time limit specified for the questionnaire was over three weeks and the questionnaire responded to 46 questionnaires, so the response rate of this study was 84%. The answers of all respondents were analyzed using parametric statistics, with the first classical assumption test and the results were eligible. Especially for structural encroachment, respondents’ answers show the same point, so the researcher uses the level of position to measure the correlation and the influence of structural encroachment on applying the principle of excellence. Level of positions owned by each communication leader is an ordinal scale, so the researchers convert the ordinal scale into an interval scale before measuring the level of encroachment and the level of excellence. Researchers divided the level of encroachment into five categories, namely very high category, high, medium, low, and very low, with details of scores as follows:

- **Very High**, average score between 4.01 - 5.00
- **High**, average score between 3.01 - 4.00
- **Medium**, average score between 2.01 - 3.00
- **Low**, average score between 1.01 - 2.00
- **Very Low**, average score between 0.01 - 1.00

For the level of excellence, researchers divide into five categories, namely the category of excellent, good, medium, less good, and poor, with details of scores as follows:

- **Excellent**, average score between 4.01 – 5
- **Good**, average score between 3.01 - 4.00
- **Medium**, average score between 2.01 - 3.00
- **Less Good**, average score between 1.01 - 2.00
- **Poor**, average score between 0.01 - 1.00

The correlation between the independent variables (authority encroachment, functional encroachment, and structural encroachment) with the dependent variable (excellence factor) was measured using the Pearson Product Moment Correlation formula. While the influence of the independent variable to the dependent variable is calculated using linear regression formula.

### RESULTS AND DISCUSSION

The results of the calculations indicate that the authority encroachment on communication leader at PT. Telkom Indonesia has an average value of 2.45, so it is included in the medium category. The functional encroachment has an average value of 1.96, so it falls into the low category, and the structural encroachment has an average value of 3.39, so it falls into the high category. In applying the principle of excellence, the calculation results show the value of 3.95, so it falls into the good category. However, the application of the principle of excellence to PT. Telkom Indonesia can’t be categorized as excellent, so the researchers then calculate whether it is correlated and influenced by the encroachment phenomenon that occurs.

The results of correlation calculations between each independent variable (authority encroachment, functional encroachment, and structural encroachment) with the dependent variable (excellence) are as follows:

**Pearson Correlation**

- Authority Encroachment: -0.703
- Functional Encroachment: -0.624
- Structural Encroachment: -0.452

Each type of encroachment has a negative correlation, which means that the higher the encroachment (authority encroachment, functional encroachment, or structural encroachment) that occurs then correlates with the lower the level of excellent public relations can be achieved. The highest correlation is shown by the authority encroachment.
with a value of 0.703, the second is indicated by a functional encroachment with a value of 0.624, and in the third sequence is a structural encroachment with a value of 0.452.

The results of correlation calculations between all independent variables (authority encroachment, functional encroachment, and structural encroachment) with the dependent variable (excellence) are as follows:

Table 2 – R Value of Model Summary

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</tbody>
</table>

From Model Summary table, the influence value of all independent variables on dependent variable more specifically can be seen from the value of R multiplied 100%, that is equal to 76.9%, with accuracy level equal to 92.784% (100% - Std. Error of the Estimate).

Table 2 – Analysis of Variance Value Significance

<table>
<thead>
<tr>
<th></th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.000*</td>
</tr>
</tbody>
</table>

From ANOVA table it appears that the significance value is 0.000 so it can be concluded that all sub-variables (authority encroachment, functional encroachment, and structural encroachment) influence together to the level of excellent public relations.

Table 3 – Coefficient Significance of Three Types of Encroachment

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>25.271</td>
<td>0.000</td>
</tr>
<tr>
<td>Authority Encroachment</td>
<td>-3.175</td>
<td>0.003</td>
</tr>
<tr>
<td>Functional Encroachment</td>
<td>-2.340</td>
<td>0.024</td>
</tr>
<tr>
<td>Structural Encroachment</td>
<td>-2.159</td>
<td>0.037</td>
</tr>
</tbody>
</table>

From the Coefficients table, it can be seen that the least significant value is the encroachment of authority, the second is the functional encroachment and the last is the structural encroachment. Therefore, it can be concluded that the authority encroachment has the highest influence on the success of applying the principle of excellence, then the second is the functional encroachment, and the last structural encroachment which has the lowest level of influence on the application of the principle of excellence than the other two types of encroachment. This explains that H1, H2, and H3 that have been formulated by the researcher are accepted. The sign in column t in the table shows the negative value, so that the regression model happens is opposite, meaning that the lower level of authority encroachment, the functional encroachment, and the structural encroachment that occurs have an effect on the better application of the principle of excellent.

**CONCLUSION**

The principle of excellence that applied in PT. Telkom Indonesia has not been in the excellent category due to the influence of the encroachment phenomenon that occurs. In the research results, it was found that:

1. The three types of encroachment presented by Lee (2005) either authority encroachment, functional encroachment, and structural encroachment have correlation and influence the success of applying the principle of excellence.
2. Each kind of encroachment has correlation and influence level of application of the principle of excellence with different level.
3. Each type of encroachment has a negative sign of influence, which means:
The higher level of authority encroachment that occurs, the lower the level of excellent public relations that can be achieved.

The higher level of functional encroachment that occurs, the lower the level of excellent public relations that can be achieved.

The higher level of structural encroachment that occurs, the lower the level of excellent public relations that can be achieved.

4. The authority encroachment has the highest correlation and influence in relation to the application of the excellence principle. Then the functional encroachment ranks second, and the last is the structural encroachment.

Encroachment is an obstacle for the public relations department to apply the principle of excellence (Laborde, 2005; Broom & Dozier, 1983; Kelly, 1994; Lauzen, 1991, 1992, 1993, 1995). However, encroachment often occurs in the corporate organization because of increased accountability, heightened competition for influence, dependence on shared resources, and the presence of domain similarity in which two departments share the same skills or tasks which is hard to avoid (Lauzen 1991, 1992, 1993). Referring to the results of this study, to improve the level of excellent public relations which is claimed to increase organizational effectiveness, the organization must be concern to minimize the authority encroachment, functional encroachment, and also structural encroachment that occurs in their public relations unit.

This study, of course, has a limitation, that is, although the respondents of this research are the communication leader whose work location spread all over Indonesia area, this research was done at only one company, that is PT. Telkom Indonesia, so it can’t be generalized to all public relations activities on different types of organizations or companies in Indonesia or other country will have the same result. Therefore, further research is expected to conduct research on the effect of encroachment on applying the principle of excellence on the varied organization at different locations so that the results of research on the correlations and the influence of encroachment on the application of the principle of excellence can be found to be more generalized.

REFERENCES

ABSTRACT
Consumption is one of the basic indicators of human’s life. The level of human satisfaction is always influenced by the level of economic and social change in the culture of a region. According to Kotler, religion is part of a culture that can shape people's behavior. The purpose of this study is to analyze the influence of contextual factors and religiosity on food consumption patterns in Bandar Lampung, as well as to investigate the religiosity variables as an intervening variable on the contextual factors on food consumption patterns in Bandar Lampung. The results of the analysis showed that the relative and contextual factors cannot influence the consumers' buying behavior directly but influence the religiosity (as an intervening variable) and the pattern of consumption indirectly.

KEY WORDS
Consumption, religiosity, community, food, factors.

Consumption is one of the economic activities that play a role in the economy of a country. This also one of the essential components to assess the development level of the people’s economic welfare through a pattern of private consumption. According to Frank and Barnake (2001), consumption is a home-spending intended for goods and services such as clothing, food, entertainment, health, and other asset acquisitions. In the theory of Keynesian about consumption, domestic or household consumption (C) is positively related to the family income: the more income you have, the more tendency you consume. Keynes also believes that a high-income family will consume less of their income than low-income family (Case & Fair, 2007).

If the consumption expenditure of all people in a country is added up, this will result in the consumption expenditure of the people of the country concerned. John Maynard Keynes (June 6th, 1883–April 21st, 1946) in Raharja & Manurung (2008) wrote the Keynes theory of consumption, "consumption done today depends on the disposable income today. In short, consumption (C) is affected by disposable income (Yd) ". If the income is increasing, the consumption will increase as well. Nevertheless, Keynes stated that the consumption curve will later be curved which means that the income received will not be big even though the consumption becomes longer.

Consumption is one of the basic indicators of human’s life. The level of human satisfaction is always influenced by the level of economic and socio-cultural changes in an area (Dimitrov & Atanasova, 1963). Kotler (2000) said that religion is part of a culture that can shape people's behavior. In particular, people who have a religion hold certain values that can influence their actions and decisions. Islam is a religion that guides Moslems in every aspect of life, not just in specific acts of worship. For example, in one of the chapters of The Koran, Chapter Al-Isra': 26-27, Allah, God Almighty, instructs Moslems not to consume or spend money on luxury things but to spend in the way of Allah. Moreover, Islam has also given guidelines on how and what can be traded, on how to interact with others, and on what can be consumed. The consumption of food and drink in Moslems’ daily lives is strictly arranged in Islam. However, the implementation in the society occurs differently due to its level of understanding which is varied.

The purpose of this study is to analyze the influence of contextual factors and religiosity on food consumption patterns in Bandar Lampung, as well as to investigate the religiosity
variables as an intervening variable on the contextual factors on food consumption patterns in Bandar Lampung.

LITERATURE REVIEW

The term “consumption” is taken from the Latin “consumere” which means spend, and of the English language means taking and spend (Sudarsono, 1984: 8). Consumption expenditure consists of government expenditure and household consumption. The focus in this study is the household consumption due to the fact that, up to now, household consumption has the largest share of total aggregate expenditure. Given the large share of household consumption, this has a major impact on the economic stability (Rahardja & Manurung, 2001). Keynes put forward a general theory of revenue, money, interest, and employment in which the center of the theory is about consumer behavior in allocating its income for consumption and savings.

Various studies conducted by Alam and Hisam (2011) explained that the decision-making of a consumer is influenced by religiosity as a mediating factor in the purchase. Based on the research of Razzaque & Chaudhry (2012), educational variables and religious understanding are the determinants of the decision. In another study, Bahri (2014), Ernita et al (2013), Shandra (2012), and Susilowati (2010) concluded that the consumption patterns of Moslem consumers only seem to meet the basic and secondary needs without considering the concept of Islamic guidance in the decision-making. The theory of consumer behavior developed by the Western after the rise of capitalism is the descendant of duality, namely “economic rationalism” and “utilitarianism”. Economic rationalism interprets human behavior as a "rigorous" calculation that is directed with foresight and caution towards economic success. Moreover, economic rationality assumes that consumers will aim to maximize their "satisfaction" in a unique sense which is not entirely a devoid of utilitarian significance. It is said that the concept does not apply to a certain kind of satisfaction, whether spiritual, material or otherwise (Adila, 1999).

Rationalism in Islam is defined as a reaching point through moderation in consumption. According to Siddiqi (1992), a rational Moslem individual will try to behave (in its utmost effort) in accordance with consumer norms. There are four goals of consumption to be achieved in Islam, namely:

1. Everyone should consume enough economic goods to have an efficient life.
2. Particular goods are prohibited to be consumed.
3. The consumption of economic goods does not have to be wasteful as excessive, Exposing such luxury life is not recommended.
4. The consumption of economic goods and consumer satisfaction should not be the ultimate goal of the individual. It should serve as a means for achieving the higher goals of the purpose of life.

Hamouri (1991) modified the conventional model based on Moslem consumers. It is found that they consider the effects of Islamic teachings on their behavior. Hamouri revealed that Moslems will choose to consume the most preferred items but should be allowed in Islam. In this case, unreachable items (unlawful or haram items) will not be selected. Zaman in his research added three new axioms:

1. Lexicographic preferences (some preferences that are more urgent than others);
2. The utility of basic needs which can be met; and
3. Externality in secondary utilities (the utility derived from the function of other consumption bundles).

In general, religion will influence the behavior in society especially on the material and attitudes toward possession and utilization of goods and services. Religious traditions may prohibit the use of certain goods and services, for example, Islam forbids its followers from drinking alcohol and eating pork while Hindus worship the cow by making them not to eat beef. Religion also affects people’s actions due to the rules in the worship, as for an example, by prohibiting the use of certain contraception methods. In such cases, religious
values could form an emotional experience as well as cognitive and psychological awareness which in turn will influence the decision-making of the consumer’s consumption.

There are several studies on the relationship between religiosity and consumer behavior with the general conclusion that there is a real relationship. Adila (1999) conducted a survey among Moslem and non-Moslem communities living in Singapore to investigate whether or not they understand Islam as a reference in the purchases. The findings showed that Moslems in Singapore are generally a moderate consumer showing that moderation, as one of the main concepts of the Islamic consumption model, is being practiced. The research was conducted in a place where 85% of Singapore’s population are non-Moslems. Therefore, the respondents did not describe the demographics of the country. This study only concentrates on the consumed goods to meet the physiological needs, such as food and clothing, or on non-durable items. Thus, we can not see the behavior of Moslem consumers in purchasing durable goods, especially when buying a car (today, this is considered as a necessity).

A study by Zaidman and Lowengart (2001) investigated the interactions between consumers and retailers in the marketing of religious goods and services at the time of pilgrimage to the tomb of Jewish saint in Israel. The research was attempted to analyze the process of personal items exchange such as sacred objects (eg Jewish text books, candles, amulets, and crystals) and services (eg blessing, healing) that are transferred directly from sellers to consumers. By using ethnographic approach, they found that the process of obtaining sacred goods is not only involving the goods themselves but also the influence of the seller. The process of marketing meditation to infuse originality or authenticity into their products or services is monotonous in which this is associated with the proximity of the retailer to the culture of the consumer.

Fam et al., (2004) carried out a large-scale research analyzing the effects of religion and intensity of religious beliefs on consumer behavior toward the advertisement of four controversial products. This includes the products used by consumers with different genders such as clothing for women and men, products related to social and political significance such as armors and funeral services, products related to health and personal care such as weight loss programs, and addictive products such as cigarettes and alcohol by using students as samples from four major religious groups such as Buddhists, Moslems, Christians, and non-believers (especially Taoism and Confucianism) in six different countries.

In the research, they found that the followers of those four religions have different attitudes toward the four controversial products. It is showed that Moslems are more likely to be offensive against the advertising of the four products compared to the other three religions. The study also revealed that the devout or religious followers are more likely to consider the advertising based on the sexes such as for clothing for men and women, health, and personal care products, as well as addictive products compared to consumers who are not devout. Gayatri et al., (2005) found that a Moslem who holds Islamic cultural values may influence the criteria of service quality evaluation in restaurants, hotels, and airlines. Religiosity can influence attitudes and lifestyle, information search, purchase risk-taking, attitudes toward advertising, and durable goods purchasing behavior. Thus, there is a sufficient evidence to support the application of religiosity in explaining consumer behavior.

Bahresy (1981) described the fundamental principle of consumption in Islam saying that everything from Allah is halal and nothing haram unless if there is a prohibition stated in Nash (proposition) that is authentic and sharih (clear). Actually, in the Qur’an, there is only four haram food as written in The Koran, Chapter Al Baqara, verse 173:

Translated as: Allah only forbids you carcasses, blood, pigs, and animals that (when slaughtered) is called (name) other than God (Allah) [108]. But whoever is forced to eat (is not wanting it) and does not transgress, there is no sin for him. Allah is Forgiving, Allah is Merciful.

So, it can be concluded that the terms of halal food according to Islam is that the material contained is halal, including halal in acquiring it, halal in the processing, halal in the storage, and halal in the transport and presentation.
Thus, based on the aforementioned discussion, this study formulated three hypotheses as follows:

- \( H_1 \): contextual factors influence the pattern of food consumption in Bandar Lampung society;
- \( H_2 \): religiosity can influence the pattern of food consumption in Bandar Lampung society;
- \( H_3 \): religiosity can mediate the contextual factors that influence the pattern of food consumption in Bandar Lampung society.

**METHODS OF RESEARCH**

A cross-sectional research design was used to test the relationship between independent factors, the level of halal product understanding among Moslems in Singapore which have complete educational facilities from kindergarten, elementary school, middle school, high school, and college based on Islam as well as have several non-formal Islamic educational institutions, which of course, will affect their purchasing decisions. The influence of religion is only tested on food purchases.

The instruments contain sub-sections. The subdivision of the instrument is taken from different previous studies. Adila (1999) used the practice of Islam (charity) as a clearer measure of diversity that is visible from other dimensions in Islam, namely; Knowledge (ma’rifat), faith (iman), consequences and realization (ihsan). Islamic practice includes a set of behaviors that are expected in a Moslem.

The adoption of the items is derived from Alam and Hisham (2011). In addition, it was determined by the respondent's perception towards the importance of religious practices in daily lives. The researchers assume that respondent's opinion reflects real behavior such as putting the perception of their behavior on a particular item. To check the validity of the proxies, respondents were asked to rate themselves in terms of their knowledge of halal products. The responses to all items were made on a 5-point scale (1 – strongly agree, 2 - agree, 3 - neutral, 4 – disagree, and 5 – strongly disagree). One question contains five possible responses about how respondents see halal products. This study relies on the ratings which are based on the responses received from the proxy statement as follows:

The sub-section of the questionnaire on relative and contextual factors is developed by researchers where the items are measured on a 5-point Likert scale ranging from 1 - strongly disagree to 5 - strongly agree.

The sub-section of the questionnaire on pre-decision and post-decision making where the items are measured by using a 5-point Likert scale ranging from 1 - strongly disagree to 5 - strongly agree.

This instrument, basically, consists of four sections in which the questions are distributed in accordance with the demographic variables, relative and contextual variables, as well as before and after the decision-making of Moslem consumer in the purchase.

Furthermore, to ensure the data validity and reliability, a pre-test with the questionnaire was conducted by selecting some consumers and professionals. After the final survey was given, the response analysis showed no problems with the survey design. Various constructions were tested for data validity by using a principal analysis of components with rotation. As a result, all items were maintained because there was no crossed load and were published as a single factor. In regarding with data reliability, the surveys had strong internal consistency with all multiple-item constructions that exceeded the acceptable standards of reliability analysis by 0,70 (Nunnally and Bernstein, 1994). Hence, the items were considered acceptable. The results showed that all the constructions were valid and reliable.

Meanwhile, the subjects of this study were consumers who have savings in Islamic banks in Bandar Lampung City, Indonesia. Furthermore, the data used were primary data which are the data obtained from respondents through a questionnaire.

In this study, the population was the people living in Bandar Lampung City. The total population was not limited; therefore, the determination of the samples was taken by using the table determination of a specific sample developed from Isaac and Michael with an error

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rate of 1% (Sugiyono, 2008). Based on the table determination, the population in this study is infinite so that the number of samples obtained are 664 samples.

The data was taken directly by distributing questionnaires to the respondents (Islamic bank customers).

In this study, the data collection was carried out by using questionnaire. The questionnaire was a data collection technique that is done by giving a set of questions or written statement to be answered by the respondents. This questionnaire method is used to obtain research data. To measure the scale of the assessment that is in the questionnaire, a Likert scale was used.

RESULTS AND DISCUSSION

Characteristics of Respondents. The results showed that the majority of respondents are male as many as 380 people while as many as 279 people are aged 25-35 years. Most respondents have private employees and earn 1 to 3 million rupiahs per month as many as 359 people.

Table 1 – Characteristics of Respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>Respondents</th>
<th>Age</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>380</td>
<td>Less than 25 years</td>
<td>139</td>
</tr>
<tr>
<td>Female</td>
<td>284</td>
<td>25 – 35 years</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More than 35 years</td>
<td>246</td>
</tr>
<tr>
<td>Job</td>
<td></td>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil servant</td>
<td>129</td>
<td>Less than 1 million rupiahs</td>
<td>93</td>
</tr>
<tr>
<td>Private employee</td>
<td>286</td>
<td>1 million – 3 million rupiahs</td>
<td>359</td>
</tr>
<tr>
<td>Merchant</td>
<td>53</td>
<td>More than 3 million rupiahs</td>
<td>212</td>
</tr>
<tr>
<td>Others</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test Results. The first hypothesis shows that relative and contextual factors had no effect on food consumption pattern in Bandar Lampung society indicated by the coefficient of 0.050 and a significant level of more than 0.05.

Table 2 – Research Results

<table>
<thead>
<tr>
<th>n/n</th>
<th>Religiosity</th>
<th>Consumption Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative and contextual factors</td>
<td>0.656*</td>
<td>0.050</td>
</tr>
<tr>
<td>Mediation variable of religiosity</td>
<td>–</td>
<td>0.552*</td>
</tr>
<tr>
<td>R2</td>
<td>0.434</td>
<td>0.310</td>
</tr>
<tr>
<td>Adjust R2</td>
<td>0.424</td>
<td>0.295</td>
</tr>
<tr>
<td>F</td>
<td>73.870</td>
<td>21.758</td>
</tr>
</tbody>
</table>

Significant to *p < 0.01.

The second hypothesis indicates that religiosity could influence food consumption pattern in Bandar Lampung showed by the coefficient of 0.552 and a significant level of less than 0.05.

Furthermore, the third hypothesis with religiosity as a mediating variable is tested. The SPSS output above provides a standardized value of beta Earns in the equation (1) 0.656 and significant at the 0.000. This means that the relative and contextual factors influence religiosity. The coefficient value of standardized beta by 0.656 is a path value or p2 paths. At the SPSS output, the regression equation is (2) the value of the standardized beta of relative and contextual factors by 0.050 and religiosity by 0.552 and only that religiosity is significant. The value of standardized beta of relative and contextual factors by 0.050 is the value of p1 path and the value of standardized beta of religiosity by 0.552 is the value of p3 path.
DISCUSSION OF RESULTS

The results of the analysis showed that the relative and contextual factors can not influence the consumers' buying behavior directly but influence the religiosity (as an intervening variable) and the pattern of consumption indirectly. The amount of direct influence is 0.050 while the amount of the indirect effect should be calculated by multiplying the indirect coefficient that is (0.656) x (0.552) = 0.362. Therefore, the coefficient of direct relationship is smaller than the coefficient of indirect relationship. So, it can be said that the true relationship within is indirect. This shows that H3 is accepted, meaning that religiosity is able to mediate the influence of relative and contextual factors towards consumption patterns.

All the examined hypotheses in this study support the assumption that religion has a greater influence on Moslems’ purchasing decisions. Therefore, it is true that, in Islam, the consumption patterns are governed by the religious orders. This challenges the assumption on the consumption pattern in the conventional economy. One of the purposes of this study was to test whether the results of the hypothesis can be empirically supported or not.

In accordance with the research of Alam (2011), Moslem people take Islam as a source of reference when making purchases in general and in specific. This is consistent with the verses that Islam commands Moslems to adhere the guidance of Allah and spend revenue to an enough or humble consumption. The study also shows that those who are religious tend to be less impulsive when making decisions in the pattern of consumption. Meanwhile, the effects of religiosity in expenditure have not been studied previously. These findings seem to be consistent with the literature indicating that individuals who are highly religious tend to have a mature, disciplined, and responsible consumption behavior.

REFERENCES

ABSTRACT
This research aimed to know and understand the ritual of Bayar Saut at Tewang Tampang Village of Payawan Sub-District, Katingan District of Central Borneo. This research was conducted due to the uniqueness of religious life in the area. Practically, Muslims do not participate in the implementation of the ritual of Bayar Saut. However, the reality was different. Although the ritual of Bayar Saut is an animism tradition, but Muslims in Katingan District of Central Borneo participated in implementing the ritual. All data, which had been collected by the techniques of observation, interview, and literature studies, were analyzed using phenomenology and hermeneutic theories. The findings of the research showed that: the ritual of Bayar Saut (fulfilling promise) was implemented in the form of offering ceremony that offered food and sacrificial animal such as cow for sahur parapah/gaduhan (supernatural creature) which was believed to help them during the time looking for fortune, providing protection from danger and disease; currently, the local society was still implementing the ritual of Bayar Saut because it was based on the religious, social and cultural ideologies; the society of Tewang Tampang Village, Katingan District of Central Borneo still implemented the ritual of Bayar Saut due to positive implications on their social, economic, and cultural lives. Their belief was so strong against the myth of the essence of life underlying the ritual that Muslims in Tewang Tampang Village, Katingan District of Central Borneo still participated in implementing the tradition of the ritual up to now.

KEY WORDS
Ritual, Bayar Saut, religious life, local culture.

Indonesia is an archipelagic country that has various cultures in the form of traditions, customs, beliefs, and so forth. The cultural diversity is coloring the attitude of people in their daily lives. One of them appears in the dialectic of religion with the local wisdom which forms new variants as cultural characteristics in each region. Local wisdom, as a cultural wealth, is very influential on the attitude of society in religious life in Indonesia. One of them appears at the religious attitude of Muslims in Tewang Tampang Village, Payawan Sub-District, Katingan District of Central Borneo, which currently have always participated in the implementation of the ritual of bayar saut. In fact, the ritual is classified as an animist practice that is prohibited in the teachings of Islam.

The ritual of bayar saut is a ceremony to fulfill the promise to sahur parapah/gaduhan (supernatural creature) which are believed to help the people of Dayak Kaharingan in looking for fortune and protecting them from danger and disease. The ritual of bayar saut is led by a pisor (ceremonial leader) who has been sanctified by the people of Dayak Kaharingan. They fulfill the saut with the offerings in the form of food and sacrificial animal such as cow or chicken according to the promised that has been made. The ritual is usually implemented in the house of person who is fulfilling the saut. After implementing the ceremony, the offerings dilarung (are thrown) to the river crossing the Tewang Tampang Village of Payawan Sub-District.
The research setting was located in Central Borneo, precisely in Tewang Tampong Village, Payawan Sub-District of Katingan District. Geographically, Tewang Tampong Village is bordered with Petak Bahandang Village in the east, it is bordered with Luwuk Kiri Village in the west, it is bordered with Luwuk Kanan Village in the north and it is bordered with Tumbang Panggo Village in the south. Tewang Tampong Village is crossed by a large river called the Katingan River which also separates Tewang Tampong Village with Luwuk Kiri Village and Tumbang Panggo Village.

Tewang Tampong Village can be reached through two transportation routes; that are through the river and land. In the past, water taxi was the main transportation used by the society to connect between one village and another. Currently, by the development of the era, that mean of transportation has now begun to be abandoned. However, if the rainy season and floods come, then this water taxi becomes popular again. Even so, water taxi is the only mean of transportation that can be used by the society.

Currently, the society of Tewang Tampong Village prefers to use land transportation by using a motorcycle or four-wheeled vehicles. There are two land routes that can be used to reach Tewang Tampong Village; through Hampangen Village and Luwuk Kiri Village. Passing through Hampangen Village needs caution to go because it is still a ground road and full of deep holes. When the rainy season comes, the area is flooded by water and is hard to pass. Meanwhile, other road that can be passed to go to Tewang Tempang Village is through Kasongan city but this path is not directly connected to Tewang Tempang Village because it is separated by the river. Therefore, from Luwuk Kiri Village, people have to ride getek (ferry boat) that can be rented from the local society. Then, people can use the land route again.

The road facilities of Tewang Tampong Village are very good. It is a concrete road with a width of ≥3 meter making it easier for the people to do their daily activities. In addition to be used for daily activities such as bathing, washing, and others, the Katingan River crossing Tewang Tampong Village is used for the economic field as a place to fish on the edge of the river, to raise fishpond and to mine the gold.

Initially, the natives of Central Borneo were the society of Tewang Tempang; the Dayak Katingan. According to the elders of the village, approximately 200 years before the century, there was the first migration of Malay nation to Indonesia from Yunan area. They come in waves inhabiting the beach. Broadly speaking, Dayak tribe in Borneo is divided into seven major tribes and then each is divided into smaller sub-tribes, among them are Dayak Ngaju, Dayak Apukayan, Dayak Iban, Dayak Muran, Dayak Punan, Dayak Ot Danom, Dayak Park, Dayak Katingan and Malay tribe.

The tribe of Dayak Katingan which is also often called as Dayak Kaharingan adheres to the beliefs of Hinduism. According to the Dayak Kaharingan belief, their tribe come from the seventh heaven (according to tetek tatum). Some others say that they came from Proto Melayu. The tribe of Dayak Kaharingan believes that their tribe was descended from the seventh heaven by using Palangka Bulau by Ranying Hatalla. It was mentioned that the ancestor of the Dayak Kaharingan tribe was descended by using Palangka Bulau in Tantan Puruk Pamatuan (the upstream of Kahayan and Barito Rivers), Tantan Liang Mangen Puruk Kaminting (around Gunung Raya), Datah Tangkasiang (the upstream of Malahui River) in West Borneo, and Puruk Kambang Tanah Siang (the upstream of Barito River) (Riwut 2003).

Since the colonial period in Indonesia, many people of Dayak Kaharingan adhere to Islam and Protestant Christianity. Nowadays, the people of Tewang Tampong Village, Katingan District of Central Borneo live in religious plurality. There are three religions adhered by the society of Tewang Tampong Village of Katingan District namely Hindu Kaharingan, Islam, and Protestant Christianity. Each of these religions has the same percentage of adherents and they live together. There are many of them even have close fraternal blood ties. Therefore, many families in Tewang Tampong Village live in one house in harmony with religious plurality.

In the midst of that harmonious religious life, there are various unique and interesting phenomena to be studied. One of them is the ritual of bayar saut implemented by Muslims. The ritual of bayar saut is an offering ceremony in the form of food and animal sacrifice such
as cow for saur sarapah/gaduhan (supernatural creature) in which the local society believe that they have helped them in looking for fortune and giving them protection from danger and all kinds of diseases.

As Muslims, their religious life is actually based on the teachings of the Holy Qur’an and Hadith too. In their dogma, they recognize the existence of a single reality (monotheism) as the ruler of the universe; it is Allah and Mohammed as the messenger of Allah. The reality of God as understanding of monotheism is reflected in the two sentences of the shahada: “ašhadu’al lāʾ ilāh ā illā-llāh” means: I testify that there is no god but Allah, written in the Quran Surah (37) Ash-Shaffat verse 35 and also in the phrase “wa’āšhadu ‘anna muhammadur-rasūlu-llāh” means: I testify that Muhammad is the messenger of Allah, written in Surah (48) Al-Fath verse 29.

All rituals in Islamic beliefs are carried out in accordance with the provisions which Allah has said through the Qur’an and hadith. The ritual in Islamic belief is carried out by Salah. According to Djamali (1992), Salah is a series of sayings and actions beginning with the recitation of takbir (takbiratul ihram, Akbar Akbar) and ending with salaam (assalammu’alaykum) in a particular process of reading and movement. Based on its natures, there are two rituals in Islam consisting of routine rituals that are carried out periodically and incidental rituals that are carried out at certain times.

This research was conducted due to the imbalance between the expectation and the reality. Those who embrace Islam should have not performed animist rituals. However, the reality was different. Although people in Tewang Tampang Village, Katingan District of Central Borneo adhered to Islam but in reality they still implement the ritual of bayar saur in which they believe in the existence of spirits or supernatural powers. The questions are: how is the form of the ritual of bayar saur?; why do they implement the ritual ?; what are the implications for their lives in this global era?

METHODS OF RESEARCH

This research applied qualitative method. The data source of this research is the implementation of the ritual of bayar saur, the relevant informants such as the elders, the leaders, and the society og Tewang Tampang Village, Katingan District of Central Borneo. In addition to the primary data sources, this research also used secondary data sources which were obtained from the previous research findings. All data, which had been collected by the techniques of observation, interview, FGD, and literature study, were analyzed critically using phenomenology and semiotic theories.

RESULTS OF DISCUSSION

The Implementation Form of the Ritual of Bayar Saut. The Islamic society of Dayak Katingan in Tewang Tampang Village of Central Borneo implemented the ritual of bayar saur (fulfilling promise) as the offering ceremony in the form of offerings containing food and sacrificed animal such as cow. The offerings were presented to the parapah/gaduhan (supernatural creature) that was believed to help their lives so far, especially in seeking fortune and providing protection from danger and all kinds of diseases.

Silo (the Pisor who usually led the ceremony of bayar saut) mentioned that not everyone has the good fortune to keep sahur parapah/gaduhan, as the lucky one will be visited by the supernatural spirit by dream. Moreover, in the matter of inheritance, the supernatural spirit chose itself who to follow. Those who keep the supernatural spirit known as sahur parapah/gaduhan believe that in addition to direct protection they will also be able to ask for special help based on what is desired. For example, when they are going to have long-journey travelling, they want to be taken care and protected from danger. Moreover, they want to be assisted in looking fortune, to be guarded from the intrusion of bad guys or evil beings, and much more.
In that palangka building, the society of Dayak Katingan offered the offerings before the offerings were brought to the river. According to Silo, if the family keeping the supernatural spirit wants to ask for help then they must call the creature by using the means of beras tawur; it is a kind of rice that has been given some powers through the spell. The beras tawur is then spread out with the spell whose contents are about the purpose and the purpose of arrival while promising to give offerings as a form of gratitude to the supernatural spirit. If their request has been granted then the person must offer to the supernatural spirit the offerings based what has been promised. If the promise is not kept it is believed that the supernatural spirit will be angry or mad and disturb the family. The tradition of fulfilling the promise in the society of Dayak Kaharingan at Tewang Tangamp Village of Central Borneo is called the ceremony of “bayar saut”. The following is a palangka building which is built inside a house where the supernatural spirit so-called sahur parapah/gaduhan is worshipped.

The implementation of the ritual of bayar saut is based on the holy book of Panaturan. According to Kencong (2006), every ritual performed by the society of Dayak Kaharingan at Tewang Tangamp Village, Katingan District of Central Borneo is always based on the teaching concept of Bawi Ayah, Raja Uju Hakanduang and Kanaruha Hanya Basakati who are commanded by Ranying Hatalla Langit to go down again to the earth and teach the descendants of King Bunu on the teachings of marriage, society, and the teachings relating to ceremonies and upakara from the lowest to the highest levels. Based on Panaturan section 41 verse 2, which reads:

“Amun kalute ampin kakare taluh handiai, huang pambelum anak esun Raja Bunu mijen Pantai Danum Kalunen, ije jadi uras nalingau kakare ajar RANYING HATALLA, te RANYING HATALLA hamauh ayak nyahuan Raja Uju Hakanduang, Kanaruhan Hanya Basakati, uka hadurut nanturung Lewu Telu Kalabuan Tinggang, Rundung Epat Kalehulun Talawang”

It means:

“Considering the life situation of the grandchildren of Raja Bunu who live on Danum Kalunen Beach, who have forgotten much about the teachings of RANYING HATALLA, therefore RANYING HATALLA said and ordered Raja Uju Hakanduang Kanaruhan Hanya Basakati to get down to Lewu Telu Kalabuan Tinggang, Rundung Epat Kalehulun Talawang”

Section 41 verse 2 of the holy book of Panaturan as mentioned above is giving instructions to Raja Uju Hakanduang and Kanaruhan Hanya Basakati, to immediately get down to Danum Kalunen (the universe) to re-teach the human race (the descendants of Raja Bunu) various small and large rituals as paths to get closer to the Ranying Hatalla Langit and all its manifestations, and at the same time as a means of asking for help if necessary.
One form of ritual which is also believed to be the teaching of the *Ranying Hatalla Langit* through *Raja Uju Hakanduang* and *Kanaruhan Hanya Basakati* is the ritual ceremony of *bayar saut*. In practice, the ritual of *bayar saut* is adjusted to the amount of the promises that have been mentioned to the supernatural spirit. If the promise is about to sacrifice a pig or a cow then it would be a big ritual, but if the promise is about to sacrifice only a chicken then it would be a small ritual. In practice, according to the ceremonial leader called Silo (ceremonial leader), a big ritual must establish a small building as a place of offerings so-called *palangka* and *sapundu* buildings to place the sacrificial animals, as shown in Figure 2.

![Figure 2 - Sapundu building, a place of offerings and sacrificial animals to be offered to the supernatural spirits in a big ritual of bayar saut (Documentation: Rahmawati, 2017)](image)

If it is a small ceremony then the offerings are meals equipped with sacrificial animals in the form of chicken as shown in Figure 3.

![Figure 3 - The offerings are in the form of meals with chicken in a small ritual of bayar saut (Documentation: Rahmawati, 2017)](image)

The above offerings are dedicated to the supernatural spirit using *nyiru* or trays in the *palangka* building which is built inside the house.

The ritual of *bayar saut* is usually led by a Pisor/Basir (a ceremonial leader who has been consecrated). The procedures for the implementation of the ritual of *bayar saut* begin with *menawur* or spread out the rice that has raised its power through spells and prayers so it
is believed to be an intermediary to convey or invite the supernatural spirit (*sahur parapah*) to come in the ritual ceremony of *bayar saut* which is being implemented.

The next stage is to implement *hasaki palas*; it is the ceremony of purification of ceremonial means and facilities by using *tamping tawar* (white rice flour) and *parapen* to honor the angels who come along with *sahur parapah* in that ritual of *bayar saut*. After implementing the ceremony of purification of ceremonial means and facilities, *hasaki palas* ceremony was conducted by using *tamping tawar* (white rice flour) and *parapen* as the welcoming ceremony. All family members dance (*mengajan*). They dance around the ceremonial facilities and facilities that will be offered to the supernatural creature.

By using a long scarf or cloth for female participants strapped around their necks, they dance around the offerings, as shown in the following figure.

![Figure 4 – The families dance (*mengajan*) using a scarf that is worn around the neck and they go around the means and the facilities of a big ceremony of *bayar saut*](image)

(Documentation: Rahmawati, 2017)

After implementing the welcoming ceremony for the supernatural spirit, then it comes to turn at the peak of the ritual of *bayar saut*. The members of the family alternately offer the offerings equipped with sacrificial animal such as the cow. It is carried out by spearing the sacrificial animal (cow) to bleed and die then the blood of the sacrificial animal attached to the spear is then smeared onto each of the foreheads of the family members who participate in implementing the ritual of *bayar saut* as a sign that the promise to the supernatural spirit has been completely fulfilled. The person who has made the promise even considered to be free from debt or has cleaned himself/herself (*hasaki palas*) from the debt promise to avoid the undesirable things.

In addition, the blood of the sacrificial animals that falls on the ground is interpreted as the purge of the earth or the foot ground by the local society. In the future, it is no need to worry when having a small child who has not tossed his/her feet to the ground because the ground has been considered as pure and clean.

After the sacrificial animal (cow) died then the flesh is bried and cut into pieces. Some of the beefs are offered for offerings and the others are distributed to the people who live nearby. The beef to be offered is placed inside the *palangka* building (a place for worshipping the supernatural creature) to be brought to the residence of the person implementing the ritual *bayar saut* or to be brought to the river according to the clue of the paranormal or the person leading the ritual of *bayar saut*.

*The Ideology Underlying the Implementation of the Ritual of Bayar Saut.* The society of Dayak who adheres Islam in Tewang Tampong Village, Katingan District of Central Borneo is still implementing the ritual of *bayar saut* due to positive implications on their social, economic and cultural life in that place. Their belief in the mythology about the essence of life

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that underlies the ritual is so strong which has made them keep the ritual of bayar saut up to now.

The people of Dayak Kaharingan in Katingan District of Central Borneo are able to live harmoniously between religious life of Hindus, Muslims and Protestant Christians in one big family. Although they embrace different beliefs in a family, they can still maintain a harmonious family, especially in implementing the ritual of bayar saut.

The totality of the ritual of bayar saut implemented by Muslims in Tewang Tampang Village of Katingan District is based on the belief that there are supernatural powers around them. Ideologically, the integrative movement of the Muslims of Dayak Kaharingan in the implementation of the ritual of bayar saut is centered on sahur parapah or gaduhan as the regulator of supernatural powers. Sahur parapah is believed by the society of Dayak Kaharingan as a manifestation of Ranying Hatalla Langit (God) who is in charge of safeguarding and helping human life in the earth.

The power of sahur parapah in dealing with any supernatural annoyances for the life survival of the society of Tewang Tampang Village, Katingan District of Central Borneo is the main cause in which the local society across generations continues to implement the ritual of bayar saut. The sustainability is influenced by the ideology of cultural preservation that has become the basis of solidarity in a family. As a point of view in living the life, ideology can strengthen social relationships and maintain the stability of their lives together in groups (Sumantri and Zaimar, 2001). The strength of the relationship between the personals in a family results in the impact on the extent of their belief in sahur parapah. Therefore, there are not a few of members of the family who are Muslims also participate in implementing the ritual of bayar saut traditionally. In addition, for the sake of preserving their family culture and safety, they seem to ignore the prohibition of Islamic teachings.

Traditionally, the kinship in Tewang Tampang Village, Katingan District of Central Borneo gives freedom to the next generation to choose a religion under consideration that they keep and continue the tradition of their big family from their father or mother as long as their parents do not have their own house. After their parents are independent and have their own house, the child is welcome to live his/her parents under consideration that he/she understands the concept of huma betang to be able to respect the differences in the family, especially in cooperatively helping each other in preserving the tradition of the ritual of bayar saut.

Traditionally, in the implementation of the ritual of bayar saut, there is a kind of equation between a family member to a certain animal because it is considered to bring family's disgrace. The family's disgrace can be due to being married to own sibling (endogamy) and being married not in accordance with the customary provisions of Tewang Tampang Village, Katingan District of Central Borneo. To remove the labeling, they are required to participate in the ritual of bayar saut. Within the ritual, they must be willing to be called animal and walk by imitating the walking style until they arrive at dulang bawi. Upon the arrival, they are just considered to be purified (dipalas) and be removed their labeling by a basir, the leader of the ritual of bayar saut. However, when there are still objections from family members about the elimination of animal labeling, the customary party is ready to clarify and resolve the issue if the member of the family is willing to give the jipen to the customary board; it is such willingness to always participate in the ritual of bayar saut and make material compensation to the customary party, not to mention those who are Muslims.

Ideologically, the aspects of cultural preservation from the actions of Muslims in Tewang Tampang Village, Katingan District of Central Borneo through the ritual of bayar saut at least have contribution to the resilience of the Dayak Kaharingan society in the midst of the social dynamics that occur in that place.

Dhamamony (1995) and Bakhtiar (2007) mentioned that every difference accompanied by the symptoms of weirdness is always caused by the supernatural powers of the spirits as the form of animism. In line with the statement, the religious life of Muslims in the Dayak Kaharingan family in Tewang Tampang Village, Katingan District of Central Borno is still convinced the existence of sahur parapah as a supernatural creature who is a guardian of their own, the family and the village. Therefore, they implement the ritual of bayar saut to
revitalize the function of sahur parapah as a guardian of their own, the family and Tewang Tampang Village, Katingan District of Central Borneo and the identity of the descendants of Raja Bunu.

King Bunu is a figure that strengthens the resolve of Muslims in Tewang Tampang Village, Katingan District of Central Borneo to participate in the preservation of the cultural tradition of Dayak Kaharingan. They implement the ritual of bayar saut because they feel that they are the descendants of Raja Bunu. In the legend of Dayak Kaharingan tribe, Raja Bunu was mentioned as a messenger of Ranying Hatalla Langit as a danum kalunen for human life in the world. Therefore, the family of Raja Bunu received great attention and protection from the family of Raja Sangeng and Raja Sangiang until the entire family of Raja Bunu could be reunited with Ranying Hatalla Langit.

The descendants of the family of Raja Sangeng and the family of Raja Sangiang are known to be very respectful to the cultural heritage, be obedient in performing the rituals and have many members who master supernatural powers. Therefore, the family of Raja Bunu feels lucky especially related to the problems of life resulting from the disturbance of supernatural creature. Through the preservation practice of the ritual of bayar saut among Muslims in Tewang Tampang Village, Katingan District of Central Borneo, ideologically, it has labeled the respective status in religious life for the society of Central Borneo, not only because of the faith but by the royal genealogical relationship.

Takwin (2003) mentioned that ideology represents the main idea that is used as a guide for social groups in achieving their goals. The combination of local cultural preservation ideology and Islamic teachings has made the ceremony of bayar saut to be phenomenal in order to maintain the integrity of the family among religious diversity in Tewang Tampang Village. The Muslims in Tewang Tampang Village of Central Borneo are not only orienting to God worshipping, but also practicing the animism ritual of bayar saut as a religious ceremony.

Ideologically, the religiosity of Islam is a religion based on the movement of social groups to the Qur’an and Hadith. The two guidelines affirm only recognizing the supreme ruler of the universe that is Allah and Muhammad as the messenger of Allah. Muti’ah (2009) mentioned that Islamic teachings are centralized in the concept of monotheism (tauhid) in which Allah is mentioned as the center of everything and they are required to dedicate himself only to Allah and are forbidden to associate Allah with others. The doctrine asserts that Muslim life should be oriented to devote only to Allah as the center of the destiny of life of all the monotheistic emphasis in Islam teachings. This matter seems paradoxical even contradictory in the implementation of Muslim worshipping in Tewang Tampang Village which is quite dependent on sahur parapah or gaduhan as the center of religiosity and the determinant of the destiny of life. It is carried out because of fear of a disaster that could happen to their family. Therefore, the society of Dayak Kaharingan implements and preserves the ritual of bayar saut. The fear is based on a belief to the stories of Dayak Kaharingan elders. As stated by Ernawati (41) and Yapin (45) about the stories of Dayak Kaharingan elders:

“Once in our village, there was a Haji who also had sahur parapah/gaduhan. He was a rich man and the number-one richest man in this Payawan District. But when he passed away, there was no son who would continue the ritual. Finally, one-by-one of his child was sick, got accidents and some even died. The wealth is now end and their lives are now very worrisome.”

The above explanation by Ernawati (41) and Yapin (45 years) is one of the stories in the society of Tewang Tampang Village which is believed to be authentic, so they are afraid to abandon the tradition of the ritual of bayar saut. The statement of Ernawati (41) and Yapin (45) were reinforced by the statement of Bapa Teguh as a Muslim who still maintains the ritual of bayar saut as a family tradition. The ritual of bayar saut is a necessity and a must to be preserved. The conviction was affirmed by Bapa Teguh who said that:

“...choosing to continue the tradition of the ritual of bayar saut after knowing that his child and wife almost died because they were disturbed by sahur parapah or gaduhan who had been worshiped by his previous datuk. The reasons justifying the decision to re-
implement the ritual are (1) sahuur parapah or gaduhan is considered not as a genie or a demon, but a supernatural creature that can become friend and help family life, (2) inside the tradition of Islamic teachings, it teaches about the Mikail angel who is assigned by Allah to bring down rain and share fortune. The role of sahuur parapah or gaduhan in the tradition of Dayak Kaharingan family is considered very identical with the Mikail Angel which is honored through the implementation of the ritual of bayar saut.

Based on the statement of Bapa Teguh, it showed that the Muslims of Dayak Kaharingan try to apply the Islamic teachings that can synergize with the customs of the Dayak Kaharingan family, so that they can live harmoniously in religious differences in a family as the main reference. The reference of social action is firmly rooted in the superstructure of its people. That superstructure level includes ideology (Sanderson, 1993; Suardika et al., 2006; Kerepun, 2007; Supriyono, 2005; Atmadja, 2006). It means that in relation to the implementation of the ritual of bayar saut, it is ideally established and is based on the construction of knowledge that accommodate the desire of the majority of social groups in fostering the kinship structure. In other words, ideologically, the necessity for the implementation of the ritual of bayar saut among Dayak Kaharingan Muslims as a family tradition is more based on the importance of cultural preservation than the quest for heaven in Islamic religion. Moreover, Elsutha (2013: 45) mentioned the fact that the Qur’an and Hadith as a religious guideline have no verses that require the people to perform the ritual of bayar saut. It is also written in An-Nisaa verse 48 which states that:

“Indeed, Allah does not forgive association with Him, but He forgives what is less than that for whom He wills. And he who associates others with Allah has certainly fabricated a tremendous sin.” (Surah An-Nisa: 48)

According to Surah An-Nisa: 48, Islam does not religiously justify the ritual practice which is offered other than Allah. The practice is hereditary and it is more based on family heritage and customary interests for the harmonization of life of Dayak Kaharingan tribe in Tewang Tampang Village of Central Borneo. The ritual bayar saut is a form of cultural negotiation of Dayak Kaharingan in Central Borneo that use cows as a substitute for pigs by Muslims. It is contrary to the statement proposed by Medi, Religious School Students on May 20, 2017:

“...actually there are no rituals and tawur that use cows, it is only chickens and pigs”.

Based on Medi’s statement, it can be seen that there are negotiations through the rituals that use sacrificial animal. The practice of the ritual becomes increasingly sacred because it involves the form of religious symbols such as clothing. As one form of religious activity, the obligatory clothing for Muslims during the implementation of ritual of bayar saut is traditional clothes of Dayak Kaharingan tribe. That matter ideologically affirms the preservation of Dayak Kaharingan culture to be the central force that encourages the movement of Muslims in Central Borneo to continuously perform the ritual of bayar saut. The Implication of the Implementation of the Ritual of Bayar Saut. Currently, the society of Tewang Tampang Village, Katingan District of Central Borneo continues to implement the ritual of bayar saut for positive implications on the social, economic, and cultural life of the local society. Their belief in the myth of the essence of life that underlies the ritual is so strong that until now the Muslims in Tewang Tampang Village, Katingan District of Central Borneo still implements the tradition of the ritual.

Ideological dialectics of Islam in the ritual of bayar saut as a tradition of the society of Dayak Kaharingan in Tewang Tampang Village. Pintawan Sub-District Katingan District of Central Borneo indirectly have implications for social life for Muslim in religious life especially Muslims in Tewang Tampang Village, Katingan District of Central Borneo. It is characterized by the strengthening of kinship relationship of Dayak Kaharingan people. The basis of the solidarity also refers to the personal matter. Barker (2000: 218) asserts that the identity of a collection of tastes, beliefs, attitudes and lifestyles can be both a gap and a reinforcement of a colony of a social group.

Identity is an element of the formation of social reality. In addition, it is an identity that crystallizes and is preserved, modified and even transformed through various forms of social relationships. In that context, the identity of Muslims in the society of Dayak Kaharingan is
seen as part of social facts as well as a source of guidance in religious activities including in performing the ritual of bayar saut.

The implementation of the ritual of bayar saut has implications for strengthening of customary identity to the society of Dayak Kaharingan tribe in Tewang Tampong Village, Katingan District of Central Borneo. Eriksen in Maunati (2004: 29) mentioned that identity as a social construct can strengthen the recognition of members of their social groups among other social groups. The identity of the Dayak Kaharingan tribe can be characterized by cultural material factors such as food, clothing, housing, equipment and non-material factors such as language, customs, belief systems, knowledge and attitudes that can give the exclusivity of social standing.

The attitude of exclusivity is socially-politically known as strict, rigid and less able to relate and cooperate with other groups. They are easy to blame and disbelieve others for not agreeing with the group. However, it is different with the attitude of Muslims who participate in the implementation of the ritual tradition of bayar saut which has a more open and flexible kinship structure about the aspects of religious differences in the society relations without having to change and adapt the exclusivity aspect of each of the religious followers in Tewang Tampong Village, Katingan District of Central Borneo. In addition, its involvement has succeeded in removing the indoctrination of the infidels among the groups of Muslims who implement the ritual of bayar saut in that village. In addition, it is about the openness of the religious dialogue, not only in a family but among families in Tewang Tampong Village, Katingan District of Central Borneo on the issue of sensitive piety and taboo of every religion.

Latane in Rahardjo (2005: 250) argued that actually a dialog between individuals can be formed when the individuals are not in isolated situations. The religious life in Tewang Tampong Village, Katingan District of Central Borneo interacts in a social space, an area where they can meet, communicate and try to influence each other. In other words, the gap aspect of each religious identity of the ritual actors is significantly decreasing.

Knitter in Kusuma Dewi (2013: 26) argued that religious identity should be a representation of one's faith consciousness, apart from a priority piety due to the cultural and social situation. Religious identity in the structure of the implementation of the ritual of bayar saut is still used, synergized as a complement and reinforcement of faith which is more influenced by the genealogy of the Dayak Kaharingan cultural tradition. The sustainability of the situation has already implicated the formation of a priority piety that is socially the basis for the denal and the eradication of the pathology of social groups.

The disgrace of the family is still a problem that is fought in the life of diversity through the establishment of a priority piety to the preservation of the ritual of bayar saut in Tewang Tampong Village, Katingan District of Central Borneo. Thus, the establishment of a priority piety to the preservation of the ritual of bayar saut already has implications for the affirmation of social respect to the society in Tewang Tampong Village, Katingan District of Central Borneo, not least for Muslims.

The ritual of bayar saut has already had economic implications on the religious life especially the Muslims in Tewang Tampong Village, Katingan District of Central Borneo. In addition to the aspect of religiosity which is focused on sahur parapah, Muslims in Dayak Kaharingan society believe that it can arouse the Mikail angel who is assigned by Allah to bring down rain, arrange sustenance, and able to grant financial improvement and ease of sustenance.

Muslims in Dayak Kaharingan society, who get the ease of sustenance and financial improvement after performing the ritual of bayar saut and who believe in the source of the blessing, tend to enlarge the sacrificial aspect and the form of ritual celebration in the next period as a form of gratitude and socio-economic prestige in Tewang Tampong Village, Katingan District of Central Borneo. The large number of Muslims who were granted their wishes in obtaining the ease of sustenance and financial improvement resulted in ritual contestation on a considerable scale as evidence that the economic condition of a family in Dayak Kaharingan society in Tewang Tampong Village, Katingan District of Central Borneo is better than before. Socio-economically, the form of the contestation of the ritual of bayar saut in Tewang Tampong Village, Katingan District of Central Borneo can result in
increasing the flow of economic turnover for the ritual purposes as well as showing to the public that the establishment base of the Dayak Kaharingan society has become more evenly and increased. Thus, it can be concluded that the involvement of Muslims in the ritual of bayar saut already have economic implications for the affirmation of the structure establishment of Dayak Kaharingan society in Tewang Tampong Village, Katingan District of Central Borneo.

The ritual of bayar saut already has cultural implications on religious life in Tewang Tampong Village, Katingan District of Central Borneo. The cultural implications of the ritual implementation in Tewang Tampong Village, Katingan District of Central Borneo have given a distinctive style to the dignified Islamic life in that village. Maryadi (2015: 25) mentioned that maintaining social religiosity relates to the contribution of religion held by the society, where the practice of religion can synergize with the cultural heritage of the society.

Basically, a culture of a society is a manifestation of the combined mindset, behavior and social value system. In that context, the religious practice of a family in Tewang Tampong Village of Central Borneo is seen as part of the struggle of existentiality through the integrity and integration of diverse religions with the culture of Dayak Kaharingan.

The sustainability of the ritual implementation of bayar saut can contribute significantly to the preservation of the identity of Dayak Kaharingan cultural traditions in Central Borneo. Ritherfoed in Piliang (2006: 279) mentioned that identity is a link that connects cultural values and social needs. In the religious life of the Dayak Kaharingan family, there are many people of Tewang Tempang Village mentioned that the ritual of bayar saut is part of Hindu Kaharingan teachings. Meanwhile, among Muslim and Christian group, they clarified that the implementation of the ritual of bayar saut is only limited to customary activities of Dayak Kaharingan tribe. In other words, Hindu groups of Dayak Kaharingan society is considered need more perfection of their faith.

The aspect of benefits gained especially for the Muslims from the implementation of the ritual of bayar saut is the improvement of sensitivity and concern for the aspect of cultural settlement of Dayak Kaharingan in Central Borneo optimally and plural aspect of religious culture among the flow of social change in Tewang Tampong Village of Central Borneo. Thus, the cultural implications of the implementation of the ritual of bayar saut have contributed to the form of community welfare in Tewang Tampong Village of Central Borneo.

CONCLUSION

Based on the discussion, it can be concluded that the society of Tewang Tampong Village of Central Borneo implemented the ritual of bayar saut (fulfilling promise) in the form of offering ceremony using the offerings in the form of sacrificial food and animal. The offerings are dedicated to supernatural creature so-called parapah/gaduhan that is considered to help them in seeking fortune and protect their lives from various dangers and disease. The local society believes that sahur parapah/gaduhan is a manifestation of Ranying Hatalla Langit or God in the form of supernatural creature that has the duty of helping the lives of mankind. The ritual of bayar saut that is interpreted as a ritual ceremony to fulfill the promise to sahur parapah/gaduhan (supernatural creature) is implemented by the stages: (a) inviting Gods, angels, and sahur parapah to attend the ceremony, (b) purifying ceremonial means (hasaki palas), (c) dancing together, (d) offering the sacrificial animal with spears, and (e) delivering offerings to the river after the offering ceremony is completed.

The ritual implementation of bayar saut by Muslims in Tewang Tampong Village of Central Borneo did not result in conflict as some components of the ritual ceremony of bayar saut were replaced; as replacing pigs with cows as the sacrificial animals and replacing the use of prayer rugs and veils for Muslim women by using traditional clothing of Dayak Kaharingan.

The Islamic society in Tewang Tampong Village of Central Borneo is currently implementing the ritual of bayar saut for positive implications on the social, economic and cultural life of the local society. The ritual of bayar saut continues to be implemented by Muslims in Tewang Tampong Village, Kaharingan District of Central Borneo because it
showed the pluralism point of view in religious life. The ritual of bayar saut is enrichment forms of Muslim life in Indonesia. Their belief was so strong against the myth of the essence of life underlying the ritual that Muslims in Tewang Tampong Village, Katingan District of Central Borneo still participated in implementing the tradition of the ritual up to now.

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FACTORS INFLUENCE TO HOTEL TAX COMPLIANCE IN DENPASAR CITY

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ABSTRACT
The purpose of this study is to determine the effect of understanding the rules of taxation, distributive justice, tax administration, moral obligations, and tax sanctions against tax compliance. The study was conducted in Denpasar City with hotels’ owners or general managers as respondents. The results of analysis show that understanding of taxation regulation and distributive justices have positive effect on Denpasar tax compliance.

KEY WORDS
Understanding of taxation, distributive justice, tax administration compliance, moral obligations, taxation sanctions.

Local Own Revenue is an important capital in regional development besides General Allocation Fund and other governmental. Potential sources of revenue in financing regional development should be maximized by local governments due to the implementation of regional autonomy. As a tourist destination, contribution of hotel tax on Province and Regency in Bali is quite big. So that the tax compliance, especially the field of hotels will be able to increase local revenue. Compliance is an attitude by willingness to carry out a behavior, based on awareness or coercion, so as to make a person's behavior in accordance with what is expected (Mc Mahon, 2001).

Since 2013 Denpasar Revenue Board started to implement self-assessment system on the implementation of hotel taxation. In such a system, the taxpayer is given the authority, trust, responsibility to the taxpayer in calculating, paying and reporting his own taxable amount payable (Ilyas & Burton, 2011). Implementation of the self-assessment system, taxpayers are more likely to utilize the trust given by the government and do not perform the provisions of taxation well. Law No. 28 of 2009 on Regional Taxes and Levies states that there are 16 types of local taxes consisting of 5 provincial taxes and 11 districts / cities taxes. Provincial and regency / municipal governments are given full authority to explore the objects of local taxes to be a source of revenue in the form of local taxes. The fraud done by the taxpayer in making the tax payment that is not calculate well and true income it receives, and there is still a lot of increase hotel addition which is not matched with tax payment from taxpayer, and accumulation of arrears from previous so causing swelling of tax to taxpayer. Research on tax compliance has been done, using variable of understanding of taxation, distributive justice, tax administration, moral obligation, and taxation sanction.

THEORY AND DEVELOPMENT OF HYPOTHESES

Theory of Legitimacy. Ghozali (2007) describes the theory of legitimacy as a value system of entities in line with the social value of society. If in a system in an entity the absence of harmony with the value system of society, then the entity will lose its legitimacy that can complicate the survival of the entity. O'Donovan (2007) argues that legitimacy is considered to equate perceptions or assumptions that actions taken by the entity are normal and aligned in accordance with applicable regulations.

Rohmawati (2012) taxpayer compliance can be influenced by the level of understanding of taxpayers of the applicable taxation legislation. Understanding the rules can foster a positive attitude of the taxpayer if they are well aware of the contents of tax laws that
often change. Understanding the regulation is expected to generate high self-awareness for taxpayers to perform their obligations as taxpayers voluntarily obey.

H1: the understanding of tax laws has a positive effect on taxpayer compliance of hotels in Denpasar city.

Theory of Justice. Robbins (2008) states the theory of justice will be given by someone after considering the efforts undertaken and the results of tax obligations by the taxpayer and consider other taxpayers. Taxpayers respond to injustice against them by non-compliance with their tax obligations. Budhiarsana (2011) concluded that taxpayer compliance is positively influenced by distributive justice.

Budhiarsana (2011) study supports the results of the Albari (2013) study which found that taxpayer compliance is influenced by distributive justice. Existence of consideration of paying taxes and getting good service from the income board, taxpayers will react to his perception of distributive justice that obediently fulfill his obligations. Distributive justice and taxpayer compliance were found by Albari (2008), Mahasena (2017). Verboon and Goslinga (2009) find distributive justice not to have a significant effect on entrepreneurs with high personal norms. Taking into account the payment of taxes in exchange for services from Dispanda, taxpayers will react to their perception of distributive justice by adhering to tax obligations.

H2: Distributive Justice has a positive effect on hotel taxpayer compliance in Denpasar city.

Theory of Legitimacy. Ghozali (2007) describes the theory of legitimacy as a value system of entities in line with the social value of society. System in an entity the absence of harmony with the value system of society, then the entity will lose its legitimacy that can complicate the survival of the entity. O'Donovan (2007) argues that legitimacy is considered to equate perceptions or assumptions that actions taken by the entity are normal and aligned in accordance with applicable regulations.

Rahayu (2009) taxpayer compliance can be influenced by several factors namely the state tax administration system of a country, services provided to taxpayers, law enforcement taxation, tax audit and tax rates applicable. Simple taxation system is very important because the more complex the tax system will affect taxpayer compliance. Existing system has given satisfaction to the taxpayer will be more compliant in carrying out its tax obligations. Fujihana (2012) the purpose of tax administration is to assist in the development of voluntary tax compliance. Taxpayer compliance will continue if supported by effective administration. Harinurdin (2011) also argues that the simplicity of tax laws is very important, because it facilitates the administration system and compliance / tax compliance and helps in achieving maximum tax revenue.

H3: tax administration has a positive effect on hotel taxpayer compliance in Denpasar city.

Moral obligation. Ghozali (2007) describes the Theory of Legitimacy as a value system of entitas in line with the social value of society. System in an entity the absence of harmony with the value system of society, then the entity will lose its legitimacy that can complicate the survival of the entity. O'Donovan (2007) argues that legitimacy is considered to equate perceptions or assumptions that actions taken by the entity are normal and aligned in accordance with applicable regulations.

Moral obligation of a person must have individual norms in carrying out everything, such as ethics and principles (Ajzen, 2002). It can be attributed to the compliance of the taxpayer to meet all tax obligations, especially paying hotel taxes. Mustikasari (2007) and Pranata (2015) proves moral obligation to have a positive and significant influence on taxpayer compliance. Moral obligations that exist in the taxpayer high causing the intention of non-tax compliance low. Moral community will affect tax collection by tax authorities. With high integrity of course the fulfillment of tax obligations will be better. Taxpayer compliance will be more better if the morale of the population is good. The desire to escape tax both illegally and relieved is motivated by the low morale of society. Poor community morale will hamper tax collection, noncompliance will dominate taxpayers' tax obligations (Muthia, 2014).
H4: Moral obligation affects positively on hotel taxpayer compliance in Denpasar city.

**Attribution Theory.** Events are interpreted by a person and examine the interpretation of the reasons and the causes. The relationship with tax sanctions in the form of strict sanctions and felt to be fair for all taxpayers is very necessary, distributive justice is deemed very necessary in providing services to taxpayers to assist in payment, do not discriminate the taxpayer, so that all taxpayers feel satisfaction the same from one another. Moral obligation is the norm of an individual possessed by a person, but may not belong to another. Tax sanctions are a guarantee that the provisions of the tax laws and regulations will be obeyed or obeyed or observed, in other words, tax penalties are a means of preventing taxpayers from violating taxation norms (Mardiasmo, 2011: 59). In the tax law there are two types of sanctions, in the form of criminal sanctions and administration. Tax sanctions imposed on taxpayers who are not compliant in fulfilling their taxation.

Yulayca (2013) in his research states that tax sanctions have a positive effect on taxpayer compliance. Taxpayers are likely to be obedient to their tax obligations if the applied fines sanctions cause more losses. The greater amount of tax arrears that are owned and must be paid by the taxpayer, the more weight will be burden for the taxpayer in the repayment. Layata and Setiawan (2014) and Sanjaya (2014) found that the better perceptions of enforcement of sanctions received by taxpayers will lead to increased taxpayer compliance in terms of carrying out all tax obligations. This opinion supports the research of Jatmiko (2006) and Koentarto (2011) which proves that tax sanctions have a positive effect on taxpayer compliance.

H5: tax sanctions have a positive effect on hotel taxpayer compliance in Denpasar city.

**METHODS OF RESEARCH**

This research uses quantitative approach in associative form. Quantitative research is a study that emphasizes theoretical testing through measurement of research variables with numbers and data analyzed using statistical procedures (Indiantoro & Supomo, 2013). Research in the form of associative is research that aims to know the relationship between two variables or more (Sugiyono, 2013).

Data source used in this research is primary data. Primary data collected by using questionnaires containing statements distributed to respondents are hotel taxpayers. Non-participant observation is data collection technique where the researcher is not involved and only as a free observer (Sugiyono, 2013: 204). In this study, the data obtained from documentation techniques such as the list of hotel tax arrears in Denpasar Revenue Agency, as well as using Likert scale.

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hotel Taxpayer</td>
<td>83</td>
</tr>
<tr>
<td>2</td>
<td>Samples not return</td>
<td>(0)</td>
</tr>
<tr>
<td></td>
<td><strong>Total selected as sample</strong></td>
<td><strong>83</strong></td>
</tr>
</tbody>
</table>

*Source: data processed (2017).*

\[
Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \quad (1)
\]

Where:
- \(Y\) = Tax compliance;
- \(\alpha\) = Constants;
- \(\beta_1\) = Regression coefficient understanding of tax regulations;
- \(\beta_2\) = Coefficient of tax administration regression;
- \(\beta_3\) = Regression coefficient of tax sanction;
- \(\beta_4\) = Regression coefficient Moral Obligation;
\[ \beta_5 = \text{Regression coefficient of Tax Sanction}; \]
\[ X_1 = \text{Understanding of tax laws}; \]
\[ X_2 = \text{distributive justice}; \]
\[ X_3 = \text{tax administration}; \]
\[ X_4 = \text{Moral Liability}; \]
\[ X_5 = \text{Tax Sanctions}; \]
\[ E = \text{residual}. \]

**RESULTS AND DISCUSSION**

Understanding of Tax Regulations as measured by discreonary accrual has a minimum value of 6.00. The maximum value is 21.63 and the mean is 16.625. Std Value. Deviation is 5,543. Distributive Justice as measured by discreonary accrual has a minimum value of 3.00. The maximum value is 10.85 and the mean is 8,200. Std Value. The deviation is 2,808. Tax Administration as measured by discreonary accrual has a minimum value of 14.00. The maximum value is 52.63 and the mean is 39,054. Std Value. The deviation is 12,490. Moral duties measured with discreonary accruals have a minimum value of 4.00. The maximum value of 15.26 and the mean of 10.913. Std Value. The deviation is 3.740. Taxation sanctions as measured by discreonary accruals have a minimum value of 5.00. The maximum value of 18.55 and the mean of 13.413. Std Value. Deviation is 4.567.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Regression Coefficient</th>
<th>Std. Coefficient Beta</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>influence of tax understanding</td>
<td>0.174</td>
<td>0.198</td>
<td>2.095</td>
<td>0.039</td>
</tr>
<tr>
<td>distributive justice</td>
<td>0.369</td>
<td>0.213</td>
<td>2.078</td>
<td>0.041</td>
</tr>
<tr>
<td>tax administration</td>
<td>0.084</td>
<td>0.217</td>
<td>2.324</td>
<td>0.023</td>
</tr>
<tr>
<td>moral liability</td>
<td>0.228</td>
<td>0.176</td>
<td>1.999</td>
<td>0.049</td>
</tr>
<tr>
<td>tax sanction</td>
<td>0.201</td>
<td>0.189</td>
<td>2.059</td>
<td>0.043</td>
</tr>
</tbody>
</table>

\[ \text{Adjusted R square} = 0.668 \]
\[ F_{R} = 34.034 \]
\[ F \text{ Sig} = 0.000 \]

**Linear Regression Analysis**

\[ Y = -0.620 + 0.174(X_1) + 0.369(X_2) + 0.084(X_3) + 0.228(X_4) + 0.201(X_5) \]

**Source:** SPSS, 2017.

Hypothesis test the influence of tax understanding variable to tax compliance. Since the Sig value is 0.039 < 0.05 with the value of 2.095, H1 is accepted. This means that the variable of tax understanding has a positive effect on tax compliance variable. Hypothesis test of influence of distributive justice variable to tax compliance. Therefore the Sig value of 0.041 < 0.05 with the value of 2.078, H2 is accepted. This means that distributive justice variables have a positive effect on variable tax compliance. Hypothesis test the influence of tax administration variable to tax compliance. Because the value of Sig 0.023 < 0.05 value 2,324, H3 accepted. This means that tax administration variables have a positive effect on variable tax compliance. Test the hypothesis of the influence of the moral liability variable to tax compliance. Therefore the Sig value of 0.049 < 0.05 value 1.999, H4 is accepted. This means that the variable of moral obligation has a positive effect on tax compliance variable.
Hypothesis test the influence of tax sanction variable to tax compliance. Since the Sig value of 0.043 < 0.05 value 2.059, H5 is accepted. This means that the tax sanction variable has a positive effect on tax compliance variable.

DISCUSSION OF RESULTS

Influence of Tax Understanding and Tax Compliance. Understanding the rules can foster a positive attitude of the taxpayer if they are well aware of the contents of tax laws that often change. Understanding the regulation is expected to generate high self-awareness for taxpayers to perform their obligations as taxpayers voluntarily obey. The existence of good regulatory understanding, the higher the level of taxpayer compliance in the fulfillment of tax obligations.

Hypothesis that express understanding of taxation regulation have positive effect to tax compliance, H1 accepted. The results of this study are consistent with the results of research conducted by Rohmawati (2012), Gautama and Suryono (2014) taxpayer compliance can be influenced by the level of understanding of taxpayers of the applicable taxation legislation. Understanding the rules can foster a positive attitude of the taxpayer if they are well aware of the contents of tax laws that often change. Understanding the regulation is expected to generate high self-awareness for taxpayers to perform their obligations as taxpayers voluntarily obey.

The Effect of Distributive Justice and Tax Compliance. The existence of consideration of paying taxes and getting good service from the Income Board, taxpayers will react to his perception of distributive justice that obediently fulfill his obligations. The better level of service provided by the taxpayer to the taxpayer, the higher the taxpayer's interest in fulfilling his tax obligations.

Hypothesis disensual justice exerted positive effect on tax compliance, H2 accepted. The results of this study are consistent with the results of research conducted by Budhiarsana (2011), Albari (2008), Verbon and Goslinga (2009) Considering the payment of taxes in exchange for services from Disenda, taxpayers react to their perceptions of distributive justice by compliance with obligations taxation.

The Effect of Moral Liability and Tax Compliance. The hypothesis that tax administration affects positively to tax compliance, H3 accepted. The results of this study consistent with the results of research conducted by Rahayu (2009), Fujihana (2012), Harinurdin (2011) taxpayer compliance can be influenced by several factors namely the state tax administration system of a country, services provided to taxpayers, tax audits and applicable tax rates. Simple taxation system is very important because the more complex the tax system will affect taxpayer compliance. If the existing system has given satisfaction to the taxpayer, the taxpayers themselves will be more compliant in carrying out its tax obligations. Community morale will affect tax collection by the tax authorities. High integrity of course fulfillment of tax obligation will be better. Taxpayer compliance will be more better if the morale of the population is good.

The Effect of Tax Administration and Tax Compliance. Taxpayer compliance will continue if supported by effective administration, the simplicity of tax laws is essential, as it facilitates administrative systems and compliance / tax compliance and helps in achieving adequate tax revenues and improving progress. The simpler administrative rules made by the government for the taxpayers, the more will increase the willingness of taxpayers in the fulfillment of tax obligations.

Hypothesis that moral obligation affects positively to tax compliance, H4 is accepted. The results of this study are consistent with the results of research conducted by Ajzen (2002), Mustikasari (2007), Pranata (2015), Muthia (2014) moral duties exist in a person must have individual norms in carrying out everything, i.e. ethics and principles Ajzen, 2002). It can be attributed to the compliance of the taxpayer to meet all tax obligations, especially paying hotel taxes. Mustikasari (2007) and Pranata (2015) proved moral obligation to have a positive and significant influence on taxpayer compliance. If the moral obligations that exist in the taxpayer high cause the intention of non-tax compliance is low.
The Effect of Tax Sanctions and Tax Compliance. Greater the amount of tax arrears that are owned and must be paid by the taxpayer, the more weight will be burden for the taxpayer in the repayment. The better perceptions of enforcement of sanctions received by taxpayers will lead to increased compliance of taxpayers in terms of carrying out all tax obligations.

Hypothesis that moral obligation affects positively to tax compliance, H5 is accepted. The results of this study are consistent with the results of research conducted by Yulayca (2013), Layata and Setiawan (2014), Sanjaya (2014), Jatmiko (2006) and Koentarto (2011). Tax sanctions are a guarantee that the provisions of the tax laws and regulations will be obeyed or obeyed or observed, in other words, tax penalties are a means of preventing taxpayers from violating the taxation norms (Mardiasmo, 2011: 59). In the tax law there are two types of sanctions, in the form of criminal sanctions and administration. Tax sanctions imposed on taxpayers who are not compliant in fulfilling their taxation.

CONCLUSION

Based on the results of research on the understanding of taxation, distributive justice, tax administration, moral obligations, and tax sanctions on tax compliance PHR at the Hotel in Denpasar City, it can be concluded the understanding of tax regulations have a positive effect on tax compliance, this indicates taxpayer compliance may be affected by understanding of the taxpayer of the applicable taxation legislation. Understanding the regulation is expected to create a high self-awareness for taxpayers to carry out their obligations as voluntary taxpayer obligated. Distributive justice affects the tax compliance, it indicates the existence of consideration of paying taxes and getting good service from the Revenue Board, taxpayers will react to their perception of distributive justice that obediently fulfill their obligations. Tax administration affects the tax compliance, it indicates taxpayer compliance can be influenced by several factors, namely the condition of the tax administration system of a country, the services provided to the taxpayer, law enforcement taxation, tax audit and the applicable tax rate.

REFERENCES


THE IMPACT OF KNOWLEDGE AND PERCEPTION TOWARD ENVIRONMENTAL SANITATION BEHAVIOR IN SOCIETY OF SEMARANG CITY

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ABSTRACT
The purpose of this research is to find out the impact of knowledge and the perception of environmental sanitation behavior in Semarang city. The population in this study is housewives aged 30 to 60 years old in Semarang City. Samples are 100 housewives from the Sumurboto, Ngesrep and Karang Bendo Administrative Village in Semarang City. The research was conducted by using multiple linear regression equation. The results of this study suggest that the impact of knowledge on environmental sanitation behavior is positive and significant. While the impact of perception on environmental hygiene behavior is positive and not significant. While the impact of perception on environmental hygiene behavior is positive and not significant.

Key words
Environmental sanitation, knowledge, perception, behavior.

Environmental sustainability could be defined as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity (Morelli, 2011). Environmental sanitation is an essential factor that leads to a healthy environment and consequently promotes good health and productivity: also secures peoples' welfare (Ministry of Local Government & Rural Development, 2010). The World Health Organization (WHO) (2008) defined environmental sanitation as the control of all those factors in man's physical environment, which exercise or may exercise a deleterious effect on his physical development, health and survival.

Sanitation is a reflection for every individual in maintaining the health that is so important in everyday life. Sanitation in other words is a state free of all dirt, disease, and other factors which can harm all aspects of every activity and behavior of the community environment. Human life itself can not be separated both the natural environment and social environment (Nazaruddin, 2014). Sanitation behavior is a manifestation of the actions that people commit to waste, which includes environmentally responsible behaviors such as environmental soiling actions to responsible actions such as maintaining and cleaning the environment (Istiqomah, 2009). One's sanitation behavior in everyday life is an interrelated relationship between behavior and the surrounding environment situation.

Environmental education is considered an appropriate intervention to create awareness and understanding of the challenges of environmental degradation (Ajiboye & Ajitoni, 2008). The research that has been done by Ririn & Surahma (2013) shows a very significant relationship between the level of household knowledge through managing garbage in Kaliwungu Subdistrict, Semarang District. On the contrary, the research results by Henewa, R. et.al (2014) stated that there is no relationship between Students of Sanitation Practice and environmental knowledge. However, the research results from Anijaobi-Idem, 2015, concluded that environmental awareness is significantly related to school sanitation in terms of class sanitation, school assembly sanctions and the provision of landfills. That is, environmental awareness leads to the maintenance of class sanitation, compound sanitation of schools and the provision of landfills.

People's habits to throw garbage in arbitrary places are difficult to change and the ignorance toward clean and healthy environment resulted in the dirty and polluted...
environment. Housewives have an enormous role in modeling their families in comparison to fathers. Housewives are also more dominant in managing the food menu and maintaining the sanitation of the house, not to mention they also participate in providing education and knowledge and instilling the value of environmental sanitation in the family. High environmental knowledge will make it easier for housewives to keep the environment clean.

The purpose of this research to understand the impact of knowledge and perception of environmental sanitation towards environmental sanitation behavior in the society of Semarang city.

**LITERATURE REVIEW**

The concept of environmental sanitation entails the control of water supplies, excreta disposal, waste water disposal, refuse disposal, vectors of diseases, housing conditions, food supplies and the safety of the working environment (Acheampong, 2010). Environmental sustainability could be defined as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity (Morelli, 2011). The Concept of Environmental Sanitation for Maintenance by Soekidjo Notoatmodjo (2007) suggests that environmental health in developing countries ranges from sanitation, drinking water, housing, garbage disposal, and waste water disposal.

Sanitation becomes an important factor to shape the personality of a person, a region and even a nation. Everyone has the right and obligation to clean and healthy environment and garbage is one of the sources of the cause of non-existence of clean and healthy environment, waste management must be carried out consciously, integrated and directed between each individual society and government (Nazarudin, 2014). Environmental sanitation obstacles factors are as follows. 1. Environmental-friendly development costs a lot. 2. The lack of shame culture so that people do not hesitate to throw garbage anywhere, anytime, and in front of anyone 3. lack of knowledge and understanding of society about the dirty environment hazard due to garbage, waste, and pollution. 4. Lack of knowledge about waste utilization and waste management.

Knowledge of environmental issues and appropriate actions to overcome them become one of the prerequisites for responsible behavior. Having knowledge and ability is not enough. Desire to realize the action of environmental sanitation is necessary. One’s desires are strongly influenced by personality factors, namely attitude, locus of control and sense of responsibility. Knowledge is also influenced by factors of education, occupation, age, interest, experience, culture, environment, information. Individual knowledge about health risks is known to profoundly influence risk perception which, in turn, affects a person's attitude. Thus, an individual's knowledge, perception, and attitude are fundamental in determining how people behave about environmental hazards (Dhitinut Ratnapradipta, 2011). Results of research by Aswanthy (2015) stated that there is a positive correlation between level of knowledge and standard of practice. However there is no association between knowledge and practices of environmental sanitation and hygiene with selected socio personal variables.

Environmental perception has been defined as information processing system in which individuals actively explores their surroundings and extract and use information in constant interaction between themselves and their environment (Byoung, et.al, 2006). The importance of studying environmental perception stems from the fact that several specs of man’s daily living are affected by his perception (Oluwole Daramola, 2016).

The study concluded that for homes and schools to act as correlates of evolving sustainable sanitation behavior among these future adults, teaching on how to develop good hygiene behavior must be matched with corresponding provision of environmental sanitation amenities (Afon, A.O. et.al, 2008). To determine how individuals behave when it comes to reducing risks associated with environmental health, four subscales evaluating student behaviors toward environmental health issues were analyzed: personal-level issues, food...
consumption practices and noise pollution, everyday recycling, and exercise. Results indicated that a person's attitude did predict whether a person engaged in behaviors that would reduce or eliminate the risk associated with environmental health issues. Additionally, there were knowledge and demographic variables that were determined to be significantly associated with two behavior subscales: food consumption practices and noise pollution, and everyday recycling (Dhitinut Ratnapradipa, 2011)

The sanitation behavior observed is in the form of a series of various forms of behavior/actions that people do toward garbage, including environmentally responsible behaviors such as environmental soiling actions to responsible actions such as actions to preserve and clean the environment.

METHODS OF RESEARCH

The population in this study is the entire housewives aged 30 to 60 years old in Semarang City. While the samples are 100 housewives aged 30 to 60 years from the Sumurbo, Ngesrep and Karang Bendo Administrative Village in Semarang City. The minimum sample size is using Eq. (1).

\[ n = \left( \frac{Z_{(1-\alpha/2)} \cdot (\delta)}{\varepsilon} \right)^2 \]  

By the error rate (\(\alpha\)) of 10%, then \(Z_{(1-\alpha/2)} = 1.645\), \(\varepsilon = 0.1\), standard deviation \(\delta = 0.5\); so the minimum sample (n) is 67.65 and is rounded to 100 respondents.

Sampling Technique and Data Collection Method. Sampling technique used in this research is non-probability sampling. Type of sampling used is purposive sampling. Purposive sampling is a sampling technique based on certain considerations; the selected samples in the study are housewives aged 30 – 60 years. After the data are collected, the questionnaire is analyzed through its validity and reliability to get feasible data for the research.

In order to measure the validity test, questionnaire or indicator is said to be valid, if \(r_{arithmetic} > r_{table}\), that is comparing Total Item value - Total Correlation with result of \(r_{table}\) calculation. Testing reliability with Cronbach alpha (\(\alpha\)) statistical test. A construct / variable is said to be reliable, if it gives the value of cronbach alpha (\(\alpha\)) > 0.60.

RESEARCH MODEL AND HYPOTHESIS

The first hypothesis, about the presence or absence of positive and significant impacts between knowledge variables on environmental hygiene maintenance behavior and second hypothesis about the presence or absence of positive and significant impact between perceptual variables on the behavior of environmental hygiene

![Research Model](image)

The research model shows the existence of 2 (three) hypotheses. The hypotheses in Figure 1, consisting of: (1) Knowledge of environmental hygiene has a positive and significant impact on environmental hygiene behavior, (2) Perceptions about environmental hygiene have a positive and significant impact on environmental hygiene behavior.
Variable of research and indicator variable. The research variables and indicator variables as in Table 1.

Table 1 – Research variable and indicator variable

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Concept Definition</th>
<th>Indicator</th>
<th>Measurement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Environmental Sanitation Knowledge (X1)</td>
<td>Knowledge is the result of remembering a thing, including recalling events that have been experienced either intentionally or not intentionally and this happens after people make contact or observation of a particular object</td>
<td>1. knowing the danger of pollution to human health 2. knowing the dangers of household waste on the environment 3. knowing a clean and healthy environment 4. knowing clean and healthy food</td>
<td>Interval data with Likert scale of 1-5</td>
</tr>
<tr>
<td>2</td>
<td>Environmental Sanitation Perception (X2)</td>
<td>Perception is a process of interpreting information obtained through the human sense</td>
<td>1. perception about environmental pollution 2. perception about household waste 3. perception about a clean and healthy environment 4. perception about healthy settlements 5. perception about clean and healthy food</td>
<td>Interval data with Likert scale of 1-5</td>
</tr>
<tr>
<td>3</td>
<td>Environmental Sanitation Behavior (Y)</td>
<td>Behavior is an attitude that is born due to interaction between humans and the environment, so that individual and community behavior can affect environmental conditions</td>
<td>1. sorting waste into organic and inorganic 2. consuming of healthy and clean food 3. maintaining a healthy and clean environment 4. avoiding environmental pollution</td>
<td>Interval data with Likert scale of 1-5</td>
</tr>
</tbody>
</table>

Testing Research Instruments:
Validity Test. Validity test is used to measure whether or not a questionnaire is valid (Ghozali, 2011). A questionnaire is declared valid if the question on the questionnaire is able to reveal something that the questionnaire will measure. Validity test is done by comparing between r values counts with r table. If r count is greater than r table and positive value then the item or question or indicator is declared valid and vice versa (Ghozali, 2011).

The amount of sample which was used in testing research instrument was 30 respondent with df (degree of freedom) = n –2 = 30 -2= 28. On 5 % error – range therefore, the value of r tabel = 0,374. The result of validity test is presented below.

Table 2 – Validity Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>R count</th>
<th>r table</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Sanitation Knowledge (X1)</td>
<td>Question 1</td>
<td>0.593</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 2</td>
<td>0.385</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 3</td>
<td>0.520</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 4</td>
<td>0.388</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td>Environmental Sanitation Perception (X2)</td>
<td>Question 1</td>
<td>0.667</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 2</td>
<td>0.731</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 3</td>
<td>0.685</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 4</td>
<td>0.588</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 5</td>
<td>0.385</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td>Environmental Sanitation Behavior (Y)</td>
<td>Question 1</td>
<td>0.383</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 2</td>
<td>0.381</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 3</td>
<td>0.600</td>
<td>0.374</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Question 4</td>
<td>0.538</td>
<td>0.374</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Processed Primary Data, 2018.

The results of the validity test in table 2 shows that all question items used in this study have the value of r count greater than the r table (r count> 374). Therefore, it can be concluded that all the questions of each research variable can be said valid.
Reliability Test. Reliability is a tool for measuring a questionnaire which act as an indicator of a variable or construct (Ghozali, 2011). A questionnaire is said to be reliable if one's response to a statement is consistent or stable over time. Respondent's answer to this question is said to be reliable if each question is answered consistently or the answer should not be random because each question wants to measure the same thing. If the answer to this indicator is random, then it can be said that it is not reliable. The test equipment used is Cronbach's Alpha. With the following conditions:

- If cronbach's alpha (α) > 0.6, then the questionnaire can be considered reliable.
- If cronbach's alpha (α) < 0.6, then the questionnaire can be considered unreliable.

The results of reliability test, can be seen in Table 3.

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>Sign</th>
<th>Standard Value</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Environmental Sanitation Knowledge (X1)</td>
<td>0.681</td>
<td>&gt;</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>2</td>
<td>Environmental Sanitation Perception (X2)</td>
<td>0.790</td>
<td>&gt;</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>3</td>
<td>Environmental Sanitation Behavior (Y)</td>
<td>0.666</td>
<td>&gt;</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Processed Primary Data, 2018.

The results of reliability tests in table 3 showed that all variables in the study has a value of cronbachs alpha greater than 0.60 so it can be said all the measuring concepts of each variable of the questionnaire is reliable which means that the questionnaire used in this study is a reliable questionnaire.

Data Analysis Technique. To prove the first hypothesis, about the presence or absence of positive impact and significance between knowledge variable about environmental sanitation to environmental sanitation behavior and second hypothesis about the presence or absence of positive impact and significance between perception variable about environmental sanitation to environmental sanitation behavior, multiple linear regression analysis tool was used.

In order for multiple linear regression models to be used in this study, normality test and classical assumption test consist of heteroskedasticity, and multicollinearity test. Based on the calculations it fulfills the classical assumption.

RESULTS AND DISCUSSION

Equations of multiple linear regression lines based on calculations using SPSS version 22 obtained the following results:

<table>
<thead>
<tr>
<th>Coefficients a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Knowledge</td>
</tr>
<tr>
<td>Perception</td>
</tr>
</tbody>
</table>

Source: Processed Result of SPSS version 22 with Primary Data, 2018.

Multiple Linear Regression Equation based on the table 4 can be seen in Eq. (1).

\[ Y = 1.626 + 0.840 \times X1 + 0.025 \times X2 + e \] (1)

From the multiple linear regression analysis above it can be seen that the regression coefficient between knowledge about environmental sanitation (X1) to environmental sanitation behavior (Y) is 0.840 with significance of 0.000. This means there is a positive and
significant influence, meaning that with knowledge about good environmental sanitation will increase the behavior of environmental sanitation significantly (meaning). Regression coefficient between perception about environmental sanitation (X2) to environmental sanitation behavior (Y) equal to 0.025 with significance 0.414. This means that there is a positive and insignificant effect (because sig <0.05), meaning perception of good environmental sanitation will improve environmental sanitation behavior but not significant (meaningless).

Classical assumption test consisting of normality test, heteroskedasticity test and multicollinearity test have fulfilled the requirement that multiple linear regression analysis can be used to analyze this research.

**CONCLUSION AND SUGGESTIONS**

The result of multiple linear regression analysis shows that: (a) there is positive and significant influence between knowledge about environmental sanitation to behavior for environmental sanitation, (b) there is a positive and insignificant influence between the knowledge of environmental sanitation to behavior for environmental sanitation

Based on the responses of housewives about the knowledge, perception and behavior of environmental sanitation in the discussion, it is suggested: (a) The impact of perceptions on behavior that is not significant, so it needs to give understanding and understanding about environmental sanitation to the community, (b) There needs to be counseling about environmental sanitation especially related to household waste because many of housewife who have not done waste segregation to be organic and inorganic, and (c) the need for counseling about public health with less clean environmental conditions

Recommendations in this study include: (a) the need to be counseling about environmental sanitation especially about pollution and clean & healthy food, (b) the need to be counseling about environmental sanitation especially related to household waste, c) the need for counseling about public health.

**REFERENCES**


THE EFFECT OF NEW IDENTITY, NEW IMAGE, AND REPOSITIONING AS A PROCESS OF REBRANDING TOWARD BRAND LOYALTY, BRAND ASSOCIATIONS, PERCEIVED QUALITY AS PART OF BRAND EQUITY

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ABSTRACT
Media companies are growing rapidly, along with technological advances, where the success of a media must be supported by brand management. This study examines corporate rebranding by changing name, logo and slogan in influencing brand equity in media companies. Not only to measure the concepts of corporate rebranding and brand equity, the study also examines the relationships between indicators that are used as variables, namely new identity with brand association, new image with brand association, new image with perceived quality, new image with brand loyalty, repositioning with brand association, repositioning with perceived quality and repositioning with brand loyalty. The method of analysis in this study using multiple linear with SPSS analysis. 110 respondents who are advertiser of Radio Kencana Malang in 2017. This study shows a significant effect between corporate rebranding to brand equity simultaneously, new identity with brand association, new image with brand association, new identity with perceived quality, new image with perceived quality, repositioning with brand loyalty, and new identity with brand loyalty. However, there is no significant effect between repositioning with perceived quality and new image with brand loyalty on Radio Kencana Malang.

KEY WORDS
Corporate rebranding, brand equity, media firm, indicators, loyalty.

Radio as a form of conventional mass media experienced strong competition. This can be seen from the number of radio in Indonesia. Like data sourced from Kominfo in 2016, almost ten years since the birth of Law No. 32 about Broadcasting, quantitatively the number of radio broadcasts in Indonesia has increased. If in 1998 the number of radio stations less than 1000 currently there are approximately 2,845 radio broadcasters. Furthermore, it is mentioned that the number will increase again with the addition of FM channel from 3.29 to 8.210 based on Regulation for Minister of Communication and Information Technology No. 13 year 2010 regarding the second amendment of Minister of Transportation No. 15 year 2003 (Kominfo, 2016).

However, the growth in radio numbers previously described is not accompanied by an increase in the number of listeners. It can be seen from Nielsen Radio Audience Measurement survey that the percentage of listeners who listen to radio is still small compared to other mass media, such as television media (96%), outdoor media (52%), internet (40%) and radio at 38% in the third quarter of 2016. For Malang city itself, according to data from the Office of Communications and Information of Malang City Government in 2012, there are 12 private radio and 7 community radio (Diskominfo, 2012). Radio competition in Malang city is also felt tight with the existence of several segmentation of the same private radio. Competition makes some radio do a major reshuffle in order to reach the target market that allows make the radio more desirable.
In Malang city, Radio Kencana has started in the frequency of 98.6 FM since 2007. Until then, in 2015, made some changes in the slogan that turned into "Radio Kencana selected music radio, Malang city listen to Radio Kencana". In fact, some programs have changed with the emergence of new programs. The change also replaced the marketing strategy that initially focused on the marketing of on-air programs, then added with off-air marketing and online. In 2015 also, there is a change of regulation from Kominfo, which is intended for some radio in Malang city which permission has not been officially out, to immediately move its frequency to the frequency set by Kominfo. The initial frequency of Radio Kencana is 98.6 FM. Then, Radio Kencana is required to move to frequency 91.9 FM because the previous frequency will be emptied. However, it turns out the frequency of 98.6 is used by radio competitors in the city of Malang. That is also what makes the management feel must try harder to inform about the new frequency transfer because there is a fierce competition with the radio competitors who use the old frequency of Radio Kencana. At this moment, Radio Kencana as well as taking the decision to change the logo that is considered to better represent the vision and mission of the company as a radio of young people and young workers in order to increase the profit of Radio Kencana and increase the number of advertisers.

With these changes, it affects the company's finances. This happens because there is a change in the number of clients who advertise on Radio Kencana. By year, the number of advertisers in 2014 (115 clients) increased by 2015 (119 clients). However, the number of advertisers is stagnant by 2016 (119 clients). The stagnant amount raises its own question about the cause of stagnation. By 2015, when a rebranding is done, a decrease in advertiser numbers occurs in May (25 clients), June (17 clients), and July (9 clients). In addition, why the frequency shift is of concern to the author, because for the radio station, changing the frequency is the same as changing the name. Because the frequency is usually always mentioned along with the name. So, the frequency is also part of the identity of a radio. Moreover, the old frequency is used by competitor radio. From the above exposure, it can be concluded that, at the time of frequency shift, Radio Kencana changed name, logo change and slogan change in 2015.

The reshuffle is done with a change of marketing strategy related to the brand. One of the branding strategy is also known as rebranding. Rebranding occurs when a company renews, renames or change positioning. Gaurav (2008) states that corporate rebranding is a powerful and trusted tool for changing corporate identity, logos and slogans to show a new image. Furthermore Gaurav (2008) states that, basically corporate rebranding is a strategy in getting new identity and brand new image. Corporate rebranding is very important to clarify and strengthen positioning. Einwiller & Will (2002) explain that corporate rebranding as a planned and systematically planned change strategy to maintain a good brand image and create a new brand image better. Rebranding and image are closely related, in accordance with the results of the research of Lee et al., (2011) which states that, brand image improvement affects brand equity (perceived quality, brand association and brand loyalty).

After the company has conducted a rebranding activity, the company must also know how the public response and how strong the company brand in the community. Steps taken to determine brand strength is to measure brand equity. Brand equity is very important because it can help the company in showing the uniqueness that is different from other companies and also very profitable in a very competitive market circumstances (Kim et al, 2011). Many companies are doing rebranding to increase their brand equity (Kapferer in May Tea, 2009). Maintaining brand equity is a challenge for the company. The linkage between corporate rebranding and brand equity is also explained by Muzellec and Lambkin (2006) that, rebranding helps create a better brand equity. Agreeing with the research, May Tea (2009) found that rebranding affects brand equity. However, there are other studies that apply brand equity in mass media conducted by Oyedeji (2007). His research explains the impact of audiences' ideology associated with media channels and brand equity, found that not all items of brand equity have a significant effect. The results show that brand awareness has no significant effect, while brand association, perceived quality and brand loyalty show significant relationship to media channel. Then, in research by Porral (2014) which also
applies the measurement of brand equity in media companies. The results show a positive relationship between brand equity media and media credibility. The two most significant items of brand equity, brand association and brand loyalty have a significant influence on the credibility of media channels.

From the explanation above, there is a gap which is not all items in the brand equity has a significant effect when applied in a media company that sees the brand equity of the audience. The most influential brand equity items are brand association, perceived quality and brand loyalty. Then, because this study is also related to the media economy in terms of management strategy, then this research will try to see from the side advertiser as stakeholders that influence the media company financially. In previous research, all done on conventional media, in the form of TV and newspaper, hence this research will try to do research on different conventional media, that is radio. Therefore, this study focuses on measuring brand association, perceived quality and brand loyalty after the corporate rebranding by Radio Kencana Kota Malang on consumer (advertiser). The focus for corporate rebranding activities on Radio Kencana in this research is on the change of name, logo and slogan.

LITERATUR REVIEW

Muzellec et al. (2003) defines corporate rebranding as the practice of building a new name that represents a different position in the stakeholder's mindset and an identity different from that of competitors. Muzellec and Lambkin (2006) further clarify the definition of corporate rebranding as the creation of a new name, term, symbol, design, or combination of novelty for an established brand with the intention of developing a new and different position in the minds of the stakeholders and competitors. Gaurav (2008) states that corporate rebranding is a powerful and trusted tool for changing corporate identity, logos and slogans to show a new image. Furthermore Gaurav (2008) states that, basically corporate rebranding is a strategy in getting new identity and brand new image. Corporate rebranding is very important to clarify and strengthen positioning.

Muzellec & Lambkin (2006) discloses a corporate rebranding model that combines the causes or supporting factors (ownership structure, corporate strategy, competition and external environment) that leads to corporate rebranding decisions, identifies key objectives (corporate identity and image) of corporate rebranding and highlight the importance of engaging both internal and external stakeholders in the rebranding process. In this model, rebranding is conceptualized as a change in the personal identity of a company and / or an attempt to alter perceptions of the image between external stakeholders. Basically, rebranding is a strategy to get new identity and brand image by changing the name, logo and slogan. Successful rebranding is what transforms a brand into offering new identities and images, and helps companies change positions in an effort to retain existing customers and attract new customers. Rebranding is very important to clarify and strengthen positioning. Thus, the variables in this study that are corporate rebranding are measured by adopting the indicators: New identity, New image, and Repositioning (Caniago, 2014; Collange, 2008; Simonim & Ruth, 1998).

According to Abrams & LaPlante (2008), identity is a set of characteristics that allow consumers to recognize the company as a separate and unique entity. The identity also will make the company has a character that determines the similarities and differences with others. Furthermore also mentioned that there are main elements of identity, namely name, logo, slogan and image. Image has a relationship with the identity of the company, because the formation of the image comes from the identity formed by a company. Further mentioned that, knowledge of a person, experience, behavior and emotions will impact on the image formed in the mind of someone about an object, will form the image of the company.

One of the rebranding activities is repositioning (Muzellec & Lambkin, 2006) where the brand’s marketing position is changed (Merrilees & Miller, 2008), and new positions must be developed and delivered to the public (Muzellec & Lambkin, 2006). A revitalization of a brand position is what keeps a brand fresh and in line with current market conditions in order to
adapt and anticipate customer needs (Merrilees & Miller, 2008). Finally, the right repositioning of the market can result in a better brand association on the market and as consumers wish (Muzellec & Lambkin, 2006).

Aaker (1991) defines brand equity as a set of assets and liabilities related to a brand, name and symbol, which may increase or decrease the value provided by the product or service to the company and / or its consumer. There are two general motivations in studying brand equity as described by Keller (1993). First, the financial-based motivation to accurately estimate the value of a brand related to accounting activities (valuation of corporate assets). Second, brand equity arises from a strategy-based motivation to improve marketing productivity. Given the higher costs and tighter competition, so companies are trying to improve their marketing cost efficiency. As a result, marketers need a deeper understanding of consumer behavior as a basis for making better strategic decisions about the definition of target market and product positioning, as well as better tactical decisions about a particular marketing mix.

Brand equity is not only used in products only, but also applies to services, one of them media. As described by Oyedeki (2007) that researchers have used the theory of brand equity as the theoretical basis for studying various aspects of media management. Chan-Olmsted & Kim (2001) made a survey on the leadership of a private TV station. Leaders agree that branding is important, but should be linked to other tactical strategies such as the credibility of local news, network affiliation image, media promotion strategies and logo design. In addition, McDowell & Sutherland (2000) use brand equity to analyze the brand equity of a TV program. Then the study found that the higher the CBBE of a program, it will help generate more audience. Further, the study concludes that program equity increases the number of audiences changing channels and strengthening consumer loyalty. To measure brand equity in this study, researchers used a model according to Aaker (1991) which has been widely used and empirically tested. However, only 3 dimensions are consistent with the research gap, namely Brand Association, Perceived Quality and Brand Loyalty. This study also replicates the question from Tong & Hawley (2009).

Aaker (1991) states that brand association is anything related to the memory of a brand. Associations to a brand are numerous, but not all of them have meaning. A collection of associations that have meaning will give rise to a series called brand image. It further argues that brand association reflects the imaging of a brand to a particular impression in relation to customs, lifestyles, benefits, product attributes, geographic, price, competitors, celebrities and others (Aaker in Durianto et al., 2004). Brand association deals with brand image formation of products, many types of associations related to performance and brand image, however, the brand association that makes up the brand image can be grouped based on three important dimensions (Keller, 2003), strength, favorability, uniqueness. Brand equity manifests when consumers have a high level of awareness and power, gain fun and uniqueness incorporated in consumer memory (Tong & Hawley, 2009).

Perceived quality reflects the customer's perception of the overall quality / superiority of a product or service in respect of the intended purpose (Aaker in Durianto et al., 2004). Perceived quality is a key aspect in customer based brand equity (Aaker, 1996). This is not the real quality of a product, but the consumer's perception of the overall quality or superiority of the product (or service) relates to a predetermined, relative or alternative purpose (Zeithmal, 1988). Aaker (1991) mentions that perceived quality provides brand value in several ways, namely: 1) high quality gives consumers a good reason to buy brands and allows brands to differentiate a brand from their competitors 2) to set a premium price 3) has a strong foundation for brand extension (Aaker, 1996).

Brand loyalty reflects the level of consumer engagement with a product brand (Aaker in Durianto et al., 2004). Brand loyalty is the "heart" of brand equity. This is one of the main components (Aaker, 1991). Tong & Hawley (2009) states that brand loyalty can be seen from the perspective of consumer behavior and buying behavior. According to Aaker (1991) brand loyalty adds considerable value to a brand and / or company, as it provides a series of consumer buying habits over a long period of time. Loyal customers, have a small possibility to switch to brand competitors due to price. In addition, loyal consumers also make
purchases more often than unfaithful customers (Bowen and Shoemaker in Tong & Hawley, 2009).

**METHODS OF RESEARCH**

This study uses a quantitative approach. Based on the hypothesis formulated, this research includes correlational research (Neuman, 2000) and regression with data collection methods, distributing questionnaires conducted online to advertisers Radio Kencana. The questionnaire was distributed to 125 advertisers of Radio Kencana, but only 110 questionnaires were returned. While data analysis, using multiple linear analysis method with SPSS.

The concepts and variables in this research is Corporate Rebranding which adopted from Caniago (2014) which consists of new identity, new image and repositioning. Then the variables of the concept were developed by measuring the new identity by Muzellec & Lambkin (2006) and Gaurav (2008), new image by Collange (2008) in Delassus & Decotes (2012) and measuring the repositioning suitability by Simonim & Ruth (1998) cited from Nath Hanh Le et al., (2014). For Brand Equity concept consisting of brand association, perceived quality and brand loyalty, measured by adopting from Tong & Hawley (2009). Here is a hypothetical model of research:

H1: Corporate Rebranding (X) effect on Brand Equity (Y) simultaneously;
H2: New identity (X1) effect on brand association (Y1);
H3: New identity (X1) effect on perceived quality (Y2);
H4: New identity (X1) effect on brand loyalty (Y3);
H5: New image (X2) effect on brand association (Y1);
H6: New image (X2) effect on perceived quality (Y2);
H7: New image (X2) effect on brand loyalty (Y3);
H8: Repositioning (X3) effect on brand association (Y1);
H9: Repositioning (X3) effect on perceived quality (Y2);
H10: Repositioning (X3) effect on brand loyalty (Y3).

![Figure 1 – Model of Research Hypothesis](image)

**RESULTS AND DISCUSSION**

Criteria of respondents in this study were men and women who are advertisers (advertisers) in Radio Kencana during 2017. The retrieval of respondents in this study was taken by using the total sampling method. Respondents collected in this study were 110 clients from various companies and organizations that advertise on Radio Kencana. Advertisers who advertise on Radio Kencana on this research are advertisers who advertise for the year 2017, be it advertisers who advertise on air, off water and also online. In detail, the characteristics of respondents can be seen in table 1.

From 110 respondents in this study, female respondents are more dominant than male respondents, as evident as 58.2% of respondents are women. Based on age classification of respondents ranged between the age of 15 years to 52 years. When viewed from the classification of respondents age, the clients of Radio Kencana who mostly are marketers, are respondents at the age of 26-30 years.
Table 1 – Characteristics of respondents

<table>
<thead>
<tr>
<th>Respondent characteristics</th>
<th>amount (person)</th>
<th>percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>110</td>
</tr>
<tr>
<td>Age (years)</td>
<td>15-20 years</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>21-25 years</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>26-30 years</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>31-35 years</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>36-40 years</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>&gt;41 years</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>110</td>
</tr>
</tbody>
</table>

Source: Authors own research results, 2018.

Corporate rebranding (X) concept consisting of 3 variables: new identity, new image and repositioning. Each question on indicator obtained of Pearson correlation value (r-value) for all over r-table = 0,361 and also value significance ≤0A05. Therefore, all questions are valid. While on Brand Equity (Y) variable consisting of 3 indicator (brand association, perceived quality and brand loyalty) all questions also have value of Pearson correlation (r-value) more than r-table = 0,361 with significance value ≤0A05. This indicates that all of these questions are valid. Further reliability testing is performed only on valid items. In the concept of Rebranding (X) and brand equity (Y), the value of Alpha Cronbach coefficient is ≥0A6 in each indicator so it is concluded that the question instrument used is reliable.

Table 2 – Anova (X) to (Y)

<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>1921.327</td>
<td>1</td>
<td>1921.327</td>
<td>155.848</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>1331.446</td>
<td>108</td>
<td>12.328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3252.773</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS analysis.
Notes: a. Dependent Variabel: Y (Brand equity); b. Predictors: (Constant), X.

With a significance level of 0.000 <0.05, the regression model can be used to predict brand equity and it can be stated that there is a relationship between corporate corporate rebranding and brand equity. This is also reinforced by the number of significance in the table below which shows the significance of <0.05.

Table 3 – Coefficients table X to Y

<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>β</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.432</td>
<td>2.388</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>.458</td>
<td>.037</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.769</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12.484</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: SPSS analysis
Notes: a. Dependent Variabel: Y (Brand equity).

In the table above can be seen column beta (β) on constant is 12A432. The value of independent variable 0A458, so the regression equation is Y = a + b1X1 i.e Y = 12A432 + 0A458 X1. In b is positive signified it is an addition that states the change of average variable Y for each change of variable X for one unit. In testing the hypothesis obtained:

Brand equity = 12,432 + (0,458) Corporate rebranding

The following table of results research hypothesis testing using SPSS analysis is as follows:
Table 4 – Hypothesis Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standardized Coefficients (β)</th>
<th>t- value</th>
<th>Sig.</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Rebranding (X) → Brand Equity (Y)</td>
<td>0.769</td>
<td>12.484</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>New Identity (X₁) → Brand Association (Y₁)</td>
<td>0.360</td>
<td>4.229</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>New Identity (X₁) → Perceived Quality (Y₂)</td>
<td>0.234</td>
<td>2.917</td>
<td>0.004</td>
<td>Significant</td>
</tr>
<tr>
<td>New Identity (X₁) → Brand Loyalty (Y₃)</td>
<td>0.649</td>
<td>9.135</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>New Image (X₁) → Brand Association (Y₁)</td>
<td>0.286</td>
<td>3.112</td>
<td>0.002</td>
<td>Significant</td>
</tr>
<tr>
<td>New Image (X₁) → Perceived Quality (Y₂)</td>
<td>0.549</td>
<td>6.356</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>New Image (X₁) → Brand Loyalty (Y₃)</td>
<td>0.125</td>
<td>1.638</td>
<td>0.104</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Repositioning (X₂) → Brand Association (Y₁)</td>
<td>0.254</td>
<td>3.333</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Repositioning (X₂) → Perceived Quality (Y₂)</td>
<td>0.072</td>
<td>1.006</td>
<td>0.317</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Repositioning (X₂) → Brand Loyalty (Y₃)</td>
<td>0.201</td>
<td>3.166</td>
<td>0.002</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: SPSS analysis.

Based on the results of correlation and regression analysis in table 4, then obtained the following research results:

Statistically, it was found that a significant correlation between corporate rebranding and brand equity simultaneously. It can be seen from the anova table and the coefficient table showing the significance value <0.05, thus hypothesis 1 is accepted. It can be interpreted that advertiser perception to corporate rebranding consisting of identity, image and repositioning of Radio Kencana Malang increase, it will also increase brand equity from Radio Kencana. Conversely, if the advertisers perception decrease toward corporate rebranding efforts on Radio Kencana, it will decrease brand equity on Radio Kencana. The results of this study support previous study by Muzellece and Lambkin (2006) that corporate rebranding helps to create better brand equity. In line with the results of the study, Petburikal (2009) states that testing the relationship between corporate rebranding and brand equity shows significant results. He explained that corporate rebranding and demography can affect the company's brand equity and company performance (sales volume). This is reinforced by the results research conducted by May Tea (2009) who found that corporate rebranding has a significant correlation to brand equity. However, the difference in the May Tea study (2009) shows that corporate rebranding indicators most influence repositioning, whereas in this study, the most influencing corporate rebranding indicator is the new image, and the weakest is repositioning. In addition, the study findings are contrary to this research, i.e research conducted by Caniago (2014) which is contrary to the results of this study. Caniago (2014) found that the relationship between corporate rebranding and brand equity was not significant.

There is a significant correlation between new identity with brand association of Radio Kencana Malang. It can be seen from the anova table and the coefficient table showing the significance value <0.05, thus hypothesis 2 is accepted. The results of this study refers to the theory of identity Melewaw (2008) which states that, the identity is matters that include what the company wants to convey to differentiatate and create a unique position in the environment where he operates. As for brand association, refers to the theory of Aaker (1991) which suggests brand association is anything related to the memory of a brand. Thus, it can be deduced that, the identity formed by companies to differentiatate their characteristics from others comes also from associations formed by companies to create identity and form an image. So, this supports the results of research that mentions the existence of the relationship between identity with brand association.

There is a significant correlation between new identity with perceived quality Radio Kencana Malang. It can be seen from the anova table and the coefficient table showing the significance value <0.05, thus hypothesis 3 is accepted. Based on the theory described earlier and related to the significant relationship between new identity established by Radio Kencana with perceived quality, it can be concluded that the change in name (frequency number), new logo and slogan owned can be said to be successful and interesting for advertisers in helping to improve and strengthen the perception of the overall quality / excellence. In addition, from the results of this study, it can be said that with the name, logo.
and slogan as a new identity, it helps improve the advertisers quality perception of Radio Kencana. The results of this study are in line with research conducted by Pishdar et al. (2014) who found that identity positively affects directly on perceived quality in research using corporate image and corporate reputation variables to see the relationship between identity and perceived quality.

There is a significant correlation between new identity with brand loyalty Radio Kencana Malang. It can be seen from the anova table and the coefficient table showing the significance value <0.05, thus hypothesis 4 is accepted. Based on the theory described earlier and related to the significant relationship between new identity established by Radio Kencana with brand loyalty owned, it can be concluded that, the change in name (frequency number), new logo and slogan owned can be said to be successful and interesting for advertisers to help increase the loyalty of advertisers as loyal customers, making Radio Kencana the first choice in advertising on Radio and increasing the desire to recommend Radio Kencana on other advertisers. This is supported also by the research of Shirazi et al., (2013) which shows that there is an influence of identity on brand loyalty. Likewise with the results of research Di et al., (2009) which states that, identity can form a good image for consumers.

There is a significant correlation between new image and brand association of Radio Kencana Malang. It can be seen from the anova table and the coefficient table showing the significance value <0.05, thus hypothesis 5 is accepted. Significant correlations between the new image of the name, logo, and slogan of the brand association are in line with the results of Lee et al. (2011) which show that the updated image affects the respondent's association with a brand. The difference is, new image in their research resulted from M & A (Merger & Acquisition).

There is a significant correlation between new image with perceived quality of Radio Kencana Malang. Thus hypothesis 6 is accepted. Significant correlations between the new image of the name, logo, slogan to perceived quality in line with the results of Lee et al., (2011) show that the new image has a significant correlation in perceived quality. Richardson et al., (1994) states that consumers tend to use images to evaluate a particular product or service. In addition, it supports research by Dodds et al., (1991) that image can serve as a quality warranty of a product or service. Thus, the better image owned will be the determinant of the better assessment of the quality product or service in front of consumers.

There is no significant correlation between new image and brand loyalty of Radio Kencana Malang. It can be seen from the anova table and the coefficient table showing the significance value >0.05 i.e 0.104, thus hypothesis 7 is rejected. Based on the theory described earlier and related to the significant relationship between new image formed by Radio Kencana with brand loyalty owned, it can be concluded that it should be with the change in name (frequency number), new logo and slogan owned will be able to increase new image with positive, fun and good indicator on advertiser about Radio Kencana. However, this study shows contrary results, so the results of this study differ from the results of previous studies (Zins, 2001, Cretu & Brodie, 2007; Lee et al. 2011) which shows that the image affects brand loyalty. In addition, study by Cretu & Brodie's (2007) more specifically stated that the image not impact on consumer loyalty, but still suggests a positive image ownership because financial analysis shows that the image has an important position.

There is a significant correlation between repositioning and brand association Radio Kencana Malang. Hence hypothesis 8 is accepted. The repositioning efforts made by Radio Kencana by adjusting the name, slogan and logo have a significant correlation to brand association, in line with what was expressed by Muzellec & Lambkin (2006), the right repositioning of the market can result in better brand association in the market and according to consumer desires. In addition, there are studies that contradict the results of this study, namely Zahid and Raja (2014) which identifies the repositioning of the company has no significant effect on brand loyalty. Renewal of names, slogans and logos to strengthen repositioning will be visible changes in the eyes of consumers, in this case advertisers or advertisers. Advertisers see the change from the interactions made with Radio Kencana both
in the MoU (cooperation), in social media, as well as in off-air events held. From these interactions, advertisers associate the repositioning of Radio Kencana.

There is no significant correlation between repositioning and perceived quality of Radio Kencana Malang. It can be seen from the anova table and the coefficient table showing the significance value >0.05 that is equal to 0.317, thus hypothesis 9 is rejected. This result is supported by Bamfo et al., (2018) which says that much rebranding activity by re-examining the company's business position and core values as a way to create brand refresh or brand differentiation in the market does not affect the changes in consumer perceptions of quality.

There is a significant correlation between repositioning and brand loyalty of Radio Kencana Malang. Thus hypothesis 10 is accepted. This research refers to Hassanien & Baum's theory in Clements-Croome (2004) which states that repositioning is a process of marketing management change, either partly or as a totality. This study shows similar results with research conducted by Ampadu et al., (2015) found that there is a significant relationship between repositioning of brand loyalty. So also with Nyambane & Ezekiel (2014) who found a positive impact of corporate rebranding on loyalty. However, it is contrary to that found by Zahid & Raja (2014) which identifies the repositioning of companies has no significant effect on brand loyalty. Similarly, mentioned in Caniago et al., (2014) regarding his research conducted on TV stations, it was found that rebranding has no significant effect on brand loyalty.

**CONCLUSION**

This study shows a significant relationship between corporate rebranding to brand equity. Then, new identity with brand association, new image with brand association, repositioning with brand association, new identity with perceived quality, new image with perceived quality, repositioning with brand loyalty, and new identity with brand loyalty. However, there is no significant correlation between repositioning with perceived quality and new image with brand loyalty on Radio Kencana Malang. From the above exposure, it can be concluded that the media also need to pay attention to how they form their brand in the minds of their advertiser as shareholders. This is because it is related to financial or profit. If you decide to do rebranding activities, you must strategically mature, not to mention the media companies in order not to lower their perceptions, especially those affecting brand association, perceived quality and brand loyalty.

Limitations of this study are on the respondents who only focus on the advertiser, further research may be able to see from the audience and advertiser to enrich the data. To get richer results, can also do research with mix method, is quantitative and qualitative. In addition, this study only looks at how corporate rebranding relationship with brand equity, while in management strategy, there are many other variables that can affect the brand equity of a media company. Further research is expected to develop the concept that has been done in this research related to corporate rebranding and brand equity.

**REFERENCES**

MARKETING STRATEGY FOR START UP BUSINESS OF BROILER PEKING DUCK FARM WITH ECO-GREEN INTEGRATED

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ABSTRACT
The increasing number and the rate of Banten population growth from year to year make it as a potential market which is quite large for the development of broiler duck farming business in the future. In this case, intensive system broiler Peking duck farming which is integrated, economic, and eco-green intensive, eco-green commonly utilizes Azolla microphylla and flour of pluchea leaves and other germ plasmas as the feed supplements. As a company in Peking duck farming with Eco Green concept, it requires the right marketing strategy to get into the target market. Therefore, the focus of this study is the marketing strategy to start up the business of eco-green integrated Peking duck farming. The results of the analysis of this study are that the marketing strategies used are: objectives and target marketing; analysis of market situation, market size, market share, market description; strategy of marketing, segmenting, targeting, positioning; tactics of marketing, networking, interaction, common interest, experience; CRM, continuity marketing, one to one marketing, partnership; blueprint for building a winning sales force; marketing budget, sales estimation, net marketing contribution.

KEY WORDS
Marketing, strategy, start-up business, animal farming, eco-green.

The increase and the rate of Banten population growth from year to year make Banten as a quite large potential market to develop the duck breeding farming business in the future. As it is predicted by Central Bureau of Statistics (BPS), the number of Banten citizen is 13.1 million people or 4.85% of 271 million of Indonesian citizens in 2020. Moreover, it is predicted that the number of Banten citizen will be 16 million people or 5.24% of 305.6 million people of the number of Indonesian citizen in 2035.

According to Federation of Indonesian Poultry Society (FPMI), the average number of Indonesians who consume meat is 15 kg/capital/year from the number of production or provided 3.75 million ton; with the portion of duck meat is 0.2 kg/capital/year (50 thousand ton provided). The low contribution of duck becomes an opportunity for those who want to develop the potency of duck in order to increase the need of meat per kg/capital/year. Nowadays, people show the high interest on duck meat which is supported by the improvement of their prosperity which is shown by the crowded restaurants and food courts providing duck meat as the main menu. Some of those culinary businesses are Fried Duck H. Slamet Restaurant – BSD, Bebek Kaleyo Restaurant – Gading Serpong which is recently open the 17th branch in Gading Serpong, The Ducking Restaurant, a quality restaurant in the mall culinary area, the center of culinary, and restaurant in hotels.

Based on the Central Bureau of Statistics data in 2011-2014, the number of restaurant 797 restaurants in Banten in 2011 is 797, and it continuously increases up to 1110 in 2014. This fact gives an opportunity to market duck meat from duck breeding farms; therefore, it will increase the role of duck in fulfilling the needs and the availability of meat in Indonesia, especially in Banten as an operational area of Peking duck farming business. In fact, it is also supported by the increase of demand in fulfilling animal protein in Banten.
Duck farming productivity can be improved through the implementation of government policies to support the development of livestock production systems and designing technological innovations which are appropriate for the animal farmers. Other factor that should be considered is duck raising management involving: the quality of breeds used, proper raising procedures, quality and appropriate feeding methods, appropriate research and technology use, the business system and good financial analysis, sufficient experience in raising ducks, strict biosecurity system and livestock product marketing.

Peking duck farming which system is intensive, integrated, economic, and eco-green uses Azolla microphylla and pluchea leaf flour and other germ plasmas as food supplement (Ventura and Watanabe, 1993). The eco-green-concept Peking duck farming applies six steps of farming management, such as: 1) Eco-Green Housing Farm Management; 2) Breeding Management, 3) Hatchery Management, 4) Growing Management of Duck for Slaughter, 5) Feeding Management; 6) Azolla microphylla pond management and pluchea management, 7) Management of Cutting Ducks (Processing Management), and 8) Marketing Management.

Eco-Green Integrated Model of Peking Duck Farming is a model of Peking duck farming business which is intensively integrated managed beginning from breeding process (breeder farm), hatchery (hatchery farm), duck for slaughter growing (grower farm), and carcass processing (processing farm) to becoming the ready marketed product which is in the form of good quality duck carcass. Having the cheap cost of production and environmentally friendly, the price of the product can compete well in the market. In this case, duck farming business has a concept of "result diversification, low price and fresh quality delivery order".

As a company in Peking duck farming with Eco-Green concept, it requires the right marketing strategy to get into the target market. To ensure the implementation of the right marketing strategy in marketing the product, the company should make a frame work or process of designing marketing plan which relates to the analysis of business environment. Besides, the implementation process of marketing strategy relates to the operational strategy and company’s financial strategy which is supported by proper human resources management in achieving the company's planned goals.

The frame work or the process of designing marketing plan of Prima Duckindo Ltd. is aimed to ease the marketing department in doing the work project in order to achieve the planned goals.

The goals of Prima Duckindo Ltd. marketing consist of short-term, mid-term, and long-term goal.

The strategy of market development is aimed to ensure the results of meat production process of Peking duck carcass can be optimally accepted in the target market. The target marketing plan of Prima Duckindo Ltd. in the first year of duck carcass is 88,920 kg.

Mid-Term Goals:
- Brand awareness of Duck AZOLLA: As a company producing Peking duck carcass, brand awareness is one of the goals to achieve in which it proves that the products produced by Prima Duckindo Ltd. are able to compete with formers who have already dominated the market.
- Achieving 30% of sales growth in every year. To achieve 30% of sales growth in every year, the development of market share should be optimally done.

Long-Term Goals:
- Holding the half market of Java
- Exporting, especially to countries of Asian Economy Market members.
  
  The target of Prima Duckindo Ltd. marketing is as follows:
  - Achieving 5% of market share and 12% of market share in the fifth year
  - Achieving 30% of sales growth in every year

  Market Situation Analysis. Doing strategic marketing plan, Prima Duckindo Ltd. primarily analyzes the situation of the target market using three variables, i.e. market size, market share, and market overview.
The market situation analysis aims to collect information about the market, analyze the information in product marketing context, provide the market description, monitor how the market changes, and determine what action to take by the company and analyze the results of the company's activities (White et al., 2003). Changes in current market situation are largely influenced by the population growth of citizen which increases every year, the changing needs of consumers, the development of technology, the change of socio-economic power, and competition among producers (Henry, 2005).

The increase of population growth as well as economic growth development in which 5.4% of the national economic growth affected the ability of the community to fulfill the needs of animal protein in 2016. However, considering the current market situation in the availability of animal meat supply is still lacking which encourages business actors to be interested in doing business in supplying animal protein needs. Then, based on the source of Central Bureau of Statistics obtained, it is found that National and Banten itself, the basis of the company business, suffer from duck meat supply deficiency as it can be seen in Table 1.

Table 1 – National and Banten Duck Meat Supply-Demand in 2015-2019

<table>
<thead>
<tr>
<th>Item</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (000 ducks)</td>
<td>49,419</td>
<td>57,000</td>
<td>51,000</td>
<td>52,700</td>
<td>54,470</td>
</tr>
<tr>
<td>Duck Production (000 tons)</td>
<td>35.32</td>
<td>50.10</td>
<td>36.40</td>
<td>57.69</td>
<td>28.60</td>
</tr>
<tr>
<td>Projected Demand (000 tons)</td>
<td>54.67</td>
<td>54.67</td>
<td>47.65</td>
<td>57.69</td>
<td>47.65</td>
</tr>
<tr>
<td>Supply Deficit (000 tons)</td>
<td>-59.57</td>
<td>-65.53</td>
<td>-65.53</td>
<td>-65.53</td>
<td>-65.53</td>
</tr>
</tbody>
</table>


Regarding to the data in Table 1 in 2015, the ability of livestock farming business actors in producing meat based on national scale was 3,532,000 tons, whereas the projection of demand for meat reached 9,489,000 tons. Therefore, there is 5,957,000 tons or a deficit of 63% of total demand of a shortage of meat supply. Similarly, in Banten, which is the basis of the business in 2018, livestock companies supplying meat can only produce 270,000 tons with 521,000 tons projected demand. Then, it is estimated that there is 251,000 tons or a deficit of 92.96% of total demand of shortage of meat supply. In this case, the result of 251,000 tons or 251,000,000 kg at a price of Rp 39,000 of the shortage supply is Rp 9,789,000,000. By that supply shortage, there is an opportunity for the company to project 30% of sales growth in every year.

Market Size. Market size is very important for companies in business development to conduct sales activities of Peking duck carcass products optimally. In this case, the areas of the basis of potential market are some part of Banten, DKI Jakarta, and some part of West Java. The areas which can support potential markets for the company are supported by the
population growth every year and economic growth with increasing income of the population every year. Those aspects contribute to the movement of the ability of people's purchasing power in fulfilling their needs.

In the first year of 2018 Peking duck carcass sales, Prima Duckindo Ltd. focuses more on Banten having quite high population growth in every year which is also supported by good economic growth, and then developing market in DKI Jakarta and West Java in 2019. In this case, the population of Banten in 2015 was 12 million people. Based on the analysis conducted in potential regions in Banten predicted as the market targets of Peking duck carcasses are Tangerang Regency, Tangerang City, South Tangerang City, Serang City, Cilegon City and Rangkas Bitung. In this case, the number of population which is quite large affects the quantity of high meat supply demand.

As an example, if Tangerang Regency having 3,370,594 people is assumed to consuming meat 0.05 kg in a day, the consumed meat in Tangerang Regency is 168,530 kg in a day. Mapping is also done to ease the marketing management in distributing products in the target market as it is seen in Figure 2.

![Figure 2 – Market Size](image)

**Market Share.** Market share becomes one of the indicators of the increasing marketing performance of a company because market share is a part of the market that can be achieved by the company (Cheptea et al., 2005). The target marketing targets the company to achieve 5% of market share in the first year of 2018 and 12% of market share achievement in the fifth year of 2022. In this case, Banten, DKI Jakarta, and West Java become potential areas for the target market of Prima Duckindo Ltd. One of the indicators why Banten Province and DKI Jakarta become the basis of the marketing area of Peking duck carcasses is that the economic growth which is quite good, the increase of population which is relatively increasing every year, and the increase of population income which influences people’s purchasing power in fulfilling their needs. The ability of purchasing power
of people in Banten and DKI Jakarta is good enough for business actors as it is seen from the high expenditure of people in purchasing their needs.

The amount of money spent by people in Banten and DKI Jakarta is greater than the amount of nationally expenditure. The amount of money spent by people in DKI Jakarta for food expenditure is 36.36% of the total expenditure spent in each month (according to data from Central Bureau of Statistics DKI, 2014). The high percentage of food expenditure of people who live in Banten and DKI Jakarta has affected the growth of culinary business, such as tent stalls, restaurants, and culinary stalls in hotels. According to the survey conducted by the management of Prima Duckindo Ltd., Banten, DKI Jakarta, and some areas of West Java are very potential to be the target market with culinary business trend development which serves duck meat menu. The data can be seen in Table 2.

Table 2 – Market Share

<table>
<thead>
<tr>
<th>Area</th>
<th>Food Stalls</th>
<th>Restaurants</th>
<th>Hotels</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banten</td>
<td>6,300</td>
<td>1,110</td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>DKI Jakarta</td>
<td>2,200</td>
<td>1,050</td>
<td>95</td>
<td>232</td>
</tr>
<tr>
<td>Depok</td>
<td>450</td>
<td>200</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>Bekasi</td>
<td>750</td>
<td>250</td>
<td>17</td>
<td>35</td>
</tr>
<tr>
<td>Bogor</td>
<td>600</td>
<td>150</td>
<td>12</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: Survey Team result, Data Central Bureau of Statistics of DKI, Banten, Jawa Barat (Team data result).

Regarding to Table 3, it illustrates a large number of market shares. Thereby, the data provides an opportunity for the company to sell Peking duck carcasses optimally. Food stalls and restaurant are the most potential target market with higher percentage of business than Hotel and Retail, and the management of the business is every day. From the large amount, the sales activities of Prima Duckindo Ltd. in the beginning of the year focus on Food stalls and Restaurant in which it allocates larger supply of Peking duck meat to Food stalls and Restaurants.

**Market Overview.** Livestock products in the free trade era can provide opportunities to develop animal farming business in small, medium, and large scale. On the other hand, the competition faced will also be more severe. Therefore, it is necessary to increase the competitiveness through the quality improvement, productivity, and business efficiency by considering the aspects of food safety and environmental conservation in order to win the competition (Chapple-Sokol, 2013). The development of duck meat culinary business market, especially in Banten Province and DKI Jakarta, can create opportunities for duck breeding companies in supplying the market needs. On the other hand, the duck breeding business nowadays is still in a small amount.

The increasing trend of duck meat consumption which is supported by the increase number of Tent stalls and restaurants serving various special cuisines with duck meat as the main menu proves people’s interest of the duck meat consumption is higher. Duck meat consumption trend also roams up to various star hotels in which they serve duck meat menus. Then, it is obvious that the people’s trend of consuming meat shifts from consuming chicken to consuming duck meat which is tastier and more delicious.

The emergence of consuming duck meat trend causes some duck farming centers lack of stock to meet market demand. Besides, it is also influenced by the interest of people in developing Peking duck farming business which is not significant enough. Then, the situation can be an opportunity for Peking duck farming companies in fulfilling the demand of the community and culinary entrepreneurs to get the supply of duck meat. In addition to the domestic markets, the opportunity to export the duck is quite potential. The types of duck commodities which can be potentially exported are duck carcasses to meet the demand of Asian Economy Community countries, such as Singapore, Malaysia, and even Korea.

**Market Strategy** Marketing strategy is a mindset that will be used to achieve the marketing goals of a company. In developing marketing, first, Prima Duckindo Ltd. identifies the market segment, chooses which market segment to serve, and designs the right product.
and marketing program for the selected segment. After identifying the market segment, the company does target market selection of the segments considered profitable and marketable (Hmang et al., 2012).

The next marketing strategy is the positioning strategy or marketing management in determining the position to realize. The benefit of positioning for the company is as an act of designing the offer and the image of the company in order to reach a special place and unique in the mind of the target market, so it is perceived that the company has superior Peking duck carcasses than other competitors’ (Armstrong et al., 2015). After segmenting, targeting, and positioning, the next marketing strategy is marketing tactics which is known as marketing mix (Cravens and Piercy, 2003). If Prima Duckindo Ltd. implements 95% of Business To Business (B2B) market share, the application of marketing mix will use NICE Networking, Interaction, Common Interest, Experience) marketing tactics. The next marketing strategy of building relationship marketing focuses on customer relation management (CRM) as a way of marketing to customers which can increase the long-term development of the company, and it can be an approach that focuses on attracting and retaining customers through enhanced corporate relationships with customers (Chen and Popovich, 2003).

**Segmenting, Targeting, Positioning.** Market segmentation is a method of how to view markets creatively. According to Kotler and Keller (2009), market segmentation is a market consisting of a group of customers who have similar set of needs and wants. Kotler and Keller (2009) also state that market segmentation should meet some criteria, such as measurable, accessible, substantial, differentiable, and actionable. Market segmentation can be intended as the division of heterogeneous market which is changed into homogeneous market groups in which each group is expected to market a product based on customers' needs, wants, or other characteristics of customers in the market.

Targeting is the process of evaluating and selecting one or more of the most appealing market segments to be served with a specific company marketing program. According to Armstrong et al. (2015), targeting is a group of buyers who have the same needs or characteristics which become the sales goals. Targeting is a very important process because it will determine who will buy the product from the company. In other words, targeting is to target the selected market in market segmentation analysis.

Positioning is a way that marketers do to build an image or identity in the minds of consumers for a particular product, brand, or institution. According to Armstrong et al. (2015), "Positioning is the act of designing the company's offer so that it occupies a distinct and value placed in the target customer mind". Positioning is an action or steps from the manufacturer to design a corporate image and value offering in which consumers, in a particular segment, understand and appreciate what a particular segment does, understand and appreciate what a company does, compared to its competitors (Moutinho, 2000).

The determination of market segmentation, targeting, and positioning strategies is beneficial for gaining a more effective competitive position with products of the competitors who have already entered the target market, and also beneficial for identifying gaps in markets that indicate opportunities to develop a product of a company. The market segmentation is effective when the segment can be measured, achievable, and profitable for the company.

**Marketing Tactic.** Marketing management recognizes Marketing mix term. Marketing mix is a set of operational decisions about product decisions, price decisions, promotion decisions, and place decisions. Because Prima Duckindo Ltd. is the largest market share of B2B, 4P marketing tactic used is NICE marketing tactics, i.e. Networking (Place), Interaction (Promotion), Common Interest (Price), and Experience (product). By emphasizing the achievement of 30% of sales growth in every year, Prima Duckindo Ltd. requires the implementation of effective and appropriate marketing tactics for marketing management. Then, the quality products can create better image of the company, and the image of customers in presenting the products purchased from the company (Peng and Wang, 2006). The implementation of marketing tactics and their application can be seen in Table 3.
Customer Relationship Management (CRM). CRM aims to create customer value, so customers will be satisfied and it can maximize the company profits. The company will gain comparative advantage by paying attention to the product quality in order to provide excellent customer satisfaction (Barnes, 2001). With a CRM marketing strategy, it is intended to create customer loyalty. The implementation of CRM made by marketing management to business market customers through continuity marketing, one to one marketing, and partnering (co-marketing) can be seen in Table 4.

Table 4 – The Implementation of Customer Relationship Management (CRM) to Business Market Customers

<table>
<thead>
<tr>
<th>Customer Relationship Management (CRM)</th>
<th>Treatment to Business Market (Food Stalls, Restaurants, Catering, Hotel, Retail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuity marketing</td>
<td>Monitoring and giving continuous service to customers so that customers' loyalty is sustainable. It can be used by the marketing management by forming a member club, such as food stall member club providing membership card and special discount for the members.</td>
</tr>
<tr>
<td>One to one marketing</td>
<td>This activity is done to build consumer emotional relationship by always communicating with the consumers, solving customer complaint, and fast response towards the consumers.</td>
</tr>
<tr>
<td>Partnering (co-marketing)</td>
<td>Animal farming company has created partnering business becoming animal farming partner in raising Peking duck. For the marketing in developing market share, customers can be used as business partners, asking them to invest to the beneficial company.</td>
</tr>
</tbody>
</table>

Establishing a solid long-term relationship with customers requires concentrated effort of all employees and management to know what satisfies customers and what is valued by customers. Customer Relationship Marketing (CRM) conducted by Prima Duckindo Ltd. focuses on customer relation, benefit-oriented product and good service, high commitment from the customers to the products offered by the company, and the attention of management and all employees on the quality of Peking duck carcass in fulfilling the customers’ wishes.

Blueprimnt for Building a Winning Sales Force To achieve the success in Peking duck carcasses sales, the marketing management will build a design for the success of the sales force (blueprint for building a winning sales force). The purpose of the design is to succeed in sales. Success in sales requires a strong team from the leadership of the leader who can build the spirit of the salespeople in doing sales activities and responsiveness of the salespeople towards response from customers on the products offered. The success of the sales force in the sales activities of Peking duck carcasses is created if the sales force prioritizes good service with the customers (Zoltners, 2009). The dimensions that drive the

<table>
<thead>
<tr>
<th>4P</th>
<th>Planning and Implementation of 4P Marketing Mix</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience (Product)</td>
<td>Peking Duck Carcass Product for Business Market</td>
<td>Retail and Culinary</td>
</tr>
<tr>
<td></td>
<td>Peking Duck Carcass Product for Consumer Market (end user)</td>
<td>Consumer Loyalty</td>
</tr>
<tr>
<td>Common Interest (Price)</td>
<td>Lower price from other competitors Discounting</td>
<td>Optimal Sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer Loyalty</td>
</tr>
<tr>
<td>Networking (Place)</td>
<td>Peking duck carcass distribution to Banten, Jakarta, Bogor, Bekasi, Depok</td>
<td>Optimal Carcass Supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Retail and Culinary</td>
</tr>
<tr>
<td>Interaction (Promotion)</td>
<td>IMC (advertising, word of mouth, sales promotion, publicity relationship, direct marketing &amp; online marketing, personal selling)</td>
<td>Duck Meat Carcass</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peking with Azolla Duck brand is known by consumers as the duck having tasty, delicious, not raised, and good quality.</td>
</tr>
</tbody>
</table>
success in sales are sales force structures and roles, sales people, activities, customer results, company results. The blue print dimension template can be seen in Figure 5.

![Diagram](image)

*Source: Building a Winning Sales Force, Powerful Strategies for Driving High Performance Zoltners, Sinha, Lorimer*

**Figure 5 – The Five Dimension of Sales Organization Success**

**Marketing Budget** The strategy of determining the amount of cost for marketing activities greatly affects the success of marketing. It will be effective budgets if they have characteristics, such as predictive skills, authority communication channels and clear responsibilities, timely and accurate information, comprehensive conformity of information clarity, and support within the organization from all parties involved. The definition of the marketing expenses budget is a systematic and more detailed plan about marketing costs borne by the company from time to time over a certain period in the future (Subagyo, 2010). The division of Prima Duckindo Ltd.'s marketing cost budget can be seen in Figure 6.

![Diagram](image)

*Figure 6 – Marketing Budget Plan*

The costs managed by the company for employees' salaries are based on salary set by the government, such as Minimum Wages Regional of Banten Province is based on the provisions of Minimum Wages Regional of Tangerang Regency S by looking at the effectiveness of sales force work hours. On the other hand, the sales commission is given based on the provisions that have been made by the company. The sales commissions are given to the sales as much as the percentage of product sales target achievement.

The cost of supplementary materials managed by the company is in the form of sales promotion costs, the cost of events conducted by the company's marketing team, and also discounts given by the company to consumers, especially the sale of products to the business market (B2B). The purpose of providing sales promotion is as a strategy to increase sales and to motivate customers to increase the demand of Peking duck meat products to the company and also to build customer loyalty towards the duck meat products supplied by the company.

If marketing management develops the market to increase sales growth every year, it is necessary to increase the budget marketing too. By applying for an increase of marketing budget every year, the sales activities can maximize the sales activities in achieving the optimal sales target of Peking duck carcass. The marketing budget can be seen in Table 6.
Table 5 – Marketing Budget of Prima Duckindo Ltd. in 2018

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost Activities</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers welfare</td>
<td>Wage and sales commissions</td>
<td>14,086,596</td>
<td>14,086,596</td>
<td>14,086,596</td>
</tr>
<tr>
<td>Official Travel and Transportation Allowance</td>
<td>Sales force official travel expenses</td>
<td>408,826</td>
<td>408,826</td>
<td>408,827</td>
</tr>
<tr>
<td>Promotion and Advertisement</td>
<td>Digital marketing advertising expenses</td>
<td>1,666,666</td>
<td>1,666,667</td>
<td>1,666,667</td>
</tr>
<tr>
<td>Rent</td>
<td>Rent expenses for expedition</td>
<td>1,972,357</td>
<td>1,972,357</td>
<td>1,972,356</td>
</tr>
<tr>
<td>Professional Service</td>
<td>Professional service expenses (trainer)</td>
<td>5,071,775</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transportation</td>
<td>Peking duck carcass transportation expenses</td>
<td>4,226,478</td>
<td>4,226,479</td>
<td>4,226,479</td>
</tr>
<tr>
<td>Telephone, Electricity, and Water</td>
<td>Telephone, electricity, and water use expenses</td>
<td>1,127,061</td>
<td>1,127,061</td>
<td>1,127,061</td>
</tr>
<tr>
<td>Depreciation</td>
<td>Depreciation expense of equipment and building</td>
<td>841,962</td>
<td>841,962</td>
<td>841,962</td>
</tr>
</tbody>
</table>

Table 6 – Marketing Budget Expenses of Prima Duckindo Ltd. in 2018-2022

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>Marketing Budget Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Rp)</td>
<td>(Rp)</td>
<td>(Rp)</td>
<td>(Rp)</td>
<td>(Rp)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Salary</td>
<td>42,290,788</td>
<td>177,383,554</td>
<td>244,705,354</td>
<td>330,485,741</td>
<td>464,467,310</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Promotion and advertisement</td>
<td>8,451,957</td>
<td>354,476,711</td>
<td>48,941,071</td>
<td>66,097,149</td>
<td>92,893,462</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>Transportation</td>
<td>12,679,436</td>
<td>53,215,066</td>
<td>73,411,606</td>
<td>99,145,722</td>
<td>139,340,193</td>
<td>15%</td>
</tr>
<tr>
<td>4</td>
<td>Rent</td>
<td>5,917,070</td>
<td>21,286,026</td>
<td>34,258,750</td>
<td>46,268,004</td>
<td>65,025,423</td>
<td>7%</td>
</tr>
<tr>
<td>5</td>
<td>Professional service</td>
<td>5,071,775</td>
<td>17,738,355</td>
<td>29,364,642</td>
<td>39,658,289</td>
<td>55,736,077</td>
<td>6%</td>
</tr>
<tr>
<td>6</td>
<td>Official travel and transportation</td>
<td>4,226,479</td>
<td>14,190,684</td>
<td>24,470,535</td>
<td>33,048,574</td>
<td>46,446,731</td>
<td>5%</td>
</tr>
<tr>
<td>7</td>
<td>Telephone, electricity, and water</td>
<td>3,381,183</td>
<td>10,643,014</td>
<td>19,576,428</td>
<td>26,438,859</td>
<td>37,157,385</td>
<td>4%</td>
</tr>
<tr>
<td>8</td>
<td>Depreciation</td>
<td>2,625,887</td>
<td>354,767,108</td>
<td>14,682,322</td>
<td>18,829,145</td>
<td>27,868,038</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>84,513,575</td>
<td>354,767,108</td>
<td>489,410,708</td>
<td>660,971,483</td>
<td>928,934,619</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Sales Estimation.** Most companies do a possible scenario in making sales estimate, both in the form of sales projections and net marketing contributions. 95% of Peking duck carcasses sales are sold for B2B (Business to Business) market share needs i.e. for the needs of Food Stalls, Restaurants, and Retails. On the other hand, the 5% is sold for consumer market needs (end user). The projection of duck meat carcass from 2018 can be seen in Table 7 and 2019 - 2022 in Table 8.

Table 7 – Projected Sales of Peking Duck Carcass in 2018

<table>
<thead>
<tr>
<th>No</th>
<th>Market Segment</th>
<th>The Percentage of Sales Volume</th>
<th>2018 Period (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Consumers</td>
<td>5%</td>
<td>4,446</td>
</tr>
<tr>
<td>2</td>
<td>Food Stalls</td>
<td>45%</td>
<td>40,014</td>
</tr>
<tr>
<td>3</td>
<td>Restaurants</td>
<td>50%</td>
<td>44,460</td>
</tr>
<tr>
<td>-</td>
<td>Total</td>
<td>100%</td>
<td>88,920</td>
</tr>
</tbody>
</table>

Table 8 – Projected Sales of Peking Duck Carcass in 2019-2022

<table>
<thead>
<tr>
<th>No</th>
<th>Market Segment</th>
<th>The Percentage of Sales Volume</th>
<th>Year</th>
<th>2019 (kg)</th>
<th>2020 (kg)</th>
<th>2021 (kg)</th>
<th>2022 (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Consumers</td>
<td>5%</td>
<td>17,536</td>
<td>22,816</td>
<td>28,936</td>
<td>37,724</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Retails</td>
<td>15%</td>
<td>52,607</td>
<td>68,449</td>
<td>86,808</td>
<td>113,171</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Food Stalls</td>
<td>30%</td>
<td>105,214</td>
<td>136,896</td>
<td>173,616</td>
<td>226,342</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Restaurants</td>
<td>40%</td>
<td>140,285</td>
<td>182,532</td>
<td>231,488</td>
<td>301,789</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Hotels</td>
<td>10%</td>
<td>35,071</td>
<td>45,633</td>
<td>57,872</td>
<td>75,447</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td>350,712</td>
<td>456,327</td>
<td>578,721</td>
<td>754,473</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors Processed Data.

Implementation of Peking duck carcasses sales system on market segments targeted by the company has different ways. For instance, the system implemented in the Retail
markets in supplying Peking carcasses is that Retail is destined alternately each week, and the selected Retail outlets are those which sell meat products, such as Giant, Hypermart, Clubstore, Hero, Daily Foodhall, Ranch Market, Sabar Subur, Superindo, and Carrefour which have many branches in the target market size. Moreover, in the product supply system can be done by consignment, and then mutually beneficial sales scenario is done. Besides, for the largest market segment, Food Stalls and Restaurants, the supply of meat based on the needs of business actors is maximized, and the company supplies meat of Peking duck carcass maximally every day.

Generally, marketing and sales make sales scenarios. In this case, the projected sales plan recognizes three types of scenarios, i.e. optimistic scenario, normal sales scenario, and pessimistic sales scenario. Thus, in sales, optimistic sales scenario is made. Table 9 shows the projected Peking duck carcass sales.

Table 9 – Projected Sales of Peking Duck Carcass in 2018

<table>
<thead>
<tr>
<th>Optimistic sales</th>
<th>Month</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>October</td>
<td>November</td>
</tr>
<tr>
<td>Target Sales Percentage</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Target Sales/month (kg)</td>
<td>29,640</td>
<td>29,640</td>
</tr>
<tr>
<td>Sales Income (Rp)</td>
<td>1,155,960,000</td>
<td>1,155,960,000</td>
</tr>
</tbody>
</table>

To achieve the sales of Peking duck carcasses which is targeted to increase by 30% every year, the company begins DOD breeds sales to livestock partners which will start in 2021. The sale of Peking duck breeds (DOD) is to meet the needs of breeds for livestock partners of Prima Duckindo Ltd. As a business partner, Peking duck raised by livestock partners will be repurchased by Prima Duckindo Ltd. when the Peking ducks are ready to harvest. It is a way to maximize the sales volume of Peking duck carcass sales in the business markets which become the company’s customers. The projected sales of Peking duck breeds (DOD) can be seen in Table 10.

Table 10 – Projected DOD Sales to Animal Farm Partners in 2021-2022

<table>
<thead>
<tr>
<th>Item</th>
<th>Year 2021</th>
<th>Year 2022</th>
<th>Value (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity</td>
<td>Price (Rp)</td>
<td>Value (Rp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2021</td>
</tr>
<tr>
<td>DOD</td>
<td>11,400</td>
<td>18,000</td>
<td>205,200,000</td>
</tr>
</tbody>
</table>

Net Marketing Contribution (NMC). Net marketing contribution derives from net sales subtracted by marketing expense. This value is the reference in monitoring market performance and profit. One of the sales strategies done by marketing management in achieving sales target is providing discount which aims to stimulate the interest of customers to purchase Peking duck carcass as many as possible (Hunt and Lambe, 2000). Marketing management provide budget 2% for sales discount of 2% of Peking duck carcass and DOD ducklings sales. On the other hand, in distributing Peking duck carcasses to customers, marketing management analyzes the possibility of the products being returned by the customers. The claim or return products is estimated at 0.5% of the sales of Peking duck carcass meats. The net sales of Peking duck carcass meats and DOD Peking duck breeds after being reduced by discount and product return can be seen in Table 11.

Net Marketing Contribution (NMC) in 2018 is Rp 1,170,391,135 from the net sales of Peking duck carcasses of Rp 3,381,183,000, COGS is Rp 2,126,262,290, marketing expense is Rp 84,529,575, ROS marketing (Return On sales) is 93% meaning that each Rp 1 of the net sales of Peking duck carcasses will gain profit Rp 0.93, whereas Rp 0.07 is used for HPP, marketing and tax operational costs, or from the total Net Marketing Contribution produced by Prima Duckindo Ltd. which remaining 93 % profit, while the rest is 7% to cover the HPP, operational and corporate income tax expenses of the company.
Table 11 – The Total of Net Sales of Prima Duckindo Ltd. Products in 2018-2022

<table>
<thead>
<tr>
<th>Product</th>
<th>Year</th>
<th>Quantity (Unit)</th>
<th>Price (Rp)</th>
<th>Bruto Sales (Rp)</th>
<th>Discount (2%) (Rp)</th>
<th>Return (0.5%) (Rp)</th>
<th>Netto Sales (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peking Duck Carcass</td>
<td>2018</td>
<td>88,920</td>
<td>39,000</td>
<td>3,467,880,000</td>
<td>(69,357,600)</td>
<td>(17,339,400)</td>
<td>3,381,183,000</td>
</tr>
<tr>
<td>Peking Duck Carcass</td>
<td>2019</td>
<td>350,721</td>
<td>41,500</td>
<td>14,554,548,000</td>
<td>(291,090,960)</td>
<td>(72,772,740)</td>
<td>14,190,684,300</td>
</tr>
<tr>
<td>Peking Duck Carcass</td>
<td>2020</td>
<td>456,327</td>
<td>44,000</td>
<td>20,078,388,000</td>
<td>(401,567,760)</td>
<td>(100,391,940)</td>
<td>19,576,428,300</td>
</tr>
<tr>
<td>Peking Duck Carcass</td>
<td>2021</td>
<td>578,721</td>
<td>46,500</td>
<td>26,910,526,500</td>
<td>(538,210,530)</td>
<td>(134,552,633)</td>
<td>26,237,763,337</td>
</tr>
<tr>
<td>DOD</td>
<td></td>
<td>11,400</td>
<td>18,000</td>
<td>205,200,000</td>
<td></td>
<td>(4,104,000)</td>
<td>201,096,000</td>
</tr>
<tr>
<td>Peking Duck Carcass</td>
<td>2022</td>
<td>753,473</td>
<td>49,000</td>
<td>36,920,177,000</td>
<td>(738,403,540)</td>
<td>(184,600,885)</td>
<td>35,997,172,575</td>
</tr>
<tr>
<td>DOD</td>
<td></td>
<td>62,310</td>
<td>19,000</td>
<td>1,183,890,000</td>
<td></td>
<td>(23,677,800)</td>
<td>1,160,212,200</td>
</tr>
</tbody>
</table>

Source: Authors Processed Data.

Table 12 – Net Marketing Contribution (NMC)

<table>
<thead>
<tr>
<th>Performance</th>
<th>Year</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peking Duck Carcass Sales</td>
<td></td>
<td>3467880000</td>
<td>14,554,548,000</td>
<td>20,078,388,000</td>
<td>26,910,526,500</td>
<td>36,920,177,000</td>
</tr>
<tr>
<td>DOD Sales</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>205,200,000</td>
<td>1,183,890,000</td>
</tr>
<tr>
<td>Discount (2.5% of Sales Revenue)</td>
<td></td>
<td>69,357,600</td>
<td>291,090,960</td>
<td>401,567,760</td>
<td>542,314,530</td>
<td>762,081,340</td>
</tr>
<tr>
<td>Return (0.5% of Sales Revenue)</td>
<td></td>
<td>17,339,400</td>
<td>72,772,740</td>
<td>100,391,940</td>
<td>134,552,633</td>
<td>184,600,885</td>
</tr>
<tr>
<td>Net Sales (Peking Duck Carcass &amp; DOD)</td>
<td></td>
<td>3,381,183,000</td>
<td>14,190,684,300</td>
<td>19,576,428,300</td>
<td>26,438,859,337</td>
<td>37,157,384,775</td>
</tr>
<tr>
<td>CCGS</td>
<td></td>
<td>2,126,262,290</td>
<td>8,269,088,445</td>
<td>11,226,549,958</td>
<td>15,271,414,936</td>
<td>21,994,996,716</td>
</tr>
<tr>
<td>Gross Profit</td>
<td></td>
<td>1,254,920,710</td>
<td>5,921,595,855</td>
<td>8,349,878,342</td>
<td>11,167,444,401</td>
<td>15,162,388,059</td>
</tr>
<tr>
<td>Marketing Expense</td>
<td></td>
<td>84,529,575</td>
<td>354,767,108</td>
<td>489,410,708</td>
<td>660,971,483</td>
<td>928,934,619</td>
</tr>
<tr>
<td>Net Marketing Contribution (NMC)</td>
<td></td>
<td>1,170,391,135</td>
<td>5,566,828,747</td>
<td>7,860,467,634</td>
<td>10,506,472,918</td>
<td>14,233,453,440</td>
</tr>
<tr>
<td>Marketing ROS (Return on Sales)</td>
<td></td>
<td>93%</td>
<td>94%</td>
<td>94%</td>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>Marketing ROI (Return on Investment)</td>
<td></td>
<td>138%</td>
<td>157%</td>
<td>161%</td>
<td>161%</td>
<td>153%</td>
</tr>
</tbody>
</table>

The amount of marketing ROI (Return on Investment) in 2018 is 138% which means that for every Rp 1 invested by Prima Duckindo Ltd., shareholders or the company will obtain additional equity value of Rp 1.38, or the company gains an increase in the value of invested equity by 138%. By knowing the percentage of ROI of 138%, it describes the ability of the company's effectiveness in providing income for each investment which is invested by the company or shareholders.

CONCLUSION

Duck farming business managed by Prima Duckindo Ltd. with Eco-Green concept becomes a beneficial business and an exemplary farming business with dry cage, economical, and environmentally friendly method. With various analyzes conducted by the company, in the development of duck breeding business run by Prima Duckindo Ltd., the reliable operational management is required. Prima Duckindo Ltd. is an integrated farm starting from breeding, hatching, farming or growing, and cutting ducks to become carcasses. Therefore, to achieve the goals, comprehensive mapping of the operational strategy can be done by making continuous improvement. The emphasis of operational costs is focused on the cost of feeding through the use of Azolla microphylla and applying eco-green system, so the quality of the product and the quality of the environment is well
preserved. In addition, to increase the production volume based on the marketing demands, partnering system should be applied as much as possible in accordance with the capacity of DOD hatchery department.

Then, to market the products of Prima Duckindo Ltd., the marketing management creates a proper and effective marketing strategy plan. Positioning strategy conducted by the company is to build public perception about the superiority of the products owned by the company, such as product price, service, and product quality. Besides, marketing tactic done by the marketing management is done with marketing mix strategy. The marketing mix based on 4P is Product, Price, Promotion, and Place.

SUGGESTIONS

Business plan designed by Prima Duckindo Ltd. can be used as an example in other poultry farm businesses or duck farms that still use traditional concept. For the management in developing Peking duck farm, innovations and the technology development which are more effective and efficient technology that can produce better duck breeding results are required.

Moreover, the business plan designed by Prima Duckindo Ltd. can also be a reference material for Graduate students as the final project of business plan and research study materials in establishing a business. For government business plan designed by Prima Duckindo Ltd. can be developed as a business that can improve people's welfare. Then, this business plan can be a reference for the community or entrepreneurs who wish to run duck breeding business.

REFERENCES


LOGISTIC OPERATIONS AND MANAGERIAL PERFORMANCE OF TABLE EGG ENTREPRENEURS IN AKWA IBOM STATE, NIGERIA

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ABSTRACT
This study aims on logistic operations and managerial performance of table egg entrepreneurs in Akwa Ibom State. The specific objectives were to identify logistic operations used by table egg entrepreneurs in study area, and assess the managerial performance of table egg entrepreneurs and assess the effect of logistic operations on managerial performance of table-egg entrepreneurs. One hundred and eighty (180) table egg entrepreneurs were selected using the simple random sampling technique. Data were collected using structured questionnaires and analysed using descriptive statistics, Data Envelopment Analysis approach and multinomial logistic regression model. Findings of the study show that table egg entrepreneurs applied various logistic operations such as order handling (91.1%), information sharing (85%), inventory management (84.4%), warehousing (76.7%), packaging (86.7%), product distribution scheduling (66.1%) and transport coordination (66.1%) in the production and distribution of table egg. However, the entrepreneurs were still found to perform below average as most (89.4%) of them were within the efficiency scores of between 0-0.25. Furthermore, only product distribution scheduling operation had a significant effect on managerial performance of table egg entrepreneurs in the study area. The study therefore recommended a collaborative approach between State and non-State actors in organizing capacity building trainings, workshops and seminars that will enhance the managerial capacities of table egg entrepreneurs in the study area. There is also need to set up monitoring and evaluation systems that will ensure that business operators effectively perform required logistic operations that will enhance their overall performance in business.

KEY WORDS
Table egg, managerial performance, logistic operations, business.

The business of poultry farming comprises chickens, turkeys, geese, ducks, quail and guinea fowls. Chickens constitute about 70% of the poultry population in Nigeria therefore the term ‘poultry farming’ is used generally to refer to chicken farming in Nigeria (Ojo, Ojo, Jirgi and Ajayi, 2012). The major poultry products are eggs and meat. Binuomote et al. (2008). However, FAO, (2008) enumerated the advantages of table egg over meat and other sources of animal protein to include the point that egg is one of the most nutritious and complete foods known to man because it has biological value of 1.0, contains 6g of protein and so shares with human protein the distinction of being a perfect protein. According to Olagonju, (2007) and Amos, Chikwendu, and Nmadu, (2004), egg contains substantial amount of vitamins A and D, thiamin and riboflavin. It ranks only with cow whole milk as the most economically produced animal protein. Eggs can be used for industrial purposes namely: confectionery, bakery products, ice cream, cosmetics, hair shampoo, custard and beverages. Egg shell can also serve as a good source of calcium (Tijani, Alimi, and Adesiyan, 2006). Egg production is a major index of performance of poultry business in Nigeria. Alabi & Aruna (2005) reported that egg accounts for about 90% of the income from poultry industry. Table egg production is a very profitable business but the negligence of the necessary management routine can make the venture to be unprofitable (Iyangbe and Orewa, 2009).

In recognition of the importance of poultry industry and table egg in particular, successive governments in Nigeria have sought to rejuvenate the subsector since the late
1990s by investing in research and development projects. The National Animal Production Institute is a publicly funded research center that studies poultry production practices and technologies and has developed an improved poultry breed for the country. The National Veterinary Research Institute is responsible for diagnosing and investigating poultry diseases and developing vaccines. With support from the UN and World Bank, the facility undertook upgrades following the emergence of Avian Influenza in Nigeria and now serves as the designated Avian Influenza laboratory for West and Central Africa.

Other government policies supporting the domestic poultry sector include reducing tariffs on imported poultry vitamins and vaccines, subsidizing Newcastle disease vaccines for rural producers, and supporting the Presidential Initiative on Livestock, which sought to increase production, consumption, and export of poultry and other animal products. The initiative ran from 2004 to 2006 and was intended to help smallholder and commercial producers through feed and nutrition, veterinary, and marketing and processing interventions. An analysis by the Pro-Poor Highly Pathogenic Avian Influenza group noted that the initiative’s ideas and goals were worthwhile.

However, Afolabi, (2012), Iyangbe & Orewa, (2009) and Adepoju (2008) reported that poultry industry has performed below expectation in recent times. They attributed this development to inefficiency in resource use. They also described the business environment of egg producing enterprises as hostile due to: high cost of feed, poor management, diseases and pests, poor extension and training facilities, marketing problems, lack of credit facilities, poor logistics and lack of regulatory institutions to ensure that farmers comply with established rules for quality, products safety and standard.

Furthermore, firms are expected to perform some logistic operations (order handling, information sharing, product distribution scheduling, inventory management and control, transportation, packaging and warehousing) along the distribution channel linking suppliers, manufacturers and end consumers. According to Sakchuchawan et al., 2011 firm owners that utilize these operations perform more efficiently in management. Studies show that adoption of logistic innovations could impact positively on the development of business firms (Sakchuchawan and Hong, 2011), (Graebner and Eisenhardt, 2010) (Chen and Hsueh, 2009) and (Kongmanilaa, Xayphone, and Takahashib, 2009).

Despite reports that logistic operations could impact positively on the development of agribusiness (Sakchuchawan and Hong, 2011), (Graebner and Eisenhardt, 2010) (Chen and Hsueh, 2009) and (Kongmanilaa, Xayphone, and Takahashib, 2009), there is still paucity of information on the logistic operations utilized by table egg entrepreneurs in Akwa Ibom State. Also information on how these operations impact on their managerial performance is lacking. The importance of table egg business in Akwa Ibom State cannot be overemphasized as the State is a major distributor of table eggs within the South South and South East regions for the country. The lack of information on logistic operations and how the impact on managerial performance of table egg entrepreneurs therefore presents a research gap which this study sought to address.

The general objective of this study was to assess logistic operations and managerial performance of table egg entrepreneurs in Akwa Ibom State.

The specific objectives of the study were to:

- Identify logistic operations practiced by table egg entrepreneurs in study area;
- Assess the managerial performance of table egg producers using managerial efficiency scores;
- Ascertain the effect of logistic operations on managerial performance of table-egg producers.

H01: Logistic operations of table egg entrepreneurs have no significant effect on their managerial performance.

**LITERATURE REVIEW**

Logistic operations in agribusiness firms. Logistic operations encompasses many activities, including order handling, information sharing, product distribution scheduling,
inventory management and control, transportation, packaging and warehousing. Innovation in logistics is fundamental to an organization, which can be implemented in internal activities or services. Such an innovation could enhance the coordination capabilities among channel activities, which enables firms to avoid dysfunctional operational performance and other negative consequences, such as higher inventory costs, longer delivery times, higher transportation costs, and other disadvantages (Sakchuchawan et al., 2011).

Many studies support the significant impact of logistics innovation on firm performance. Sakchuchawan et al. (2011) found that logistics as part of the supply chain system provides benefits in terms of time and place utilities; and hence it is able to enhance firm performance.

**Order handling.** Order handling is recognized as one of the decisive factors for business processes in most profit-oriented company (Landes, 2008). It is the main logistics activity that smoothens the movement of goods or products and services (Kuswantoro and Rosli, 2012).

The important role of order handling innovation in firm’s logistics efficiency is also emphasized by many researchers. According to Graebner et al. (2010), the application of technological support, such as radio-frequency identification and global positioning system will enhance real-time tracking information for products and replacement orders within the value chain.

**Information sharing.** An effective information sharing system is vital for achieving distribution channel performance (Zhou and Benton, 2007). Having a good coordination among independent channel members, such as raw material suppliers, manufacturers, distributors and retailers enables the players to enhance logistic processes within the rapid change in market conditions (Diehl and Poynor, 2010).

Kongmanilaa, et al. (2009) found that the significant success factor for export-oriented SMEs was contingent upon the capability of the firms to manage their relationship with foreign importers. With the advent of information technology, information can be processed, transmitted and collected at a faster rate. As a result of this technological revolution, market knowledge of the firms and their relationship with the channel members within the value chain system has tremendously improved which in turn enhanced firm performance (Fernandez, 2006).

**Inventory management.** Inventory forms a significant part of current asset of an enterprise. A good inventory management system is a decisive factor for a firm’s success (Linda, Zhang, & Qinhai, 2009). On the contrary, inaccuracy in inventory management would create a range of problems, such as productivity loss, unwanted items of manufacturing, a reduction in the customer commitment level, and increased costs. Thus, the cost savings accumulated from improved practices in inventory management is remarkable (Morgado, 2008).

The linkages between inventory management and competitive advantage, such as cost, delivery, and quality are significant (Rosli, 2012). An innovation in inventory management and control is crucial for a firm. It allows an enterprise not only to minimize inventory costs, but also to avoid direct consequences due to the shortage of material resources which directly affect distribution activities (Mukhamad & Kiminami, 2011).

**Product distribution scheduling.** Product distribution scheduling is a logistic activity, concerned about when and where the collection of goods should be formed and delivered (Lee and Kim (2010). A product scheduling method, which is coupled with material supply and product delivery, will improve logistics efficiency (Chen and Hsueh, 2009). Innovation in product distribution scheduling was discovered to be able to improve efficiency as well (Somuyiwa, 2007). Furthermore, the identification of the optimal production quantities, the time to produce and the vehicle routes through a computerized method is the effective and efficient way to increase total profit (Chen and Hsueh, 2009). A new method of polynomial-time algorithms in solving product distribution scheduling was found to be able to minimize inventory and transportation cost (Chen, 2009). Besides directly enhancing logistics efficiency, such an innovation will ultimately affect firm performance.

**Transport coordination.** The role of transportation system is crucial in a distribution channel system because it could provide more efficient logistics, reduce operational costs,
and promote the service quality. According to Major (2008), transportation costs, on average, accounted for 44 percent of the total logistics costs. Therefore, an innovation in transportation coordination methods using the three major elements of smart transportation management (smart goods, smart vehicles and smart infrastructure) would bring about a positive impact on logistics performance (Sakchutchawan et al, 2011). In other words, the well-operated logistics system would increase the competitiveness of enterprises (Tadeuszu, 2009). In contrast, a poor coordination of the logistics system would lead to higher costs, longer delivery times, higher levels of loss and damage, and poor customer service (Schacht, 2010; Sánchez and Popescy, 2011).

**Packaging.** Packaging serves as a tool for product promotion and use. While packaging engineers see packaging as a protective device only, distribution managers perceive packaging in a broader perspective. To the latter, any changes in design, size, and media of transportation would contribute to the efficiency of a distribution system (Wang et al, 2009). A recent study on 800 U.S. shoppers in eight product categories demonstrated that innovation in new packaging systems directly affected price expectation and product selection among the shoppers (Lee et al, 2010). The study found that if packaging is done properly, it is very likely provides a positive return on investment (ROI) through increased market share or the ability to raise prices to cover incremental costs.

**Warehousing.** Warehousing creates time utility for prospective customer (Diehl and Poynor, 2010). Finished goods or material handling in the logistics system is concentrated in and around the warehouse facility. The absence of goods in the warehouse means the interruption of the goods flows, which will add costs to transactions. To avoid this interruption, some technologies can be adopted. Such technologies could improve distribution performance in warehousing and finished good handling, which in turn leads to firm performance (Diehl and Poynor, 2010).

**METHODS OF RESEARCH**

**Study area.** Akwa Ibom State lies between Latitude 4° 32’ and 5° 32’ North and Longitude 7° 25’ and 8° 25’ east of the equator. The state is bordered to the West by River State and Abia and Imo State in the North, Cross River State in the East and Atlantic Ocean forming its southern boundary (Inyang, 1989). The State occupies an area of 8,412 square kilometers with a population of 3.9million based on the national census figure of year 2006 and an average population density of 350 inhabitants per square kilometer with 85 percent of the population living in rural areas (NBS, 2008). There are thirty-one Local Government areas in the state. The rich land mass and all year-round clement weather offer a favourable environment for wildlife conservation, the production of food and tree crops, fish and livestock farming.

**Sampling procedure and data collection.** Simple random sampling was used to select 210 table egg firms from a sampling frame of 1,051 table egg firms in the 6 agricultural zones in Akwa Ibom State. The frame was obtained from the Livestock Department, Ministry of Agriculture and Natural Resources, Akwa Ibom State. The owners/managers/producers of the selected firms were then used as respondents for this study.

**Data collection.** The study used structured questionnaire to elicit information from the selected table egg entrepreneurs. Information collected were on the socio-economic characteristics of table egg entrepreneurs, variable and fixed costs of table egg production and logistic functions practiced by table egg entrepreneurs. One hundred and eighty questionnaires (180) out of the 210 firm owners selected returned their filled and completed questionnaire. Hence, data was analysed using 180 respondents. 

**Analytical framework.** Descriptive statistics such as frequency counts and percentages to describe the logistic operations practiced by table egg entrepreneurs. Data Envelopment Analysis (DEA) model was used to determine the managerial performance. Managerial efficiency was used as an indicator for an entrepreneurs’ managerial performance. Also, a multinomial logistic regression was fitted to analyse the effect of selected logistic operations on managerial performance (efficiency).
Managerial performance using Data Envelopment Analysis. Data envelopment analysis (DEA) is a technique developed in operations research and management science for measuring efficiency of decision making units (DMUs). It is a non-parametric methodology, pioneered by Charnes et al. (1978), used for estimation of efficiency, ranking production units on the basis of their performances and benchmarking of DMUs for efficient performance.

The model aims at evaluating the relative efficiencies of comparable decision making units (DMUs) by means of a variety of mathematical programming models. It involves the use of technical linear programming to construct a non-parametric piecewise surface (or frontier) over data, and also to enable the calculation of an efficient firm relative to its surface (Coelli, 1996a). Two DEA models developed by Charnes et al. (1978) namely: the Charnes, Cooper and Rhodes (CCR) model which consider constant returns to scale (CRS) and the Banker, Charnes and Cooper (BCC) model which considers variable return to scale (VRS) were used to calculate the managerial efficiency which is an indicator for firm performance.

An input oriented CCR model is given below:

$$\max W_p = \sum_{r=1}^{s} u_r y_{rp}$$

s.t: \[ \sum_{i=1}^{m} v_i x_{ip} = 1 \]

Model 1:

$$\sum_{r=1}^{s} u_r y_{rj} - \sum_{i=1}^{m} v_i x_{ij} \leq 0 \quad \forall j,$$

$$u_r, v_i \geq 0 \quad \forall i, r.$$

Likewise, the BCC model is formulated as follows (Model 2):

$$\max W_p = \sum_{r=1}^{s} u_r y_{rp}$$

Model 2:

$$\sum_{r=1}^{s} u_r y_{rj} - \sum_{i=1}^{m} v_i x_{ij} \leq 0 \quad \forall j,$$

$$u_r, v_i \geq 0 \quad \forall i, r.$$

Model 1 (input oriented CCR model) allowed table-egg farms [otherwise referred to as Decision Making Units (DMUs) in DEA terminology] that had low inputs to come up with increasing returns to scale whereas model 2 (BCC model- output oriented model) allowed DMUs that had high inputs would come up with decreasing returns to scale.

Input-oriented model focuses on reducing inputs in order to have a 100% efficient DMU while the output-oriented model focuses on increasing outputs to have an efficient DMU.

n= Number of table egg farms otherwise called decision-making units (DMUs).

m= Socioeconomic factors that can influence managerial efficiency of table egg producers namely: age of the manager (yrs), access to extension services, (dummy, yes = 1; No = 0); years of experience (yrs); access to credit (dummy, yes = 1; No = 0); household size (No); educational qualification of table egg producers (years of schooling), estimated per production cycle (N), etc to produce table egg.

s= Quantity of outputs (table-egg) produced by each DMU.

Specifically, DMUj consumes amounts xij (i = 1, ..., m) from inputs to produce amounts yrf (r = 1, ..., s) of outputs (table-eggs).
In the model formulation, $x_{ip}$ ($i = 1, ..., m$) and $y_{rp}$ ($r = 1, ..., s$) denote the nonnegative crisp vectors of input and output values for DMU $p$ and $v$ and $u$ symbolize input and output weights, respectively. In solving an optimization problem, each DMU sets its own weights to maximize its efficiency subject to the condition that all efficiencies of other DMUs remain less than or equal to (1) and the values of the weights are greater than or equal to (0) (Komleh et al., 2011). For the best situations, an efficiency value of (1) indicates a managerially efficient unit (entrepreneur) (Dagistan et al., 2009).

**Effect of Logistic operations on managerial performance of table-egg entrepreneurs.** Logistics functions investigated in this study included order handling, information sharing, inventory, warehousing, packaging, product distribution scheduling and transportation coordination. Table egg entrepreneurs were asked to indicate whether they performed these logistic functions in their farm operations or not.

A multinomial logistic regression to ascertain the effect of logistic functions on managerial performance. The multinomial logistic regression equation is given by:

$$\ln \left( \frac{\pi_j}{\pi_k} \right) = \alpha_j + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p,  \\
\ln \left( \frac{\pi_2}{\pi_k} \right) = \alpha_2 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p,  \\
\ln \left( \frac{\pi_{j-1}}{\pi_k} \right) = \alpha_{j-1} + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p,$$

Where: $\pi_j = P(y = j)$ is the probability of an outcome being in category $j$, $k$ is the number of response categories, and $p$ is the number of predictor variables.

**Dependent variable specification.** Managerial performance (the managerial efficiency scores were used as dummy variables respondents within 0-0.25 managerial efficiency score $=1$, respondents within 0.26-0.5 managerial efficiency score $=2$, respondents within 0.51-0.75 managerial efficiency score $=3$ and respondents within 0.76-1.0 managerial efficiency score $=4$.

**Predictor Variables and their measurements:**

- $X_1$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced order handling, 0 if otherwise]
- $X_2$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced information sharing, 0 if otherwise]
- $X_3$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced inventory management, 0 if otherwise]
- $X_4$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced warehousing, 0 if otherwise]
- $X_5$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced packaging operation, 0 if otherwise]
- $X_6$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced product distribution scheduling, 0 if otherwise]
- $X_7$ = (dummy variable) [Yes=1 if the table egg entrepreneur practiced transportation coordination, 0 if otherwise]

**RESULTS AND DISCUSSION**

**Logistic operations used by table egg entrepreneurs in the study area.** The frequency distribution on the logistic operations used by table egg entrepreneurs in the area of study is presented in Table1. The result shows that most of the respondents have applied one form of logistic function or the other in running of their businesses. Over Ninety one percent (91.1%) of the table-egg entrepreneurs had used order handling. Information sharing (85%), inventory management (84.4%), warehousing (76.7%), packaging (86.7%), product distribution scheduling (66.1%). While 66.1% had applied transport coordination.
Table 1 – Logistic operations used by table egg entrepreneurs in the study area

<table>
<thead>
<tr>
<th>Responses</th>
<th>Logistics functions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ORDER HANDLING</td>
</tr>
<tr>
<td>Yes</td>
<td>Frequency</td>
</tr>
<tr>
<td>164</td>
<td>91.1</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>INFORMATION SHARING</td>
<td>Frequency</td>
</tr>
<tr>
<td>Yes</td>
<td>153</td>
</tr>
<tr>
<td>No</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>INVENTORY</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>WAREHOUSING</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>PACKAGING</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>PRODUCTION DISTRIBUTION</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>SCHEDULING</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
<tr>
<td>TRANSPORTATION COORDINATING &amp; ACQUISITION</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
</tr>
</tbody>
</table>

Managerial performance of table egg entrepreneurs. In terms managerial performance the efficiency scores calculated using the DEA approach show that 89.4% of the respondents had managerial efficiency score of between 0-0.25 while 2.2% of respondents accounted for managerial efficiency score of 76 – 100. The minimum managerial efficiency of table egg firms was 2% while the maximum was 100%. The average managerial efficiency score was 12.6%, with standard deviation of 16.1%. The scores show that the entrepreneurs were managerially inefficient which implies that the firms in the study area performed below average in the management of their enterprise. Efficiencies scores orientated towards one (1) are more desired. And only 2.2% of the table egg firms operated within the region of 0.76-1.0 (Table 2).

Table 2 – Managerial Efficiency levels of table egg producers

<table>
<thead>
<tr>
<th>Managerial efficiency scores</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 0.25</td>
<td>161</td>
<td>89.4</td>
</tr>
<tr>
<td>0.26 - 0.5</td>
<td>12</td>
<td>6.7</td>
</tr>
<tr>
<td>0.51 - 0.75</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>0.76 - 1.0</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>12.6 (16.1)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey (2016). Note: Figures in parentheses are std. deviations.

Effect of logistics operations on managerial performance. The result showed that product distribution scheduling contributed significantly to managerial performance of the table egg entrepreneurs in the study area. This implied that table-egg entrepreneurs who
used product distribution scheduling technique were likely to perform better than those who did not. This is in line with Kongmanila, Xayphone, & Takahashib, 2009; Graebner & Eisenhardt, 2010 and Sakchutchawan & Hong, 2011 who opined that product distribution is an ancillary to trade and ensures increases in sales and efficiency. Other logistic operations did not significantly explain changes in managerial performance (Table 3).

Table 3 – Multinomial logistic regression on the effect of logistics functions on managerial performance of table egg producers

|                | man_e | Odds Ratio | Std. Err. | z    | P>|z| [95% Conf. Interval] |
|----------------|-------|------------|-----------|------|-----------------------|
| Order_hand     | 0.134924 | .1971807 | -1.46     | 0.145 | .0123768 .1.90355 |
| info sharing   | .4799796 | .4575387 | -0.77     | 0.441 | .0741 3.109047 |
| Inventory      | 2.147846 | 2.103557 | 0.78      | 0.435 | .3150311 14.64377 |
| Warehousing     | 1.807892 | 1.947225 | 0.60      | 0.549 | .2421019 14.41137 |
| Packaging       | .4189711 | .4516485 | -0.81     | 0.420 | .0506517 3.468568 |
| Distribution    | 13.67564 | 19.89376 | 1.80      | 0.072 | .7901624 236.6893 |
| Transportation  | 1.669832 | 1.537289 | 0.56      | 0.578 | .2747195 10.13473 |
| _cons          | .0805536 | .114788 | -1.77     | 0.077 | .004929 .315868 |

Order_hand = order handling, info sharing=information sharing, Inventory=inventory management, Distribution=product distribution scheduling, Transportation= transportation coordination.

CONCLUSION

Although over 70% of table egg entrepreneurs claimed to have applied the various logistic operations namely; order handling (91.1%), information sharing (85%), inventory management (84.4%), warehousing (76.7%), packaging (86.7%), product distribution scheduling (66.1%) and transport coordination 66.1% in the production and distribution of table egg, the positive effects which these operations have been reported to have on the managerial performance as reported scholars were not evident in this study. Only product distribution scheduling had a significant effect on managerial performance of table egg entrepreneurs in the study area. This is an indication of the poor managerial capacity of the table egg entrepreneurs. The study recommends a collaborative approach between state and non-state actors in organizing capacity building trainings, workshops and seminars for table egg entrepreneurs in the study area. These would raise the present low capacities of table egg producers, enhance proper utilization of resources used in table egg production, expose table egg producers to best management practices and proper applications of various logistic operations, stimulate investments and create conducive business environment for operators within the value chain. There also need to set up monitoring and evaluation systems that will ensure that business operators effectively perform required logistic operations that will enhance their overall performance in business.

REFERENCES


PURCHASE DECISION OF CHEMICAL COMPOUND FERTILIZERS
BY WHITE PEPPER FARMERS

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ABSTRACT
The purposes of this research are to analyze the influence of Brand Image, Promotion, and Distribution toward Purchase Decision of chemical compound fertilizer. The population in this research is White Pepper farmers in South Bangka Regency, Bangka Belitung Province, Indonesia. The sampling technique is a quota sampling method which results for 100 samples. The data analysis method uses descriptive statistical analysis and logistic regression analysis. The result of this study shows that several brands of chemical compound fertilizer that are preferred by white pepper farmers in South Bangka Regency are Yaramila, Wayang, and Phonska. Brand Image variable and Distribution variable influence on Purchase Decision. On the other hand, Promotion variable doesn’t influence Purchase Decision.

KEY WORDS
Brand image, promotion, distribution, purchase decision, chemical compound fertilizers.

The growing economic condition of Indonesian society in the agricultural sector has resulted in the emergence of industries that seek to meet the needs of every farmer in the form of imported goods and domestic goods. As a result, the level of competition between similar industries becomes increasingly tight. Competition can be overcome if farmers as consumers can feel comfortable and can rely on a particular brand of agricultural products (Aaker, 2012). Judging from the increasingly widespread of similar industries, in this research is chemical fertilizer industry; they are trying to influence the farmers to buy their products. How producers in influencing consumers are one of them by doing promotion (Wierenga et al., 2012).

According to Kotler (2012), one form of promotion is advertising, in addition to other advertising media, namely personal selling, publicity, and sales promotion. Advertising is one of four essential tools that companies use to streamline effective communication toward purchases and targeted communities (Nava et al., 2013). Personal selling is the oral presentation in a conversation with one or more potential buyers to make a sale (Aaker & Biel, 2013). Sales promotion is a short-term incentive to stimulate the purchase of a product or service. While publicity is spreading the important commercial news through the need for a particular product in a disseminated medium or generating an exciting presentation of the product on the radio, television or stage not paid by the sponsor (Moriarty et al., 2014). Advertising conducted by the company can be done through media magazines, radio, television, and billboards. The selection of advertising media done by the company is usually tailored to the needs of the company. Understanding the advertisement by Hollensen (2010) is all forms of non-personal presentation of promotional ideas, promotions of goods or services performed by certainly paid sponsors. In addition to advertisements, brands are among the factors that can influence purchasing decisions. The promotion of chemical fertilizers in the islands of Bangka Belitung province according to the author's observation is not very interesting. The promotion is dominant only using the method words of mouth without any significant promotional efforts on print and electronic media.

According to Aaker (2012), a good brand image is to provide good quality products for consumers. Successful brands have great potential to generate even more profits if the company can aggressively and persistently brand them through various ways such as brand extensions or line extensions. For many businesses, the brand name and what it contains is

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the cornerstone of the strategy of leaf, and the source of future income (Aaker & Joachimsthaler, 2012). For the company, the brand can become more valuable, because it can use it to build a consumer confidence base in determining the choice of a product (Kapferer, 2012). No matter how good a product is, if the consumer has never heard it and is not convinced that it will be of use to them, they will never buy it. So that the brand of a product widely known by the consumer then it is necessary if the seller to do other marketing activities of promotion. Promotion is a flow of information or one-way persuasion made to direct a person or organization to actions that create exchanges in marketing (Hartley & Claycomb, 2013). Such marketing exchange can be realized if there is a product offered; the product can be traded through the distribution process. The behaviour of farmers in the island province of Bangka Belitung on the purchase of fertilizer tends to believe that the brand of fertilizer used by his ancestors is better than trying another brand of fertilizer.

Armstrong et al., (2015), implicitly states that distribution is a marketing activity that seeks to smoothen and facilitate the delivery of goods and services from producers to consumers so that its use in accordance with the required (type, amount, price, place, and when needed). This distribution role is very important for white pepper farmers in the Bangka Belitung Islands Province. Without a good distribution, will lead to a decrease in production, due to fertilizer delays. The geographic condition of the Bangka Belitung Islands Province which is an archipelago area and has no chemical fertilizer company makes the distribution process very vital. Distribution of chemical fertilizers conducted by fertilizer companies outside the province of Bangka Belitung Islands, such as Pusri, Petrokimia, Yaramila, etc.

The results of previous research that support is research conducted by Bian & Moutinho (2011); Nigam, & Kaushi (2011); Wang & Yang (2010); Malik et al., (2013); Shah et al., (2012); Malik et al., (2013); Prendergast et al., (2010), which states the existence of a significant positive influence between brand image, promotion and distribution variables on consumer purchasing decisions. Based on the description above shows that brand image, promotion and distribution is an important factor in determining consumer purchasing decisions. Therefore, the authors are interested to do research about the influence of brand image, promotion, and distribution on purchasing decision chemical fertilizer by white pepper farmers in the province of Bangka Belitung Islands, Indonesia.

The hypothesis in this research is as follows:
H1: Brand Image has a positive and significant influence on purchase decision.
H2: Promotion has a positive and significant influence on decision purchase.
H3: Distribution has a positive and significant influence on purchase decision.
H4: Brand Image, Promotion, and Distribution together have positive and significant influence on purchase decision.

METHODS OF RESEARCH

This study uses a quantitative approach. According to Babbie (2010), quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or explaining a particular phenomenon (Mujis, 2010). Data collection through research instruments in the form of questionnaires, data analysis is statistical or quantitative aims to test the hypothesis. Interview method is also conducted by researchers to find out the chemical fertilizer brand that the farmers are interested in cultivating white pepper plant. The place of this research was conducted in Bangka Belitung Province, Indonesia. Bangka Belitung Province is famous as one of the world's white pepper commodities producer named Muntok White Pepper (International Pepper Community).

The number of samples determined by the researchers is 100 white pepper farmers spread in South Bangka Regency. The number of samples to be used in this study is determined by using quota sampling technique. Quota sampling method is a non-probability sampling, and it can be defined as a sampling method of gathering representative data from
a group (Saunders, Lewis, & Thornhill, A, 2012). Application of quota sampling ensures that sample group represents particular characteristics of the population chosen by the researcher (Saunders, Lewis, & Thornhill, 2012).

Analytical tool used in this research is descriptive statistic analysis and logistic regression analysis (logistic regression) using the SPSS application version 25. The SPSS application is easy to use and useful in processing quantitative data (Kusumah, 2018). Descriptive statistics are statistics that serve to describe or gives an overview of the object under study through sample data or population as it is, without doing any data analysis makes that conclusion applies to the public (Sugiyono, 2016). Meanwhile, the reason for the use of logistic regression is that the dependent variable is dichotomous (performs a hub and does not make a change hood). Ghozali (2016) states that the logistic regression method is similar to the discriminant analysis. This analysis wants to test whether the profitability of dependent variables can be predicted with independent variables. According to Ghozali (2016), the use of regression method does not require the assumption of normality on the independent variables. Normal multivariate distribution assumptions cannot be met because the independent variables are a mixture of continuous (metric) and categorical (non-metric). In this case, can be analyzed by logistic regression (logistic regression) because it is not a necessary assumption of data normality on the independent variable. Stages of testing by using logistic regression test (logistic regression) can be explained as follows:

Testing Research Hypotheses.

Estimated parameters using Maximum Likelihood Estimation (MLE):

\[ H_0 = b1 = b2 = b3 = \ldots = b_i = 0 \]
\[ H_{\alpha} = b1, b2, b3, \ldots, b_i \neq 0 \]

The null hypothesis states that the independent variable has no effect on the response variable (in the population). Hypothesis testing is done by using \( \alpha = 5\% \). The rules of decision-making are:

a) If the probability value (sig.) \( < \alpha = 5\% \) then the alternative hypothesis is supported.

b) If the probability value (sig.) \( \geq \alpha = 5\% \) then the alternative hypothesis is not supported.

Model Fit:

The first step is to assess the overall fit model of the data. Some statistical tests are given to assess this. The hypothesis for assessing the fit model is:

\[ H_0: \text{The hypothesized fit model with the data} \]
\[ H_1: \text{The hypothesized model is not fit with the data} \]

From this hypothesis, it is clear that we will not reject the null hypothesis to fit the model with the data. The statistics used are based on the likelihood function. The Likelihood L of the model is the probability that the hypothesized model represents the input data. To test the null and alternative hypothesis, L is transformed to -2LogL. A decrease in likelihood (-2LL) indicates a better regression model or in other words a hypothesized fit model with data.

The coefficient of Determination (Nagelkerke R Square):

Cox and Snell's R Square are measured attempting to replicate the 2R size in multiple regression based on likelihood estimation techniques with a maximum value of less than 1 (one) making it difficult to interpret. Nagelkerke's R square is a modification of Cox and Snell coefficients to ensure that its value varies from 0 (zero) to 1 (one). That is done by dividing the Cox and Snell's R Square values with their maximum values. Nagelkerke's R Square values can be interpreted as R Square values in multiple regression. A small value means the ability of independent variables to explain the variation of the dependent variable is insufficient. A value close to one means independent variables provide almost all the information needed to predict the variability of a dependent variable.

Testing the Regression Model Eligibility:

The feasibility of the regression model was assessed using Hosmer and Lemeshow's Goodness of Fit Test. The Hosmer and Lemeshow's Goodness of Fit Test tests the null
hypothesis that empirical data matches or fits the model (there is no difference between the model and the data so that the model is fit). If the value of Hosmer and Lemeshow's Goodness of Fit Test statistics is equal to or less than 0.05, then the null hypothesis is rejected which means there is a significant difference between the model and the observed value so that the Goodness fit model is not good because the model cannot predict the observed value. If the statistical value of Hosmer and Lemeshow's Goodness of Fit Test is greater than 0.05, then the null hypothesis cannot be rejected and means the model can predict the observed value or it can be said that the model is acceptable because it matches the observation data.

Logistic Regression Model:
The analysis used in this research is logistic regression analysis. Namely by looking at the effect of the brand image, promotion, distribution to purchasing decision. Logistic regression model in this research is as follows:

\[ PD = \beta_0 + \beta_1 BI + \beta_2 P + \beta_3 D + e \]

Where:
- \( PD \) = Purchase Decision
- \( \beta_0 \) = Constant
- \( \beta_1, \beta_2, \beta_3 \) = Regression coefficients
- \( BI \) = Brand Image
- \( P \) = Promotion
- \( D \) = Distribution
- \( e \) = Error

RESULTS OF STUDY

This descriptive statistic is a statistical test used to find out the general description of chemical fertilizer brand selection by white pepper farmers in South Bangka Regency. The following statistic descriptive test results can be seen in the attachment and briefly shown in the following figure:

![Brand of chemical fertilizer known to farmers in South Bangka Regency](image)

**Figure 1 – Descriptive analysis**

Based on the data above, it can be known that chemical fertilizer brands in the form of compound fertilizer which is often used by farmers in South Bangka Regency are: Yaramila (39%), Wayang (22%), Petrokimia Gresik (18%), Kebo Mas (11%), Mahkota (7%), Bless (2%), and Sato Kali (1%).

Based on observations of researchers, compound fertilizer is widely dispersed and sold in South Bangka Regency. In particular, Yaramila-branded compound fertilizer is a favourite of white pepper farmers in the district. Yaramila compound fertilizer is considered by many
white pepper farmers as fertilizer that must be used in the cultivation of white pepper. According to the testimony of the farmers, the nature of the fertilizer is more quickly absorbed by white pepper plant. While the other popular compound fertilizer among farmers is a compound fertilizer branded Wayang. The fertilizer, according to white pepper farmers, has a better quality compared to Yaramila-branded compound fertilizer for white pepper, but the price is higher than the Yaramila-branded compound fertilizer. Compound fertilizer branded Petrokimia Gresik or known as Phonska is an alternative option of white pepper farmers in South Bangka Regency, because the fertilizer is a government subsidy fertilizer with a balanced element. The white pepper farmers choose the fertilizer subsidy because the price is relatively lower than the compound fertilizer above. Phonska compound fertilizer is relatively cheaper because of government subsidies, but the amount of compound fertilizer available is not enough to meet the needs of white pepper farmers in South Bangka Regency.

Parameter Estimation and Interpretation (Hypothesis):

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td>1.388</td>
<td>692</td>
<td>4.027</td>
<td>0.045</td>
</tr>
<tr>
<td>P</td>
<td>.248</td>
<td>811</td>
<td>.094</td>
<td>.759</td>
</tr>
<tr>
<td>D</td>
<td>1.975</td>
<td>855</td>
<td>5.337</td>
<td>.021</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.544</td>
<td>.468</td>
<td>29.583</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Data processed by researchers, 2018.

Based on table 1 above shows that the coefficient of Brand Image (BI) variable is significant, Promotion (P) is not significant and Distribution (D) is significant. That shows the results of hypothesis testing can be explained as follows: a). Brand Image (BI) variable has positive regression coefficient value of 1.388 with significant value level of 0.045 < \( \alpha = 0.05 \) (significantly smaller than 0.05) then Brand Image (BI) variable is significant, so hypothesis 1 is accepted. b). Promotion (P) has a positive regression coefficient value of 0.248 with a significant value level of 0.759 > \( \alpha = 0.05 \) (significantly greater than 0.05) then the Promotion (P) variable is insignificant, so hypothesis 2 is rejected. c). Variable Distribution (D) has a positive regression coefficient value of 1.975 with a significant value level of 0.021 < \( \alpha = 0.05 \) (significantly smaller than 0.05) then the Distribution (D) variable is significant, so hypothesis 3 is accepted.

Model Total Test (Overall Model Fit):
This test is performed to assess the model that is hypothesized to fit the data or not. Testing is done by comparing the value between -2 log likelihood at the beginning with the value computed. Thus the decrease in log likelihood shows a better regression model, as shown in the following table:

<table>
<thead>
<tr>
<th>Iteration</th>
<th>-2 Log likelihood</th>
<th>Constant</th>
<th>BI</th>
<th>P</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>116.763</td>
<td>-.920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>116.652</td>
<td>-.933</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>116.652</td>
<td>-.995</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>116.652</td>
<td>-.995</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>81.324</td>
<td>-1.744</td>
<td>1.040</td>
<td>.138</td>
<td>1.468</td>
</tr>
<tr>
<td>2</td>
<td>77.728</td>
<td>-2.359</td>
<td>1.322</td>
<td>.220</td>
<td>1.858</td>
</tr>
<tr>
<td>3</td>
<td>77.558</td>
<td>-2.532</td>
<td>1.384</td>
<td>.246</td>
<td>1.967</td>
</tr>
<tr>
<td>4</td>
<td>77.557</td>
<td>-2.544</td>
<td>1.388</td>
<td>.248</td>
<td>1.975</td>
</tr>
<tr>
<td>5</td>
<td>77.557</td>
<td>-2.544</td>
<td>1.388</td>
<td>.248</td>
<td>1.975</td>
</tr>
</tbody>
</table>

Source: Data processed by researchers, 2018.

Based on the calculation of this analysis yield -2log likelihood value of 116.652 seen in iteration history at step 0 (block number = 0). The calculation result of likelihood -2log value
in the second block (block number = 1) or at step 1 it shows that -2log likelihood equal to 77.557. That indicates a decrease in the likelihood -2log value in the second block (block number = 1) because at the value of -2log likelihood block number 0 > value -2log likelihood block number 1 (116.652 - 77.557). The overall assessment of the regression model uses the likelihood -2log value where if there is a decrease in the second block than the first block it can be concluded that the second regression model is better. The decrease in the value of log-2 likelihood block number 0 - value -2log likelihood block number 1 (116.652 - 77.557) is 39.095 with a significance level of 0.000 based on the analysis of omnibus tests of model coefficients, so it shows that the model has hypothesized accordingly (fit model) with data. For more can be explained as shown in the following table:

<table>
<thead>
<tr>
<th>Table 3 – Omnibus Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
</tr>
<tr>
<td>Chi-square</td>
</tr>
<tr>
<td>39.095</td>
</tr>
</tbody>
</table>

Source: Data processed by researchers, 2018.

The results of the test table above show the value of chi-square of 39.095 with a significant level of less than 0.05 (0.000). So that independent variable of Brand Image, Promotion, and Distribution are said to have a simultaneous influence on the dependent variable Purchase Decision (hypothesis 4 is accepted).

Determination Coefficient Test (Nagelkerke R Square):

Testing the coefficient of determination on logistic regression is done by using Nagelkerke's R Square. The purpose of the summary model is to find out how large combinations of independent variables can explain variations of dependent variables, as shown in the following table:

<table>
<thead>
<tr>
<th>Table 4 – Determination Coefficient Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data processed by researchers, 2018.

The value of Nagelkerke R Square of 0.470 shows the variability of Purchase Decision is explained by Brand Image, Promotion, and Distribution variables, by 47%, the remaining 53% is explained by other variables outside the research model.

Feasibility Test of the Regression Model (Goodness of Fit Test):

The feasibility of the regression model is determined based on the value of Hosmer & Lemeshow's goodness of fit test. Testing goodness of fittest is measured by Chi-square value at the bottom of Hosmer and Lemeshow test. The following is the result of identification of classification prediction in the following table:

<table>
<thead>
<tr>
<th>Table 5 – Goodness of Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data processed by researchers, 2018.

Test results in the above table show the value of chi-square of 1.039 with a significant value of 0.792. From these results it can be seen that significant value > α = 0.05 (significant above 0.05) means that the decision taken is accepted, there is no difference between the classification predicted by the observed classification. It shows that the model can predict the observed value or the model is acceptable because it matches the observation data so that the model is suitable (fit model) and can be used for further analysis.

Logistic Regression Model:
Logistic regression model in this research is to test the influence of Brand Image (BI), Promotion (P), and Distribution (D) toward Purchase Decision (PD). To see the significant results of each coefficient in this logistic regression, we use an equation model that includes all the independent variables shown in the following table:

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI</td>
<td>1.388</td>
<td>.692</td>
<td>4.027</td>
<td>.045</td>
<td>4.007</td>
</tr>
<tr>
<td>P</td>
<td>.248</td>
<td>.811</td>
<td>.094</td>
<td>.759</td>
<td>1.282</td>
</tr>
<tr>
<td>D</td>
<td>1.975</td>
<td>.855</td>
<td>5.337</td>
<td>.021</td>
<td>7.204</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.544</td>
<td>.468</td>
<td>29.583</td>
<td>.000</td>
<td>0.079</td>
</tr>
</tbody>
</table>

*Source: Data processed by researchers, 2018.*

The regression equation formed from the significance test of the data is as follows:

\[
\text{Purchase Decision (PD) = -2.544 + 1.388BI + 0.248P + 1.975D + e}
\]

Interpretation of Equations:
- For every increase in the Brand Image variable, it will increase Purchase Decision by 1.388.
- For each increase in the Promotion variable of 1 unit, it will increase Purchase Decision by 0.248.
- From the value of significance, we can conclude that the significant variables affect the Purchase Decision is Brand Image (BI) and Distribution (D) with the significance value of 0.045 and 0.021 (95% significance level).
- The amount of influence can also be indicated by the value of Exp(B) or also called Odds Ratio (OR). Interpretation of Exp(B)
  - Brand Image variables tend to increase Purchase Decision of 4.007 times with a good significance value of 0.045 < 0.05.
  - Promotion variables tend to increase Purchase Decision of 1.282 times with unmatched significance value of 0.759 > 0.05.
  - Distribution variables tend to increase Purchase Decision of 7.204 times with a good significance value of 0.021 < 0.05.

The results of the first hypothesis testing showed that Brand Image variables have a significance level of 0.045 < \(\alpha = 0.05\) (5%), then Brand Image variables have an influence on Purchase Decision. The reason is that brand image (brand image) is often used as an external requirement to make a purchase decision (Pulizzi, 2014). If consumers do not have experience with a product, they tend to trust a brand that is popular or famous (Sheth & Sisodia, 2015). A brand that has a positive or favoured image is considered to reduce the risk of purchase (Keller & Kotler, 2016). That is why consumers often use the brand image of a product as a reference in making a purchase decision.

The result of the second hypothesis test shows that Promotion variable has the significance level of 0.759 > \(\alpha = 0.05\) (5%), then Promotion variable does not influence Purchase Decision. The reason is the lack of promotion by the chemical fertilizer company. Promotions by the chemical fertilizer company that exists today only rely on word of mouth from the existing distributor of fertilizer in South Bangka Regency without any other promotion. Promotions like this make purchasing decisions on the part of white pepper farmers to be uncertain.

The result of the third hypothesis testing shows that the Distribution variable has a significance level of 0.004 < \(\alpha = 0.05\) (5%), then the Distribution variable has an influence on the Purchase Decision. The reason is the distribution of chemical fertilizers in South Bangka Regency is sufficient; it can be seen from the observations of researchers who see that chemical fertilizers are available in large farm shops to retail shops located in every village in South Bangka Regency. The distribution channel is a result of the synergy that builds between the company's capabilities and the company's resources and expertise that is
rooted in the concept of product marketing success. Intensive distribution suppresses the length of time customers find stores, providing a convenient place to make purchases and make it easier to get product-related services (Harker et al., 2015). As the intensity of distribution increases, customers have time and place to know the value of a product (Kotler & Kotler, 2012). The increased value of the product, most of it is contributed to the reduction in the sacrifices that customers make to obtain the product (Chattopadhyay et al., 2012). Such value increases will increase the likelihood of customers making a purchase decision.

CONCLUSION AND SUGGESTIONS

This research was conducted to observe the influence of Brand Image, Promotion, and Distribution on Purchasing Decision of chemical compound fertilizer of white pepper farmers in South Bangka Regency, Bangka Belitung Islands Province, Indonesia. Based on the results of the analysis can be summarized as follows: 1). Brand Image partially influence the Purchase Decision with a significance level of 0.045 < 0.05. Therefore, the first hypothesis is accepted. 2) Promotion has no partial effect on Purchase Decision with significance level of 0.759 > 0.05. Therefore the second hypothesis is rejected. 3). Distribution partially influence the Purchase Decision with a significance level of 0.021 < 0.05. Hence the third hypothesis is accepted. 4). Brand Image, Promotion, and Distribution have an effect simultaneously on Purchase Decision with significance level 0.000. Therefore, the fourth hypothesis is accepted.

Based on the limitations and weaknesses that exist in this study, it can be suggested some suggestions that can be considered for further research, namely: 1) The next object of research not only use the white pepper farmers but also can increase the other commodity as well as with the number of more samples so that the research can be more generalized. 2) Researchers further suggested adding another variable that is suspected to influence the purchase decision.

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EVALUATION OF DIFFERENT EXOTIC SUGARCANE GENOTYPES

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ABSTRACT
This research was conducted at research area of Sugarcane Research Institute (Faisalabad, Pakistan) to evaluate the best sugarcane clones amongst twenty eight clones against two standard varieties HSF-240 and CPF-249 for different agronomic traits and yield characters during the crop season of 2016-2017 at third selection stage of variety development. In the experiment, three clones (S2014-SL-1322, S2014-SL-1359, S2014-SL-1372) out of twenty eight (11%) were selected on the basis of good performance and did not show splits, lodging tendency, pithiness, aerials roots, disease infestation and these showed good crop stand and thick canes. These three clones were promoted to next stage of variety development cycle. In set-I, Clone S2014-SL-347 gave higher cane yield (58.37 t ha\(^{-1}\)) with sugar yield of 7.18 t ha\(^{-1}\). But it showed some characters of high aerial roots and pithiness and so rejected. In set-II, the clone S2014-SL-1224 gave higher cane yield of 71.51 t ha\(^{-1}\) with 8.73 t ha\(^{-1}\) sugar yield and showed high disease infestation of red rot and smut and so rejected. But S2014-SL-1322, S2014-SL-1359, S2014-SL-1372 produced cane yield of 71.37 t ha\(^{-1}\), 68.56 t ha\(^{-1}\), 67.33 t ha\(^{-1}\) with 8.71 t ha\(^{-1}\), 8.34 t ha\(^{-1}\), 8.31 t ha\(^{-1}\) sugar yield respectively. The remaining twenty five clones (89%) out of twenty eight were rejected due to diseases susceptibility, lodging, pithiness, poor crop stand, aerial roots and high splits.

KEY WORDS
Aerial roots, clone, smut, fuzz, pithiness.

Global interest in sugarcane has increased significantly in recent years due to its economic impact on sustainable energy production. Sugarcane breeding and better agronomic practices have contributed to a huge increase in sugarcane yield in the last 30 years. Sugarcane is the main sugar-producing crop (Junejo et al., 2010). This crop plays a pivotal role in economy of Pakistan in order to drive the large sugar industry. It has 0.7% share to Gross Domestic Product. In the Punjab, during 2016-17, sugarcane was grown on an area of 791.94 thousand hectares as compared to 705.35 thousand hectares planted previous year. This shows an increase of 12.30% over the last year. The production was 47.96 million tonnes as compared to 41.97 million tonnes of the previous year. The production thus shows an increase of 14.30% over the previous year (Anonymous, 2017).

Sugarcane is cultivated in many of the world countries with Brazil as a major producer followed by India, China, Pakistan, Thailand and Mexico (FAO, 2010). It provides employment and by products for industrial sector. The sugar industry is second to textile in Pakistan which is primarily based on the mercy of sugarcane cultivation (Bahadar et al., 2002). It is also an important cash crop of Pakistan (Ahmad et al., 1991), which plays an important role in economic uplift of farmers. In Pakistan about 99% of the sugar is extracted from sugarcane to meet the demand at domestic level (Azam and Mukarram, 2010). The average per hectare yield in Pakistan is less than other cane growing countries of the world (Sohu, et al., 2008). One and major reason for that, is our farmers do not have option regarding high yielding varieties (Majeedano, et al., 2003).

The cane and sugar yield of sugarcane crop can be improved with high yielding varieties and better agronomic practices (Heinz, 1987). Sugarcane crop improvement in many countries lies on conventional breeding, mutation breeding, somaclonal variation and genetic engineering (Dalvi et al., 2012).
Sugarcane improvement through conventional methods is dependent on the nature of flowering, viability of pollen and seed (Moore and Nuss, 1987; Khan et al., 2008) and the genomic complexity of sugarcane crop (Ingelbrecht et al., 1999).

Sugarcane having complex genome, low fertility and large genotype x environment interactions make traditional varietal improvement and genetic studies difficult and laborious (Mendoza, 2000).

In Pakistan, the flowering and seed set under natural conditions is a very serious problem in sugarcane that hampers varietal improvement. The basic facilities for hybrid seed production and variety development are lacking in the country. Though the coastal belt in Sindh, is blessed with specific climatic conditions where sugarcane plants flower. But at local spots where plants flower, non-synchronization in genotypes for cane flowering reduces the possibility of hybridization (Tiawari et al., 2009).

Therefore, sugarcane variety development in Pakistan is mainly based on import of germplasm from the cane breeding stations abroad and also through exotic or locally collected fuzz (Kaloi et al., 2007). Most of breeding material was imported from USA, Sri Lanka and Mauritius.

In cane breeding program in Pakistan, large numbers of seedlings are grown from fuzz (true seed), selections are made in subsequent generations to obtain superior clones/genotypes for release as new varieties. The development of new sugarcane varieties is not possible in Pakistan because of intricate flowering of the plant and non-availability of sugarcane breeding facility and acclimatization (Javid et al., 2001).

Thus the selection is the base line to cane agronomist in Pakistan to develop new varieties. Potential of new genotypes needs to be tested in local environment before deciding to release as a new cultivar in a particular region (Khan et al., 2000).

All the selection phases are important varietal development cycle but establishment of a good nursery is of prime importance. Keeping in view the importance of nursery, the present study was conducted to evaluate the best sugarcane genotype in agro climatic condition of Faisalabad, Pakistan.

MATERIALS AND METHODS OF RESEARCH

The research project was conducted at the farm area of Sugarcane Research Institute (Faisalabad, Pakistan) during crop season 2016-17. Two sets of preliminary varietal yield trial consisting of 28 Sugarcane clones and two check varieties HSF-240 and CPF-249 were laid out in randomized complete block design with three replications. Experiment was sown on 10-10-2016 with net plot size of 4 m x 3.6 m by keeping inter-row spacing of 120 cm. All the agronomic and cultural practices were applied as and when considered necessary during the course of study.

The seed rate of 75,000 double budded setts per hectare was used and crop was planted in 120 cm apart double row strips. Trenches were made with the help of tractor drawn ridger. Fertilizer was applied at the rate of 168, 112 and 112 kg NPK per hectare. Twenty irrigations (80 acre inches) were applied at different intervals according to the crop need and climate.

Data recording. Emergence and tillers per plot was counted at 45 days and 90 days after planting respectively. Number of canes was counted from the two strips in each plot at final harvest and was converted to canes per hectare. Crop was harvested at maturity by taking an area of two strips from each plot and cane yield per hectare was estimated. During selection, different crop parameters were also observed. It includes pithiness, lodging, aerial roots, splits disease infestation (smut, rust) and growth performance / crop stand of clones. These parameters were observed visually and noted. The observation of these parameters is of great concern for promotion and rejection of clones to next stage of variety development.

Statistical analysis. The data collected were subjected to Fisher’s analysis of variance technique and LSD test at 0.05% was used to compare the differences among treatment means (Steel & Torrie, 1984).
RESULTS AND DISCUSSION

The results are summarized in Table 1 and Table 2. In set-I, 14 clones along with two standard varieties HSF-240 and CPF-249 were studied out of which Clone S2014-SL-347 gave higher cane yield (58.37 t ha\(^{-1}\)) with sugar yield of 7.18 t ha\(^{-1}\). But it showed some bad characters of high aerial roots and pithiness and so rejected. Similarly in this set remaining 13 others were also rejected due to smut, red rot, pithiness, aerial roots, high splits and poor growth performance.

In set-II, fourteen clones were studied out of which the clone S2014-SL-1224 gave higher cane yield of 71.51 t ha\(^{-1}\) with 8.73 t ha\(^{-1}\) sugar yield and showed high disease infestation of red rot and smut and so rejected. But S2014-SL-1322, S2014-SL-1359, S2014-SL-1372 produced cane yield of 71.37 t ha\(^{-1}\) : 68.56 t ha\(^{-1}\) : 67.33 t ha\(^{-1}\) with 8.71 t ha\(^{-1}\) : 8.34 t ha\(^{-1}\) : 8.31 t ha\(^{-1}\) sugar yield respectively. These three clones performed well with no bad characters. The remaining twenty five clones (89 %) out of twenty eight were rejected due to diseases susceptibility, lodging, pithiness, poor crop stand, aerial roots and high splits. These results are in line with the findings of Khan et al., 2008.

The parameters studied in the experiment are as under:

**Growth performance.** In agronomic practices, the growth performance is related to cane thickness and crop stand. This is character that affects the yield of cane crop. Growth habits, erectness, intermodal length, girth of cane, length of cane depends upon genetic makeup which may be detected by overall performance of clone. In set 1, S2013-US-876

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Table 1 – Set-I

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Variety / Clone</th>
<th>Germination %</th>
<th>Tillers per Plant</th>
<th>Cane Count (000 ha(^{-1}))</th>
<th>Cane Yield (t ha(^{-1}))</th>
<th>Sugar Yield (t ha(^{-1}))</th>
<th>Remarks (Rejected due)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S2013-M-72</td>
<td>17.47 p</td>
<td>0.82 k</td>
<td>52.65 h</td>
<td>48.59 k</td>
<td>5.98</td>
<td>Smut &amp; thin cane</td>
</tr>
<tr>
<td>2</td>
<td>S2013-US-876</td>
<td>26.34 i</td>
<td>1.14 e</td>
<td>69.42 a</td>
<td>52.36 f</td>
<td>6.44</td>
<td>High pith &amp; poor cane stand</td>
</tr>
<tr>
<td>3</td>
<td>S2013-US-969</td>
<td>17.67 o</td>
<td>1.35 b</td>
<td>35.96 o</td>
<td>32.28 p</td>
<td>3.97</td>
<td>Pith &amp; lodging trend.</td>
</tr>
<tr>
<td>4</td>
<td>S2014-SL-347</td>
<td>32.44 e</td>
<td>0.98 i</td>
<td>65.92 b</td>
<td>58.37 a</td>
<td>7.18</td>
<td>Aerial roots &amp; high pith</td>
</tr>
<tr>
<td>5</td>
<td>S2014-SL-349</td>
<td>26.39 h</td>
<td>0.81 k</td>
<td>45.13 m</td>
<td>36.03 o</td>
<td>4.43</td>
<td>Smut</td>
</tr>
<tr>
<td>6</td>
<td>S2014-SL-353</td>
<td>19.13 n</td>
<td>1.08 g</td>
<td>56.92 e</td>
<td>48.64 j</td>
<td>5.99</td>
<td>Deep splits, lodging &amp; smut.</td>
</tr>
<tr>
<td>7</td>
<td>S2014-SL-360</td>
<td>19.31 m</td>
<td>1.08 g</td>
<td>47.90 k</td>
<td>50.66 h</td>
<td>6.23</td>
<td>Deep splits, lodging &amp; smut.</td>
</tr>
<tr>
<td>8</td>
<td>S2014-SL-365</td>
<td>36.44 c</td>
<td>0.58 l</td>
<td>48.56 j</td>
<td>38.87 n</td>
<td>4.78</td>
<td>Poor cane stand &amp; smut</td>
</tr>
<tr>
<td>9</td>
<td>HSF-240 (St)</td>
<td>39.54 b</td>
<td>1.31 c</td>
<td>55.52 f</td>
<td>55.49 c</td>
<td>6.83</td>
<td>Check</td>
</tr>
<tr>
<td>10</td>
<td>CPF-249 (St)</td>
<td>41.69 a</td>
<td>1.42 a</td>
<td>60.41 d</td>
<td>58.33 b</td>
<td>7.18</td>
<td>Check</td>
</tr>
<tr>
<td>11</td>
<td>S2014-SL-367</td>
<td>34.42 d</td>
<td>1.35 b</td>
<td>52.07 i</td>
<td>54.16 d</td>
<td>6.66</td>
<td>Smut &amp; pith</td>
</tr>
<tr>
<td>12</td>
<td>S2014-SL-380</td>
<td>27.46 g</td>
<td>0.82 k</td>
<td>43.04 n</td>
<td>47.91 l</td>
<td>5.89</td>
<td>Smut &amp; pith</td>
</tr>
<tr>
<td>13</td>
<td>S2014-SL-389</td>
<td>25.19 j</td>
<td>0.91 j</td>
<td>54.84 g</td>
<td>49.29 i</td>
<td>6.06</td>
<td>Pith &amp; Smut</td>
</tr>
<tr>
<td>14</td>
<td>S2014-SL-396</td>
<td>30.52 f</td>
<td>1.01 h</td>
<td>55.54 f</td>
<td>51.37 g</td>
<td>6.32</td>
<td>Splits, lodging &amp; smut</td>
</tr>
<tr>
<td>15</td>
<td>S2014-JS-525</td>
<td>21.44 l</td>
<td>1.12 f</td>
<td>45.82 l</td>
<td>45.82 m</td>
<td>5.64</td>
<td>Lodging &amp; high pith</td>
</tr>
<tr>
<td>16</td>
<td>S2014-SL-592</td>
<td>23.75 k</td>
<td>1.17 d</td>
<td>63.87 c</td>
<td>53.47 g</td>
<td>6.58</td>
<td>Rejected due to Red Rot</td>
</tr>
</tbody>
</table>

LSD at 0.05

0.0125 0.0122 0.0680 5.087 0.027

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and S2014-SL-365 showed poor crop stand with thick canes. In set 2, all the fourteen clones showed better growth performance as compared with stand varieties HSF-240 and CPF-249. These results are in line with the findings of Kaloi et al., 2007.

Table 2 – Set-II

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variety / Clone</th>
<th>Germination %</th>
<th>Tillers per Plant</th>
<th>Cane Count (000 ha⁻¹)</th>
<th>Cane Yield (t ha⁻¹)</th>
<th>Sugar Yield (t ha⁻¹)</th>
<th>Remarks (Rejected due to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S2014-SL-1179</td>
<td>12.87 p</td>
<td>1.62 f</td>
<td>62.48 g</td>
<td>65.96 e</td>
<td>8.05</td>
<td>Lodging &amp; Smut</td>
</tr>
<tr>
<td>2</td>
<td>S2014-SL-1212</td>
<td>26.24 i</td>
<td>1.84 a</td>
<td>59.70 l</td>
<td>62.46 i</td>
<td>7.62</td>
<td>Lodging &amp; high pith</td>
</tr>
<tr>
<td>3</td>
<td>S2014-SL-1215</td>
<td>33.43 g</td>
<td>0.64 m</td>
<td>59.92 k</td>
<td>59.02 n</td>
<td>7.20</td>
<td>Red Rot</td>
</tr>
<tr>
<td>4</td>
<td>S2014-SL-1224</td>
<td>37.68 e</td>
<td>0.82 k</td>
<td>68.03 d</td>
<td>71.51 a</td>
<td>8.73</td>
<td>Red Rot &amp; Smut</td>
</tr>
<tr>
<td>5</td>
<td>S2014-SL-1288</td>
<td>24.57 m</td>
<td>0.56 o</td>
<td>60.42 i</td>
<td>59.70 m</td>
<td>7.29</td>
<td>Lodging &amp; Red Rot</td>
</tr>
<tr>
<td>6</td>
<td>S2014-SL-1307</td>
<td>44.49 b</td>
<td>1.68 d</td>
<td>59.01 m</td>
<td>62.48 i</td>
<td>7.62</td>
<td>Smut &amp; Red Rot</td>
</tr>
<tr>
<td>7</td>
<td>S2014-SL-1322</td>
<td>44.53 a</td>
<td>1.02 j</td>
<td>84.54 c</td>
<td>71.37 b</td>
<td>8.71</td>
<td>Selected &amp; Promoted</td>
</tr>
<tr>
<td>8</td>
<td>S2014-SL-1336</td>
<td>31.52 h</td>
<td>0.77 l</td>
<td>59.71 l</td>
<td>64.56 f</td>
<td>7.88</td>
<td>Smut &amp; Pith</td>
</tr>
<tr>
<td>9</td>
<td>HSF-240 (St)</td>
<td>21.82 o</td>
<td>1.64 e</td>
<td>64.28 f</td>
<td>60.27 l</td>
<td>7.35</td>
<td>Check</td>
</tr>
<tr>
<td>10</td>
<td>CPF-249 (St)</td>
<td>25.84 j</td>
<td>1.70 c</td>
<td>62.49 g</td>
<td>63.18 h</td>
<td>7.71</td>
<td>Check</td>
</tr>
<tr>
<td>11</td>
<td>S2014-SL-1337</td>
<td>34.34 f</td>
<td>1.47 h</td>
<td>62.38 h</td>
<td>61.79 j</td>
<td>7.54</td>
<td>Red Rot</td>
</tr>
<tr>
<td>12</td>
<td>S2014-SL-1351</td>
<td>24.22 n</td>
<td>0.60 n</td>
<td>56.24 n</td>
<td>63.87 g</td>
<td>7.79</td>
<td>Pith, lodging &amp; Smut</td>
</tr>
<tr>
<td>13</td>
<td>S2014-SL-1359</td>
<td>39.59 d</td>
<td>1.51 g</td>
<td>94.16 a</td>
<td>68.56 c</td>
<td>8.34</td>
<td>Selected &amp; Promoted</td>
</tr>
<tr>
<td>14</td>
<td>S2014-SL-1362</td>
<td>25.57 k</td>
<td>1.24 i</td>
<td>60.37 j</td>
<td>61.08 k</td>
<td>7.45</td>
<td>Pith, lodging &amp; Smut</td>
</tr>
<tr>
<td>15</td>
<td>S2014-SL-1372</td>
<td>41.85 c</td>
<td>1.76 b</td>
<td>86.65 b</td>
<td>67.33 d</td>
<td>8.21</td>
<td>Selected &amp; Promoted</td>
</tr>
<tr>
<td>16</td>
<td>S2014-SL-1399</td>
<td>25.32 l</td>
<td>1.02 j</td>
<td>65.56 e</td>
<td>64.57 f</td>
<td>7.88</td>
<td>Red Rot</td>
</tr>
<tr>
<td></td>
<td>LSD at 0.05</td>
<td>0.015</td>
<td>0.019</td>
<td>0.032</td>
<td>6.67</td>
<td>0.035</td>
<td></td>
</tr>
</tbody>
</table>

Pithiness. Hollow stem with fiber of cane is negative character, leads to lodging, disease infestation and lowers the cane quality. In set 1, four clones S2013-US-876, S2013-US-969, S2014-SL-347 and S2014-JG-525 showed presence of pith and so rejected but in set 2, pithiness was seen in any clone. These results are in line with the findings of Khan et al., 2008.

Aerial roots. These are secondary roots which spoil the quality of cane as well as lowers the growth speed and deteriorate crop stand. In set 1, only one clone S2014-SL-347 showed the presence of aerial roots and so rejected. In set 2, aerial roots were not observed in the clones. These results are in accordance with the findings of Kaloi et al., 2007.

reduction and also it reduces the sugar recovery of crop. These results are in line with the findings of Khan et al., 2008.

**Splits.** The splits on the stem of cane deteriorate cane quality as well as tissues due to increase in transpiration rate. In set 1, three clones S2014-SL-353, S2014-SL-360 and S2014-SL-396 showed deep splits and cracks in canes. In set 2, splits were not observed in the clones under study. In set 1, the clones showing deep splits / cracks and were rejected. Because the splits reduce cane yield and recovery and also results in the attack of pests and diseases. These results are in line with the findings of Khan et al., 2008 and Kaloi et al., 2007.

**Lodging.** In set 1, lodging trend was observed in clones S2013-US-969, S2014-SL-353, S2014-SL-360, S2014-SL-396 and S2014-JG-525 and these clones were rejected. In set 2, S2014-SL-1179, S2014-SL-1212, S2014-SL-1286, S2014-SL-1351, S2014-SL-1362, showed low resistance to lodging and were rejected. Because it exerts harmful effects on sugar yield, spoils cane quality and growth of cane crop. It also results in attack of rodents and reduces the sugar recovery of the crops. These results are in line with the findings of Khan et al., 2008 and Kaloi et al., 2007.

**CONCLUSION**

In the trial forty seven clones of sugarcane were studied. Fifteen clones were selected and promoted for further study in semi-final trial. The remaining thirty two clones were rejected due to disease susceptibility, pith, lodging and poor growth habits.

**REFERENCES**

INTERMEDIATE PROCESSED COCOA CONTRIBUTION TO INDONESIAN FOREIGN EXCHANGE

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ABSTRACT
Cocoa is a non-oil commodity export commodity from the plantation sub-sector that became one of the third largest contributors of foreign exchange after palm oil and rubber. Cocoa exports in order to increase export value are concentrated on intermediate processed cocoa, namely cocoa paste, cocoa butter and cocoa powder. The objectives of this research are to analyze the contribution of intermediate processed cocoa products in generating foreign exchange and the factors that affect foreign exchange of Indonesian cocoa. Data analysis used descriptive statistics and inferential statistics. The model is estimated by multiple regression equation with Ordinary Least Square method. The results state that cocoa paste, cocoa butter and cocoa powder have the potential to increase Indonesia's cocoa foreign exchange. The production volume of cocoa beans, the price of world cocoa beans, the world price of cocoa paste and the world price of cocoa powder are the factors that can affect the foreign exchange of Indonesian cocoa. Intensive programs are needed to improve the quantity and quality of cocoa beans and intermediate processed cocoa so that Indonesian cocoa exports foreign exchange increased.

KEY WORDS
Foreign exchange, cocoa beans, cocoa butter, cocoa paste, cocoa powder.

Every country in the world can be assured to trade with other countries, either in the form of export and import activities. The activity is done because not all the needs of the country can be met by the state itself. Through specialization in trade will be obtained profits that became the main goal in a trade.

Indonesia is one of the countries that active in the world trade. Export is one of the important source of economic growth for Indonesia. Non-oil export activities are the government's efforts to create sustainable economic growth. Cocoa is one of the non-oil and gas commodity that become the pride of Indonesia. Cocoa is the export commodity which is the third largest contributors of foreign exchange from the plantation subsector after the oil palm and rubber.

Most of the foreign exchange earned from the export of cocoa beans, because of undeveloping cocoa downstream products. There is a government policy in 2010 that restrict the export of cocoa beans to fulfill the needs of the downstream industry of cocoa which is one of the government's priorities to be developed. The shift of export policy from raw material to semi-finished material raises a question that should be studied further, that is whether intermediate processed cocoa beans can contribute in generating foreign exchange.

Muthamia A.K. and Muturi W. (2015) examined the exploration of the exchange rate, inflation and overseas earnings of major trading partners to tea export earnings. Control variables include tea unit price, value added agriculture and exports of goods and services. Various regression methods are used, ie root test, co integration, and error correction model. Foreign revenues have an indirect relationship with tea export earnings and inflation has no effect. There is a direct relationship between tea export earnings and exchange rate values,
tea prices, exports of goods and services, and the addition of agricultural value. This study recommends tea exporters to hedge against foreign exchange rate risk through derivatives. Stakeholders should be involved in marketing and adding value to agriculture. The addition of agricultural value is an ongoing solution to ensure income stability from tea export in the country.

Mehrjerdi M.Z. et al (2016) examined the pistachio which is one of the main export products of foreign exchange in Iran. This review assesses the factors that affect the instability of export earnings (foreign exchange) pistachio and its effect on agricultural exports during the study period. For this purpose, the index of foreign exchange instability is calculated using the average absolute difference between export earnings and trends. The Vector Error Correction Model (VECM) is used to estimate the model during the period 1973-2010. The results indicate that the pistachio concentration index has a negative effect, but the instability of pistachio products and exchange rate gaps have a direct relationship with the instability of pistachio foreign exchange. The results of estimates of the agricultural export function indicate that the instability of pistachio foreign exchange has a negative and significant impact on agricultural exports.

The foreign exchange research of intermediate processed cocoa is done using the approach of factors affecting exports. Based on the change of government policy in cocoa economy, the purpose of this research are to analyze the contribution of intermediate processed cocoa products, namely: cocoa paste, cocoa butter and cocoa powder in generating foreign exchange. and the factors affecting foreign exchange of Indonesian cocoa

METHODS OF RESEARCH

This study uses secondary data from 1992 to 2015 related to price, export volume of cocoa beans and intermediate processed cocoa, namely: cocoa paste, cocoa butter and cocoa powder. Source of data comes from Ditjenbun, Trademap, UN Comtrade.dan FAO.

Descriptive statistical analysis and t-test are used to answer the first objective: to analyze the contribution of cocoa paste, cocoa butter and cocoa powder in generating foreign exchange. Multiple regression analysis is used to answer the second goal is to determine the factors that affect the foreign exchange of Indonesian cocoa

Foreign exchange of Indonesian cocoa is the sum of the value of cocoa beans export and intermediate processed cocoa export. The equation of Indonesian cocoa foreign exchange is as follows:

\[ DV_{\text{ala}} = (Pb_{\text{la}} \times X_{\text{bk}}) + (P_{\text{cb}_{\text{la}}} \times X_{\text{cb}}) + (P_{\text{cp}_{\text{ia}}} \times X_{\text{cp}}) + (P_{\text{cpd}_{\text{ia}}} \times X_{\text{cpd}}) \]  
\[ DV_{\text{ala}} = a_3 + a_1 Q_{\text{bk}} + a_2 P_{\text{bk}_{\text{la}}} + a_3 P_{\text{cp}_{\text{ia}}} + a_4 P_{\text{cb}_{\text{ia}}} + a_5 P_{\text{cpd}_{\text{ia}}} + U \]  

Where:
- \( DV_{ki} \) = The foreign exchange of Indonesian cocoa;
- \( X_{\text{bk}} \) = Cocoa beans export;
- \( X_{\text{cb}} \) = Cocoa butter export;
- \( X_{\text{cp}} \) = Cocoa paste export;
- \( X_{\text{cpd}} \) = Cocoa powder export;
- \( Q_{\text{bk}} \) = Cocoa beans production;
- \( P_{\text{bk}_{\text{la}}} \) = The Price of Indonesian cocoa beans;
- \( P_{\text{cp}_{\text{ia}}} \) = The Price of Indonesian cocoa paste;
- \( P_{\text{cb}_{\text{ia}}} \) = The Price of Indonesian cocoa butter;
- \( P_{\text{cpd}_{\text{ia}}} \) = The Price of Indonesian cocoa powder;
- \( Ina \) = Indonesia.

The foreign exchange of Indonesian cocoa model is estimated by multiple regression equation and Ordinary Least Square method is used to measure its parameters. Allegedly, all parameters of \( a1, a2, a3, a4 \) and \( a5 \) are positive.
RESULTS AND DISCUSSION

The value of foreign exchange for cocoa beans and intermediate processed cocoa fluctuated, which tends to increase until 2010. Foreign exchange from cocoa beans experienced an extreme increase occurred in 1998, 2002, 2008, 2009 and after 2010 is the enactment of Minister of Finance Regulation No. PMK. 67 / PMK.011 / 2010 about the export of cocoa beans restriction, the contribution of foreign exchange from cocoa beans has decreased. The fall in foreign exchange in 2011 was due to lower export volumes due to very high rainfall.

The foreign exchange value of intermediate processed cocoa continues to increase cocoa butter, cocoa paste and cocoa powder. The increase of foreign exchange value of intermediate processed cocoa exports is due to the increasing of the government role in stimulating downstream products and the increasing demand of intermediate processed cocoa from importing countries.

Before cocoa beans exports restrictions, the export of cocoa beans is the largest contributor to the foreign exchange than processed cocoa. Graphically, figure 1 reflects the foreign exchange of cocoa beans and foreign exchange of each intermediate processed cocoa, ie foreign exchange of cocoa paste, foreign exchange of cocoa butter and foreign exchange of cocoa powder. After 2010 there was a decline in the value of cocoa beans and the increase of each intermediate processed cocoa foreign exchange. Figure 2, by the trendline, it can be clearly seen that there is a decrease in cocoa bean foreign exchange and the increase of foreign exchange rate from intermediate processed cocoa which is the sum from the foreign exchange of cocoa paste, cocoa butter and cocoa powder.

The average of foreign exchange of intermediate cocoa is higher than cocoa beans, but statistically after the t-test, the difference of the value of foreign exchange after the implementation of the regulation of Finance Minister in 2010 is not significantly different. After the export restriction of cocoa beans, the export volume of cocoa beans decreased (figure 3), but the value of foreign exchange was relatively high. This is presumably because the exported cocoa beans are the premium type with a high price. This premium quality cocoa beans comes from large plantations (government and private) and is also the product of a particular production area that is not mixed with products from other regions.

The increasing of Indonesian cocoa foreign exchange can be seen from the factors that influence it. Based on the analysis results of foreign exchange function model of Indonesia cocoa can be identified the factors that influence it.
Figure 2 – Foreign Exchange of Cocoa Bean and Indonesian Intermediate Processed Cocoa

Figure 3 – Export Volume of Cocoa Beans Period 1992-2015

Table 1 – T-Test on Cocoa Beans and Intermediate Processed Cocoa after the Applied Export Restrictions

<table>
<thead>
<tr>
<th></th>
<th>Foreign Exchange of Cocoa Bean</th>
<th>Foreign Exchange of Cocoa Intermediate Processed Cocoa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>581,700,393.83</td>
<td>678,749,331.83</td>
</tr>
<tr>
<td>t Stat</td>
<td>-0.606657935</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) one-tail</td>
<td>0.278799415</td>
<td></td>
</tr>
<tr>
<td>t Critical one-tail</td>
<td>1.812461123</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.557598829</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>2.228138852</td>
<td></td>
</tr>
</tbody>
</table>

Source: Secondary Data Analysis.
The statistic test results of Indonesian cocoa foreign exchange show that exogenous variables used in the model have a chance to explain 97.50% variation of endogenous variables and the rest of 2.50% influenced by other variables do not use in the model.

F-value is 141.900 with 0.00% error rate. It indicates that simultaneously Indonesian cocoa foreign exchange is affected by cocoa beans production, the world price of cocoa beans, the world price of cocoa paste, the world price of cocoa butter and the world price of cocoa powder.

Partially, Indonesian cocoa foreign exchange is influenced by cocoa beans production with 0% significance level, the world price of cocoa beans with 1.7% significance level, the world price of cocoa paste with 2.3% significance level, the world price of cocoa powder with 6.9% significance level and negative relationship direction.

Cocoa beans are the basic ingredients of intermediate processed cocoa. Production volume of cocoa beans, not only affects the amount of cocoa beans export, but also affects the export derivative of cocoa beans, i.e., the intermediate processed cocoa. The high production volume of cocoa beans will increase the production and export of intermediate processed cocoa, so that the Indonesian intermediate processed cocoa foreign exchange will increase. This is in accordance with the direction of a positive relationship in the model, which implies that the higher the production volume of cocoa beans, the higher the Indonesian cocoa foreign exchange.

As well as Muthamia A.K research. and Muturi W state that world price of tea affect tea foreign exchange, rising world cocoa beans price can also stimulate export and increase foreign exchange of Indonesian cocoa.

Increasing world price of cocoa paste does not affect importer countries to decrease import of cocoa paste, thus, increasing world price of cocoa paste will increase the foreign exchange of Indonesian cocoa.

The amount of cocoa powder export volume is determined by how much cocoa powder demand from importing countries. The high world price of cocoa powder will decrease demand of cocoa powder from importer countries, thus reducing Indonesia cocoa powder export, thereby reducing the foreign exchange of Indonesian cocoa.

**CONCLUSION**

Processed intermediate cocoa, i.e., cocoa paste, cocoa butter and cocoa powder have the potential to increase Indonesian cocoa's foreign exchange. The production volume of cocoa beans, the world price of cocoa beans, the world price of cocoa paste and the world price of cocoa powder are the factors that can affect the foreign exchange of Indonesian cocoa. Required intensive government support in the form of programs that can increase the production and quality of cocoa beans to fulfill the domestic needs of intermediate processed cocoa industry, so that the quality and export of processed intermediate cocoa increases, thus improving the foreign exchange of Indonesian cocoa.
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ANALYSIS OF HUMAN RESOURCES STRATEGY OF PT. FOUR JAFFEE INDONESIA

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ABSTRACT
Business activities of PT. Four Jaffee Indonesia in achieving its objectives cause problems faced by management, not only on raw materials, work tools, production machines, money and work environment, but also related to employees / human resources who manage other factors of production. Management of professional human resources strategy will be one source from the sustainable competitive advantage from product leadership of kopita product (coffee effervescent tablet), where the human resources will continue to be motivated to give their best contribution to the growth of the company, developed their competences, and maintained so that it becomes a difficult asset imitable and not easily substituted. Some of the natural resource strategies that will be discussed in this research are: strategy, training and development of human resources, culture and corporate values, leadership, planning and fulfillment of human resources, organizational structure, type and human resources, company personnel system.

KEY WORDS
Strategy, business, human resources, development, company.

Strategies run by one company can succeed only if those strategies provide a competitive advantage over a strategy run by a competing company (David, 2011). In the analysis of business competition, some indicators can be determined whether the level of competition is high or low. The indicators used are, the number of competitors, the increasing number of competitors, the growth of similar industries in each year, the impact of industrial growth on inflation, product differentiation with competitors, raw material differentiation and production costs. In the indicator of the number of competitors, the increasing number of competitors, the growth of similar industries in each year, product differentiation with competitors and differentiation of raw materials show low competition is due to the indicator of the amount of competition, companies that produce coffee effervescent tablet in Indonesia is not there, small scale or large scale, (Lin and Saggi, 2002).

Competition in each year will be higher, it can be observed from the increasing number of companies that have product differentiation from other competitors. One of them this company has differentiation of products in the form of a unique presentation, easy and simple but still pay attention to the quality and taste. So the company can provide benefits to consumers by providing convenience and new sensation in enjoying coffee, but the product remains qualified. For raw materials, most companies have no differentiation, so competition in existing raw materials tends to be low, (Conrad, 2005)

Business activities of PT. Four Jaffee Indonesia in achieving its objectives will cause problems faced by management, not only on raw materials, work tools, production machines, money and work environment, but also related to employees / HR (human resources) who manage other factors of production. But keep in mind that human resources themselves as a factor of production, as well as other factors of production, is an input (input) processed by the company and produce an output (output).
Management of professional HR strategy will be one source from the sustainable competitive advantage from product leadership of kopita product (coffee effervescent tablet), where the human resources will continue to be motivated to give their best contribution to the growth of the company, developed their competences, and maintained so that it becomes a difficult asset imitable and not easily substituted, (Barney, 2014). Professional human resource management should start from recruitment, selection, classification, placement according to ability, training and career development. Thus, the productivity of the company's work can be achieved and ultimately the company's performance can be improved from time to time.

McKinsey's 7s framework is a tool used to analyze the internal aspects of a company's organization using 7 key elements, Diagram 7-S illustrates the many interrelated elements that define an organization's ability to change. This theory helps the thinking about how companies can be improved with the approach of human resource management.

![Figure 1 – Concept of Human Resource Management (Source: Peters, Waterman, Philips, 1980)](image)

Four Jaffee Indonesia uses a business model that relies on the company's ability to produce new products as quickly as possible in the market in this case the company builds the business model of product leadership, by having excellence in product development so that has not competed yet by the competitors. Associated with generic strategy of PT. Four Jaffee Indonesia, human resource management must be able to provide employees who can create differentiation in running the program and have good knowledge in their field. In relation to the above, the objective of human resource management is to improve the productive contribution of the people or labor to the company in a way responsible strategically, ethical and social, because failure to do the task can damage the performance, productivity, profit and even the survival of the company.

Maintaining employees after being recruited and educated to have the ability expected so there will often be an offer from other companies to employees to move companies. So the company management must be able to create and grow a high sense of belonging to the company, so that employees feel part of a big family of companies. Human resource management conducted by PT. Four Jaffee Indonesia refers to the company's strategy to be a product of effervescent coffee leadership in Indonesia, information needs of labor based on economic forecasting and corporate strategic plan in this case including with the plan of sale of effervescent coffee product from this information got requirement planning and then to be placed, developed with pay attention to achievement and employment appraisal as benchmark assessment and analysis.

The development and growth, characterized by an ever-increasing diversification of labor, organizational forms and global competition, the efforts of training and education allows the employes to expand the duties and responsibilities. The steps taken at PT. Four
Jaffee Indonesia in needs assessment tailored to training and development objectives. HRD prepares program and learning material that must be in accordance with the real program that can improve the skills, knowledge and ability of employees and of course this will be re-evaluated as feedback on the assessment of those needs.

Development and training of human resources in the company is very closely related to the performance results of the HR Department of PT. Four Jaffee Indonesia, thus requiring an assessment to measure the performance of employees and based on the results of such assessments required in employee training. Employee training is conducted with the intention that employees have the ability, knowledge and skills in creativity in accordance with the demands of the work they are doing now, the benefits of this activity can be expanded through employee career development and assisting the development of these employees to assume the responsibility of developing the company's ability as an effervescent coffee product leadership.

PT. Four Jaffee Indonesia conducts training to its employees basically to meet the lack of knowledge and improve skills. Needs can be classified, among others, the needs of current demands, fulfilling other positions, and changing demands. PT. Four Jaffee Indonesia adjusts the type of training to be implemented and which can be developed to be effective even with the principle of learning by presentation to deliver material so as to exchange expertise or experience and encourage employees to be creative in innovation that makes the company in its strategic objectives of making effervescent coffee products as product leadership.

PT. Four Jaffee Indonesia will conduct training and development in an effective and efficient manner so that the company's mission and support by the HR Department, several methods undertaken by the company include On Job Training method (OJT), cross-train method (cross-train) and method of class program (class program). The company also conducts employee planning and development as an effort to develop employees towards the right man on the right place. Companies that view excellent employee performance, experience, good education and some things related to the development of these employees.

Every corporate organization has an organizational culture that affects all aspects of the organization and the behavior of its members individually or in groups. The basic assumption patterns are found or developed by a group of people as they learn to solve problems, adapt to the external environment and integrate with the internal environment (Schein, 1995).

Figure 2 – Creative Flow Process & Innovation for Customer Satisfaction PT.FJI
(Source: developed for this study, 2018)
Corporate culture is maintained because it is believed to be the answer to why the company is successful and made the company's identity. Today, the company's culture and values are engineered as a management tool to enhance the competitiveness of enterprises and compete in the global era and be able to influence the company's ability to achieve the company's competitive advantage strategy, (Kotter, 2008). Along with the development of the company, then in the end the culture and values of the company (Share Value) has become conscious beliefs and embedded in assumptions in every workers.

PT. Four Jaffee Indonesia established the artifacts and values that will be grown and developed within the organization of the company as well as the basic assumptions as guidelines aimed to customer satisfaction with innovative product leadership coffee tablet.

Leadership in a company is the ability to influence all employees or subordinates to achieve corporate goals. The greatest challenge of leadership is to drive the company PT. Four Jaffee Indonesia, which continues to transform from various phases of the company's development process effectively and efficiently. So that the leader needed by PT. Four Jaffee Indonesia is a leader having transactional and transformational abilities.

Transactional leadership is concerned with the activities of a leader as a supervisor and group leader in company activities generally in short-term activities. Transformational leadership is concerned with the role that must be run by the leader as a visionary, role model and change agent. Transformational leadership is more inspiring to all employees to continue to work better in advancing the company and have a strong influence on the employees they lead (Robbins, 2003). This leadership function at PT. Four Jaffee Indonesia should be more prominent in the position of Director and Manager. While all employees of PT. Four Jaffee Indonesia will continue to build and maintain a corporate culture with the perspective of Followership Partners that employees are actively involved in every high-performing company process and promote positive relationships within the group. (Carsten et. al., 2010).

Management of human resources are activities as the implementation of the operational functions of HR management or personnel implementation such as job analysis, employee needs planning, procurement, development, integration and maintenance. In conducting this work analysis, the company evaluates the 5 dimensions of work, those are the knowledge, supervision, direction / guideline, complexity and scope. In addition to the five dimensions, it is also considered the factors of job enlargement and job enrichment for certain positions such as legal, and HR that support core staff for laboratory, operation and sales marketing.

The work plan is the development of job analysis, related to the efforts of PT. Four Jaffee Indonesia to improve efficiency, effectiveness, company productivity and employee performance. So in designing the work is strongly influenced by the technology used by PT. Four Jaffee Indonesia in every process of its work. In determining the tasks to be performed, the methods used in carrying out these tasks will be recorded in the standard Operating Procedure (SOP) and WI (work Instruction) company.

Recruitment and selection at PT. Four Jaffee Indonesia done after the results of the analysis and the design of the work has been done, then the next step is to fill positions or HR that match the needs of the company. The required employees can be obtained from internal and external companies. To be able to meet HR needs, HR management will process through: a) sourcing, b) selection, c) socialization. Evaluation of positions conducted
by the company in this case is to make a systematic and regular process in determining the value of a position, relative to other positions in PT. Four Jaffee Indonesia, as for one of the goals is to determine the right wage rate. Company in determining the evaluation of position using point method in the division of class and job title.

The organizational structure of the company is made based on the strategic needs of the company and the flow of business processes undertaken by PT. Four Jaffee Indonesia and the objectives of this organizational structure is to place competent employees, to continue the company policies and regulations, job delegation functions and reports and supervisory functions on the overall effectiveness of the company's business flow.

To start the company's activities, selected combinations based on mechanistic and organist organizational structures. The mechanistic structure used in the production section requires strict control on the quality of KOPITA, so it is more vertical and refers to the applicable Standard Operating Procedure. While the organizational structure used in the sales and marketing that requires creativity and flexibility in facing customers.

Maintaining internal assumptions with creativity and implantation of innovation is by giving incentives to employees and more career ladder on employees who have succeeded, to continue to be explained in the discussion of systems and structures. PT. Four Jaffee Indonesia provides career development opportunities to employees who have the ability to creativity and high innovation after passing through multiple assessments. one of which is the success in the completion projects of the innovation that gives positive results for the company, but the seniority factor is not a benchmark in positioning within the company structure.

This system includes processes and all procedures within the company especially in human resource management activities. This procedure is used as a guideline in controlling all employees to work according to established standards and if there is an irrelevance or error as a guide for corrective action and develop the ability of employees to continue to innovate in making KOPITA as an effervescent coffee product leadership.

The general rules of employment used by the company include the provisions of working time and leaving, action on offenses and termination of employment become the foundation by HR management in managing employees. The Company determined that the normal working time for offices and factories is 5 days a week, while security, production, technical support and quality control activities are set up for 3 shifts in 1 day. At the beginning of active production is 1 shift, and the augment of the number of shifts required when the target and the need for increased sales. The following is the provision of working time in PT. Four Jaffee Indonesia.

Leave a temporary or so-called leave job, because employees sometimes take a while to not work for health reasons, family issues, education and so on. Every employees have the leaving for absence for 12 days in a year, and they only have a leaving for absence after working for 12 consecutive months. Or get advance annual leave in the following year when working 6 months.

Work discipline is a tool used by managers or leaders in PT. Four Jaffee Indonesia to communicate with employees so that they are willing to change a behavior and as an effort to raise awareness and employee's willingness to comply with all rules and norms of company. As it was known before that the company will reward every outstanding employee and warning or sanction if the employees violate the regulation and do not perform well and then it makes the detriment of the company.

There are four basic perspectives concerning work discipline, among others, retributive discipline is an attempt to punish those who do wrong, Corrective discipline is an attempt to help employees correct inappropriate behavior, the perspective of individual rights is the effort to protect individual rights during the course of indiscretion, a utilitarian perspective will only focus on the use of discipline only when the consequences of disciplinary action outweigh its negative effects. Here are examples of violations and their consequences

Employees commit violations in the employment relationship there is a bond between the worker and the company in the form of employment agreements, company regulations, and Collective Labor Agreements made by the company or jointly between workers / unions
with the company, whose contents are at least the rights and obligations of each - parties and terms of employment, with agreements agreed upon by each party expected in its implementation not being breached by either party. Violations of existing agreements there must be sanctions in the form of oral or written warning, until there is also a warning letter.

Employee protection is a compensation that is not in the form of remuneration, either directly or indirectly applied by the company to employees and is an obligation that must be met, (Riley, 2005). In implementing the company's protection program, the company cooperates with insurance companies appointed by the government namely BPJS employment and BPJS Health where the two insurance companies are providing protection against possible health problems, accidents and financial problems faced by employees and their families in the future.

Employee safety and safety refers to the psychological conditions of labor resulting from the work environment provided by the company, in which case the company carries out effective safety measures that prevent employees from short or long term injuries or illnesses, as a result or risk of the work they undertake.

The role of K3 is very important for the company, because with the K3 applied in the company and it will help and facilitate the workers. Assisted with the management of the importance of OHS implementation and implementation of the field will further simplify the OHS process. Management is good, audit system that is always implemented continuously on the management of K3 at the factory, certainly affects the comfort and security of employees in carrying out their work, (Kai, 2011). In addition to OHS management and audits on OHS management, there are factors supporting the success of OHS, which is a complete PPE (Personal Protective Equipment) at limited liability company.

HR Department PT. Four Jaffee Indonesia with the information described above is committed to achieving the company's strategic objectives of product leadership by creating a regulatory system in accordance with the provisions of the government, creating a sense of security and stability of working comfort so as to make employees become more loyal and work harder, compensation by paying attention to the rights and employee liabilities and employee development systems that play a role in all continues improvement.

Compensation consists of two components: direct and indirect given in the hope of having a direct impact on employees, because financial compensation is a hygiene factor, which can reduce or prevent discontent. Direct financial compensation includes basic salary, holiday allowance (THR), meal allowance and transport allowance (Mehran, 1995). While indirect compensation BPJS health, BPJS Employment and other Insurance

Strategy of HR PT. Four Jaffee Indonesia one of them is to provide compensation and excellence of interest. The objective is to reward the wages of the work they have done, the rewards associated with increased sales and production capacity, rewards to the performance and competence of employees in accordance with corporate objectives, retention of employees who have competence, attitude and good achievement with indirect will attract for prospective employees in the future.

The Company maintains a safe and healthy working environment to support employees’ work convenience by running a 6R corporate culture (Compact, Neat, Clean, Care, Diligent and Friendly). The company also concerns the needs of employees in terms of career security, employee welfare and learning / training opportunities so as to be able to face challenges and be responsible in completing their work, (Potter, 2003).

CONCLUSION

PT. Four Jaffee Indonesia in establishing human resource strategy refers to the company's strategy to always create product leadership in its products and one of the companies that run GMP (Good Manufacturing Practice) standard in Indonesia. With such commitment, human resources management of PT. Four Jaffee Indonesia creates a good corporate foundation for internal culture such as artifacts, company values and company assumptions from the company's internal and external.
HR Management PT. Four Jaffee Indonesia has also prepared an activity plan for recruitment, training and development, personnel systems, corporate regulations, pursuant to Law No.13 of 2013 on Employment, KEPMEN No. 168 Year 2016 on Standard Competence Labor Industry Food Processing Basic Principles which became the basis in adjusting the company's strategy in the management of the company's workforce.

REFERENCES

THE SUSTAINABILITY DEVELOPMENT STATUS OF PIGS LIVESTOCK ON TRADITIONAL FISHERY HOUSEHOLD IN NEMBRALA VILLAGE OF ROTE NDAO ISLAND

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ABSTRACT
This study aims to determine the status of corporate sustainability on a pig livestock in the village of fishermen household in Rote Ndao Island. Data were analyzed using the approach of Multi-Dimensional Scaling. The analysis showed that the index of business continuity in domestic swine alternative fishing for ecological dimension of 30.82% with a status less sustainable, legal and institutional dimensions of 36.61% with less sustainable status, infrastructure and technology dimensions of 63.87% with continuous sufficient status, social and cultural dimensions of culture by 65.83% with sustained sufficient status, and economic dimensions of 79.71% with a sustainable status. The results of this study can be concluded importance of business continuity alternatives that contribute to the welfare of traditional fishermen in Nembrala, the regency of Rote Ndao.

KEY WORDS
Sustainability status, development, pigs livestock, Multi-Dimensional Scaling, Rote Island.

The coastal area has strategic significance because it is a transitional area between terrestrial and marine ecosystems, as well as having the potential of natural resources and environmental services are very rich. Resource wealth raises the appeal for the parties to take advantage of natural resources and various agencies to regulate their use. However, it cannot be denied, until now the coastal community life is still far behind urban life, even too far behind from upland forest. Many residents of coastal areas, especially fishermen who live below the poverty line. This is because most of them rely on sail alone as the main income source, although there are still plenty of alternative livelihoods that can be done by them when not at sea (Baskara et al, 2008). Rote Ndao District is a district in the province of East Nusa Tenggara, Indonesia. It is the southernmost county in the Republic of Indonesia, has an area of 1280.10 km². The majority communities living on this island of livelihood as farmers and fishermen who are still living below the poverty line. Poverty data in 2014 there were 28.5% (39100 people) of the population categorized Rote Ndao is poor. On a macro scale shows that the fisheries sub-sector contribution to GDP Rote Ndao is still lower than the sub-sectors of food crops and livestock (BPS Rote Ndao, 2017). In fishing communities, poverty and other hardships are economic cycles social events recurring every year and even throughout the year. In addition to coastal and marine environmental issues, poverty fishing is a major issue that occurs because of complex factors (Kusnadi, 2002: 4-12). The issue of poverty is at the root of
fishing communities is a high dependence on fishing activities. To meet the daily needs of households of fishermen doing other jobs out to sea (Tain, 2006). Groups of people living in coastal areas are most afflicted with welfare level far below other communities (Kusumastanto, 2002). Factors dependence is very diverse.

However, other impacts such as climate change also cause problems for fishermen to engage in fishing because the greater the risk to fish and the effect on the number of catches. Climate change causes many problems in the life of coastal communities such as decreased quality and quantity of catches, hurricanes, tidal waves and drought. Many impacts of climate change will not lead to the vulnerability of coastal communities if the community has an adequate adaptation capacity (Panjaitan et al., 2017). Providing alternative livelihood for coastal communities in Rote Island is an essential part to cope with uncertainty arising from external and internal shocks in the communities (Paulus and Fauzi, 2017).

Climate change conditions that disrupt marine ecosystems can certainly exacerbate domestic economic life of fishermen in Rote Ndao. The decline in fish catches will have implications on household income, where fishermen in Rote Ndao has a dependency on the fisheries sector in particular fisheries. The diversity of revenue sources will greatly assist the ability of fishing communities in adapting to poverty. Poverty fisherman rated extends to the alarming poverty rates (Tain, 2013). In addition, the low skills of fishermen to diversify fishing activities and strong attachment to the operation of one type of fishing gear has contributed to the incidence of poverty fishermen. The choice of priority development of both combinations fisheries and non-fisheries (weave and pigs livestock) is due to unique characteristics of the Nembrala weaving effort and pig livestock whereby the market demand is relatively high or high economic value (Paulus, 2016). According Dewantoro & Talib (2015) that Indonesia is a country that has the largest swine germplasm in the world because it has five of eight species.

Pigs are one of the livestock producers of meat other than livestock (such as cattle, buffalo, sheep, goats, and so on). Type of pigs reared broilers generally are the type that has the main purpose to meet consumer needs in addition to it as a source of income. Based on this research background, we need a scientific study through the development of sustainable alternative efforts to encourage fishermen to increase welfare through the pig livestock.

METHODS OF RESEARCH

Data Collection Methods. The study was conducted using a survey method through interview and observation techniques. Respondents in this study were 35 taken purposively (intentionally) with the criteria that the respondent is to have a primary job as a fisherman catching and also undertake economic efforts more specifically the business of cattle pigs and craft weaving as an adaptation of fishermen to the risk of reduced revenue due by climate change.

Data Analysis. Data analysis in this research using the Multi-Dimensional Scaling (MDS) that approach with "Rap-Insus-Landmag" (Rapid Appraisal - Indeks Sustainability of Land Management) which has been modified from RAPFISH program (Rapid Assessment Technique for Fisheries) developed by Fisheries Center, University of British Columbia (Kavanagh and Pitcher, 2001, Fauzi and Anna, 2002).

RESULTS AND DISCUSSION

Status Pigs Livestock Business Sustainability. In the research of pig business in Nembrala Village, the determination of sustainability index is limited to five dimensions of sustainability ie ecological, economic, socio-cultural, infrastructure and technology dimension, and law and institution with attribute and scoring value from expert opinion can be seen in Figure 1. Based on the results of the analysis, obtained sustainability index for ecology dimension of 30.82% with less sustainable status, legal and institutional dimension of 36.61% with less sustainable status, infrastructure and technology dimension of 63.87%
with sustainability status, social dimension cultural culture of 65.83% with sustainable enough status, and economic dimension of 79.71% with sustained status.

In order for this index value in the future to continue to increase until it reaches sustained status, it is necessary to improve the attributes that are sensitive to the ecological, legal and institutional dimension index, infrastructure and technology as well as the socio-cultural dimension of culture. The attributes are considered sensitive by experts based on the existing condition of the area. The value of the five dimensions of sustainability indexes Rap-Ternak_Nembrala results of the analysis as shown in Figure 1.

**Figure 1 – The Sustainability Index of the Pigs Business Development in Nembrala village, Rote Ndau**

**Ecological Sustainability Status Dimensions.** The attributes expected to have an effect on the sustainability level on the ecological dimension consist of five attributes, namely (1) land tenure status, (2) availability of pig feed, (3) pig breeding, (4) livestock waste management and (5) livestock raising system. The leverage analysis used to look at the sensitive attributes has an effect on the ecological sustainability index value. Based on the leverage analysis results obtained all the attributes that exist is a sensitive attribute to the value of ecological sustainability index.

The availability of business land is an important attribute related to the feasibility of a safe place of business and does not disrupt the ecosystem of the environment and cause pollution let alone the location of research as a coastal area and has become a tourist attraction, the land factor of pig business is absolutely considered. A real land tenure is required as it relates to the utilization and management aspects. The status of business land that is not real cause the pigs business is not sustainable because the land use can change function according to regional development. Paulus & Yohanis (2017) suggested that the business of poultry and pigs on the coast capable of contributing to the increase in household incomes of traditional fishermen.

The availability of pig feeds is instrumental in ensuring sustainable pig business because the production cost of more than 60% is the cost of feed. For the provision of cheap pig feeds and easily accessible to breeders is absolutely necessary. Optimizing the utilization of local feeds such as coconut, tubers, rice bran, corn bran can be an alternative to the provision of cheap pig feed.

The types of pigs cultivated by breeders are an important attribute that ensures the business sustainably. Type of pigs with the level of adaptation to the environment is high can ensure the sustainability of the business. Therefore the use of local or cross breeds are more sustainable than the type of pig race despite higher production side but low adaptability to the environment.

Livestock waste management becomes important to avoid environmental pollution. Management of pig waste is strongly associated with system maintenance. System maintenance with impounding pigs provides convenience in a good waste management,
compared to loose livestock systems will lead to difficulties in managing waste pigs and can be a medium of environmental pollution.

Further enhance business sustainability status of pig farming in the ecological sector in Nembrala Village, improvement efforts are not only done to sensitive attributes so as to have an effect on the ecological dimension sustainability index value. Efforts that need to be done is to maintain or improve the attributes that have a positive impact on improving the sustainability of the ecological dimension of the region.

**Status Sustainability Economic Dimension.** The attributes that affect the sustainability of the economic dimension consist of five attributes, namely (1) business feasibility, (2) market price of pigs, (3) contribution to local revenue (PAD), (4) marketing chains, and (5) market access. Based on leverage analysis, three attributes that are sensitive to economic sustainability index value are market price of pigs, marketing chain, and contribution to PAD.

Livestock business is one economic sector that supports or contributes to local revenue. The results of this study were reinforced by Warouw et al. (2014) research that pig farming at the "Kasewe" company gained significant profits. In order for the sustainability status of pigs business to increase in the economic sector in Nembrala Village, the improvement effort is not only done to the sensitive attribute giving effect to the sustainability index value of the economic dimension, but other attributes that are not sensitive based on the leverage analysis also need to get serious attention to be addressed.

Efforts that need to be done is to maintain or improve the attributes that have a positive impact on improving the sustainability of the regional economic dimension, and suppress attributes that negatively impact on sustainability. The results of research Suranjaya et al., (2017) suggests that pig farm business is in great demand and can support the farm household’s economy.

The attributes that need to be maintained or enhanced include: (1) market access and (2) business feasibility; whereas attributes negative impact on sustainability is the marketing chain. Easy market access for breeders is necessary, so they are able to sell products at the right time and price and can reduce marketing costs. Market access is strongly influenced by the availability of adequate facilities and infrastructure. Therefore, in ensuring the sustainability of the pig business in Nembrala village, the government should ensure the availability of adequate markets and transportation facilities.

Business feasibility is an important attribute because pig farming managed and economically feasible will have an impact on sustainable pig business activities because it can provide a reasonable profit for the business actors. Feasibility strongly influenced by cost and product prices. Efforts to reduce production costs and be able to sell at a price higher will ensure that efforts should be feasible.

**Status Sustainability Social Dimensions of Culture.** Attributes are expected to give effect to the level of sustainability in the social dimension of culture is composed of five attributes, namely (1) education, (2) the number of households pig farmers, (3) the role of pigs social system culture, (4) participation of families, and (5) the level of community empowerment.

The three attributes those are sensitive to social and cultural sustainability index, namely (1) the level of community empowerment, (2) the number of households pig and (3) participation of families. These three sensitive attributes have a close relationship in the development of pig business in Nembrala.

Community empowerment through pig farming can encourage an increase in the number of fisherman households that seek pigs as alternative economic businesses in improving their living standards. The activity of the pig business conducted by the fisherman households can encourage the participation of family members, especially women and children, to manage the pig business. Furthermore, to ensure sustainability, the empowerment of fishermen households, especially women and children, needs to be carried out continuously according to the empowerment scheme of government, NGOs or private parties committed to economic empowerment of fishermen families.

Attributes that need to be preserved is the role of pigs in social and cultural systems. The role of pigs in social and cultural system on the island of Rote may trigger development
of the pig because it was driven by the increasing needs of pigs in social rituals and cultural. The high demand for pigs for socio-cultural activities can increase the selling price of pigs, thus providing benefits for pig farmers.

Community empowerment needs to be enhanced through community-assisted activities in pigs. Community empowerment can be done by providing counseling or training, mentoring program and providing assistance of livestock business facilities and providing incentives through the services of fishermen cooperatives. Community empowerment is very closely related to the participation of families and the number of farming households. The higher participation of members of the family, then the number of farming households will also be increased so that the role of communities in the management can be optimized. The involvement of family members of fishermen, especially women and children in pigs, can utilize spare time that can have an economic impact on the family through additional income from pigs.

**Status of Sustainability Dimensions of Infrastructure and Technology.** Attributes are expected to give effect to the level of sustainability on the dimensions of the infrastructure and technology consists of five attributes, namely: (1) support facilities and infrastructure of livestock farming swine, (2) the level of mastery of technology of cultivation of pigs, (3) the extension of cultivation technology of pigs from technical service, (4) availability of processing industry, and (5) availability of livestock market.

Based on the result of leverage analysis, three attributes that are sensitive to the value of sustainability index of infrastructure and technology dimension are (1) counseling about pig farm technology from technical service, (2) level of mastery of pig farming technology, and (3) availability of processing industry. The three sensitive attributes are interconnected with each other, the intensity of extensively extending the technology of pig farming by related agencies can encourage technological capacity of pig farmers including pig production technology. The development of pork-based processing industries such as pork Se'i has an impact on increasing the added value of pork at a more expensive price.

Counseling on the technology of pig business can be done by technical offices as well as colleges and NGOs who are committed to the development of pigs as an alternative to community economic activities. The form of counseling that needs to be done in order to increase the capacity of farmers to the mastery of technology is participatory education, where farmers can actively engage in all extension activities, so that the process of technology adoption can be achieved and the increased capacity of pig farmers in managing pigs more productive and optimal.

**Status of Sustainability Dimensions of Legal and Institutional.** The attributes that are expected to affect sustainability on the legal and institutional dimension consist of four attributes, namely (1) availability of livestock business groups, (2) the existence of livestock breeding centers, (3) availability of livestock cooperatives, and (4) availability of local regulations on business. Based on leverage result, there are three attributes that are sensitive to legal and institutional sustainability index value: (1) availability of livestock business group, (2) existence of extension livestock center, and (3) availability of farmer cooperatives.

Institutional become a determining factor in opening opportunities to build business partnerships are broad. Sihombing (2006) states that there are three categories of pigs business people are seedling business, fattening business and business combination of both activities. Economically fattening business will give bigger profit, but also invested capital bigger than nursery business.

Pigs business group is an institution that grows from the community itself, the existence of pig business conducted in groups can facilitate aspects of development because aid funds or technology can be more efficient because it is managed in groups. Extension agency livestock is also an important attribute in ensuring the sustainability of pig business, because it can be a link between technology sources with pig farmers in the understanding and implementation of various technologies that are always growing and able to increase business productivity. Institutional cooperative livestock is also an important attribute because the scarcity of venture capital for farmers is still a major obstacle in the development
of their business, therefore through cooperative farmers can save joint capital which at any time can be used to finance the development of pig business.

**Sustainability Status multidimensional.** The results of Rap-Ternak_Nembrala multidimensional analysis of sustainability of pig business in Nembrala Village based on the existing condition of 67.63% is quite sustainable. This value is derived from the assessment of 24 attributes that exist in the five dimensions of sustainability namely ecological, economic, socio-cultural, infrastructure and technology, and legal and institutional dimensions. Multidimensional results with Rap-Ternak_Nembrala regarding the sustainability of pig business in Nembrala Village can be seen in Figure 2.

The sensitive attributes contributed to the value of multidimensional sustainability index based on leverage analysis of each dimension contained 17 attributes. These attributes need to be improved in the future to improve the sustainability status of Desa Nembrala for the development of pigs. Improvements that are intended to increase the capacity of attributes that have a positive impact on the increase in the value of sustainability index and otherwise minimizing the attributes that are likely to have a negative impact or lower the value of sustainability index.

![Figure 2 – Index multidimensional sustainability of farming pigs in the village Nembrala](image)

The result of Monte Carlo analysis shows that the index value of pigs business sustainability in Nembrala Village at 95% level shows the result that did not change much with the analysis of Rap-Ternak_Rote (Multidimensional Scaling = MDS). This means that errors in the analysis can be reduced both in terms of providing each attribute scoring, scoring for variation of opinion differences are relatively small, and the data analysis process that is done repeatedly is stable, as well as errors in the input data and the data lost can be avoided. Differences sustainability index value of MDS and Monte Carlo analysis is presented in Table 1.

<table>
<thead>
<tr>
<th>Dimensions of Sustainability</th>
<th>Values Sustainability Index (%)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MDS</td>
<td>Monte Carlo</td>
</tr>
<tr>
<td>Ecology</td>
<td>30.82</td>
<td>30.36</td>
</tr>
<tr>
<td>Economic</td>
<td>79.71</td>
<td>78.98</td>
</tr>
<tr>
<td>Social and Cultural</td>
<td>65.83</td>
<td>64.69</td>
</tr>
<tr>
<td>Infrastructure and Technology</td>
<td>63.87</td>
<td>63.12</td>
</tr>
<tr>
<td>Law and Institutional</td>
<td>36.61</td>
<td>35.49</td>
</tr>
<tr>
<td>Multi Dimensions</td>
<td>67.63</td>
<td>65.32</td>
</tr>
</tbody>
</table>
Table 2 – Value of Stress & Coefficient of Determination (R²) Rap-Ternak_Nembrala

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Dimensions of Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Stress</td>
<td>0.14</td>
</tr>
<tr>
<td>R²</td>
<td>0.94</td>
</tr>
<tr>
<td>iteration</td>
<td>2</td>
</tr>
</tbody>
</table>

Notes: A = Ecological Dimension, B = Economic Dimension, C = Cultural Social Dimension, D = Infrastructure-Technology Dimension, E = Legal-Institutional Dimension, and F = Multidimensional.

The result of analysis from Rap-Ternak_Nembrala shows that all attributes studied on the sustainability status of pig business in Nembrala are accurate enough to give better and more reliable analysis result. This can be seen from the stress value that only ranges between 12% to 15% and the value of determination coefficient (R²) obtained ranges between 0.88 and 0.95. This is in accordance with the Fisheries (1999), which states that the results of the analysis of stress sufficient if the value is less than 0.25 (25%) and the coefficient of determination (R²) approaching a value of 1.0.

CONCLUSION AND RECOMMENDATIONS

The sustainability status of pig business development in fisherman households of Nembrala village for ecology dimension of 30.82% with less sustainable status, legal and institutional dimension of 36.61% with less sustainable status, infrastructure and technology dimensions of 63.87% with sufficient status of sustainable, social and cultural dimensions of 65.83% with a culture of continuous sufficient status, and economic dimension of 79.71% with sustained status.

This study is limited to the development of pig business. Studies will come need to examine other farm businesses that can help fishermen to improve welfare. Although there are limitations in this study, this study contributes, namely pigs are one of the livestock commodities that are potential to be developed in local communities on the coast.

ACKNOWLEDGMENTS

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REFERENCES

ABSTRACT
Duck farming needs to be innovated from traditional maintenance management systems that must be abandoned, costly modern intensive maintenance management and pollute the environment into an efficient and eco-green intensive maintenance system by applying the same system partnership pattern to its core. Integrated eco-green intensive peking duck breeding farm utilizing Azolla Microphylla and hedge leaf as feed supplement and other germplasm utilization. The Azolla Microphylla plant serves as a phytoremediation where it can recycle livestock wastewater into clean water thereby reducing excessive water exploitation and reducing the pollution of the stench. The purpose of this research is to obtain information about the financial strategy to start up the business of peking duck integrated with eco-green model. Beginning from planning activities, the company implements project management system with its Gantt Chart. The mapping of operational strategy is carried out comprehensively by always making continuous improvement (kaizen) because in the current era to be good alone is not enough, but struggle is needed to be superior (market leader) by beginning by cost leader.

KEY WORDS
Operational strategy, finance, start-up business, eco-green.

According to Central Bureau of Statistics (BPS), Banten Province as an operational area of duck breeding livestock business has a population of 11,955,243 million people or 4.66% of the total population of Indonesia in 2015 (254.9 million people). From that number, the male population is 6,097,184 million and the female population is 5,858,059 million people (Central Bureau of Statistics in Banten). According to Central Bureau of Statistics projection, the population of Banten reaches 13.1 million people or 4.85% of 271.0 million people by 2020. In fact, by 2035, it is projected that the population of Banten will reach 16.0 million people or 5.24% of the 305.6 million people in Indonesia. With the increasing number and the rate of population growth of Banten from year to year, it surely will make Banten as a big enough potential market for the development of duck breeding business in the future.

The number of restaurants in Banten province in 2011 was 797 and continues to grow to 1,110 in 2014. This number will certainly continue to increase along with the more conducive political climate, the better economic conditions and national economic growth target of 5.4% in 2016. This condition will of course be good enough for Banten's economic growth. Opportunity to market duck breeding from raising duck breeding business, so it will boost the role of duck in the fulfillment of the needs and availability of meat in Indonesia, especially Banten province as an operational area of peking meat breeding business.

Duck breeding productivity can be improved through the implementation of government policies to support the development of livestock production systems and with assembly of technological innovations that are appropriate for the people's farmers. Technological innovation, in addition to livestock productivity, should also address aspects of animal health management as well as safe and lawful livestock product processing. Implementation of government policies to build strong breeders supported by universities is needed to increase the contribution of duck breeding significantly in meeting the needs of animal food.
Duck farming needs to be innovated from traditional maintenance management systems that must be abandoned, costly modern intensive maintenance management and pollute the environment into an efficient and eco-green intensive maintenance system by applying the same system partnership pattern to its core. In duck maintenance management, there are influential factors, including the quality of seeds used, proper maintenance procedures, quality and appropriate feeding methods, appropriate research and technology, business systems and good financial analysis, experience in raising livestock enough ducks, strict biosecurity systems and marketing of livestock products.

**Peking Duck Breeding Farm Integrated with Eco-Green Concept.** Integrated eco-green intensive peking duck breeding farm utilizing Azolla Microphylla and hedge leaf as feed supplement and other germplasm utilization. The Azolla Microphylla plant serves as a phytoremediation where it can recycle livestock wastewater into clean water thereby reducing excessive water exploitation and reducing the pollution of the stench. The development of farms using strategic partnerships is intended to recruit traditional farmers to switch to intensive eco-green farming systems and become a strategic partner of core peking meat breeding companies with mutually beneficial cooperation in terms of increasing livestock productivity with good management, ensuring availability Day Old Duck (DOD) seedlings, Azolla Microphylla and hedge leaf feed supplements to produce organic equivalent meat products, and livestock marketing at competitive and profitable prices.

**Operational Strategy.** PT Prima Duckindo has a framework in the implementation of operational strategies that must be achieved in running the duck breeding business. The operational framework is divided into two parts, namely management within the pre-operational time range and within operational time. Pre-operation is an activity of the results of analyzing the Quantitative Strategic Planning Matrix (QSPM) as a tool that enables strategic strategists to evaluate alternative strategies objectively and holistically, based on internal key and external key success factors identified in chapter III. Legal permits and project management to establish livestock are pre-operative activities.

**In the operational phase,** PT Prima Duckindo selects Lean Six Sigma system as the chosen industrial management for livestock. The maintenance of ducks using an intensive system with the method of duck rose in a closed stable with a climate-adjusted ventilation design and regulated the temperature of the stable space to be comfortable for ducks swarm. Therefore, commercial duck meat production for PT Prima Duckindo is a special business core that requires large investment and timely management.

In accordance with Figure 1 regarding the operational framework of PT Prima Duckindo, it is seen that management performed in the pre-operative stage is the result of QSPM analysis. This analysis resulted in an analysis to establish an integrated livestock from
start breeding ducks (*breeder farm*), hatching of ducks (*hatchery*), enlargement of ducks (*grower farm*), and poultry butchery house (*processing farm*) which constitute the operational objectives of the company. Furthermore, licenses are also a regulation that must be implemented to run the sustainability of the company’s operations. Finally from this subchapter, it is project management that manages in building integrated farms.

PT Prima Duckindo to realize LSS management system hence mapping the target or operational objectives comprehensively as the spirit for *Kaizen* (*continuous improvement*). A necessity nowadays of industry and business environments are reaching the point of competition for survival and market share. Following the global economy will show that being good is not enough, therefore every organization must really strive for excellence if it wants to stay in the market. Each organization has a primary goal to look for one unit of outcome that is profit. This operational objective raises operational targets for the integrated duck meat industry of PT Prima Duckindo which embraces the system: *Quality, Cost, Delivery, Safety, Moral, Productivity*, which is abstracted from the mindset in the production field that is TW’s (7 types of waste = Motion, waiting time, over production, processing time, defects, inspection, and transportation).

Establishing companies in Indonesia is actually not too difficult because all the existing regulations that govern it, inter-departmental coordination in the reform era and the digital era make the process and licensing procedures easier and transparent. The government continues to make efforts to simplify start-up business procedures. In addition to the number of entrepreneurs in Indonesia which is still very small compared to neighboring countries, establishing new business is considered providing added value as it opens more jobs and drives the local economy. One of the initiatives undertaken by the government is to facilitate the establishment of Limited Liability Company (PT). Stages of licensing and regulations to be implemented by PT Prima Duckindo are as follows: Licensing of Company Establishment, Licensing of Law Interruption, Licensing of Waste, Licensing of Business Livestock, and Regulations of Livestock Partnerships.

Establishing a business is one of the key phases to start and grow a business. Establishing PT (Limited Liability Company) is not confusing anymore if it intends to seek additional capital, holds a new investor, or participates in tenders held in government agencies. To establish a company with the name of the company which is PT Prima Duckindo, it needs the preparation of documents as a condition of submission, namely the lease agreement of land. The landowner includes the Land and Building Tax (PBB) of the previous year and Building Construction Permit (IMB) for the completeness of the data at the time of the notarial deed as the domicile of the company. The other data that need to be prepared to register at the Office of One Stop Services Integrated Services (BPMPTSP) include: the name option of the company (minimum 3), business field, the names of shareholders & ID cards, the composition of shareholders, authorized capital company (minimum 51,000,000 Rupiah), paid up capital (minimum 51,000,000 Rupiah), composition of directors and commissioners, ID Cards of directors and commissioners, Tax Registration Number of directors, 3x4 photographs (2pcs). Figure 5.4 describes in detail the flow of the company's license making which is done by PT Prima Duckindo.

![Figure 2 – Representation of Sigma and Waste on Normal Distribution](image-url)
Lean Six Sigma is a methodology of continuous improvement that incorporates the DMAIC (Define, Measure, Analyze, Improve, Control) and statistical analysis tools of Six Sigma and combine them with the tools Manufacturing lean to eliminate or reduce significantly the 8 types of waste (waste) as losses 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 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 stated 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 is an activity that the customer is willing to pay for all other activities, which are classified as non-value-added activities are classified as waste. 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. Activities that are not value-added (non-value added) consists of 8 types of waste which can be shortened to DOWNTIME, namely: Defects, Over-production, Waiting, Non-utilized Resources/Talent, Transportation, Inventory, Motion, Excess Processing.

Financial planning is a process that consists of: openly analyzing investment options and funding for the company, projecting the future state of the current decision, deciding on alternatives to be taken, and measuring the subsequent performance of the goals set forth in the financial plan (Braley, Myers, and Marcus, 2001: 82).

![Figure 3 – Conceptual Framework of Financial Planning. Source: Gansel (2005).](image-url)
According to Gansel (2005) in his scientific publication "Toward a Framework of Financial Planning in New Venture Creation", he defines financial planning as a systematic process and quantitative forecasting of all relevant cash inflows and cash outs in the utilization of business opportunities to support financial decisions in the planning period the future. The financial planning process is considered being part of a decision-making tool that includes three core components: profit and loss statement planning, balance sheet report planning, and cash flow statement planning. The core component requires five planning elements comprising: revenue planning, cost planning, investment planning, capital planning, and funding planning. Conceptual framework of financial planning (conceptual framework of financial planning).

As a first step in the financial planning process, it is necessary to establish assumptions that are the basis of calculation in revenue planning, cost planning, investment planning, capital planning, funding planning, and pro forma financial statement planning (profit and loss, balance sheet, and cash flow). The assumptions used in the financial planning business peking duck breeding farms in PT Prima Duckindo consisting of assumptions on departments of duck breeding (breeder farm), hatchery department (hatchery), animal husbandry duck breeding department (grower farm), and Poultry Butchery House.

In accordance with SFAS No. 23, revenue is the gross inflows of economic benefits arising from the normal activities of a company during a period when such inflows result in an increase in equity, which is not derived from the investor's contribution. Revenue is income arising from the activities of a company known by different names such as sales, fees, interest, dividends, royalties and rent.

Based on accrual accounting, (in accordance with generally accepted accounting principles), revenue recognition does not have to wait until cash is received. The conceptual framework of accounting has identified two criteria that should be considered in determining when income should be recognized, that is: realized or can be realized, and has been generated or has occurred. Revenue is stated to have been realized if the received asset can be converted into cash immediately. Revenue is deemed to have been generated or has occurred if the company has done what it ought to do to earn the right to that income (Hery, 2016: 68).

The company in determining the policy of revenue recognition (sale and interest income of banks) in accordance with the provisions of PSAK No. 23. Revenue is measured at the fair value of the benefits received or receivables on the sale of goods from the normal activities of the enterprise. Revenue is presented in the statement of income after deducting the value added tax, returns, rebates and discounts. Revenue is recognized when it is probable that the economic benefits will flow to the company and that revenue can be measured reliably. Revenues from the sale of goods are recognized when significant risks and ownership have been transferred to customers. Interest income is recognized on a proportion basis using the effective interest rate method.

Expenses are the uses of goods and services in order to obtain an income (revenue) in a period and these costs into expired for the future (Ishak and Sugiono, 2015: 16). According to Ishak and Sugiono (2015: 19), based on the time charged (timing of charges) and income (revenue), the costs are classified into: 1) the cost of the product (product cost), that all the accumulated production costs occur until the goods are finished (finished goods), where the costs become assets until the time is sold, and the time sold for the production cost will be the burden (cost of good sold); 2) the cost of the period (period cost), all the cost of the period that occurs during a period will be directly expense, including the selling expenses and general administrative expenses. Broadly speaking, load recognition can be divided into three categories, namely direct comparison, systematic and rational allocation, and immediate recognition.

Investment decision is the most important policy of two other policies in financial management, namely funding policy and dividend policy. Capital investment as a major aspect of financial management policy because investment is a form of capital allocation whose realization should produce benefits or profits in the future. On the other hand, future
investment benefits are overwhelmed by uncertainty, which in the concept of financial management it is called investment risk. As a consequence, investing must go through a careful evaluation process on profit and risk level predictions (Harmono, 2016: 8).

To start this livestock business, there are investment activities that all done at the beginning of the establishment of the company. The initial capital investment value includes all the power required to run the company over a period of 10 years from the time the company establishes. In addition, for the business to run in accordance with the planning required working capital to finance the operational activities from the start the company was founded until the company generates cash from the sale of products.

**Capital Management.** Working capital is the company's investment in short-term assets, such as, receivables and inventories. **Gross working capital** is the amount of current assets of the company, while **net working capital** is the amount of current assets minus current liabilities. The working capital management covers either from the source side of working capital or its use. The main functions of working capital management are 1) adjusting the level of the company's sales activity to changes in seasonal factors, business cycles, or other unpredictable business conditions, and 2) helping the company to achieve the goal of maximizing value (Kamaludin and Indriani, 2012: 115).

In the working capital management, the company uses an approach that prioritizes long-term loans to fund all the needs of the permanent operating assets and some of the needs of seasonal operations. This approach is done to reduce the risk of the company's inability to repay the loan than if the company uses more short-term loans. This working capital management policy will increase shareholder value. Elements that are included in the management of working capital are cash, accounts receivable, accounts payable, inventory, taxes payable, and the various costs money to be paid.

The first component of working capital is cash. It is the most liquid form of assets which can be used immediately to meet the financial obligations of the company. The liquid nature, cash provides the lowest profits. If the company keeps the cash in the bank in the form of a checking account, then the demand deposit service received by the company percentage will be lower than if deposited in a time deposit (which is not at all time cashable). Therefore, the main problem for cash management is to provide adequate cash, not too much so that profits are not reduced too much, but not so little that it will disrupt the company's liquidity (Nidar, 2016: 104).

The company applies a cash adequacy strategy related to working capital based on the following two purposes: (1) working capital requirement for the next one month, the company's cash position must be equal to or exceed the estimated working capital requirement of the company one month ahead; and (2) working capital requirements based on the company's **cash conversion cycle** will take into account the required working capital needs based on the inventory conversion period, the timing of the collection of accounts receivable, and the repayment of short-term debt.

Cash is managed by using **CCC** (Cash Conversion Cycle) to determine the effectiveness of cash performance of the company. CCC describes how long the company can collect cash from the company's operating results which will ultimately affect the amount of funds needed to be deposited on **current assets**. The company's cash should always be in a positive and smooth condition. It means that all existing cash surplus will only be stored in the form of demand deposits and deposits. It is to facilitate the company if at any time it needs funds for operations and investments, assets owned by the company in the form of liquid assets and easily disbursed.

Company needs to conduct an economic analysis of accounts receivable, meant by economic analysis is an analysis that aims to assess whether the benefits of having a larger receivable or smaller than its cost. If it is estimated that the benefits are greater, then the economic ownership of the receivable (or sale of credit), is justified. The analysis is one part of the management of accounts receivable. Another problem is the control of accounts receivable.

Regarding to control of accounts receivable, the company needs to establish its credit policy. This policy then serves as the credit standard. If then in the implementation of credit
sales and collection of receivables are not in accordance with predetermined standards, then the company needs to make improvements. Activities to ensure that the results are in accordance with the plan is the essence of the control function.

Sales policy with cash and credit system becomes company policy. This certainly gives implications for the emergence of accounts receivable for the company. The terms of payment of receivables set by the company are 2/15, n/30. To anticipate the existence of bad debts, the company annually budgets the cost of doubtful accounts for 1% of total sales.

The high inventory allows the company to meet sudden demand. Nevertheless, high inventory will cause the company need more working capital also. If the company is able to predict precisely the need for raw materials (or finished goods), the company can provide inventory on time according to the required amount. At no time is needed inventory amount can be reduced or even zero. This technique is known as just in time or zero inventory. For financial management, it is necessary to understand the impact of the use of an inventory policy on the financial aspects (Nidar, 2016: 128).

Company divided inventory into three types, namely: (1) Parent stock. Parent stock is stated at cost less accumulated depletion, death, and duck stocks. Costs incurred during the growth period are accumulated and depleted from the commencement of production. Depletion is calculated using the declining balance method based on the estimated productive age of the ducks having produced since the beginning of the production period by taking into account the residual value. Depletion period is 18 months; (2) Livestock in growth. Livestock in growth is a breeder duck. This account represents the cost of day-old ducks (DOD) accumulated with costs incurred during the growth period which includes the cost of feed, medicines, vitamins, and others; (3) Animal Feed. Duck feed consists of concentrate and other ingredients; (4) Meat Inventory. This inventory is cut meat (carrass) that is ready for sale. The company records the inventories of raw materials and finished goods based on FIFO (First In First Out) method. Characteristics of products and raw materials stored in the company are durable and not easily damaged. The company sets raw material inventory for 10 operational days. As for the finished product, the company has a finished product inventory policy within 5 days.

Accounts payable are related to the policies and approval of payment systems applied by the company with other parties such as suppliers. In the first year, it is assumed that supplier of PT.Prima Duckindo will make payment of raw materials with cash system. However, in the second year onwards, it is assumed that the company will gain confidence to be given debt for raw material expenditures with a 30-day pay period.

PT. Prima Duckindo will meet its corporate tax obligations. The tax in question is Corporate Income Tax (PPB). The amount of GDP according to the applicable provisions is 25%. Through Law No. 36 of 2008, the government implemented a single tax rate policy for MARPs, not the progressive tax rate as set out in Law No. 17 of 2000. This Income Tariff is effective from 2010. In compliance with applicable regulations, if the enterprise incurred a loss, the loss may be brought to the next tax year (carried forward) to reduce taxable income from the subsequent tax year in a row to five years. PT. Prima Duckindo will pay corporate income tax which arises to the state treasury no later than 31 April every year.

It is the selling price of the factory and not including the distribution cost. The selling price is estimated to increase by 6% every year to adjust the inflation assumption of about 6% per year.

Cost of goods sold includes the cost of raw materials, material costs, labor costs, depletion costs, and manufacturing costs. In accordance with the company's main strategy, namely differentiation, PT.Prima Duckindo strives to provide the best quality for the creation of duck carcass meat products. Costs of Goods Sold (HPP) per unit product and the proportion of Costs of Goods Sold (HPP) to sales for the period 2018 - 2022 are as follows in Table 1.

The dividend policy determines how much profit to shareholders and how much to replant to the company. The company will take a residual dividend policy where the company will routinely distribute dividend annually with a certain percentage of net income. The nominal amount refers to the percentage target of the dividend payout ratio to be determined.
by the shareholders at the GMS, which will be 20% -40%. This policy is done because as a newly established company and focusing on growth, the company requires substantial capital to support the objective, so that the results of operational activities are reused to finance larger operational activities.

<table>
<thead>
<tr>
<th>Sales</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOD of Breeder Peking Duck</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>201.096.000</td>
<td>1.160.212.200</td>
</tr>
<tr>
<td>Proportion of COGS</td>
<td>62.89%</td>
<td>58.27%</td>
<td>57.35%</td>
<td>57.76%</td>
<td>59.19%</td>
</tr>
<tr>
<td>COGS per unit</td>
<td>23.912.08</td>
<td>23.573.71</td>
<td>24.613.09</td>
<td>26.173.87</td>
<td>28.242.83</td>
</tr>
<tr>
<td>Proportion of COGS</td>
<td>62.89%</td>
<td>58.27%</td>
<td>57.35%</td>
<td>57.69%</td>
<td>59.07%</td>
</tr>
<tr>
<td>COGS per unit</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11.751.69</td>
<td>11.739.10</td>
</tr>
<tr>
<td>Total of COGS (Rp)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>133.969.253</td>
<td>731.463.299</td>
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<tr>
<td>Proportion of COGS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>66.62%</td>
<td>63.05%</td>
</tr>
</tbody>
</table>

Funding Planning. According to Harmono (2016: 137), the capital structure is concerned with how capital is allocated in the real investment activities of the company's assets by determining the capital structure between debt and own capital. Usually, related to the project proposal, an investment company and the task of financial management is determining the optimal capital structure to support the company's investment activities.

According to Kamaludin and Indriani (2012: 304), in determining the policy of capital structure, it will involve the choice of trade-off between risk and rate of return. Considerations to be thought are: 1) if using more debt will increase the risk that will be borne by the shareholders, ultimately it will increase the risk of bankruptcy; 2) the use of more debt will also enlarge the the expected rate of return.

Funding needed by PT. Prima Duckindo for the implementation of integrated breeder duck business operation is Rp 5,500,000,000, - for initial establishment of company which consist of investment capital and working capital as required. Funding at the beginning of the establishment of the company's operations comes from the founder and assisted loans to third parties (creditor). Founder consists of 5 people with total funding of Rp 2,805.000.000,00 with the issuance of 2,805 shares @ nominal Rp 1,000,000 per share, each founder gets the same proportion of 561 shares. Third party loan of Rp.2.695.000.000,00 derived from a mix of family funding, and other third parties. The capital structure comprises 51% of the capital deposit from the founders and 49% is based on third party loans with the assumption of 15% interest rate per year. Using the long term financing from third parties, the company conservatively uses a more conservative approach in working capital management.

Capital cost is the rate of return for a project in an investment decision to maintain market value and obtain funds (Kamaludin and Indriani, 2012: 287). According to Nidar (2016: 84), the appropriate capital cost for all decisions is the weighted average of all cost components (Weighted Average Cost of Capital or WACC). Not all capital component is taken into account in determining WACC. Accounts payable are not taken into account in the determination of the WACC, because: 1) it cannot be controlled by management, 2) treated as cash flow net working capital in the capital budgeting process.

Notes payable or short-term interest-bearing debt is included in the calculation of the WACC only if the debt is part of a proficiency level of spending remains firm, not a temporary learning. In general, long-term debt from equity is an element to calculate WACC. Thus, we must calculate 1) the cost of debt, 2) the cost of retained earnings, 3) the cost of the new
common stock, and 4) the cost of preferred stock. The cost of capital should be calculated on an after tax basis since the after-tax cash flow is the most relevant for investment decisions.

Financial statements are the end products of a series of recording and processing of business transaction data (Hery, 2016: 2). The financial statements are used as a tool to communicate financial data or corporate activities to stakeholders which indicates the condition of a company's financial health or company performance. The main financial statements consist of: (1) Income Statement; 2) Balance Sheet Report; and (3) Statement of Cash Flows.

As a new company that will be established, financial statements can be made based on the data financial assumptions used in business planning. The financial statements presented in the form of proforma financial statements.

Based on proforma's projected income statement, the company can project net profit after tax in 2018 of Rp 537,803,612 or 15.91% of total net income; in 2019 the company projected net profit after tax of Rp 3,653,648,491 or 25.75% of total revenue; in 2020 the company projected net profit after tax of Rp 5,310,490,915 or 27.13% of total revenues, in 2021 the company projects net profit after tax of Rp 7,200,655,537 or 27.24% of total revenues; and by 2022 the company projects net profit after tax of Rp 9,818,906,389 or 26.43% of total revenue.

In 2018, the company has not paid dividends to shareholders, the cash flows generated from net income are used for working capital financing. In 2019, the company distributes dividend of 20% of net profit and the rest is used for next year's working capital financing. In 2020, the company increases the dividend distribution to shareholders by 30% from net profit and the rest is used for next year's working capital financing. In 2021, the company increases the dividend payout of shareholders by 35% of net profit and the rest is used for working capital financing of the following year. In 2022, the company continues to increase the distribution of dividends to shareholders by 40% of net profit and the rest is used for next year's working capital financing.

Balance sheet is a systematic report on the asset position, obligation, and equity of the company at certain date. The purpose of the balance sheet report is to describe the company's financial position.

The statements of cash flows are reports that describe the cash inflows and cash outflows in detail from each activity, starting from operating activities, investment activities, to financing activities for a certain period of time. The cash flow statement shows the amount of cash increase or decrease in cash owned by the company up to the end of the period.

The financial ratio is the ratio calculation by using financial statements that serve as a measuring tool in assessing the financial condition and performance of the company (Hery, 2016: 18). The financial ratio presents the figures derived from the comparison between one financial report post and another post with relevant and significant relations. Comparisons can be made between one post and another in a financial statement or between posts that exist between financial statements.

Financial ratio analysis is an analysis performed by linking various estimates that exist in the financial statements in the form of financial ratios. Financial ratio analysis can reveal important relationships between financial statement estimates and can be used to evaluate the company's financial condition and performance. The types of financial ratios often used to assess the company's financial condition and performance are (1) Liquidity Ratios, (2) Sovability Ratios, (3) Activity Ratios, and (4) Profitability Ratios.

The most important investment valuation method used in measuring feasibility investments in PT Prima Duckindo's livestock business is Payback Period. Payback period is the most commonly used method of business to measure the length of reinvested investment funds. Therefore the result of the calculation is expressed in units of time (ie year or month). The faster the investment return period, the less investment risk, and the investment project is feasible to run. Conversely, the longer the return the greater the investment risk, and the investment project is less feasible or unfit to run.

Well-planned financial planning and in harmony with the established strategy will be able to direct the company in achieving its goals effectively and efficiently.
Table 2 – Financial Planning for Investors (Package 1)

<table>
<thead>
<tr>
<th>n/n</th>
<th>FINANCIAL PLANNING FOR INVESTORS (Million Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
</tr>
<tr>
<td>1). Investment Package</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,500</td>
</tr>
<tr>
<td>2). Financing Structure:</td>
<td></td>
</tr>
<tr>
<td>- Founder Capital</td>
<td></td>
</tr>
<tr>
<td>- Investor Capital</td>
<td></td>
</tr>
<tr>
<td>3). Payback Period:</td>
<td></td>
</tr>
<tr>
<td>4). Net Profit Projection:</td>
<td></td>
</tr>
<tr>
<td>- Net Sales</td>
<td>3,381</td>
</tr>
<tr>
<td>- COGS</td>
<td>(2,126)</td>
</tr>
<tr>
<td>- Gross Profit</td>
<td>1,255</td>
</tr>
<tr>
<td>- Expense of Sales, Administration, and Other Operational Expense/Revenue</td>
<td>(167)</td>
</tr>
<tr>
<td>- EBIT</td>
<td>1,088</td>
</tr>
<tr>
<td>- Revenue and Financial Expense</td>
<td>(371)</td>
</tr>
<tr>
<td>- EBT</td>
<td>717</td>
</tr>
<tr>
<td>- Income tax expense</td>
<td>(179)</td>
</tr>
<tr>
<td>- EAT</td>
<td>538</td>
</tr>
<tr>
<td>Profit Sharing for Investors (50%)</td>
<td>269</td>
</tr>
</tbody>
</table>

Table 3 – Financial Planning for Investors (Package 2)

<table>
<thead>
<tr>
<th>n/n</th>
<th>FINANCIAL PLANNING FOR INVESTORS (Million Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
</tr>
<tr>
<td>1). Investment Package</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11,000</td>
</tr>
<tr>
<td>2). Financing Structure:</td>
<td></td>
</tr>
<tr>
<td>- Founder Capital</td>
<td></td>
</tr>
<tr>
<td>- Investor Capital</td>
<td></td>
</tr>
<tr>
<td>3). Payback Period:</td>
<td></td>
</tr>
<tr>
<td>4). Net Profit Projection:</td>
<td></td>
</tr>
<tr>
<td>- Net Sales</td>
<td>6,762</td>
</tr>
<tr>
<td>- COGS</td>
<td>(4,252)</td>
</tr>
<tr>
<td>- Gross Profit</td>
<td>2,510</td>
</tr>
<tr>
<td>- Expense of Sales, Administration, and Other Operational Expense/Revenue</td>
<td>(334)</td>
</tr>
<tr>
<td>- EBIT</td>
<td>2,176</td>
</tr>
<tr>
<td>- Revenue and Financial Expense</td>
<td>(742)</td>
</tr>
<tr>
<td>- EBT</td>
<td>1,434</td>
</tr>
<tr>
<td>- Income tax expense</td>
<td>(358)</td>
</tr>
<tr>
<td>- EAT</td>
<td>1,076</td>
</tr>
<tr>
<td>Profit Sharing for Investors (50%)</td>
<td>592</td>
</tr>
</tbody>
</table>

Table 4 – Financial Planning for Investors (Package 3)

<table>
<thead>
<tr>
<th>n/n</th>
<th>FINANCIAL PLANNING FOR INVESTORS (Million Rupiah)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
</tr>
<tr>
<td>1). Investment Package</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16,500</td>
</tr>
<tr>
<td>2). Financing Structure:</td>
<td></td>
</tr>
<tr>
<td>- Founder Capital</td>
<td></td>
</tr>
<tr>
<td>- Investor Capital</td>
<td></td>
</tr>
<tr>
<td>3). Payback Period:</td>
<td></td>
</tr>
<tr>
<td>4). Net Profit Projection:</td>
<td></td>
</tr>
<tr>
<td>- Net Sales</td>
<td>10,143</td>
</tr>
<tr>
<td>- COGS</td>
<td>(6,378)</td>
</tr>
<tr>
<td>- Gross Profit</td>
<td>3,765</td>
</tr>
<tr>
<td>- Expense of Sales, Administration, and Other Operational Expense/Revenue</td>
<td>(501)</td>
</tr>
<tr>
<td>- EBIT</td>
<td>3,264</td>
</tr>
<tr>
<td>- Revenue and Financial Expense</td>
<td>(1,113)</td>
</tr>
<tr>
<td>- EBT</td>
<td>2,151</td>
</tr>
<tr>
<td>- Income tax expense</td>
<td>(537)</td>
</tr>
<tr>
<td>- EAT</td>
<td>1,614</td>
</tr>
<tr>
<td>Profit Sharing for Investors (50%)</td>
<td>968</td>
</tr>
</tbody>
</table>
The company has made a financial planning decision or policy to run an integrated peking breeder duck business with eco-green model project with funding sourced from founder capital and third party loans. From initial investment capital of Rp 5.5 billion, net profit can be achieved above 25% annually and the return on investment (payback period) can be achieved within 2 years and 4 months.

Duck meat market prospects are large enough especially for the needs of the stalls and restaurants, we are optimistic that large-scale breeding business of breeder duck is very feasible to run with funding from investors.

CONCLUSION AND SUGGESTIONS

Duck breeding business managed by PT Prima Duckindo with Eco-Green concept becomes a profitable business and becomes pilot farming business with dry stable, economical, and environmentally friendly method. Many advantages are obtained with the concept of farms that work on the company such as the production of farm produce Peking duck meat with taste quality, nutritional content are met and it is low cholesterol. Thus, with the establishment of duck breeding business conducted PT Prima Duckindo, it positively gives impact on the populist economy and also increases the supply of meat according to the needs of the people of Indonesia who are currently still experiencing a deficit of meat supply.

With various analyzes conducted by the company, in the development of duck breeding business run by PT Prima Duckindo, it needs reliable operational management. The operational framework of PT Prima Duckindo in conducting the Pre-Operational stage is the result of QSPM analysis which is the operational objective of the company. Beginning from planning activity, it implements enterprise project management system with its Gantt Chart. PT Prima Duckindo is an integrated farm starting from breeding, hatching, farming or growing, cutting ducks to become carcasses. Therefore, to achieve the above objectives, then it needs mapping the operational strategy comprehensively by always doing continuous improvement (kaizen) because in the current era, to be good alone is not enough but strive to be superior (market leader) is needed by beginning by cost leader.

Business plan designed by PT Prima Duckindo can be used as an example in other poultry farm business or duck farm that still used traditional concept. As for management in developing peking duck breeding companies, it needs innovations and develops more effective and more efficient technology that can produce better duck breeding outcome.

The business plan designed by PT Prima Duckindo can also be used as reference material for Graduate students as the final project of business plan and also material of study of research material in building a business. For business plan government designed PT Prima Duckindo, it can be developed as a business that can improve people's welfare; this business plan can be a reference for the community or entrepreneurs who are willing to build duck breeding business.

REFERENCES

THE ANALYSIS OF AGRICULTURAL SECTOR'S GROWTH IN LHOKSEUMAWE OF INDONESIA

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Faculty of Agriculture, Syiah Kuala University Banda Aceh Indonesia

Email: rani.farshi@gmail.com

ABSTRACT
The purpose of this study was to determine and classify the growth of the agricultural sector in Lhokseumawe, and to identify the base and non-base sectors in each agricultural sub-sector. This research used Time Series GRDP data for 15 years of 2002-2016, Shift Share method, Klassen’s Typology and Location Quotient analysis. The results of this study indicate that during study period the value of GRDP of Lhokseumawe city has been progressing, it is characterized by the influence of total growth value which indicates a positive value, and subsector that contributes the most is fishery sub-sector.

KEY WORDS
Shift Share, Klassen typology, location quotient, agricultural sector, growth.

Indonesia is one of the agrarian countries where most of its people live in rural areas and rely on agriculture. As Mubyarto (1995) points out, Indonesia is an agricultural country where agriculture plays an important role in the overall national economic conditions. The actual term of agriculture is the agriculture in a broader term, covering several fields: food crops sub-sector, horticulture crops, agricultural and hunting services, plantation crops sub-sector, farming sub-sector, logging and forestry sub-sector and fishery sub-sector. The agricultural sector is the primary sector where the output from agricultural sector will become an input by other sectors. Moreover, the natural resources of the agricultural sector is renewable, recyclable, growing or restock-able natural resources, in other words, natural resources that can continue to exist as long as not in over-exploited usage. With the diversity of commodities from various subsectors it is expected that the agricultural sector be able to give significant contribution to the region in Indonesia.

Regional economic development is often confronted with government policies that do not support the utilization and development of local potentials. Oktarina (2014) states that the growth of a region's agricultural sector is basically influenced by the region's competitive advantage, regional specialization and agricultural potential. The existence of agricultural potential in a region will remain useless for the growth of the region if there is no effort to utilize and develop agricultural potential optimally. Therefore, the utilization and development of all potential agricultural potentials should be a top priority to be explored and developed in implementing the intact development of agricultural areas. According to Arsyad (2010), the regional economic framework establishes a partnership pattern between the government and the private sector to create an employment and the development of regional economic activity. For the sake of the achievement of regional economic development goals, it require development policies which are based on local specificity (endogenous development), using local resource potentials.

The performance of a regional economy can be seen from the value of Gross Regional Domestic Product (GRDP) and its growth. GRDP serves as one of the indispensable economic indicators to measure the performance of a region’s economic growth, either at current prices or at constant prices. Lhokseumawe has a 18,106 hectares land area, consist of 4 districts with agricultural potential spread almost evenly in each region. Based on GRDP
data from 2007 to 2011 (Lhokseumawe dalam Angka 2013, 2014) there are 3 main sectors contributing to the regional economy: manufacturing, trade, hotel and restaurant sector and agriculture sector. The data shows that from the whole economic sector, the manufacturing sector contributes 54.12%, the trade, hotel and restaurant sector is 24.63% and the agricultural sector 6.24%. Subsectors that play an important role in the contribution of agriculture sector are fishery sub-sector, in 2007 until 2011 fishery sub-sector contributed 62.47% in development of Lhokseumawe’s GRDP. This is strongly supported by the location of Lhokseumawe city, where geographically most of Lhokseumawe city is directly adjacent to the waters, and supported by natural resources consist of capture fishery and aquaculture fishery.

The revitalization of the agricultural sector needs to be done in an effort to support the economic development of Lhokseumawe. Revitalization of the agricultural sector is closely related to the existence of potential subsectors. According to Sudaryanto (2005), agricultural revitalization can be interpreted as an awareness to put back the importance of agriculture sector proportionally and contextually, through improving the performance of agricultural sector in national development with no disregard to other sectors. Agricultural revitalization is intended to raise the commitment and cooperation of all stakeholders and change the paradigm of the mindset of the community in viewing agriculture that is not just a consumption commodity producer, but must be able to see agriculture as a multi-functional sector and the source of life for most people.

The determination of potential subsectors is very important in agricultural development with the concept of efficiency to achieve comparative and competitive advantage in facing global trade. Identification and classification of agriculture sub-sector is needed to give the description of which sub-subsector whose activity become economic base or superior, potential, developing and also what is left behind, so that the priority sub-sector can be determined. Local governments need to make development strategies based on this priority so that agricultural development policy in the region can run optimally. Based on the classification, the government can also develop short-term, medium-term and long-term development programs which are also adapted to the development budget policy, especially agricultural development.

The scope of the study is limited to the GDRP of Lhokseumawe at 2000 constant prices from each subsector in agriculture sector for 15 years (2002-2016), including: a) Subsectors of Food Crops, Horticultural Plants, Agricultural Services and Hunting, b) Plantation Subsector, c) Livestock Subsector, d) Forestry and Logging Subsectors, and e) Fisheries Sub-sector. In addition, to complete this research data, it is required a comparison of variables (GRDP data) at the Aceh Province from 2002-2016.

**METHODS OF RESEARCH**

This research is done by using the library research approach, to strengthen the theoretical base that can support the research summarized from literature or scientific articles, and so forth. The type of data used in this study is secondary data, i.e. data obtained in 15 years' time series from 2002 to 2016, i.e. data collected from certain time series to provide an overview of the development of an activity during the period which specifically observed, this data is often also referred as historical data (Mudrajat, 2003), obtained from the agencies concerned with the research material. The methods used in analyzing data in this research are:

*The concept of Shift Share Analysis (SS)*

Shift share analysis is used to determine changes and sector shifts in economy within a region. The result of shift share analysis will describe the performance of sectors in GRDP in the region compared to higher area (reference area), then analyzed the change of economic structure of a region by explaining the growth of the sector. So it can be known whether the growth of the area per sector is lower or higher than the reference area.

This analysis plays a role in providing data of the economic performance in three interrelated fields of each other, (Tarigan, 2005):
\[ D_{ij} = N_{ij} + M_{ij} + C_{ij} \] (1)

Where:

1. Growth Impact (Nij) with (+) mark, implies a surplus, which means that subsectors in the study area grow higher than the average national growth, so be able to supply the needs of the reference region. While (-) mark implies a deficit, which means that subsector in study area growth slower than average national growth, so unable to supply requirement of reference area.
2. The industry mix (Mij) with (+) mark implies that the subsector (regional) is an advanced sub-sector, the subsector grows faster than the overall economic growth, otherwise (-) implies vice versa.
3. Competitive Advantage (Cij) shows the competitiveness of the subsector in the study area compared with the same subsector in the reference region.

The Concept of Klassen’s Typology Analysis. Klassen’s typology analysis is used to see the description of the pattern and growth structure of each economic sector. An overview of the pattern and structure of this region's growth can be used to predict future economic growth prospects for the region. In addition, it can also be used as a consideration in determining the policy of regional development. Klassen’s Typology basically divides the region based on two main indicators: regional economic growth and per capita income area. The criteria used to divide the area of Lhokseumawe based on Klassen’s Typology in this research are as follows:

4. Sub-sectors type I: fast-forward and fast-growing, areas which have higher economic growth and per capita income than the average of Aceh province.
5. Sub-sectors type II: advanced but under pressure, areas with higher per capita income, but economic growth rate are lower than the average of Aceh Province.
6. Sub-sectors type III: fast growing, areas with high growth rates, but per capita income level is lower than the average of Aceh Province.
7. Sub-sectors type IV: relatively underdeveloped, areas with lower economic growth and per capita income than the average of Aceh Province.

<table>
<thead>
<tr>
<th>per capita income (y)</th>
<th>yi &lt; y</th>
<th>yi &gt; y</th>
</tr>
</thead>
<tbody>
<tr>
<td>growth rate (r)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ri &gt; r</td>
<td>Tipe III</td>
<td>Fast Growing</td>
</tr>
<tr>
<td>ri &lt; r</td>
<td>Tipe IV</td>
<td>Relatively Underdeveloped</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tipe I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Where:
- Ri = Economic growth rate of the study area;
- r = Economic growth rate of the reference area;
- yi = Revenue per capita of study area;
- y = Revenue per capita of reference area.

Location Quotient Analysis Concept (LQ). According to Emilia (2006), LQ analysis is used to identify the economic base (base sector) of a region. With this analysis it can be known whether a region have base sector or superior (leading sector) level of specialization. The basic economic theory classifies all economic activities into two sectors i.e. the base sector and non-base sector. Base activities are activities of a society whose outcomes are either goods or services intended for export out of a community environment or outward, regional, national and international oriented (Rusastra et al 2002). While non-base activity is a community activity that results either in the form of goods or services destined for the community itself in the area of economic life of the community. The equations used are as follows:
\[ LQ = \frac{E_{ij}/E_j}{E_{in}/E_n} \]  

Where:

- \( LQ \) = Location Quotient Coefficient;
- \( E_{ij} \) = GRDP Sub-sector \( i \) in study area;
- \( E_j \) = Total GRDP in study area;
- \( E_{in} \) = GRDP Sub-sector \( i \) in reference area;
- \( E_n \) = Total GRDP in reference area.

From the results of this LQ calculation can be seen that if:

1. LQ of a sub-sector > 1 shows the corresponding sub-sectors including the base sub-sectors, which are prospectively to be further developed in an effort to improve the regional economy and meet the demand of either local, regional or national markets.
2. LQ of a sub-sector < 1 indicates that the corresponding sub-sector does not include the leading sub-sector, which means that the subsector is less prospective to develop and there is a tendency to require demand from other regions.
3. LQ a sub-sector = 1 indicates that it has the same level of specialization with the same sub-subdivision in a larger area.

RESULTS AND DISCUSSION

Lhokseumawe is lowland with an average height of ± 24 meters above sea level, and is located on the east coast of Sumatra Island. Geographically Lhokseumawe is positioned at 04° 54’ - 05° 18’ North Latitude and 96° 20’ - 97° 21’ East Longitude, flanked by the Malacca Strait, with the following territorial boundaries; Malaka Strait in the north, Regency of Kuta Makmur (North Aceh) in the south, Dewantara subdistrict (North Aceh) in the west and Syamtalira Bayu subdistrict (North Aceh).

![Figure 1 – The City of Lhokseumawe](image-url)
The agricultural sector has a stable role in the economy of Lhokseumawe. GRDP according to the Field of Business for Agriculture sector in Lhokseumawe, in 2002-2016 at constant price 2000 continued to increase, from 2002 Rp. 246,754.7 million up to 2006 up to Rp. 270,964.4 million, but decreased in 2007 up to Rp. 264,487.5 million and increased again in 2008 up to Rp. 267,243.3 million. In 2010 to 2016, the GRDP of Lhokseumawe has increased significantly. This is shown in Table 2 below.

Table 2 – The Development of GRDP at constant price 2000 Lhokseumawe Agricultural Sector during 2002-2016 (in million Rupiah)

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>GRDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2002</td>
<td>246,754.7</td>
</tr>
<tr>
<td>2</td>
<td>2003</td>
<td>253,268.8</td>
</tr>
<tr>
<td>3</td>
<td>2004</td>
<td>261,244.2</td>
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<tr>
<td>4</td>
<td>2005</td>
<td>266,029.5</td>
</tr>
<tr>
<td>5</td>
<td>2006</td>
<td>270,964.4</td>
</tr>
<tr>
<td>6</td>
<td>2007</td>
<td>264,487.5</td>
</tr>
<tr>
<td>7</td>
<td>2008</td>
<td>267,243.3</td>
</tr>
<tr>
<td>8</td>
<td>2009</td>
<td>269,064.6</td>
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<td>9</td>
<td>2010</td>
<td>452,117.2</td>
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<td>10</td>
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<td>13</td>
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<td>14</td>
<td>2015</td>
<td>516,413.7</td>
</tr>
<tr>
<td>15</td>
<td>2016</td>
<td>529,845.9</td>
</tr>
</tbody>
</table>


Shift Share analysis is used to see the economic growth process of Lhokseumawe which is associated with Aceh Province as the regional economy that become reference. Shift Share analysis in this study is using income variable, PDRB ADHK 2000 to describe economic growth in the city of Lhokseumawe. From this analysis it can also be known the development of a sector or sub-sector in a region when relatively compared to other sectors or subsectors, whether the growth is fast or slow. In this analysis the components of economic growth are divided into three, i.e. the national growth component (Nij), the industry mix component (Mij) and the competitive advantage component (Cij). The result of calculation of Shift Share analysis of GRDP of Lhokseumawe in 2002-2016 is shown in table 3. Based on the result of Shift Share analysis shows that during the period of 15 years from 2002-2016, the value of GRDP of agriculture sub-sector of Lhokseumawe has developed.

Table 3 – The Calculation Results of Shift Share Analysis of Agricultural Sector of Lhokseumawe at constant price 2000, During 2002-2016 (in million rupiah)

<table>
<thead>
<tr>
<th>No</th>
<th>Agricultural Sector</th>
<th>Components</th>
<th>Economic Structure Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>National Growth (Nij)</td>
<td>Industry Mix (Mij)</td>
</tr>
<tr>
<td>1</td>
<td>Food Crop, Horticultural Crop, Agricultural Services and Hunting</td>
<td>576,641.54</td>
<td>109,019.09</td>
</tr>
<tr>
<td>2</td>
<td>Plantation</td>
<td>65,667.13</td>
<td>50,019.54</td>
</tr>
<tr>
<td>3</td>
<td>Livestock</td>
<td>850,150.90</td>
<td>(256,691.16)</td>
</tr>
<tr>
<td>4</td>
<td>Forestry and Logging</td>
<td>2,507.61</td>
<td>(1,612.60)</td>
</tr>
<tr>
<td>5</td>
<td>Fishery</td>
<td>1,320,672.94</td>
<td>(255,844.33)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2,815,640.13</td>
<td>(355,044.47)</td>
</tr>
</tbody>
</table>

Source: Results of Processed Data, 2018.

According to the calculation of the National Growth component (N_i) all subsectors are positive, means that growth in Lhokseumawe is faster than the Aceh Province. The highest
positive sub-sector is the fishery sub-sector of Rp. 1,320,672.94 million, and the sub-sector with the lowest positive value is the forestry and logging sub-sector of Rp. 2,507.61 million. The Industrial Mix component (M_i) represents a major change in the region’s economy due to the industry mix. The growth of Industrial Mix components (M_i) is positive and negative. The positive M_i value signifies the economy of Lhokseumawe specializing in the same sub-sector at Aceh Province growing fast. Conversely, if M_i is negative, it means that the economy of Lhokseumawe city specializes in the slow-growing subsector of the economy of Aceh Province. Subsectors with positive industry mix values are food crops, horticultural crops, agricultural and hunting services and plantation sub-sectors. The largest sub-sectors in supporting the industry mix component are food crops, horticulture, agriculture and hunting, which are Rp. 109,084.09 million.

Competitive Advantage components (C_j) Lhokseumawe economy during 2002-2016 there is a positive and negative value. A positive C_j score means that there is a sub-sector that grows faster than the level of Aceh Province. While the negative C_j value indicates the subsector is growing slower than Aceh Province. There is one sub-sector with positive C_j value, that is Forestry sub-sector and logging is Rp. 2,648.73 million. While the other four sub-sectors have negative C_j values, i.e food crops sub-sector, horticultural crops, agricultural and hunting services, plantation sub-sector; livestock sub-sector; and fishery sub-sector. The influence of total growth value of GRDP (D_ij) in Lhokseumawe shows positive value that is growing by Rp. 283,091.23 million. The biggest contribution contributed by the fishery sub-sector is Rp. 303,801.19 million.

*Klassen’s Typology* analysis is used to find out the description of regional economic status. This analysis basically divides the region based on two indicators: regional economic growth and regional per capita income by determining the average of economic growth as the vertical axis and average per capita income as the horizontal axis. The subsectors observed were divided into four quadrants as follows:

1. The *high growth and high income* sub-sector is where the growth rate of GRDP and per capita income in regions is higher than the average growth and income per capita of the province average.
2. The *high income but low growth* sub-sector is a relatively advanced sub-sector, but in recent years the rate of growth has declined. Regional per capita revenues are higher than the provincial average per capita income, but the economic growth rate is lower than the provincial average.
3. The *high growth but low income* sub-sector is a fast-growing sub-sector with very large development potential but not fully processed properly. The growth rate of the regions is high but the per capita income level is lower than the provincial average.
4. The *low growth and low income* sub-sectors are subsectors that still have growth rates and per capita income lower than the provincial average.

The results of the calculation of *Klassen’s Typology* analysis for the agricultural sector of Lhokseumawe during 2002 - 2016 are shown in Table 4 below:

<table>
<thead>
<tr>
<th>No</th>
<th>Agricultural Sector</th>
<th>Lhokseumawe</th>
<th>Aceh</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Growth Rate</td>
<td>Per Income Rate</td>
</tr>
<tr>
<td>1.</td>
<td>Food Crop, Horticultural Crop, Agricultural Services and Hunting</td>
<td>-5.71</td>
<td>11.53</td>
</tr>
<tr>
<td>2.</td>
<td>Plantation</td>
<td>99.34</td>
<td>4.43</td>
</tr>
<tr>
<td>3.</td>
<td>Livestock</td>
<td>-11.94</td>
<td>14.61</td>
</tr>
<tr>
<td>4.</td>
<td>Forestry and Logging</td>
<td>403.14</td>
<td>0.51</td>
</tr>
<tr>
<td>5.</td>
<td>Fishery</td>
<td>65.62</td>
<td>68.93</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>550.45</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Results of Processed Data, 2018.*
Based on Table 4 above, it shows that the sub-sector classified to the high income but low growth quadrant is livestock sub-sectors where the average value of growth is lower than that of Aceh province by -11.94%, but the average value of per capita income is higher than Province Aceh is 14.61% and fisheries sub-sector where the average value of growth is lower than the province of Aceh that is equal to 65.62%, but the average value of per capita income is higher than the province of Aceh that is equal to 68.93%. Subsectors included in the high growth but low income quadrants are the forestry and logging sub-sectors where the average value of growth is higher than that of Aceh province at 403.14%, but the average per capita income is lower than that of Aceh at 0.51%, while the sub-sectors which falling into low growth and low income quadrants are food crops, horticultural crops, agricultural and hunting services, where the average value of growth and income per capita is lower than that of Aceh Province of -5.71% and 11.53%, and the plantation sub-sector where the average value of growth and income per capita is lower than that of Aceh Province of 99.34% and 4.43% each, For more details, the division of quadrants in the agricultural subsector in Lhoksemawe can be seen in table 5 below:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>y &lt; y</th>
<th>y &gt; y</th>
</tr>
</thead>
<tbody>
<tr>
<td>ri &gt; r</td>
<td>Quadrant III (Fast Growing) Forest Yang Logging Sub-Sector</td>
<td>Quadrant I (Fast-Forward and Fast-Growing) None</td>
</tr>
<tr>
<td>ri &lt; r</td>
<td>Quadrant IV (Relatively Underdeveloped) Food Crop, Horticultural Crop, Agricultural and Hunting Services Sub-Sector Plantation Sub-Sector</td>
<td>Quadrant II (Advanced but Under Pressure) Livestock Sub-Sector Fishery Sub-Sector</td>
</tr>
</tbody>
</table>

Source: Results of Processed Data, 2018.

Location Quotient analysis is used to determine which sectors or subsectors of the economy in GRDP can be classified into base sectors or subsectors and non-base sectors or sub-sectors. Location Quotient is a comparison of the magnitude of the role of a sector or subsector in Lhokseumawe to the magnitude of the role of the sector or subsector at Aceh Province. If the calculation results show more than 1 (LQ > 1), it means that the sub-sector is the base subsector and the role of sub-sector in Lhokseumawe is more prominent than the role of sub-sector in Aceh Province, in other words, the subsector is superior and potential subsector developed as a driving force for the region's economy. Otherwise, if the calculation results show less than 1 (LQ <1), it means that the sub-sector is non-base sub-sector and the role of sub-sector in Lhokseumawe is smaller than the sub-sector in Aceh Province, in other words, the sector is not a leading sector and less potential to be developed as a driver of the region's economy. The result of the calculation of Location Quotient of Lhokseumawe for the last 15 years (2002-2016) is shown in table 6 below:

<table>
<thead>
<tr>
<th>No</th>
<th>Sub-Sector</th>
<th>Average LQ Value (2002 - 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Food Crop, Horticultural Crop, Agricultural and Hunting Services</td>
<td>0.38</td>
</tr>
<tr>
<td>2.</td>
<td>Plantation</td>
<td>0.17</td>
</tr>
<tr>
<td>3.</td>
<td>Livestock</td>
<td>1.18</td>
</tr>
<tr>
<td>4.</td>
<td>Forestry and Logging</td>
<td>0.07</td>
</tr>
<tr>
<td>5.</td>
<td>Fishery</td>
<td>3.59</td>
</tr>
</tbody>
</table>

Source: Results of Processed Data, 2018.

Based on the calculation of Location Quotient in the table above, Lhokseumawe for the last 15 years has on average two base sub-sectors when viewed from the average index of Location Quotient greater than 1 (LQ> 1), which is fishery sub-sector with LQ index an average of 3.59 where this subsector is the base subsector with the largest average index.
And the livestock sub-sector is the second largest sub-sector with an average LQ index of 1.18. This indicates that both sub-sectors have good economic strength and have an influence on increasing economic growth of Lhokseumawe, and both sub-sectors have been able to fulfill consumption needs in the area. Arsyad (2010) states that the base sector needs to be prioritized to be developed in order to refer to regional economic growth.

Meanwhile, there were 3 sub-sectors included in the non-base subsector during the period 2002-2016 where the average index of Location Quotient showed less than 1 (LQ <1), i.e. food crops, horticultural crops, agricultural and hunting services with LQ index of 0.38, plantation subsector with an average LQ index of 0.17 and forestry and logging subsectors with an average LQ index of 0.07. The production of these three sub-sectors still have not been able to meet the consumption needs in Lhokseumawe so that it must import from outside the region.

CONCLUSION

The result of Shift Share analysis, on the national growth of all agricultural sub-sectors in Lhokseumawe is positive and influenced by agricultural economy in Aceh. In the industry mix, the result of agricultural sub-sector development is still slower than other economic sectors in Lhokseumawe. On competitive advantage is dominated by negative values where the agricultural sub-sector is not sufficiently competitive with other districts / cities in Aceh province. The sub-sectors that contribute substantially to Lhokseumawe's economy in the agricultural sector is the fisheries sub-sector.

The result of Klassen’s Typology analysis, the agricultural sub-sector in Lhokseumawe city is classified into three quadrant of Klassen’s Typology, as follows:

1. The subsector in quadrant 2 (advanced but under pressure sub-sector) including livestock sub-sector with average value of growth equal to -11.94% and average value of income per capita equal to 14.61%, and fishery sub-sector with value of growth average equal to 65, 62% and average per capita income of 68.93%.
2. The subsector in quadrant 3 (fast growing sub-sector) including forestry and logging subsector with average growth value 403.14% and average value of income per capita equal to 0.51%.
3. The subsector in quadrant 4 (relatively underdeveloped sub-sector) including food crops, horticulture, agriculture and hunting with average growth rate of -5.71% and average value of income per capita is 11.53% and plantation sub-sector with an average growth rate of 99.34% and an average per capita income of 4.43%.

The result of Location Quotient analysis, the base sub-sector (LQ> 1) in Lhokseumawe city is livestock sub-sector with average of 1.18 and fishery sub-sector with an average of 3.59. While the sub-sectors classified to the non-base sub-sector (LQ <1) are the food crops, horticultural crops, agricultural and hunting services with an average of 0.38, the plantation sub-sector with an average of 0.17 and the forestry and logging sub-sectors with average of 0.07.

REFERENCES

LIQUID SOAP CHARACTERISTIC WITH THE ADDITION OF FISH BONE COLLAGEN

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ABSTRACT
Doublewhip Threadfin Bream (Nemipterus nematophorus) fish is one of the low-cost economical sea fish that can be utilized which is expected to increase its selling value. The utilization of Doublewhip threadfin bream fish can be done with the waste management of the bones in order to have a selling value. Based on the research, other than its skin, bone is also one of the collagen producers in the body of a fish that can be used to increase the amount of collagen in the human body and slowing the aging process caused by damage skin cells that exposed to free radical. Fish bones are also an alternative to the mammals bones such as cows and pigs as collagen production materials that have been damaged by certain diseases. The method used in this research was laboratory experimental using Completely Randomized Design (RAL) design. This research aims to analyze the characteristics of fish bone collagen that is applied to the liquid soap, which is done by physic and high. Based on the result of the test, the stability of foam is 84.90%; viscosity 922.83; cPs; pH 10.77 and free alkali 0.031% which meets the requirements of liquid quality based on SNI 06-4085-1996 so it is safe to apply on human skin.

KEY WORDS
Collagen, fish bone, doublewhip threadfin bream, liquid soap.

Doublewhip Threadfin Bream (Nemipterus nematophorus) is a fish that is easily found in tropical waters, especially Indonesia. They are found in tropical waters of the Indian and western Pacific Oceans. Most species are benthic carnivores, preying on smaller fishes, cephalopods, crustaceans and polychaetes; however, a few species eat plankton. The fish with low-cost economical usually exported in the form of fillets, causing a buildup of waste fishbone. The national fish bones waste production in 2006 at Snapper fish species reach 14039.28 tons, 727.72 tons for Doublewhip Threadfin Bream and Mackerel reach 38133.35 tons [1]. The large number of fish bones when not used optimally, this will result in environmental pollution. Fish bones as a waste can still be fully utilized to increase the selling value. This utilization can be done by obtaining collagen from the bone as an additive in cosmetic products or other medicines. Collagen itself has a good function in the human body, especially on the skin.

Collagen has a wide range of applications in leather and film industries, pharmaceutical, cosmetic and biomedical materials and food. Generally pig, cow skins and bones are the main sources of collagen isolation. However, the outbreak of mad cow disease has resulted in anxiety among users of cattle gelatin. Additionally, the collagen obtained from pig bones cannot be used, due to religious constraints. As a consequence, increasing attention has been paid to alternative collagen sources, especially fish skin and bone from seafood processing wastes. About 30% of these wastes consist of skin and bone, which are very rich in collagen. However, fish collagens have lower thermal stability than mammalian collagens because fish collagens contain lower imino acid contents than mammalian collagens. So far, skin and bone collagen from several fish species have been isolated and characterised [2]. The collagen temperature heating is 45 °C to avoid collagen degradation to gelatine.
MATERIALS AND METHODS OF RESEARCH

The main material used in this research is the fish bone Kurisi as well as some basic ingredients of making liquid soap. This sample is obtained from the processing industry in Central Java. While the main equipment which is used i.e. digital thermometer (TP3001), a beaker glass (PYREX), hot plate stirrer (Cimarec 2), stainless steel pot, vortex mixer (BOECO), pH meter (SCHOTT), analytical scales (OHAUS).

Manufacture of fish bone collagen in this study i.e., fish bone wash, degreasing for 30 minutes, draining under 32-40°C, demineralization with 4% HCl with 1:6 ratio for 4 days, pH neutralization after forming ossein, 32-40°C drying for 2 days, and blended afterwards.

Myristic acid, lauric acid, and stearic acid, are heated in a heat-resistant container until all are melted (group A). KOH is dissolved with akuades in a separate container and then put into section A, stirring until a perfect lathering reaction. Then along with stirring, successively inserted Texapon, CAB-30, and EDTA 2 Na. Furthermore, the aquades is added to the above mixture little by little and stir until homogeneous. Thereafter, propylene glycol, glycerin, and KCl were added while stirring. Dye, perfume, and collagen is added after the temperature of the mixture is not too hot. Next add the pearl concentrate, mix well and store in a sealed container.

Quality Test of Liquid Soap Collagen:

- pH: The electrode has been cleaned up and then dipped into a soap sample, pH value is read on the pH meter after the numbers are stable and recorded. The pH test was performed with a digital pH meter (SCHOTT).
- Free Alcali: Prepare a neutral alcohol with 100 ml of ethanol, added with 0.5 ml phenolftalein and cooled until the temperature reach 70 ° C and then neutralize with 0.1 N KOH-ethanol. Add 5 ml of the sample to the neutral alcohol, and add the boiling stone. Then boil for 30 minutes. If the solution does not contain alkalis (not red colored), cooled until the temperature reach 70 °C and titration with 0.1 N KOH-etanol until the color stands for 15 seconds. However, if the solution is alkaline (colored red) then the examined is not fatty acid but free alkali titration using 0.1 N HCL-etanol until red color disappear.
- Foam Stability: Aquades and liquid soap with a ratio of 9:1 inserted into the test tube. Spin test tube for 5 minutes using the vortex mixer (BOECO). After the spin, the height of the foam present in the test tube is calculated (a cm). The test tube allowed to stand for one hour, then count the remaining foam height in a test tube (b cm). Calculate the percentage of foam stability.
- Viscosity: The measurement is done by using Brookfield LV with number 4 spindles viscometer. Viscosity is measured by stirring at a speed of 30 rpm with the correction factor of 200. The result are shown on the tool multiplied by the correction factor.

Data Analysis. The parametric test data obtained from the results of pH test, free alkali, foam stability, and viscosity of fish bone liquid soap collecting in this research, analyzed by Analysis of Variance (ANOVA), to determine the effect. The parametric test data were repeated three times each. If the results have been obtained that show the real difference, then continued with further test that is the test of Honestly Significant Difference. The follow-up test is used to determine which treatment is most significant in this research.

Similarly, the non parametric test obtained from hedonic test result of liquid soap fish bone collagen in this study, analyzed by Kruskal Wallis test using SPSS and conducted further Dunn's Multiple Comparison test. The follow-up test is used to determine which treatment is most significant in a study.

RESULTS AND DISCUSSION

Characteristics of liquid soap with different types of fish bone collagen treatments can be seen in Table 1.
Table 1 – The Results of Liquid Soap Characteristics

<table>
<thead>
<tr>
<th>Type of analysis</th>
<th>Collagen concentration (%)</th>
<th>St</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>Hedonics (n = 30)</td>
<td>TB</td>
<td>M</td>
</tr>
<tr>
<td>pH</td>
<td>10.11 ±0.19</td>
<td>10.77 ±0.06</td>
</tr>
<tr>
<td>Free alkaline (%)</td>
<td>0.03 ±0.001</td>
<td>0.031 ±0.001</td>
</tr>
<tr>
<td>Foam stability (%)</td>
<td>99.33 ±1.15</td>
<td>84.90 ±0.85</td>
</tr>
<tr>
<td>Viscosity (cPs)</td>
<td>852.33 ±0.28</td>
<td>922.83 ±1.2</td>
</tr>
</tbody>
</table>

Notes:
- TB (Threadfin Bream), M (Mackerel), S (Snapper), St (Standart);
- Data were the average of three repetitive treatments ± Standard Deviation;
- Data were compared to the use of Mackerel and Snapper fish collagen.

![Figure 1 – Control (a), Soap with Doublewhip Threadfin Bream Fish Bone Collagen (b)](image)

The lowest pH (10.77) was found in the addition of Threadfin Bream (Kurisi) fish bone collagen, meanwhile the addition of Mackerel fish collagen had the highest pH (10.94). The difference was influenced by pH level in fish bone collagen. The pH level of fish collagen is different because Mackerel bone is bigger and does not have many segments than Threadfin Bream and Snapper so it is easier to neutralize pH and leave no acid solution. The higher pH level of collagen makes the pH level of soap becomes more alkaline. The use of strong alkaline chemical such as KOH can increase soap’s pH level. The making of collagen liquid soap in this study is in accordance with the quality standard [3]. It states that the ideal acid value of liquid soap ranges from 6 to 11.

The result of ANOVA test showed that the different types of fish bone collagen treatments had a significant effect on collagen liquid soap, because $F_{value} (34.34) > F_{table} (0.05) (4.06)$. It proves that the different types of fish bone collagen in the making of collagen soap had a significant effect on the pH level.

Based on the table above, it can be seen that the lowest free alkaline was liquid soap without collagen addition (0.030%). Then, the highest free alkaline was Mackerel bone collagen liquid soap (0.070%). It showed that free alkaline level was directly proportional to pH level. The higher is the pH level, the higher is the free alkaline level. The stirring of liquid soap decreases alkaline level. It is because KOH reacts more perfectly and is bound to acids produced by coconut oil. A solution of 10–7 mol/liter (10–7 grams/liter) of proton is a neutral solution; meanwhile more than 10-7 is an alkaline solution (base). Therefore, the higher is the pH level, the higher is the alkaline level [4]. According to the National Standardization Agency (1996), the maximum free alkaline level of liquid soap is 0.1%.

The result of ANOVA test showed that the different types of fish bone collagen treatments had a significant effect on collagen liquid soap, because $F_{value} (258.08) > F_{table} (0.05) (4.06)$. It indicates that the different types of fish bone collagen in the making of collagen liquid soap had a significant effect on the free alkaline level.

It is known that Threadfin Bream bone collagen liquid soap had the highest foam stability value of 84.90%. Meanwhile, Mackerel bone collagen liquid soap showed the lowest result of 66.45%. The higher is the foam stability value, the higher is the foam quality produced by the liquid soap. Foam stability is highly influenced by particle size. The more
and bigger is the particle size, the lower is the foam stability. The foam percentage above (70%) can be categorized as good because it can still keep the bubbles from breaking.

The result of ANOVA test showed that the different types of fish bone collagen treatments had a significant effect on collagen liquid soap, because F_{value} (518.84) > F_{table} (0.05) (4.06). It proves that the different types of fish bone collagen in the making of collagen liquid soap had a significant effect on the foam stability value.

The highest viscosity value was found in liquid soap with the addition of Mackerel bone collagen (962.33 cPs); meanwhile the lowest was found in liquid soap with the addition of Threadfin Bream bone collagen (922.83 cPs). Viscosity can be lowered by the increased water/soap ratio because viscosity is influenced by the water content of soap. The less water content of soap increases the viscosity, and vice versa. The higher the protein content, the higher the viscosity value. This shows that the amino acid chain is getting longer.

The result of ANOVA test showed that the different types of fish bone collagen treatments had a significant effect on collagen liquid soap, because F_{value} (884.05) > F_{table} (0.05) (4.06). It indicates that the different types of fish bone collagen in the making of collagen liquid soap had a significant effect (p <0.05) on the viscosity value.

**CONCLUSION**

The stability of foam on Threadfin Bream collagen soap is better than Mackerel and Snapper. This is because the fish bone collagen has a smaller particle size, so it is more easily soluble and does not interfere with the formation of foam produced by soap. Threadfin Bream bone collagen have a lower viscosity level than Mackerel bone collagen because the protein structure of mackerel fish is longer. The viscosity and free alkaline of Threadfin Bream bone collagen liquid soap had a significant effect (p<0.05) to Mackerel and Snapper collagen liquid soap. Then, the tests on pH level and foam stability showed that Threadfin Bream bone collagen liquid soap had no significant effect (p>0.05) to Snapper collagen liquid soap, but it had a significant effect (p<0.05) to Mackerel collagen liquid soap. The hedonic value of liquid soap with the addition of Threadfin Bream bone collagen had a significant effect (p <0.05) to the liquid soap with the addition of Mackerel and Snapper bone collagen.

**REFERENCES**

They didn’t have it in their time...

...imagine what you could achieve with it now

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