REGIONAL INNOVATION SYSTEM IN RURAL AREAS AND THE ROLE OF SMES AS COUNTERMEASURE FOR POVERTY: A CASE IN EAST JAVA, INDONESIA

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ABSTRACT
This study discusses the Regional Innovation System by identifying the policies that benefit the roles of SMEs in counter-measuring poverty in the region as well as the factors that are influencing the change pattern of policies for the roles of SMEs towards poverty alleviation. A qualitative method was used in the research by drawing cases from five different rural areas in East Java Province, Indonesia. The study concludes that Regional Innovation System as a joint regulation is still considered foreign by local governments. However, the study indicates a presence of different actors involved in synergizing the implementation of several MSMEs empowerment programs. Furthermore, four factors that influence the change pattern of policies for the roles of SMEs towards poverty alleviation were identified; however, RIS as a countermeasure for poverty has yet shown to be executed in a consistent, systematic and neat fashion. Recommendations from this study are that the needs for improvement in communication networks and distribution of equal information for each level of government agency are essential and so are the needs for improvement of the policies’ evaluation system.

KEY WORDS
Regional innovation system, SMEs, poverty alleviation, policy.

In the case of developing countries, the level of innovation is not as broad as other nations. Despite the globalization economy today, new radical innovations in terms of products or processes are yet scarce to be found. Radical innovation in new products or processes is considered valuable, although the concepts of incremental changes in products, processes and also management tools are imperative and apply to all regions (Lagendijk, 2000; Lundvall and Borrás, 1999; Maskell et al., 1998). However, to conclude that innovation activities for competitiveness are the same in all types of regions will be evasive (Todling & Trippl, 2005). A very important implication for policy makers is that there is no ‘one fit for all practice’ innovation policy approach which can be implemented to every type of region (see also Cooke et al., 2000; Isaksen, 2001; Nauwelaers and Wintjes, 2003; Todling & Trippl, 2005). Nevertheless, actions for more differentiated innovation policies are required and managing with specific innovation barriers for different types of regions is essential. The regional innovation system (RIS) approach (Audretsch & Braczyk et al., 1998; Cooke et al., 2000) provides a useful framework for such a differentiated approach. It draws attention to the firms, clusters and institutions of an innovation system to the interdependencies within the region and with higher spatial levels.

Undoubtedly, SMEs have risen to prominence, and this further support (Audretsch & Thunig, 2001) refers to a “fundamental shift from a managed economy to an entrepreneurial economy.” Indonesia is also well-known for its SMEs resilience. According to Nasbit (1994), SMEs now constitute a dominant sector in the world economy, accounting for over 95% and up to 99% of the business population. In 2003, 99.8% of enterprises in the enlarged EU were SMEs. Companies in this category are bringing with them the entrepreneurial qualities of innovation, while risk-taking and pro-activeness have now gained worldwide recognition as a key source of dynamism and flexibility not just in advanced industrialized countries but also in emerging and developing economies. The SME sector has contributed significantly in terms of net job creation in OECD countries, consequently generating the important inputs

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towards innovation, productivity and economic growth. The contribution of SMEs in the globalizing economy is definitely a key actor (e.g. Akhtar; CDASED, 1999; Mazzarol, et.al, 1999). SMEs are also known as strategic for the economy of many nations especially in the context of poverty alleviation (Indarti & Langenberg, 2004).

Due to globalization, SMEs are now battered from competitions especially from large and modern companies. Many SMEs in Indonesia are defenseless by operating with traditional management. According to many scholars, the problem with SMEs in many developing countries is their inability to network, which prevents access to markets, information, financial and other institutional supports (Mead & Liedholm, 1998; Swierczek & Ha, 2003). Furthermore, the Indonesian SMEs encounter the lack of capital, skills, as well as the ability for business development (Kementerian KUKM & BPS, 2004). SMEs in Indonesia are commonly found developing in clusters. SMEs clusters are established in all provinces in Indonesia and moreover located in rural areas. SMEs in rural areas are considered naturally part of the traditional activities of local communities by producing specific products that have been long existing. Nonetheless, these clustered SMEs are still managed traditionally, despite the abundance of local raw materials and having specialized skilled workers as a comparative advantage they have as the potential for growth (Tambunan, 2005). Further, many cases of cluster development policies in Indonesia have not been successful. Most of these failures come from the non-existence of the understanding of the key success factors in developing a successful cluster or how to govern it correctly. Neglecting the potential market linkage of SMEs cluster is one common failure. While policy makers are too centralized and policies are carried out using a standardized approach, this system is ignoring the specific diagnostic problems of SMEs. Based on that notion, the role of the local government here is essential. The potential of SMEs in East Java should be developed in order to support poverty alleviation. Although the poverty rate in East Java has always declined, the number of the poor remains high. This study aims to investigate the progress of SMEs and to find a solution for solving its problems through the lens of its competitiveness and social cohesion of countries, regions or other communities. This cohesion will be viewed through the development of its ‘innovation system’. The dynamics of the innovation system indicates how a nation is mastering, utilizing and developing knowledge, innovating and diffusing innovation, and proceeding in learning and adapting to various changes. Therefore, this paper will address several questions as followings: 1) What policies benefit the roles of SMEs in counter-measuring poverty in the region? 2) What factors influence the change pattern of policy for SMEs that is oriented towards poverty alleviation? All cases are drawn from a case study of several regions in East Java Province, Indonesia.

**LITERATURE REVIEW**

Regional Innovation System. As a framework for explaining regional economic development, the Regional Innovation System (RIS) belongs to an explicitly spatial approach to the issue of innovation and technological change (Cooke et al., 1998; De la Mothe & Paquet, 1998; Fischer, 2001; Doloreux, 2002a). It blends elements of evolutionary economics (Nelson & Winter, 1982; Cooke et al., 1998), institutions’ economics (Nelson, 1993), interactive learning (Lundvall, 1992), social theories (Grabher, 1993), and economic geography (Storper, 1997). RIS comprises a set of interacting private and public firms, institutions and other organizations functioning according to organizational and institutional arrangements and relationships conducive to the generation, use and dissemination of knowledge. Similarly, Cooke et al. (1998: 1581) suggest that RIS pertains to a system “in which firms and other organizations are systemically engaged in interactive learning through an institutional milieu characterized by embeddedness”. Asheim and Isaksen (1997: 305) view RIS as the result of ‘a production structure (techno-economic structures) and institutional infrastructures (political-institutional structures)’. As summarized by Landabaso et. al (2001: 250): “The regional innovation system in these regions does not have either the necessary interfaces and co-operation mechanisms for the supply-demand matching to happen, or the appropriate conditions for the exploitation of synergies and co-operation
among the scarce regional R&D actors that could eventually fill the gaps and avoid duplications”.

The Concept of SMEs and MSMEs. According to Smallbone, et. al (1995), in small firms, where ownership and management were typically combined in one or more individuals, future goals for the business might be determined as much by personal lifestyle and family factors as by commercial considerations. Further, one characteristic which did distinguish the best performing firms from other firms was their commitment to growth. Also, they found another characteristic that distinguished high growth firms from others was their inclination to acquire other businesses. Kristiansen, et. al (2003) found that the length of time in operation was significantly linked to business success. The size of enterprise reflects how large an enterprise in employment terms is. McMahon (2001) found that enterprise size significantly linked to better business performance. Larger enterprises were found to have a higher level of success. In a study in Australia, McMahon (2001) discovered that greater dependence upon external finance is associated with better business growth. In a more recent study, in Indonesia, Kristiansen, et. al. (2003) found that financial flexibility was significantly correlated to business success. The SMEs that took advantage of family and third-party investment experienced higher level of success. Indonesian Micro, Small and Medium Enterprises (MSMEs) can be individual companies, partnerships, such as firms and as well as limited liability companies. Currently, there are 41,301,263 small and medium enterprises (SMEs) and among them 361,052 are medium enterprises. Further, the sum of these businesses is known as Small and Medium Enterprises (SMEs) contributed to 99.9% of the total number of businesses in Indonesia. SMEs are engaged in various economic sectors such as agriculture, fisheries, livestock, industry, trade and services. SMEs can also be classified into several stages in their lifecycle startups, growth and mature business (Hubeis, 2011).

Poverty Alleviation & The Reduction Policy. Sulistiyani (2004: 7) suggests that the concept of poverty is multidimensional, therefore the worldview that is used to solve the problem of poverty should also cover some aspects of poverty. Poverty is not only about welfare, but also concerns about vulnerability, powerlessness, closed access to employment opportunities, spending most of the income on consumption, high dependency rates, low access to markets and poverty reflected in a culture of poverty inherited from one generation to the next. On the other hand, Quibria, (1993: 7) suggests that poverty is more emphasized as a poor individual condition that distinguishes it from others who are not poor. In other words, poverty is used as a way to classify that an individual is said to be poor if he or she does not have the ability to meet his or her normal needs. Bakhit et al. (2001: 4) states that poverty is a very complex issue. Poverty can be viewed from a mechanical angle as a low-income level. However, in a subsistence economy, income levels alone cannot become a valid measure of poverty. Further, poverty can also be seen as deprivation in the sense of poor access to resources or because of an increasingly ugly or damaged nature, and an inability to meet basic needs. Furthermore, poverty can be seen from a mental or cultural perspective, eg. as a feeling of isolation, loss of direction, despair, apathy and a passive attitude towards suffering. All these are the stages of the same phenomenon commonly called poverty in the sense of ‘unable to live by human dignity’ or absolute poverty in the sense of not being able to simply survive. Poverty is also characterized by low levels of participation in decision-making processes and in civil, social and cultural life. Moreover, Srinivasan in Quibria (1993: 111) argues about the concept of poverty as ‘if one person is deemed poor, if he or she is exposed to his assets’. While De Wit (1996: 35), who is interested in conducting research on urban poverty in India, mentioned that a substantial reduction in poverty can be achieved if there is a determined effort at a significant redistribution of income and consumption in favor of the poor sections of the population. Isdjoyo (2010) in Maipita (2014) distinguishes the causes of poverty in rural and urban areas. Rural poverty is mainly caused by the following factors: 1) Powerlessness, this condition is caused by the lack of jobs, low prices for products produced, and the high cost education; 2) Isolation, i.e. the lack of education, lack of skills, lack of transportation, lack of access to credit that make them isolated and destitute; 3) Material poverty, this condition is caused by lack of capital and lack of agricultural land ownership. These causes their income to be
relatively low; 4) Vulnerability, the difficulty of getting jobs, seasonal jobs, and natural disasters, making them vulnerable and poor; 5) Attitude, accepting current condition and are less motivated to work hard, which makes them become poor. Sharp, et.al. in Kuncoro (2000) argued that to identify the causes of poverty can be seen from an economic standpoint. Firstly, at a micro lens, poverty arises because of the inequality of resource ownership patterns which lead to an unequal distribution of income. Poor people only have a limited number of resources and low quality. Secondly, poverty arises from differences in the quality of human resources.

According to the Presidential Regulation no. 15 of 2010 on the Acceleration of Poverty Reduction, it is stated that the policy direction of national poverty reduction is guided by the Long Term Development Plan of the Region, and the poverty reduction strategy is carried out by: 1) Reducing the burden of spending on the poor; 2) Improving the ability and income of the poor; 3) Developing and ensuring the sustainability of micro and small enterprises; and 4) Synergizing poverty reduction policies and programs. The acceleration of poverty reduction program in Indonesia consists of: 1) Integrated family-based assistance program groups, aimed at fulfilling basic rights, reducing the burden of life, and improving the quality of life of the poor; 2) Community-based poverty reduction program group, aimed at developing the potential and strengthening the capacity of poor communities to engage in development based on the principles of community empowerment; 3) Poverty reduction program groups based on empowerment of micro and small business enterprises, aimed at providing economic access and strengthening for micro and small scale business actors; 4) Other programs that either directly or indirectly can improve the economic activities and the welfare of the poor. The implementation of the poverty alleviation program nationally is coordinated by the Tim Koordinasi Penanggulangan Kemiskinan (Poverty Reduction Coordination Team), while the implementation in the region is coordinated by the Tim Koordinasi Penanggulangan Kemiskinan Daerah (Poverty Reduction Coordination Regional Team) at both the provincial and district/city levels.

METHODS OF RESEARCH

A qualitative research is used in this research by utilizing a case study approach. The method is suited to describe problems and phenomena recorded at the research location. The research design is tailored to the issues that has been raised. By using this research design, researcher will be able to capture vast information from different points of view. Qualitative research methods have become important in the social field studies and in the applications of such area as education and management (Marshall & Rossman, 1995). The data in this study are collected through the process of observation, in-depth interviews, and document review as well as from secondary data. Preliminary study was conducted before the field study to gather information from several sources to obtain elements as a focus which is then applied to the object of research. Five locations were chosen for the case study in East Java Province: Bangkalan District, Nganjuk District, Tulungagung District, Probolinggo District, and Malang District. A nine-steps process for analyzing qualitative data (McNabb, 2010:290) was used in analyzing the data.

RESULTS AND DISCUSSION

The Identification of policies that benefit the roles of SMEs in counter measuring poverty in the region. The welfare of the Indonesian people is embodied in the constitution of UUD 1945, which is the ultimate goal of the nation; however, the achievement of it, up until today, is far from success. The problem of poverty in many countries cannot be resolved instantly, especially in developing countries like Indonesia. Various programs have been initiated by the Indonesian government as an effort to alleviate poverty. The government had deployed several programs called ‘the pro-people programs’ such as Credit for People’s Businesses (also known as Kredit Usaha Rakyat (KUR)), The National Program for Independent Community Empowerment (PNPM-Mandiri), various subsidies, School
Operational Aid (BOS), Rice for the Poor (also known as Beras Miskin (Raskin)), and other various programs. The Central Bureau of Statistics (BPS) recorded that the number of poor people as of September 2013 reached 28.55 million people, which increased by 480 thousand people compared to the numbers recorded in March 2013. The cause of increase in the numbers of the poor is due to the high inflation rate, resulting from the fuel price hike in 2013 which led to the rise of the national price of rice. However, of March 2014 BPS stated a decrease in the number of poor people to 28.28 million people, a reduction estimated about 0.27 million people. Several commodities that are very influential to the poverty line are: rice, cigarette, eggs chicken, meat, sugar, and instant noodles.

The problem of poverty cannot be resolved by a single actor only; on the contrary, it must come from various actors working side by side within their functions and synergizing with one another. The concept of 'Innovation Systems' according to Gregersen and Johnson (1996) suggests that innovation system is based on an interactive innovation model. A key feature in this concept is that economic (regional or national) ability to generate innovation depends not only on how individual actors (i.e. companies, universities, organizations, research institutions, government agencies etc.) act, but rather on how they interact as a part of a system. The Ministry of Research and Technology with The Ministry of Home Affairs issued a joint regulation number 3 of 2012 and number 36 of 2012 on strengthening the Regional Innovation System called the ‘SIDa’. This joint regulation was established in order to improve the capacity of local government, regional competitiveness, and the implementation of The Acceleration and Expansion of Indonesia's Economic Development Masterplan 2011-2025. Further, recently the government of Indonesia has put a lot of attention on the development of Micro, Small, and Medium Enterprises (MSMEs). The development of local economy through MSMEs is believed to be a solution in alleviating unemployment problems which then contribute to the reduction of poverty. The implementation of Regional Innovation System is directed to the development of SMEs hoping to become a stepping stone for improvement in the economy and to create welfare of the Indonesian people. The nation’s leading sector responsible for SMEs is signed by the Ministry of Cooperatives and SMEs. Various programs such as PNPM-Mandiri and SCORE Program are established as a concrete form of the government's attention and support towards MSMEs.

The Provincial Government’s policy on MSMEs is a descendent policy from the Ministry of Cooperatives and SMEs. The policies for MSME’s at the provincial level are innovated to suit its own unique regional condition. As for the city/ district level, the policy is also adjusted by each local government and suited to its conditions. One of the program initiated by the East Java Provincial Government considered to be successful is the Clinical Business Consultancy Program. The Business Consultancy Clinic Program aims to provide a tangible role in providing business development services for MSMEs entrepreneurs with the help from various experts in a particular business field. The initiative goal was to help facilitate the development of MSMEs in East Java Province. This initiative was created for free by the Government of East Java Province as an effort to help MSMEs. Until this study was conducted, the program has grown to a total of 12 different type of services for MSMEs, such as the followings: 1) Business Consulting; 2) Business Information; 3) Advocacy; 4) Short Courses; 5) Assistance; 6) Access and Marketing Financing; 7) Entrepreneurship Library; 8) Mobile Clinic; 9) IT-Entrepreneur Service; 10) TV-UKM Online; 11) Intellectual Property; and 12) Taxes.

However, not all programs are successful. The East Java Province Government seemed to fail to deploy its low interest credit loan for MSME’s through its regional Bank, Bank of Jatim. The evidence shown from the study is that MSMEs are preferring much higher rate of interest loans from other private banks due to the easiness of disbursement and administration process even though the interest of credit loans offered to the MSMEs can be much higher (up to 15%) compared to the government loan scheme (up to 6%). MSMEs communities are ignoring the program even though the Cooperatives and MSEM's Government Agency (Dinas Koperasi dan UMKM) of several districts have helped in the socialization of the program. Furthermore, referring to the Joint Regulation of Ministry of
Home Affairs and Ministry of Research and Technology No. 36 of 2012 and No. 3 of 2012 from the five districts observed in the study, only Malang District had progressed by applying the concept of Regional Innovation System (SiDa). The Regional Innovation System in Malang District is shown by the issuance decree from the Mayor of Malang No 180/128/KEP/421/013/2013 in establishing a Coordinating Team for Strengthening Innovation System of Malang District. However, other districts such as Bangkalan and Tulungagung are found to be unaware of such related regulations.

Factors that affect the patterns of micro-sector-oriented policy changes on poverty alleviation. Based on the study, the direction of MSME policy in each observed region generally focuses on improving the quality of MSMEs through several strategies such as accessibility to market, improvement in the business ecosystem and reactivation of the roles of the cooperatives. All of these improvements are in line with the business development and policy directed towards strengthening the ‘people’s economy’ by increasing the competence and competitiveness of Cooperatives and MSMEs. The form of improvement commitment can be seen in the Regional Medium-Term Development Plan. Several targets are set into the Regional Medium-Term Development Plan, and each district compromises an addition for MSMEs growth, especially in increasing the number of new entrepreneurs. Further, some districts have set initiative targets creating as many as one thousand new entrepreneurs a year.

The policies that have been implemented by the local government through its program and activities in relation to poverty eradication through MSMEs are in accordance with the strategy of accelerating poverty reduction that is constituted in Presidential Decree no. 15 of 2010. The strategies that have been practiced by the government in accelerating poverty reduction have focused on developing and ensuring the sustainability of MSMEs and synergizing poverty reduction policies through MSMEs. In addition, the factors that can lead to changes in policy patterns for poverty alleviation based on MSMEs are as follows: 1) The presence of the desire of local governments in improving the quality of MSMEs and increasing the quantity of new entrepreneurs in the region; 2) The increase of the opportunity of MSMEs to be well-developed in order to create positive impacts on the economy of the region; 3) MSMEs as a sector of great interest to the society, attracting the middle and low class income because it creates employment with minimum education requirements but is able to generate a steady income; 4) The growth of MSMEs that demonstrates that MSMEs can provide employment opportunities for all level in the community of the region, which provides benefits to employment assimilation and by which decreases the poverty level.

From these factors, each and every relevant actor should be aligned in the coordination and work in accordance with its established functions and provisions. Coordination becomes a key and important element, whereas policies will be acceptable and rightly targeted if supported by a systematic coordination system involving all actors. Only by a well systematic coordination system then the efforts to eradicate poverty based on MSMEs in the region will be successful. The actors involved in a poverty alleviation policy based on MSMEs are government agency, private sector, business actor and communities. Several local government functions also participate in the synergy efforts of poverty alleviation policies based on MSMEs; these functions are: Bappeda, Balitbang, Disperindag, Bappenas, Dinso, and UMKM.

CONCLUSION AND RECOMMENDATIONS

The Regional Innovation System in Rural East Java Province as a joint regulation is still considered foreign by local governments. Nevertheless, the different policies in each region, the drivers of such innovation system, are not from a single actor. The presence of many actors involved in synergizing the accordance with its own respective duties and function is shown as a positive sign. Four factors that influence the change pattern of policies of the roles of SMEs towards poverty alleviation as identified in the study are as the
followings: 1) The presence of the desire of the local governments in improving the quality of MSMEs and increasing the quantity of new entrepreneurs in the region; 2) The increase of the opportunity of MSMEs to be well-developed in order to create positive impacts on the economy of the region; 3) MSMEs as a sector of great interest to the society, attracting the middle and low class income because it creates employment with minimum education requirements but able to generate a steady income; 4) The growth of MSMEs that demonstrate that MSMEs can provide employment opportunities for all levels in the community of the region, which provide benefits to employment assimilation and by which decreases the poverty level. In addition, RIS as a countermeasure for poverty has not shown to be consistently executed systematically and neatly across the region. Despite all of that, the local governments must still immediately establish a system to strengthen the development of MSMEs towards poverty alleviation.

Several recommendations are concluded from this study: 1) The needs for improvement in communications networks and distribution of equal information for each level of government agency is essential; and 2) The need for improvement of the policy’s evaluation system in order to see which program are run successfully and for those that are not must easily be identified and evaluated.

REFERENCES