The Impact of the Government of SME Competitiveness in Malang City

Sunaryo
Faculty of Economics and Business
Universitas Brawijaya
Malang, Indonesia
sunaryonadi@ub.ac.id

Abstract—This study aims to analyze the impact of government on the effect of the development of innovation on competitiveness in Small and Medium Enterprises (SMEs) in Malang. The study was conducted on food SMEs in the Greater Malang area. All SMEs registered at the Cooperative Service Office were sampled and taken as many as 100 SMEs. The research approach is quantitative, data are collected using questionnaires and data obtained are analyzed using WarpPLS.

The results prove that the development of innovation has a significant influence in increasing the competitiveness of food SMEs. Improving the competitiveness of SMEs is followed by increasing the competence of workers and maintaining the innovations that have been achieved to strengthen the market base. Government support in this research has not strengthened the relationship between innovation development and the competitiveness of food UKM. Government support through credit facilities, business licensing, promotion, marketing, and training has been carried out by the government but has not had a broad impact in strengthening the relationship of innovation development and competitiveness of food SMEs.

Keywords—innovation development, food UKM, the role of government, competitiveness

I. BACKGROUND

SMEs have an important role in supporting the Indonesian economy, even becoming the backbone of the national economy mainly because it absorbs two-thirds of the workforce (Ministry of Trade, 2014). While the contribution of SMEs to the Gross Domestic Product (GDP) is quite high at 26.15%, as well as the growth of SMEs at 9.13%. But the contribution of SMEs to non-oil exports is still small (12.77%) even negative export growth (Kemenkop UKM). The low contribution of SMEs to non-oil exports indicates the competitiveness of SMEs is still low and there are many contributing factors.

The low competitiveness of SMEs is caused by three important factors, namely (1) low innovation from entrepreneurs, (2) the role of the government that is less than optimal, and (3) the existence of creative destruction that can come from entrepreneurs or from the business environment, especially competition between companies in the industry (Kushadiani, 2006; Tambunan, 2008; USAID, 2013; and ERIA SME Research Working Group, 2014). However, research relating to the competitiveness of SMEs is still limited (for example, conducted by Kock et al., 2010 and Munir et al., 2011). Data from the Global Competitiveness Report (2013) shows that Indonesia's innovation ability is ranked 33 out of 148 countries analyzed. Innovation is one of the 12 pillars that determine competitiveness so that low innovation will have a negative impact on competitiveness. In the ASEAN region, Indonesia's competitiveness is below Singapore, Malaysia, Brunei Darussalam and Thailand.

According to the analysis of the National Innovation Committee (KIN, 2012), several facts show that at present, economic growth and technological progress in Indonesia have not put forward the role and function of innovation. First, the value of Indonesia's innovation factor was only 3.6% in 2012. Second, Indonesia ranks 108th in the world in the knowledge-based economic index ranking. Third, innovation has not become a major part of economic growth. In addition, research results show a positive relationship between types of innovation with business performance and company competitiveness (Garcia and Calantone, 2002; Chen et al., 2006; Cho et al., 2008). Thus the ability to develop and launch innovative new products to market faster than competitors is the key to gaining a competitive advantage (Allocca and Kessler, 2006). However, other research did not find the innovation to provide economic benefits and the innovation would be of economic value if the innovation made it into the market (Susman, 2007).

Based on the above phenomena and research gaps, this study lays down the Government's role factor to encourage increased SME competitiveness. The development of innovation and competitiveness of SMEs cannot be separated from the role of government, as the results of research by Xie (2012) found that government policies significantly influence the performance of SME innovation in China. In South Korea, research conducted by Kang and Park (2012) found that the Government's role both directly and indirectly influenced SME innovation. In addition, research conducted by Najib et al. (2011) found that SMEs in Indonesia included in the cluster had higher competitiveness than those not included in the cluster. This finding shows that the SME cluster conducted by the Government has a positive impact on the competitiveness of SMEs. Therefore, the purpose of this study is to analyze the direct and indirect effects, by looking at the impact of the Government as a moderator on the relationship between innovation and the competitiveness of SMEs in Malang.

II. LITERATURE REVIEW

This section presents a brief overview of the conceptual foundations of the study and a theoretical study outlining the constructs used in empirical studies and the relationships between proposed variables in the form of a conceptual framework of the research model.
A. Competitiveness Theory

The theory of competitiveness actually starts from the theory of Mercantilism in the 16th century, then followed by many economic models, including Adam Smith's Absolute Exellence Theory, Comparative Advantage from David Ricardo, Theory of Proportion of Use of Production Factors from Heckscher and Ohlin or abbreviated HO theory (Cho and Moon, 2002).

Porter conducted a four-year study of ten main countries in trade and 100 industries with the aim of investigating why a country gained a competitive advantage in a particular industry and its implications for corporate strategy and the national economy. Porter concluded that there were four determinants of competitiveness, namely (1) factor conditions, (2) demand conditions, (3) related industries and supporting industries, and (4) corporate strategy, structure, and competition. The four success factors for competitiveness are a system, known as the Diamond Porter Model (Porter, 1985). The Porter model extended above is also still limited to developed countries and is not suitable for developing countries. For this reason, Cho and Moon (1998) develop a model that emphasizes human factors and different types of physical factors in explaining the competitiveness of a country that is expected to apply to developing countries. Human factors include workers, politicians / bureaucrats, entrepreneurs, and professionals. Physical factors include resources that are gifts, domestic demand, related and supporting industries, and the business environment and opportunities as external factors.

Ambastha and Momaya (2012) state that productivity is often called a good indicator that represents a measure of a company's competitiveness in the long run. Porter (1990) defines competitiveness at the company level as productivity growth reflected by low costs or product differentiation that leads to premium prices. The highest productivity of the company, industry, or nation is said to be the most competitive (McKee and Sessions-Robinson, 1989). Likewise Schwab (2013) in the Global Competitiveness Report 2013-2014 defines sustainable competitiveness as "a set of institutions, policies and factors that make a nation remain productive in the long run while ensuring social sustainability and environmental sustainability".

B. Innovation Theory

Innovation is defined by Schumpeter as new or updated products, production techniques, organizational structure, new market discoveries, and new input factors of production (Forsman and Temel, 2011). Greenacre et al. (2012) states that innovation theory is not rooted in a particular school of thought, but is derived from a variety of academic disciplines and research. One of the disciplines that can be used to explain innovation is economics and society which are the basis of entrepreneurship, as expressed by Drucker (1985). Innovation is also seen as a method for producing something. Therefore, innovation is defined as a new way to apply existing science and technology into a product or production process (Law Number 18 of 2002).

Barney (2001) reviews the theoretical framework he proposes, comparing his theoretical framework (RBV) with Structure-Conduct-Performance (SCP-based theory). The theoretical framework of the RBV received support from Crook et al. (2008) and have been used extensively in the fields of management and marketing (Kozlenkova et al., 2014). In contrast, the theoretical framework of the RBV gets criticism from Priem and Butler (2001) and Akio (2005). Priem and Butler's (2001) criticism of the RBV is related to seven things. First, taotologically Barney's explanation of resources and competitiveness is like a circle so that it is not operationally valid. That Barney defines competitiveness as a value creation strategy based on resources, characterized by something valuable. Second, Barney's perspective is not a company theory because it does not meet the conditions for generalizing empirical content. Third, the shape or composition of different resources can produce the same value for the company and thus does not become a competitive advantage. Fourth, the role of the product market is not developed in Barney's argument. Fifth, the limited focus of discussion on capabilities. Sixth, a causal relationship, such as the relationship of a company's success with typical resources, is not thoroughly discussed. Seventh, RBV has limited prescriptive implications.

While Akio (2005) criticizes the RBV in three ways. First, from a static point of view, the concept of valuable and rare resources does not meet the conditions for gaining competitive advantage. Akio argues that (a) the investment needs to develop resources and the demand side characteristics that should evaluate these resources are outside the RBV analysis framework; (b) after paying for all factors of production, no competitive advantage is left for the company regardless of whether the company has scarce or no resources. All rare resources should be valuable to their owners. Conversely, from a dynamic perspective, there is a possibility of competitive advantage sourced from imperfect factor markets within the RBV framework. Different companies and owners of different factors of production will have different expectations about the value that will come from these resources, thereby creating market imperfections. Therefore, different perceptions about resources will produce competitive advantage. This indicates that the ability of entrepreneurs lies in finding ways to create real economic value with their resources in ways that no one else does.

Second, Akio's criticism of the RBV is about the relationship between resources, capabilities, and entrepreneurial abilities. According to Akio, the main source of competitive advantage does not only depend on the heterogeneity of resources and capabilities, but also on the perception of entrepreneur heterogeneity. Entrepreneurial capabilities enable capabilities to be carried out in line with the entrepreneur's vision or strategy, capabilities allow resources to be used, and opportunities to increase output. With such a relationship, it can be concluded that the objective of the company's strategy is the function of a company to obtain entrepreneurial rent utilizing factor market imbalances through company-specific capabilities and resources and resources directed by entrepreneurial abilities.

Third, Akio suggests two ways to create entrepreneurial rent, namely entrepreneurial authority (entrepreneurial arbitrage) and entrepreneurial innovation. Entrepreneurial innovation is an innovation to realize a future value system through a combination of new resources at the moment, while arbitrage only takes advantage of opportunities that are not used in the current market.

This theory begins with the assumption that company resources can be heterogeneous and immobile (heterogeneous and immobile). That not all companies have the potential to achieve sustainable competitive advantage. To have this
potential, resources must have four characteristics: (a) valuable / valuable, in the sense that these resources take advantage of opportunities and / or neutralize threats in the corporate environment; (b) rarely between current and potential competition; (c) cannot be fully replicated, and (d) can be utilized by the company's organizational processes. The nature of company resources can be considered as an indicator of heterogeneity and immovability of resources and the benefits of company resources in creating sustainable competitive advantage.

Research Markman et al. (2005) analyze the speed of innovation as a bound variable in the context of technology commercialization, the result is that acceptance of licenses and entrepreneurial activities is clearly different from the competitiveness of food SMEs. The concept of speed of innovation was also researched by Chen et al. (2012) as one of the independent variables that influences the success of new product development. But the object of research is the manufacturing industry in the United States. This study places the speed of innovation as an independent variable with the output of innovation, namely the competitiveness of food SMEs as the dependent variable.

Cho, Leem & Shin's (2008) research on the relationship between innovation and competitiveness and performance in the manufacturing industry in Korea. The manufacturing industry, although on a SME scale, has different characteristics from food SMEs. Najib, Kiminani & Yagi's (2011) research on the competitiveness of food processing Small and Medium Industries (IKM) in Indonesia but analyzed it from the location or cluster aspect. Likewise, the research of Baregheh et al. (2012) about innovation and food sector SMEs in the United Kingdom. In addition to different contexts, this latest study analyzes the level and type of innovation that supports the orientation of innovation or organizational innovation, not analyzing the speed of innovation. Thus, there is a research gap on the speed of innovation in food SMEs in developing countries such as Indonesia.

C. Government’s Role

The right role for the government in increasing the competitiveness of SMEs is as a catalyst in strengthening or encouraging companies to improve competitive performance (Porter, 1985). The same thing was also stated by Osborne and Gaebler (1992) that there are 10 principles that need to be done in transforming the practice of government administration with an entrepreneurial spirit. The first principle is "Catalytic Government: Steering rather than Rowing" (Catalyst Government: acts more as a controller than as an implementer). The role of the government is more as a facilitator than directly carrying out all operational activities. The role as a catalyst confirms the position of the government's role as a moderating effect of the speed of innovation development on the competitiveness of food SMEs.

The government plays an important role through various policies or programs in facilitating the development of SMEs (www.depkop.go.id). The Indonesian government's policies and strategies are carried out in the following ways: (1) developing SMEs to support significant contributions to economic growth, job creation, and increasing competitiveness as well as encouraging people to increase their incomes, especially those with low income; (2) strengthening institutions by applying the principles of good governance; (3) expanding and increasing the spirit of entrepreneurship to drive growth, increase exports, and create employment opportunities; (4) increasing collaboration between educated and skilled workforce through technology adoption; (5) developing SMEs to enhance their role in the process of industrialization, technology transfer and capacity building; (6) integrating business development in the context of regional development, in line with the character of entrepreneurs and business potential in each region; and (7) developing SMEs to play a role as providers of products (goods and services) to be more able to compete with imported products.

The government also has the role of accelerating innovation through collaboration with SMEs and universities. The results of the research by Zhang and Yin (2012) show that research collaboration between SMEs, universities, and the government has a positive impact on the speed of innovation in China. It was explained that the Chinese government offered a variety of policies and funds to SMEs, but scientists lacked sufficient attention to develop innovations for SMEs. Research results in China also found that government policies have a positive impact on innovation performance (Xie, 2012).

One measure of innovation is research and development (Research and Development, R&D) activities that can be carried out by companies or research institutions through government support. Korean government support through the provision of funds (funding) both directly and indirectly affects the innovation of SMEs through internal research stimulation of SMEs and research collaboration from upstream to downstream (Kang and Park, 2012). Doh and Kim (2014) also found a positive relationship between the support of technological development by the Korean Government with the acquisition of patents and the registration of new designs for SMEs. Specifically, Jiao et al. (2015) found that government ownership in a company positively moderated the relationship between the local legal environment and technological innovation. However, government ownership negatively moderates (weakens) the relationship between the local legal environment and management innovation. It was also found that government ownership negatively moderates the relationship between government effectiveness and management innovation.

Small and medium businesses face the conditions of a very dynamic and complex technological environment, which is shown among others by the shorter life cycle of a product. The results of the study of Cruz-Conzales et al. (2015) shows the dynamics of the technological environment negatively moderates the impact of expanding the search for external innovations on company performance. That is, the dynamics of the technological environment weaken the impact of the widespread search for external innovation on company performance. Conversely, the dynamics of the technological environment positively moderate or strengthen the impact of the depth of the search for external innovation on company performance. One indicator used by Cruz-Conzales et al. (2015) is the role of government. Thus it can be said that if the government intensively or deeply conducts empowerment policies and programs to improve SME innovation, it will improve the performance and competitiveness of SMEs.
Based on the problems and description above, it can be concluded that government support is a moderation between the speed of innovation development and the competitiveness of companies. Overall, the relationship between the speed of innovation development with competitiveness and government support as moderation in food SMEs can be illustrated as in Figure 1.

**Figure 1: Research Conceptual Framework Model**

### III. RESEARCH METHODS

The population in this study were all food SMEs registered at the Office of Cooperatives and SMEs in the Greater Malang area, namely Malang City, Malang Regency, and Batu City. Limitation of UKM refers to the Central Statistics Agency (BPS) and Law Number 20 Year 2008 concerning Micro, Small and Medium Enterprises, namely "Small Business is a business with a workforce of 5-19 people and Medium Business with a workforce of 20-99 people".

Samples in this study were taken as many as 161 respondents based on data from the Office of Cooperatives and SMEs in the Greater Malang area, the number of registered SMEs were 533 units and those included as food SMEs were only 171 business units, consisting of 149 small businesses and 12 medium businesses. Therefore, all 161 food SMEs listed were sampled. The sampling technique in this study is the census approach to all food SMEs registered in the Greater Malang area, while the data collection is done by survey and interview methods using questionnaires.

Data analysis in this research uses Partial Least Square (PLS) which is a variance-based structural equation modeling (SEM), with WarpPLS 5.0 software. The evaluation of the PLS model in this study includes: (1) examination of the overall measure of fit model and (2) measure of fit measurement model that aims to examine whether the research instrument is valid and reliable in explaining or reflecting latent variables. Measurement of latent variables with indicators that are reflective so that the evaluation of the measurement model can be done by looking at the value of convergent validity, discriminate validity, and composite reliability.

### IV. RESULT AND IMPLICATIONS

#### A. Characteristics of Respondents

Respondents in this study are the owners of food SMEs in the Greater Malang area who are directly involved in the business operational process. Characteristics of the respondents aim to describe the characteristics of the owner and manager of food SMEs according to gender, age and education.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator/Item</th>
<th>Validity</th>
<th>Reliability</th>
</tr>
</thead>
</table>

Respondents by sex were mostly female at 57.1% compared to men at 42.9%. This fact shows that more women are involved in food UKM in Malang. This is driven by several factors, including the general SME food production process and sales carried out at home so it is possible for women to do it. In addition, women can also perform other dual roles in the household.

Respondents according to age, mostly young people, between 30-45 (56.6%), young age makes it possible to innovate or adopt innovations in developing more creative businesses. This finding is supported by Binnewies et al. (2008) found that age was positively related to the idea of creativity at work with high supervision in the case of hospital nurses, conversely negatively related to the idea of creativity at work with low supervision. Similarly, Sari et al. (2009) found a negative relationship between age and adoption of innovation, this shows that young people are generally more innovative than those who are older.

In addition to gender and age, the level of education is also part of the character of SMEs who participate in determining the success of a business, for example through innovation. Most of the respondents’ education level (44.7%) is high school, second with 22.4% higher education graduates processed food entrepreneurs are expected to motivate educated unemployed. A high level of education enables the development and adoption of innovations thereby increasing the competitiveness of food SMEs. Some studies such as Sumarno (2010) found that the level of education had a positive and significant effect on technological innovation. Likewise Dewi (2013) found that the individual background of small entrepreneurs such as education had a significant effect on business development.

#### B. Discussion

In general, it can be said that the structural model used in analyzing the data of this study is good, so it can be used to test the hypotheses proposed in this study. The Average Path Coefficient (APC) is significant at $\alpha = 1\%$ indicating that the coefficient of the latent variable in the model is significant. Average R-Squared (ARS) is also significant at $\alpha = 1\%$, which indicates the exogenous latent variable used has a strong relationship with the endogenous latent variable. This is also strengthened by the large explanatory ability of the analyst model, which is shown by the large Tenenhaus GoF index ($\geq 0.36$). Other indices also qualify, except the Average Full Collinearity VIF (AFVIF) is greater than the cut-off. The high value of AFVIF indicates full collinearity in each significant latent variable. Thus, it can be concluded that the overall model is acceptable for testing research hypotheses.

The evaluation results of the model measurements are presented in Table 1 below, showing that the measurement model is valid because the outer loading of all the variables studied is greater than 0.70 and AVE is all greater than 0.50. Likewise for reliability, the measurement model can also be said to be reliable because the composite reliability and Cronbach Alpha values of all variables are greater than 0.70.
While the results of data analysis both the coefficient of influence or indirect between variables are presented in Table 2.

Table 2. Path coefficients Effect of Speed of Innovation Development on Food SME Competitiveness with the Government’s Role as Moderation.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef</th>
<th>p</th>
<th>Ket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Providing credit facilities for food SMEs</td>
<td>0.27</td>
<td>0.3</td>
<td>Significant</td>
</tr>
<tr>
<td>b. Business licensing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Involve in promotional activities</td>
<td>0.11</td>
<td>0.2</td>
<td>No-Significant</td>
</tr>
<tr>
<td>d. Providing marketing tools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Provide training to SMEs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Profitability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Productivity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results showed that innovation has a significant and positive influence on the competitiveness of food SMEs in Malang. This means that SMEs that develop innovation will gain higher profits and productivity, so that they will also strengthen the competitiveness of SMEs. Most of the innovations produced by food UKM in Malang are product innovation types namely taste, packaging, price and shape. Process innovation is still limited, for example by food SMEs in the form of sun-drying using a plastic cover system and gauze-based. In addition, SMEs innovate processes to save electricity on the use of water to clean raw materials before slicing. In addition to process innovation, SMEs carry out business innovation and also do marketing with a consensus system with other retail stores.

The results of this study are supported by research by Huang et al, 2002, which states that the modern business environment and rapid technological change, customer demand and business practices cause product life cycles to be shorter, this puts pressure on organizations, including food SMEs, to innovate more effectively and efficiently. Effective and efficient innovations are innovations that provide economic benefits. Innovation will be of economic value if the innovation produced successfully enters the market (Susman, 2007). Therefore, the development of innovation is a key success factor (Love and Roper, 2007). The development of innovations based on the results of interviews, is also influenced by the characteristics of entrepreneurs. This is consistent with Dewi’s research (2013), finding that the characteristics of entrepreneurs or small and medium business owners, at the same time acting as managers, have a significant influence on business development.

The role of SMEs is very large on the national economy, so the role of government is needed to empower SMEs. The role of the government is normatively regulated in Law Number 20 Year 2008 concerning Micro, Small and Medium Enterprises. However, the results of this study (Table 2) show no significance, this is also supported by the respondents' assessment in facilitating the development of innovations to improve the competitiveness of food SMEs in Malang, which is still weak when viewed from the mean score (3.75). In addition, 35.4% (owners of food SMEs strongly disagree, disagree, and do not think about the role of the government in strengthening the development of innovations to improve the competitiveness of food SMEs. This fact indicates that the role of government through policies related to the business climate and business development has not yet given a wide impact on the speed of innovation development to improve the competitiveness of food SMEs. This fact proves that the role of the government is still weak in growing the business climate and in business development, so that it does not accelerate the development of food SME innovations. Business processes are considered to be not easy and expensive and unclear, marketing facilities and infrastructures including market information provided by the government have not been evenly distributed and have not yet benefited most food SMEs, as well as trade promotions are limited to UKM that has access to the government. The training provided to SMEs is also considered limited by ineffective methods. Training should be through practice not lecture. The Integrated Business Services Center (PLUT) has not yet carried out its main duties and functions properly in serving the needs of SMEs both technically as well as business management and marketing services.

Furthermore, the results of this study also prove the suitability of company capability theory by Krajewski and Ritzman (2005), Krajewski, Ritzman and Malhotra (2013) with food SMEs. Krajewski and Ritzman (2005) and Krajewski, Ritzman and Malhotra (2013) suggested four determinants of competitive capability, namely cost, quality, time, and flexibility. Operational activities that support the development of product innovation are activities or processes aimed at achieving integration between management functions and the involvement of external parties in the product development process. According to Mankiw, 2007
the Government has an important role in intervening in the market to provide optimal results, this means it becomes one of the economic principles that the Government can improve market outcomes. However, the results of this study indicate that the role of the Government as a moderating relationship between innovation and the competitiveness of SMEs (food) has no significant effect, meaning that there is not enough evidence that the government’s role is to strengthen the development of innovations in increasing the competitiveness of SMEs (food) in Malang.

The implications of this study are expected to provide additional knowledge about the development of innovation and competitiveness for SMEs in Malang. In addition, it is expected to also be able to contribute to increasing the competitiveness of SMEs, especially the food sector in Malang, through the development of innovation and increasing the role of the government in terms of facilitating licensing, credit facilities, training, promotion and marketing. The role of the government is not proven to strengthen the speed of innovation development to improve the competitiveness of food SMEs in Malang. The results of this study contributed in revealing that the role of government in the theory of competitiveness with the Nine Factor Model of Cho and Moon (1998) developed from Diamond Porter’s (1985) theory does not apply to food SMEs in Malang. The government as a component of four human factors (workers, managers and professional engineers, entrepreneurs, and politicians and bureaucrats) is not strong enough evidence to be accepted as one of the determinants of the competitiveness of food SMEs in Malang. But the government has not played a significant role in increasing the competitiveness of food SMEs in Greater Malang due to, among others, the efforts made by the government that have not had a wide impact on SMEs and the components of the innovation ecosystem have not been integrated (KIN, 2012).

V. CONCLUSION

Based on the results and previous discussion, it can be concluded that government support through credit facilities, business licensing, promotion, marketing, and training has been carried out by the government but has not had a broad impact in strengthening the relationship of innovation development and competitiveness of food SMEs.

REFERENCES


