THE ROLES OF LOCAL GOVERNMENT IN MODERATING THE CORRELATION BETWEEN INNOVATION SPEED AND AND THE COMPETITIVENESS OF FOOD SMALL AND MEDIUM-SIZED ENTERPRISES (SMES) IN MALANG, INDONESIA

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ABSTRACT

Most research on innovation has given more emphasis on the kinds of innovation but has not revealed the innovation speed and the roles of local government. This study is aimed at analyzing te roles of local government in moderating the correlation between innovation speed and the competitiveness of food small and medium-sized enterprises (SMEs). The data were obtained from 161 food SMEs in Malang and then analyzed using Structural Equation Modeling via WarpPLS program. The findings proved that innovation speed positively correlated to the competitiveness of food SMEs. Food SMEs that were successful in realizing their ideas quickly primarily though the process, product, and business innovation gained higher profitability and productivity. The roles of local government significantly strengthened the correlation between innovation speed and the competitiveness of food SMEs. The roles of local government were most strongly reflected on the promotion, marketing, and training. One-stop service via the Integrated Business Service Center (also known as PLUT) played a big role in providing information related to credit, business licensing, promotion, marketing, and training and in giving guidance on technical skills in food processing and packaging, as well as business management. This integrated service has been effective in increasing the competitiveness of food SMEs. The results of the study have implications for the optimization of the local government's roles in mobilizing resources to enhance the competitiveness of SMEs.

KEY WORDS

Innovation speed, competitiveness, small and medium-sized enterprises, Malang, local government, facilitation.

Food Small and Medium-sized Enterprises (SMEs) plays a major role in Indonesia's economy both in employment and the contribution to gross domestic product (Ministry of Cooperatives and SMEs, 2013) but the competitiveness is considered low seen from the growth of food imports. In 2006-2010, the value of food imports grew at an average 20 percent per year, even in the period of January-September 2011 food imports increased 59.2 percent from the previous year (Bernando et al, 2012). One of the factors causing the low competitiveness of food SMEs in Indonesia is the low innovation of the enterpreneurs (Kushadiani, 2006; USAID, 2013; ERIA SME Research Working Group, 2014). Up to now, research on innovation has been focused on the types such as radical and incremental innovation (for instance Kushadiani et al., 2006; Xien et al., 2008), process and product innovation (Cainelli et al., 2006), and business and organizational innovation (Dixit and Nanda, 2011; Cakar and Ertruk, 2010; Laforet, 2013). The results of those studies found positive correlation between the types of innovation with business performance and the enterprise competitiveness. Unfortunately, the previous research has not revealed the innovation speed, which is the time passed or spent between the discovery of the innovation ideas and the introduction of the products either in the forms of goods or services in the

market (Kessler & Cakrabarti, 1996). Innovation will have economic values when it manages to get into the market (Susman, 2007). Meanwhile, innovation speed shortens the product life cycle (Kessler et al., 2007) so that it requires new product development in order to remain competitive. Thus, the ability to develop and launch innovative new products to the market faster than their competitors will enhance the enterprise competitiveness (Allocca and Kessler, 2006).

Competitiveness can be achieved through the followings: (1) doing something better than the others, (2) doing something that is difficult to be imitated by others, (3) doing something valuable for the customers, (4) doing something that is hard to replace, and (5) doing something that has greater profit margin than that of the competitors (Black and Porter, 2000). One determinant of competitiveness is the roles of the government in mobilizing resources to generate competitiveness (Cho and Moon (2002) and improve the market outcome (Mankiw, 2007). This means that the roles of government are to streghten or moderate the SMEs in accelerating innovation to enhance competitiveness. Some previous studies have analyzed the roles of government related to SME innovation in general but there are very limited studies on food SMEs. Najib et al. (2011) found that the government has moderated the improvement of SME competitiveness through cluster policy. The opposite results were found by Arifin et al. (2012), which stated that mushroom SMEs in Malang have done product and process innovation but faced some obstacles in their marketing and there were no supports from the local government. The same thing was revealed by Subekti et al. (2010), i.e. the implementation of advisory strategies for SMEs in Malang has not gone well. A study by ERIA SME Research Working Group (2014) on the policies for SME development and the implementation of action programs by the governments in ASEAN countries revealed that Indonesian government has not proved to be instrumental in improving the SME competitiveness.

The results of the studies above show that the roles of government in Indonesia in SME advisory and development are still weak. The establishment of Directorate-General for Innovation Support by Indonesian government in the organizational structure of Ministry of Research, Technology, and Higher Education (Kemenristekdikti, 2015) indicates some acknowledgment in how weak the roles of government in innovation reinforcement in Indonesia were. The nomenclature of innovation support shows the importance of the government's roles in moderating the process of enhancing the competitiveness in Indonesia.

This study is aimed at analyzing the roles of local government in moderating the correlation between innovation speed and the competitiveness of food SMEs. The results of this study are expected to explain the government's roles in mobilizing resources to improve the competitiveness of food SMEs. The findings can also be developed to explain the *triple helix* concept, namely ABG (Academic, Business, and Government) in innovation speed and the enhancement of SME competitiveness. Academics act as the source of innovation, business sectors as users, and the government as the facilitator.

LITERATURE REVIEW

The Correlation between Innovation Speed Development and SME Competitiveness. Two theories underlying the correlation between innovation speed and competitiveness are resource-based theory by Barney (1991; 2001) and Barney and Clark (2007) and the theory of competitiveness "Porter's Diamond" (Porter, 1982). The two theories have been developed by some scientists and researchers in their respective fields. The Porter's Diamond Theory (1982) is considered more suitable for developed countries so that Cho and Moon (2002) added five factors, which made it nine factors suitable for developing countries; one of the factors was that enterpreneurs as the creator of innovation. The Porter's Diamond Theory (1982) was about national competitiveness, but Porter admitted that a nation could compete only when its companies could, too.

Competitiveness can be treated as a dependent variable or independent variable, depending on the following perspectives or approaches (Ambastha and Momaya, 2012). The first is competitiveness as a threefold framework: competitive performance, competitive potential, and management processes (World Competitiveness Yearbook, 2002; Momaya, 2000). The second is competitiveness as the combination of assets and processes that transform assets to achieve economic benefits within the framework of the asset-process-performance concept (Mamoya, 2000). In this framework, the performance is measured by profitability, prices or costs, variation or range, productivity, development of new products, market share, customer satisfaction and value creation. Thirdly, competitiveness is measured by resource-based approach (Barney, 2001; Barney and Clark, 2007). Competitiveness in this approach is viewed from the internal factors of the company such as strategy, structure, competence, innovation capability, and the tangible and intangible resources to compete.

Based on the explanation above, the competitiveness in this study is measured by the performance, competence, and capability of the companies that are affected by innovation. The innovation can be in the forms of new products, new production methods, new sources of supply, the exploitations of new markets, and new ways in organizing business (Innovation Resource, 2013), which can be grouped into radical and incremental innovations (Forsman and Temel, 2011). In a highly competitive environment with rapid technological change, the product life cycle becomes shorter (Kessler et al., 2007), and thus the ability to develop and launch innovative new products to the market faster than the competitors becomes the key to gaining a competitive advantage (Alloca and Kessler, 2006).

Innovation speed consists of two interrelated fields of study, namely economy and organization. Economic studies focus on macro issues, while the organizational studies focus on micro issues such as the influence of structures, processes, and humans on product development (Damapour, 1991). This study is more in line with organizational studies since it focuses on the innovation speed of food SMEs.

Innovation speed is the time passed between the discovery of innovation ideas and the launch of the results of innovation into the market (Alloca and Kessler, 2006). Environments with shorter product life cycle will force companies to innovate more effectively and efficiently (Ali et al., 1995). If a product is introduced to the market faster than its competitors, the company will gain some potential benefits such as more customers, more market shares and increased profit margins, longer sale periods, and becoming stronger in competitive positions (Smith and Reinertsen, 1995). In other words, products that are introduced to the market faster will have greater competitiveness than their competitors. The companies that can quickly create innovations can thus improve the product quality as well as reduce the cost of product development, and be free in determining prices and economic scales (Smith and Reinertsen, 1992). The fundamental way for SMEs to survive the dynamic competitiveness is by continuously introducing innovative new products that the customers value (Kessler et al., 2007).

Based on the explanation above, some hypotheses can be formulated as follows:

H_1: Innovation speed positively correlates with the competitiveness of food SMEs.

The Roles of the Government in Improving the Competitiveness of SMEs. The Nine-Factor Theory by Cho and Moon (2002) states that government is one of the factors that affect the competitiveness of a nation or a company. The government's role is to mobilize resources through market mechanisms. The government plays an important role in intervening in the market to give optimal results, in line with one of the economic principles, which is "The government can increase market outcome" (Mankiw, 2007). The government's roles in improving the competitiveness of SMEs is by empowerment (Act No. 20 of 2008). The empowerment of innovation-based SMEs is conducted using top-down and bottom-up approaches (KIN, 2012). There are four dimentions of the government's policy on top-down approach. The first is innovation basis with favorable climate, namely macroeconomic stability, competition policy, education and training policy, physical infrastructures and information technology, trade policy, and policy on science and technology. The second is

the creation of opportunities through the provision of public policies and regulations. The third is enablers through an effective system of intellectual property rights, assessment system, and standardization. The fourth is the support for business that can be implemented through best practices programs, support for the development of new technologies, access to financial aids, credits, and research and development tax. Meanwhile, bottom-up approach is done in various forms, such as legislative regulations that encourage innovation research and development activities, incentives, initiatives, policies, etc.

Some results of empirical studies found that the roles of government are significant in improving the competitiveness of SMEs through various forms. Wonglimpiyarat (2011) found that the government plays an important role in providing institutional rules and funding programs that support the transfer process from R&D to commercialization. The government has also supported the financing of projects that directly or indirectly affect innovation from internal R&D stimulation and cooperation in both upstream and downstream sectors (Kang and Park, 2012). Doh and Kim (2014) found positive correlation between the support for technology development by Korean government and the acquisitions of patents and registrations for SMEs new designs. A study by Najib et al. (2011) that used market orientation, innovation, and business performance as a proxy for the competitiveness of SMEs found that the implementation of the government policies through SME clusters improved the competitiveness of SMEs in West Java. The research cooperation between SMEs, universities, and the government gives positive impacts on innovation speed in China (Zhang and Yin, 2012; and Xie, 2012). Jiao et al. (2015) also found that the roles of government in a company positively moderated the correlation between local legal environment and technological innovation.

Government facilitation in business processes is especially needed in times of economic turbulence. Economic turbulence can occur because there are externality factors that caused the market to be unable to allocate resources efficiently (Pyndick and Rubenfeld, 2005; Mankiw, 2007). Escribano et al. (2009) found that the environmental turbulence enhanced the moderating roles of absorption power of the correlation between the search for external knowledge and the companies' innovative performance. Other findings by Hung and Chou (2013) stated that economic and technological turbulence positively moderated the effects of the acquisition of external technologies (i.e. open innovations) on the company performance. The findings of this study indicated that external factors including the roles of local governments increased innovation and company performance in the dynamic industry.
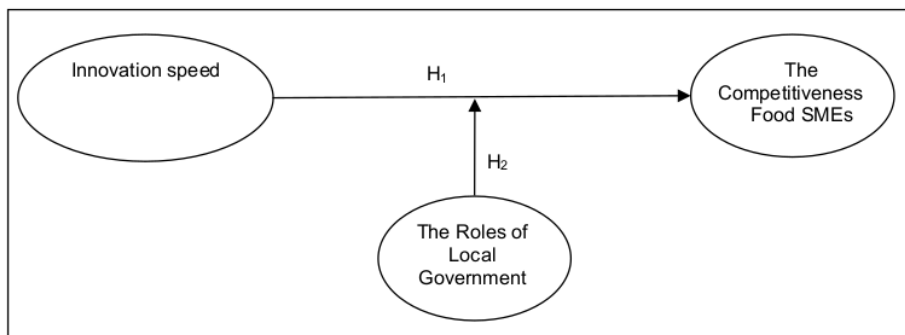

Figure 1 – Conceptual Framework

The dynamics of environmental technologies is the level and the unexpected technical changes or the volatily in the corporate environment (Hung dan Chou, 2013). Meanwhile, the dynamics of technological environment negatively moderates the impacts of the expansion of the search for external innovations on the company performance (Cruz-Conzales et al.,

2015). That is, the dynamics of technological environment weakens the impacts of the expansion of the search for external innovations on the company performance. On the contrary, the dynamics of technological environment positively moderates or strengthens the impacts of the depth of the search for external innovation on the company performance. One of the indicators used by Cruz-Conzales et al. (2015) was the roles of the government. Hence, it can be said that if the local government intensively creates empowerment programs and policies to accelerate SME innovations, the competitiveness of SMEs will improve.

Based on the explanation above, a hypothesis can be formulated as follows:

H_2: The roles of local government are to moderate the correlation between innovation speed and the competitivess of food SMEs.

RESEARCH METHODS

This study was conducted on food SMEs in Malang, Indonesia, which included Malang City, Malang Regency, and Batu City. These areas were selected for the following considerations. First, the previous research by Arifin et al. (2012) from Indonesian Institute of Sciences (also known as LIPI) and by Subekti et al. (2010) stated that food SMEs had the potentials in local economic development through process and product innovations; however, it has not revealed any information about innovation speed and competitiveness in addition to the fact that the government did not take part in addressing the marketing problems faced by SMEs. Second, food SMEs play an important role in Malang's economy based on the employment and their contribution to the local revenue. Third, the local governments in Malang have explicitly stated ther visions related to the development of innovation and the competitivess of food SMEs.

The population in this study are all food SMEs registered in the Department of Cooperatives and SMEs in Malang. The limitation of SMEs refers to the Central Bureau of Statistics (also known as BPS), in which Small Businesses refer to businesses with a workforce of 5-19 people and Medium-sized Enterprises with 20-99 workers. The food SMEs registered were 171 units, all of which were used as samples. The respondents were the owners or the managers of food SMEs that were considered to understand the condition of the company. The data were collected using questionnaires comprising statements of indicators and items of research variables measured using Likert Scale with the scores ranging from 1 (strongly disagree) to 5 (strongly agree). The complete data to be analyzed were 161 business units. All items/indicators were valid ($p < 0.01$) and reliable (the value of Cronbach's alpha > 0.80).

The analysis tool used was Warp Partial Least Square-Structural Equation Modeling (WarpPLS-SEM or PLS-SEM) for the following considerations (Vinzi et al., 2010; Sholihin and Ratmono, 2013; Hair et al., 2014). First, WarpPLS-SEM is efficient for small samples with complex model and practical as well since it does not require data normality. Second, WarpPLS-SEM can provide an output value of the indirect effect and total effect along with *p-value, standard error*, and *effect size*. Third, WarpPLS-SEM can give the coefficient and p-value results directly for models with a moderating variable.
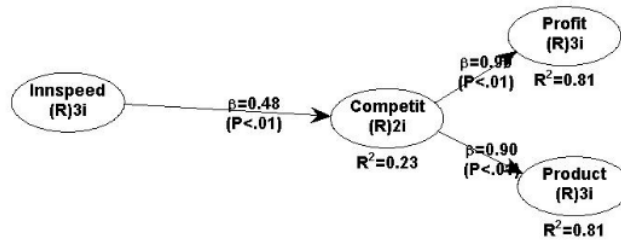
RESULTS OF STUDY

Table 1 shows that PLS model suits the statistic qualifications so that it can be used to test the research hypotheses.

Innovation Speed (also known as KPI) was significantly and positively correlated with the competitivess of food SMEs (p<0.01) with coefficient 0.48. The competitiveness of food SMEs was also significantly reflected in the profitability (profit) and productivity/product (p<0.01).

Table 1 – The Goodness-of-Fit Indices for PLS Model

Goodness of Fit	Value (p-value)	Cut-off	Notes
Average Path Coefficient (APC)	0.690 (0.001)	0.05	Significant (Good)
Average R-Squared(ARS)	0.602 (0.001)	0.05	Significant (Good)
Average Adjusted R-squared (AARS)	0.599 (0.001)	0.05	Significant (Good)
Average Block VIF (AVIF)	1.008	≤ 5: acceptable ≤ 3.3: ideal	Ideal
Average full collinearity VIF (AFVIF)	2997487083,536	≤ 5: acceptable ≤ 3.3: ideal	Because the correlation between all latent variables is significant.
Tenenhaus GoF (GoF)	0.660	≥ 0.1: Small ≥ 0.25: Medium ≥ 0.36: Big	Big
Sympson's paradox ratio (SPR)	1.000	≥ 0.7: acceptable 1: ideal	Ideal
R-squared contribution ratio (RSCR)	1.000	≥ 0.9: acceptable 1: ideal	Ideal
Statistical suppression ratio (SSR)	1.000	≥ 0.7: acceptable	Acceptable
Nonlinear bivariate causality direction ratio (NLBCDR)	1.000	≥ 0.7: acceptable	Acceptable

Notes: Innspeed = Innovation speed; Competit = Competitiveness of SMEs; Profit = Profitability; Product = Productivity.

Figure 2 – The Results of Statistical Analysis on Research Model using WarpPLS Software
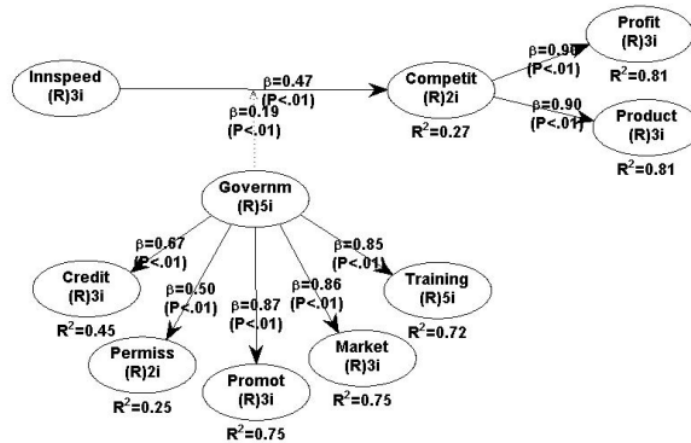
Notes: Innspeed = Innovation speed; Competit = Competitiveness of SMEs; Profit = Profitability; Product = Productivity; Governm = the roles of local government; credit = credit provision; Permiss = Legal permission to start a business; promot = promotion; market = marketing; training = training.

Figure 3 – The Results of Statistical Analysis on Research Model using WarpPLS Software

The second hypothesis stating that "The roles of local government are to moderate the correlation between innovation speed and the competitiveness of food SMEs" was accepted ($p = 0.02 < \alpha = 0.05$). The roles of local government were significantly reflected in all indicators as all p-values < 0.05. The three biggest indicators reflecting the roles of local government were promotion (Promot), marketing (Market), and training (Training), each with respective coefficient of determination (R^2) 0.76, 0.74, and 0.72.

DISCUSSION OF RESULTS

The Correlation between Innovation Speed and the Competitiveness of SMEs. The results of the study show that innovation speed significantly and positively correlates with the competitiveness of food SMEs in Malang. The positive correlation indicates that the faster the innovation is realized from the ideas and enters the market, the more the competitiveness of food SMEs will improve. The companies that introduce their new products to the market more quickly will gain more benefits such as more customers, greater market shares, high profit margin, longer sale periods, safer competitive positions, and the freedom in determining prices or their reputation as an innovator (Cooper, 1984; Smith and Reinertsen, 1995; Smith and Renertsen, 1995; Kessler et al., 2007).

The findings of this study confirm that the companies that are faster in developing innovation through either one or the combination of realizing innovation ideas more quickly than planned, launching new products to the market as planned, and innovating faster than before, within the last three years, will gain greater profit or productivity. The indicator that is dominant in determining the innovation speed of food SMEs is launching new products to the market as planned, but it has not been optimized by food SMEs yet. The competitiveness of food SMEs will still improve if SMEs prioritize launching new products to the market so that it increases the gap with similar enterprises or new entrants in food industry.

The results of this study support the theory of competitiveness "Diamond Porter" (Porter, 1982), which has been developed into Nine-Factor Model of Competitiveness by Cho and Moon (2002), in which one of the determinants of national competitiveness is an entrepreneur who is an innovation creator.The competitiveness of food SMEs in this study is seen from the operational performance with two indicators namely profitability and productivity and thus supports the theory of company capabilities by Krajewski and Ritzman (2005) in relation to time, which is the speed of innovation. In this context, which Krajewski et al. (2013) call time-based competition, business managers should give priority to several things altogether. In food SMEs, for instance, good cooperation between the functions of raw material procurement, equipment procurement (fryer or oven), food processing, and packaging is crucial in supporting the speed of product development.

These findings support the latest theory, the theory of resources, developed by Barney dan Clark (2007). This theory states that, among other things, in order to achieve a sustainable competitive advantage, a company must have four characteristics: namely (1) worthy/valuable, i.e. the resources make use of the opportunities and/or neutralize threats in the corporate environment, (2) rare among the current competition as well as potential competition, (3) not fully imitable or hard to imitate, and (4) utilizable or can be utilized in the company/organizational process. In the context of food SMEs, SMEs that release new products with certain tastes and with the colors like those of the original fruit to the market faster are considered rare and cannot be fully imitated. For instance, jackfruit chips with yellow color like that of the original jackfruit are considered rare and not easy to imitate.

The competitiveness theory by Barney and Clark (2007) lies on the implications of competitiveness and economic performance, with the goal of sustainable competitiveness. Jackfruit chips, for example, were rare at the beginning of their release to the market so that they could be sold with higher prices because the pricing was value-based instead of cost-based. This could happen because the products exist in the monopolistic competition market structure. Hunt (2001) affirms that superior economic performance can be achieved not only in the imperfectly competitive markets but also in the perfectly competitive markets. Hunt's

(2001) argumentation is that innovation becomes the key component to create a dynamic imbalance in the perfectly competitive factor market (resources). The market for jackfruit chip products can shift from monopolistic competition market structure to perfectly competitive market when many SMEs can produce products with the same color as the original color of jackfruit. However, process innovation can save production costs so that SMEs can compete with cheaper selling prices.

The results about the correlation between innovation speed and the competitiveness of food SMEs cannot be compared to those of the previous research. First, the previous studies (Alloca and Kessler, 1996; Kessler et al., 2007; Markman et al., 2005) placed innovation speed as dependent variable, while in this study innovation speed became independent variable. Second, innovation speed as independent variable can be dependent variable but in different contexts (Markman et al., 2005; Chen et al. (2012), such as license reception (Markman *et al.*, 2005), the success of product development (Chen et al., 2012), but not the competitiveness of food SMEs. Third, the previous studies were conducted to manufacturing industries or SMEs with high technology in developed countries such as United States of America (Alloca and Kessler, 1996; Kessler et al., 2007) and South Korea. Despite in the same developing countries like Indonesia, SMEs in manufacturing industries have different characteristics from those of food SMEs. Fourth, the results of the previous studies in the field of food industry had different topics of discussion such as SME clusters (Najib et al., 2011), organizational innovation (Baregheh et al., 2012a), and using qualitative approach (Baregheh et al., 2012b).

The Roles of Government in Moderating the Correlation between Innovation Speed and the Competitiveness of food SMEs. The findings reveal that the roles of local government are significant in moderating the correlation between innovation speed and the competitiveness of food SMEs in Malang. This shows that the local government's efforts to improve innovation speed can increase profitability and productivity of food SMEs. The roles of local government in this study are measured by 5 indicators, namely (1) credit facilities including access to raw materials, (2) business licensing, (3) promotion, (4) marketing, and (5) training for the owners or the managers of food SMEs.

One of the credit facilities provided by the government is Credit for Public Enterprise, also known as *Kredit Usaha Rakyat*/*KUR* (Presidential Instruction No. 6 of 2007). *Kredit Usaha Rakyat* can be said successful in terms of the development of the number of the distributed credits and the number of the recipients. In 2007, the number of KUR users was only 3,623 units, while in June 2016 it increased to 16,115,658 units (Tambunan, 2016), i.e. there was 44.5 % increase per year. KUR was also successful in the banking sides as, nationally, the Non-Performing Loan (NPL) of KUR was between 3-4 percent, which was lower than the maximum level of 5 percent set by Bank Indonesia (Tambunan, 2016). In 2015, BRI Malang distributed KUR as much as IDR 1,5 trillion with 0 percent NPL, and in 2016, the number of KUR distribution was targeted to be the same as that in 2015 (Tempo.co., 2016). Nevertheless, the distribution of KUR faced 5 (five) problems (Pratomo, 2014). The first was the high interest rate (22 percent per year) while the benchmark interest rate from Bank Indonesia was 7.5 percent. Second, the distribution was not even between economic sectors and regions. Third, the socialization was not maximum so that not so many SMEs knew about the program. Fourth, KUR was used as a means of political campaign. Fifth, the fund for KUR distribution was limited and has not reached all areas in Indonesia. A study by Damayanti and Adam (2015) revealed that the realization of KUR distribution grew faster than its distribution target. In the periods of 2010–September 2014, the distribution realization grew by an average of 30.7 percent per year, while the target has only grown by an average of 16.6 percent per year.

This study found that the process of obtaining a business license is not easy and the fee is not cheap for food SMEs. The process of obtaining a trading business license (also known as SIUP) in Malang requires 12 documents. One of the requirements is a nuisance ordinance (*hinder ordonantie*/HO). To obtain HO, the entrepreneur must fulfill 9 kinds of qualifications (Regional Regulations of Malang No. 8 of 2013). The licensing procedure is

considered difficult to fulfill by the SME enterpreneurs in Malang so that thousands of enterpreneurs have not got the license (Sofia, 2014). The local government of Malang has addressed this matter in two ways. First, micro business license is delegated by the mayor, in this case the Head of Integrated Licensing and Services Board, to the sub-district (Malang Mayor Regulation No. 50 of 2015) in hope that the process becomes faster and more efficient. Second, the local government of Malang plans to simplify the requirements so that enterpreneurs can obtain the license more easily (Sofia, 2014). In addition, the cheapest licensing fee is IDR 250,000 if taken care by the SME entrepreneur himself, while the most expensive fee is IDR 850,000 if using a service bureau/agent.

The results of analysis show that involving food SMEs in the promotion activities is the most significant indicator of the roles of local government but in practice it is still low. The promotion of food SME products that are facilitated by the local governments in Malang is the direct sales through exhibitions and events both in Malang and outside Malang. Promotions in Malang are generally carried out on the Anniversary (HUT) of Cooperatives, HUT of Malang city (in April), Batu city (in October), or Malang regency (in November). The results of interview with the Head of SME Development Section in Malang affirm that in the last three years the local governments have taken SMEs into international promotions in Japan, China, and Malaysia. The government provides promotional spots such as showrooms in the office of Department of Cooperatives and SMEs as well as exhibition venues in PLUT (Integrated Business Service Center). The local governments provide information to SME enterpreneurs about promotional activities, pay for renting space or venues, and pay for the accommodation and transportation support for promotional activities outside Malang.

The government's role in marketing is observed from the provision of market information, physical instruments of marketing, and marketing network through cooperation with such companies as *Carrefour*, Indomaret, and Cooperatives. Market information through Integrated Business Service Center (PLUT) is known better by SME enterpreneurs. Since its establishment in 2014, PLUT in Malang has held various technical guidance activities. The government has also provided marketing instruments regularly through open markets on Saturdays and Sundays for SMEs. The challenge faced by food SMEs in entering modern market such as *Carrefour* and Indomaret is the nutritional information since it requires nutritional testing, halal certification, and the barcode (Interview with the Head of Forestry and Agricultural Product Industry, Department of Trade and Industry of Malang Regency, April 2016). To improve the competitiveness of food SMEs, it is very important for SMEs to meet the Indonesian National Standard (also known as SNI) for every food product that they produce. In addition, SMEs should take care of Intellectual Property Rights (also known as HKI) such as trademarks, copyrights, and trade secrets. Nutritional testing and halal certification have started to be carried out by food SMEs in Malang with the government's facilitation, while the fulfillment of SNI and HKI has not been executed. The main challenge is its cost and the capacity of human resources.

Training is one of the indicators that determine the roles of local government in improving the competitiveness of food SMEs. Training or technical guidance includes product development, production processes, business management, financial management, and packaging. Technical guidance is also given by the local government on how to do credit application and fulfill the required qualifications. These efforts have been fruitful compared to four to six years ago, as found by Arifin et al. (2012), in which SMEs did not get any support from the local government in facing the marketing problems and the implementation of development strategies for SMEs in Malang did not go well (Subekti et al., 2010). Indeed, the local government's policies related to labor training become one supporting factor that enables SMEs to improve their competitiveness (Kurniati and Yuliando, 2015).

CONCLUSION

This research finds that innovation speed positively correlates with the competitiveness of food SMEs in Malang and thus the proposed hypothesis is accepted. Food SMEs that can realize their ideas quickly through process, product, organization, and business gain higher profitability and productivity. This allows SMEs to compete with similar enterprises in its industry. Thus, innovation speed is very important in the conditions where the business competitiveness is high and the product life cycle becomes shorter.

The roles of local government prove to enhance the correlation between innovation speed and the competitiveness of food SMEs in Malang. The roles of government are reflected through credit facilities, business licensing, promotion, marketing, and training, which have been done by the local government and brought broad impacts in improving innovation speed to increase the competitiveness of food SMEs. In addition, one-stop service through Integrated Business Service Center related to credit information, business licensing, promotion, and marketing as well as training on technical skills in food processing and packaging as well as business management has proven effective in improving the competitiveness of food SMEs.

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