



Global Conference on Business and Economics Research (GCBER) 2017
14-15 August 2017, Universiti Putra Malaysia, Malaysia

Factors Influencing on the Competitiveness of Agro-Food Micro Small Medium Enterprises at the Potential Cities, Indonesia

Musa Hubeis, Heti Mulyati, Farida R. Dewi, Hardiana Widyastuti*

Department of Management, Faculty of Economics and Management, Bogor Agricultural University, Indonesia, Jl. Agathis Wing 2 Level IV, Kampus IPB Darmaga, 16680, Bogor, Indonesia

Abstract

Development of agro-food Micro Small Medium Enterprises (MSMEs) in Indonesia is still facing some problems arising both internal and external, from upstream to downstream. The purpose of this paper is to analyze the impact of internal and external factors on the competitiveness, especially at the potential cities where agro-food MSMEs are growing very fast: Bandung, Palembang, and Surabaya. Analysis of the impact on the competitiveness used Structural Equation Modelling (SEM) supported by descriptive analysis. Sample for each city were 30 respondents. Internal factors affecting the competitiveness in Bandung include the quality of products and raw materials. External factors consist of locations, customers, suppliers, and the role of government. Indicators of competitiveness are customer, product sales, and product satisfaction, extended market, and competitive products. In Palembang, the internal factors cover product quality, product availability, raw materials quality, use of technology, improved technology, bonuses, and supervision of workers and competence of employees. The external factors affecting competitiveness are product excellence, location, payment systems, number of customers, and bargaining power of suppliers. Competitiveness in Palembang can be seen from indicators of competitive products, more customer number, extended market, customer satisfaction and technology excellence. Internal factors covering easiness of licensing, capacity, competitive price, number of customers, suppliers, the availability of raw materials, and the bargaining power of suppliers influence to the competitiveness in Surabaya. Meanwhile, the external factors covering product excellence, company location, payment systems, and training and facilities markets affect the competitiveness of MSMEs of food in Surabaya. The competitiveness indicators are competitiveness products, increased customer, extended market, new customers, and customer satisfaction.

Keywords: Agro-food micro small medium enterprises, competitiveness, internal and external factors, potential cities

1. INTRODUCTION

Indonesia is one of the rich countries producing agriculture commodities. Therefore, agro-food business are developing very fast which most of enterprises are conducted by Micro, Small and Medium Enterprises (MSMEs). The MSMEs have very strategic role to improve national economy. MSMEs can create jobs about 97% of the total workforce and it contributes to Gross Domestic Product (GDP) in average 57.56% (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2013). In 2011-2012, Agro food MSMEs indicated development about 3.3% with the growth from 2011 to 2012 was 3.9% (Hubeis, 2011). It indicates that this enterprises has significant

*Corresponding author. Tel.: +0-812-9062252
E-mail: hardiana75@gmail.com

aspects in providing economic activities for people and contributing to provide safety and quality food, mainly for consumption of the Indonesian community.

Nowadays, there are many food processing made by MSMEs. In Indonesia, every region has unique foods in accordance with abundance of agro-based materials and specific characteristics of the local people. From west to east region of Indonesia, there are many food products which most of the raw materials are agriculture commodities, such as from horticulture, fisheries, and livestock.

However, Hubeis (2011) mentioned that there are some weaknesses of agro food MSMEs: managerial incompetence, lack of attention from relevant stakeholders, weak on control system, and lack of capital. Developing agro food MSMEs is facing some obstacles resulting from internal and external aspects, from upstream to downstream. For example, supply of raw materials, production and technology, finance, quality, marketing and human resources are still weak. Therefore, the MSMEs cannot compete both in national and international level.

Bandung, Surabaya and Palembang are the potential cities where agro food MSMEs can be found widely. These locations are representative of Indonesian region from west to east area. Bandung is located in West Java Province. Geographically, Bandung is located in a strategic position in West Java where trade and food processing business are developing in an excellent way. The local government also give stimulation and facilitation to improve agro food MSMEs. In 2015, Bandung has 15 835 MSMEs business units, which are able to absorb as many as 111 196 workers. Most of the MSMEs (97.49%) are formal and non-formal enterprises. Palembang is the capital of South Sumatera Province, Surabaya is the capital of East Java. Growth of MSMEs in Palembang city was 11.33% in 2015. Palembang city has 36,411 MSMEs spreading out in Ilir Timur sub-regency (5,739 business units) and Ilir Timur II (5,030 business units). Most of the MSMEs in Palembang produce foods which raw materials are fish. Surabaya is the hub between west and east region of Indonesia which most of the MSMEs produce food from the sea resources.

Based on these conditions, the research question is how to develop a model of MSMEs competitiveness based on the factors influencing on it. It is necessary to develop a model-based development of SMEs featured agri-food in Indonesia to encourage people's welfare. The model requires collaboration among government, universities, and private companies. The objective of this research is to analyse factors impacting on the competitiveness of agro food MSMEs, mainly in Bandung, Palembang and Surabaya.

2. RESEARCH METHODOLOGY

The data in this research consist of primary and secondary data. The primary data is gathered by questionnaire, in-depth interview, and Focus Group Discussion (FGD). The secondary data were obtained from reports on Statistics Bureau, annual reports of Ministry of Agriculture and Ministry of Industry and its agencies in each area. The other secondary sources were journals, newspaper, and other media.

2.1 Structural Equation Model- Partial Least Square Analysis

Partial Least Square (PLS) was conducted to analyze the causal relationship, especially measuring a relationship that cannot be measured directly. Therefore, the election of PLS as deemed appropriate analytical tools to explain complex relationships, namely variable internal factors, external factors and competitiveness.

2.2 Factors Affecting on the Competitiveness in Bandung, Palembang and Surabaya

The concept of competitiveness is often associated with long-term performance of an organization, where the organization is able to compete as compared with its competitors. Of course, competitiveness of SMEs is very different to the competitiveness of large-scale business. Man et al (1999) suggest that there are three things that affect the competitiveness of SMEs, namely internal factors, external, and entrepreneurship. In this study focuses on internal and external factors affecting competitiveness.

A Case Study in Bandung

Structural model also called inner models describing the relationship between latent variables based on a substantive theory. Assessing inner model can be done by looking at the structural model consists of the hypothesized relationship between latent constructs in the research model. By using bootstrapping on SmartPLS, can be obtained by standard errors (standard errors), the path coefficients (path coefficients), and the value of t-

statistics. As illustration the value of R^2 indicates variable internal and external factors may explain the variable of competitiveness of 62%, the rest (38%) is explained by other variables not examined.

Research Model (Fig 1) describes that there are found indicators not reflecting the latent variables. Therefore, the reduction of indicators should do.

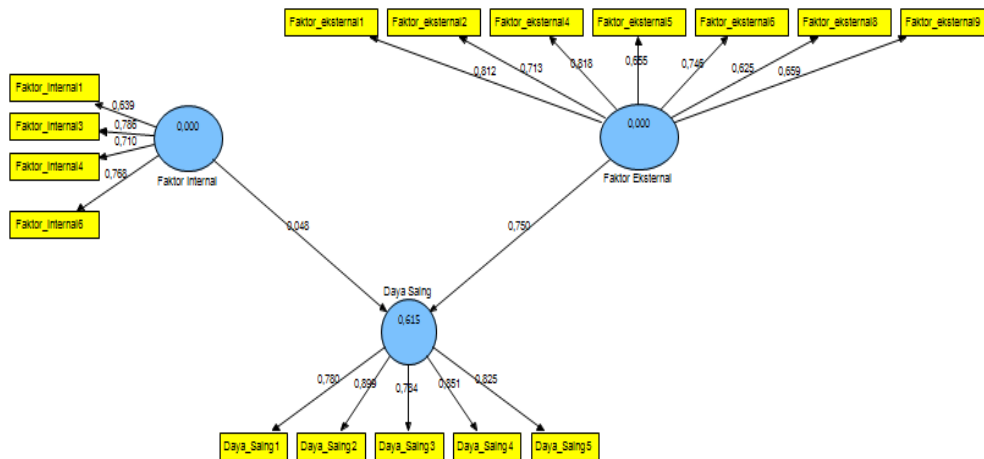


Fig. 1. Path Diagram of Factors Impacting on the Competitiveness in Bandung

The study hypothesis states that external factors affect the competitiveness, it appears that the variables on external factors significantly affect competitiveness (original sample estimate 0.750, 4.810 t-test). The coefficient between the variable external factors of competitiveness 0.750. Indicators that reflect variable external factors are location (external 2) the company is more strategic than its competitors (External 2), the number of customers has increased (external 4), maintain good relations with suppliers (external 5), suppliers are always ready to meet the raw material companies (external 6), government policies (external 8) and the training provided by the government (external 9). Variables on external factors shows that the factors that are important to improve competitiveness is its location, customers, suppliers, and the role of government

Location can determine competitiveness of SMEs. In this case, the determination of the strategic location need to be considered by SMEs for business sustainability. The choice of location is one of the long-term strategic decisions aimed at maximizing benefits for consumers, and minimize costs for SMEs. For that location should be selected based on the ease of access for consumers to obtain processed food products and transportation means transporting raw materials as well as finished products.

Other external factor that need to be considered is the suppliers. Based on the survey, the factors that influence competitiveness is a good relationship with suppliers and suppliers are able to supply raw materials continuously. This is consistent with the concept of the supply chain, that one key to success the success of a supply chain is the strong collaboration with suppliers (Indrajit et al. 2003). Good relations were established between suppliers and SMEs begins with booking continuously and eventually built up a relationship lasts over a long period of time, causing the trust between the two sides. The emergence of trust will cause long-term relationship that is symbiotic mutualism.

The government's role is very important in the competitiveness of SMEs to develop agro food MSMEs, especially local government. Since September 2015, the government issued a package of economic policy to boost the national economy. One of the points of this policy is empowering the SME sector, for SMEs is a strategic sector in the pillar of the national economy. Government provide interest subsidy in export financing through the Indonesian Export Financing Agency (LPEI) and the program's Business Credit (KUR). The facility enables SMEs obtain low-interest loans, ie from 22-23 percent to 12 percent. In addition to the policy, factors that benefit the SMEs are training both technical and managerial. Continuous training is one of the efforts to enhance capacity building of SMEs. Based on empirical evidence, the medium and large businesses in the city starting from micro and small enterprises. Intensive coaching toMSMEs from Dinasperindagkop Bandung has caused food SMEs grow into medium and large-scale enterprises, such as Amanda brownies and cookies Ina. Both companies are growing very rapidly which is characterized by having outlets and distributors spread outside the city of Bandung, such as Jakarta, Bogor, Depok, Tangerang and Bekasi.

Indicators that reflect the competitiveness in a sequence is the number of customers increased (0.898), products successfully sold to new customers (0.851), the customer was happy on goods purchased (0.825), regional product marketing more widespread (0.784) and the product is able to compete with other similar business (0.779). In other words, the competitiveness of the perception of the respondents is the expansion of market share, increase customer satisfaction, and has a product advantage.

At the variable internal factors on competitiveness, it can be seen that there is no real influence among variables internal factor for competitiveness. This can be seen from the value of the original sample and the 0048 estimate of 0.259 t-test. The coefficient between the variables of internal factors in the competitiveness of 0.048. Variables on internal factors affecting the competitiveness of producing a wide range of products, the products are available in other sales outlets, product quality, and using top quality raw material. Internal aspect to be considered is the variation of product quality and product availability. Product variations affect consumer purchasing decisions. Product variety is one marketing strategy to expand the different segments that provide a variety of options for consumers. Variations in food products is generally done through a variety of flavors, shapes and prices. Therefore, the competitiveness can be achieved by making the quality of processed products, which pay attention to the hygiene or food processed Processed Food Processing How Good (CPPOB). Principally through higien control to avoid the various food-borne diseases at each of the food production chain. In this case the raw material greatly affect the quality of products produced. The raw materials need to be checked first according to the criteria applicable to the terms of product quality.

A Case Study in Palembang

Structural model also called inner models describing the relationship between latent variables based on a substantive theory. Assessing inner models can be done by looking at the structural model consists of the hypothesized relationship between latent constructs in the research model. With the bootstrapping method SmartPLS, obtained by standard deviation (standard errors), the path coefficients (path coefficients / S), and the value of t-statistic. With this technique, it can be rated real statistical research model to test hypotheses on every track relationship. The results show that variable to variable external factors of competitiveness significantly positive coefficient 0852 lines, while at the variable internal factors known to have no significant effect on the competitiveness of the path coefficient of 0.02.

3. RESEARCH MODEL

Based on the analysis of this research model with SEM PLS, namely the initial model that includes all the indicators (Fig 2) are still found indicators that were considered not reflect the latent variables, then the reduction indicators.

Internal factors which include the type of products, availability of products at other outlets, promo attract buyers, the number of employees, increase profits, and financial planning has the indicator value is below 0.7, so it needs to be reduced because they do not reflect the latent variables. Similarly, the external factors are also variables that need to be reduced ie suppliers, raw material availability, government policies, market facilities, ease of licensing, production capacity, the role of banks and the price is competitive because it has the indicator value is below 0.7. On competitiveness, there are variables that do not reflect the competitiveness of the latent variable that is a new customer, raw material and legal materials.

The indicators that reflect internal factors are comprised of product quality, product availability, quality raw materials, use of technology, improved technology, bonuses, supervision of employees, and competence of employees, where all indicators have had a value above 0, 7 and that has the highest value is the quality of the product (0.889). Similarly indicators that reflect external factors consist only of product excellence, the location of the company, payment systems, the number of customers and the bargaining power of suppliers who also have a value above 0.7 and the highest score is the excellence of the product (0.857). Competitiveness indicators that have a value of more than 0.7 is a product that can compete, more customer number, the wider the area of marketing, customer satisfaction and technology excellence with the highest value on products that can compete (0.920).

The hypothesis states that external factors affect the competitiveness, as shown by the original 0852 estimate sample t-test with 4,938. The coefficient of variable external factors of competitiveness 0852. This shows when external factors increases the value of the unit, it will increase the competitiveness variables 0852. The external factors are the hallmarks of products, company location, payment systems, the number of customers and the bargaining power of suppliers.

At the variable internal factors on the performance, it is known there is no real influence of variable internal factors for competitiveness (original sample estimate of 0.021, t-test 0101). The coefficient of variable internal factors of competitiveness 0.02. This means if the value of internal factors increase the unit will increase the competitiveness of variables 0.02.

3.1 A Case Study in Surabaya

Variables influence of external factors on the competitiveness of the variables have a significant influence positive path coefficient value of 0.750, while the variable internal factors known to have no significant effect on the competitiveness of the path coefficient of 0.048.

Based on the analysis of this research model using PLS, from initial model to include all indicators (Fig 5) there are indicators that were considered not as latent variables, therefore carried reduction indicators. In Fig 22, obtained a research model that has made the reduction of indicators to obtain the best model, besides artifacts research model t-test to determine the significance of the effect of exogenous variables on the endogenous presented in Fig 6.

Variables that are not less important in the development of food SMEs in Surabaya is variable competitiveness. On competitiveness variables, indicators that reflect is sequentially is a new customer (0.878), product availability (.840), products that can compete (0.825), the number of customers more (0.752) and more extensive marketing areas (0.615).

To be able to compete with food SMEs in other areas or with similar food SMEs, SMEs must be possessed of food in Surabaya competitive advantage. Food SMEs must have the ability to be able to enter the market both nationally and internationally and the ability to survive. If the food product is able to survive in the market, the product is able to survive on the food industry and are ready to compete. According to Porter (1990), competitiveness identified with productivity, where the level of output produced for each unit of input used. In this case the advantage of MSMEs food that is in terms of products, customers and marketing area. Excellence products produced by MSMEs Surabaya, the availability of food products and food products which are competitive, such as processed fish products and a sauce that is characteristic of food product in Surabaya. In terms of customers can be seen from the new subscriber stout thus increasing the number of subscribers. In addition, the specific sauce can be developed in a variety of products and packaging, are able to market their products on the territory of the country other than the areas in the country.

This is an advantage Surabaya food SMEs competitiveness. From the research hypothesis which states that external factors affect the competitiveness, it appears that the effect of variable external factors significantly affect competitiveness (original sample estimate 0.599, 2.290 t-test). The coefficient between the variables of external factors on the competitiveness of 0.599. The indicators reflects that variable externals are indicators of product excellence (0.808), the location of company (0.860), payment systems (0.768), training (0.889) and market facilities (0.771).

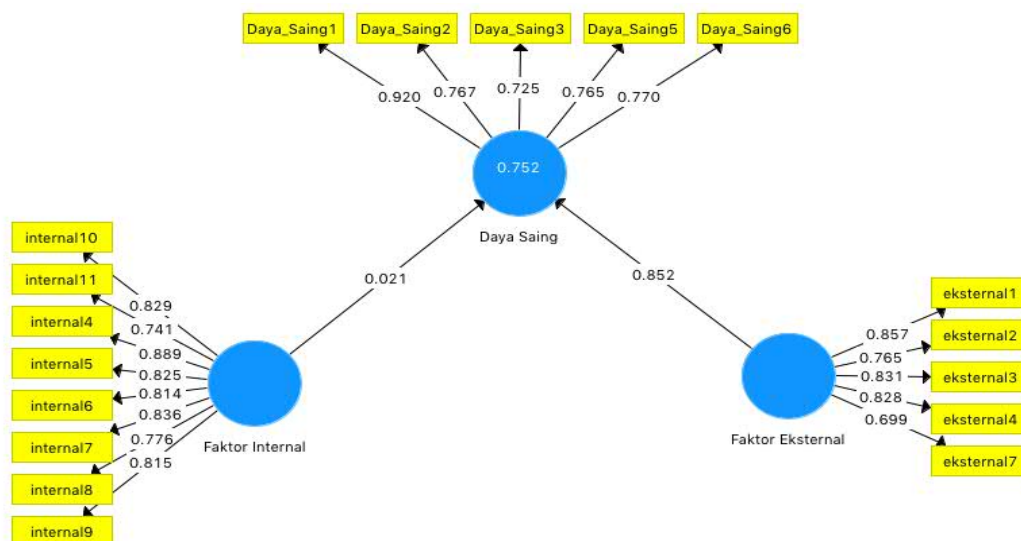


Fig. 2. Path Diagram of Factors Impacting on the Competitiveness in Palembang

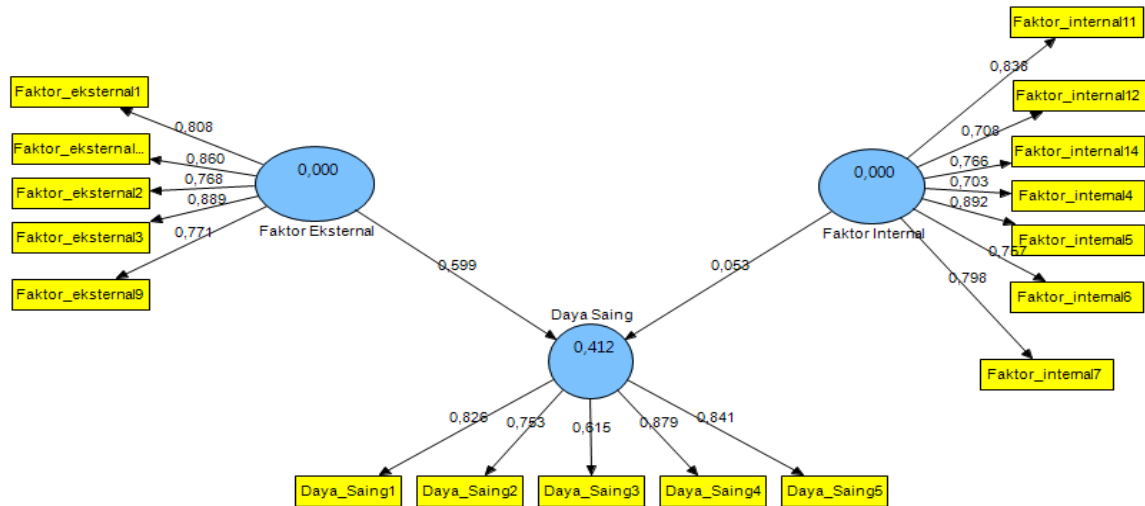


Fig 3. Diagram of t- value relationships between variables in Surabaya

Food products produced by SMEs in Surabaya is very varied. Of chili products, cookies, pudding, chocolate, frozen tuna, processed beef, durian ice cream, and processed fish. Most products using raw materials from Surabaya and surrounding areas. Potential is what makes food products into products that are superior compared to food products produced in other areas. This makes their food products Surabaya has a distinctive characteristic of the present and able to compete with the many food products on the market. Food SMEs in several sub-districts in the city of Surabaya. It is easier for SMEs to access food transportation are able to market more easily. Consumers in this case the distributor or agent can easily reach a production of these food products. This condition is an opportunity for SMEs food in Surabaya to continue to grow with the competition in the business world of food.

Besides the development of SMEs in the management of food is influenced by management, especially the payment system. As previously explained that the purchase of the product by the consumer can be made directly to SMEs food during the show, or purchase at retail and reservations if outside Surabaya area, with the direct payment system. This payment system is a food SMEs opportunities to continuously improve the production process because it is not constrained by current payment system. The availability of food products is continuously making food SMEs can compete with other food SMEs.

The training provided by the government both by the Department of Cooperatives and SMEs in Surabaya, East Java Province level provides an opportunity for SMEs food in order to increase knowledge about the product (packaging, product innovation, marketing). It is an opportunity for SMEs in the food product development and management of its business, so the food will continue to grow SMEs face competition both in the domestic or foreign (MEA).

In addition to training, the local government, the city of Surabaya and East Java Province also facilitate a food product marketing SMEs. The government often hold exhibitions in the city of Surabaya and outside the city of Surabaya, involving food SMEs in the activities of a large city of Surabaya (Culinary Festival, Day of Cooperatives). East Java Provincial Government has also established SME Gallery, where all food products marketed in the Gallery. This opportunity is very useful for food SMEs in marketing their products, so that the availability of the product can be marketed continuously, the impact will be to promote the SME food.

At the variable internal factors on the performance, it can be seen that there is no significant effect of variable internal factors for competitiveness (original sample estimate 0.053, t-test 0.208). The coefficient between variable factors internal to the competitiveness of 0.053. In other words, if the value of internal factors increase the unit will increase the competitiveness of the variable of 0.053. The indicators reflect variable internal factors are indicators of quality of product (0.702), product availability (.892), grade raw materials (0.756), the use of technology (0.797), the competence of employees (0.838), the number of employees (0.708), and financial planning (0.765).

Competitive advantages can only be achieved if a product can be managed properly. It is not independent of the ability of SMEs in Surabaya in managing food resources in its efforts to achieve product quality and meet customer

expectations. Good quality products resulting from the production process in accordance with established standards and are manufactured from quality raw materials and adequate technology.

Surabaya food SMEs can meet customer satisfaction if it can supply food product quality and availability are met continuously. The role of human resources as an asset is a significant requirement in food MSMEs. The number of employees in the process of Production and has fulfilled a decent competence will make the production process runs effectively and efficiently, so that the product can be resolved in a timely and quality products can be guaranteed.

Factors that are not that important in the development of food SMEs are financial management. Food SMEs should be able to manage your finances well, through simple bookkeeping. The hope can be separated between and for household use and for subsequent business management.

5. CONCLUSION

External factors have a significant effect on the competitiveness of MSMEs in Bandung. Variables on external factors shows that the factors that are important to improve competitiveness is its location, suppliers, and the role of government. Meanwhile, internal factors are not significantly influence competitiveness, however, there are internal variables that need to be considered is the variation of product quality and product availability. SMEs in Palembang on external factors have a significant effect on competitiveness, but internal factors do not have any real effect on competitiveness. At Surabaya MSMEs competitiveness are affected by internal and external factors. Surabaya food SMEs competitiveness, reflected in the form of new customers, availability of products, products that can compete, the number of customers who are more and more extensive marketing areas. As for the external factors that affect the benefits of the product, the location of the company, payment systems, training and market facilities. Internal factors that influence the quality of products, availability of products, quality raw materials, use of technology, competence of employees, number of employees, and financial planning

ACKNOWLEDGMENTS

We would like to thank to Ministry of Higher Education and Technology, Republic of Indonesia funded this research.

REFERENCES

- Arikunto S. 2002. *Metodologi Penelitian*. Jakarta (ID): PT. Rineka Cipta.
- [BPS] Badan Pusat Statistik. 2014. Tabel Perkembangan UMKM pada Periode 1997 -2012. [Internet]. [diunduh 2014 Juni 6]. Terdapat pada: <http://www.bps.go.id/index.php/linkTabelStat/1322>.
- [BPS] Badan Pusat Statistik. 2016. Kota Bandung Dalam Angka 2016. ISSN: 0215.2320. KATALOG BPS: 1102001.3273. BPS Kota Bandung. [Internet]. [diunduh 2016 Juli 24]. Terdapat pada: <https://bandungkota.bps.go.id/Publikasi/view/id/155>
- [BPS] Badan Pusat Statistik. 2016. Kota Palembang dalam Angka 2016. [Internet]. [diunduh 2016 Juli 24]. Terdapat pada: <https://palembangkota.bps.go.id/index.php/publikasi/97>
- [Depkop] Departemen Koperasi dan Usaha Kecil Menengah Republik Indonesia. 2013. Perkembangan Data Usaha Mikro, Kecil, Menengah (UMKM) dan Usaha Besar (UB) Tahun 2012-2013. [Internet]. [diunduh 20 Juli 2015]. Tersedia pada: <http://www.depkop.go.id/berita-informasi/data-informasi/data-umkm/>
- [Disperindagkop] Dinas Perindustrian, Perdagangan, dan Koperasi Kota Palembang. 2016. Data UMKM Kota Palembang 2015. Palembang: Dinas Perindustrian, Perdagangan, dan Koperasi Kota Palembang.
- Hubeis M. 2011. *Prospek Usaha Kecil dalam Wadah Inkubator Bisnis* (Cetakan kedua). Bogor (ID): Ghalia Indonesia.
- _____. 2012. Perspektif Kedaulatan Pangan Berkelanjutan. Makalah dalam Acara Sarasehan Menuju Era Baru Nasionalisme Ekonomi Indonesia di ITB Bandung pada tanggal 24 Nopember 2012.
- _____. 2012. *Prospek Usaha Kecil dalam Wadah Inkubator Bisnis*. Bogor (ID): Ghalia Indonesia.
- _____. 2012. *Manajemen Ritel Kreatif dan Inovatif dalam Bisnis*. Jakarta (ID): Inti Prima Promosindo.
- _____. 2013. Usaha Kecil Menengah di Indonesia. Kuliah Umum di Universitas Terbuka Kantor Bogor, 8 September 2013.
- Indrajit Eko, Djokoprano R. 2002. *Konsep Manajemen Supply Chain*. Jakarta (ID): PTGrasindo.
- Kementerian Koperasi dan UKM. 2007. Kajian Efektivitas Model Penumbuhan Klaster Bisnis UKM Berbasis Agribisnis. Deputy Bidang Pengkajian Sumberdaya UKMK. [Internet]. [diunduh 2014 Juni 6]. Tersedia pada: <http://www.smeccda.com/kajian/get8>.
- Maleha, Susanto A. 2006. Kajian konsep ketahanan pangan. *Jurnal Protein*, 13 (2).
- Marimin, Maghfiroh N. 2010. *Aplikasi Teknik Pengambilan Keputusan dalam Manajemen Rantai Pasok*. Bogor (ID): IPB Pr.
- Man, Thomas W.Y.; Lau, Theresa; Chan, K.F. 1999. The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing* 17 (2002), pp. 123–142