Effect of Strategic Decision, Innovation, and Information Technology Adoption on Competitive Advantages and MSME Performance

Studies at MSME Food and Beverage Industry Sector in Bandung Raya

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Abstract
The objectives of this research are (1) to analyze and to explain the influence of strategic decision on MSME performance, (2) to analyze and to explain the influence of strategic decision on competitive advantage, (3) to analyze and to explain the influence of innovation on MSME performance, (4) to analyze and to explain the influence of innovation on competitive advantage, (5) to analyze and to explain the influence of information technology adoption on MSME performance, (6) to analyze and to explain the influence of technology information adoption on competitive advantage (7) to analyze and to explain the influence of competitive advantage on MSME performance. Research uses explanatory research to explain the relationship between research variables. It is conducted at micro, small and medium enterprises (MSME) in food and beverage industry sector. Unit of analysis is 152 owners of micro, small and medium enterprises. Statistic analysis is used for hypothesis testing. Method of this analysis is Structural Equation Model (SEM). Result of research has indicated that there are seven (7) direct relation paths, five (5) significant relation paths, and two (2) not significant paths. The significant relation paths are (1) strategic decision on competitive advantage, (2) Innovation on MSME performance, (3) Innovation on competitive advantage, (4) information technology adoption on MSME performance, and (5) information technology adoption on competitive advantage. The not significant relation paths are (1) strategic decision on MSME performance, and (2) competitive advantage on MSME performance.

Keywords: Strategic Decision, Innovation, Information Technology Adoption, Competitive Advantage, MSME performance

1. Background
Micro, small and medium enterprises (MSME) have an important role in economic development both in developing countries and in developed countries. In developing countries such as Indonesia have recognized that MSME have a very important role in the growth of employment opportunities and increased income. That role in the growth of employment opportunities is very strategic, in line with the efforts of the government to reduce unemployment. Another strategic role of MSME is to increase income, where MSME play a role in the government’s efforts to fight poverty.

MSME in developed countries such as United Stated, in 1960 until 1985, absorbing about half of the labor force in the United State, and created more than 80 percent of jobs, 60 percent of the jobs come from new companies. In the 1980s, the companies merged into Fortune 500 reducing 3.5 million jobs, while the MSME are creating more than 20 million jobs. In fact, 99 percent of the 17 million businesses employing less than 100 people (Hunger and Wheelen, 2006).

Many stories about the success that has been achieved MSME, but many also went bankrupt. According to data from the Small Business Administration United States that as many as 24 percent of failures MSME occurred in the first two years. Cause of failure is the practice from implementation of management strategic is not good (Hunger and Wheelen, 2006). Several studies have shown that the level of life of the new company bigger, but actually they also have higher risk for failure. The cause of the failure of some MSME is caused from not feasible of accounting system and failure to anticipate growth. The most fundamental problem is the practice of management strategic is not good, such as the inability to plan effective strategies to reach customers, as well as the failure to develop a measurement system and control performance. In practice strategic planning conducted by the owner or manager of small companies is done with minimal, not depth, and just for the routine.

Management strategic emerged as responses from increasing environmental turbulence. Management strategic see the company management overall and strive to give an explanation why some companies thrive and why the other companies are not as advanced and eventually went bankrupt. Further that the special
characteristics of management strategic is the emphasis on strategic decision making (Mintzberg, 1990 in Hunger and Wheelen, 2006).

In implementing strategic decisions, leaders must conclude and analyze all matters related to the company. Including analyzing all competitors, identify groups of customers, which in turn is expected the company to have a competitive advantage. Strategic decisions directly influence on innovation in MSME in the four provinces in Thailand (Chiangrai, Chiangmai, Lampun, and Lamphang) (Wingwon 2012). Researchers have not been able to find the contribution of previous research about the influence of variables strategic decisions on competitive advantage and performance of MSME in Indonesia. Researchers incorporate variables of strategic decisions in the conceptual framework of research, because it refers to research conducted on MSME in Thailand, based on consideration of similarity as a member of the Association of South East Asian Nations (ASEAN).

According to Hang and Wang 2012, that most the model of strategic decisions develop from studies on large companies. Case studies conducted on 13 MSME in Australia, found that the process implementation of strategic decisions two-stage used by owners of MSME. Problems found that MSME owners have a narrow focus in developing a strategic decision. The results of the study contribute to add insight to the implementation of strategic decisions in MSME.

Implementation of the information technology adoption (IT) on the micro small and medium enterprises have greater benefits especially in the developing worlds as the time without limits, where the information can be transmitted in a matter of seconds, causing all companies should be taken of the impact of this phenomenon when it does not want to lag far from the companies that implement the information technology adoption (IT). The external environment will greatly affect the micro small and medium enterprises. Information technology adoption (IT) is believed to provide benefit for MSME. Prater and Ghosh (2006) stated the necessity of a small company to implement the information technology adoption in order to compete in the global market. In contrast to these opinion, some studies actually produce findings absence of a relationship between the implementation the information technology adoption (IT) with an increase in productivity, a situation referred to as productivity paradox (Dedric, J; Kenneth, L. Kraemer, 2001).

Implementation of information technology adoption in the MSME food and beverage industry sector in Bandung Raya got the attention of the Government, particularly Telecommunication Indonesia, Inc (Telecom). Telecom made a breakthrough on the implementation of technology adoption in MSME, more precisely provide business opportunities with information technologies and communication in MSME, by establishing MSME-center. MSME-center first established in Jakarta, and Telecom will present MSME-center in the other city of Bandung, Cimahi, and other cities in Indonesia. Through MSME-center, MSME can obtain technical assistance and solutions to manage their business, design, marketing their products, as well as their business finance. Telecom has prepared a marketing tool through plasa.com, so that the products of MSME can be marketed around the world on-line. Solution of adoption other information technology for MSME are also prepared, such as e-MSME, e-cooperation, and application for Rural Banks (BPR) (Ministry of Cooperative and MSME, 2013).

Information technology adoption is inseparable from globalization, but the real purpose of a business is to create customers (Drucker, 1982), and according to Drucker, in fact a company only has two basic functions, namely, marketing and innovation. Different opinions about innovation in micro small and medium enterprises presented by Hunger and Wheelen, 2006 stated that small firms are owned and managed privately, not dominant in its operations, and does not engage in the practice of innovation. Ministry of Cooperatives and MSME agreed to establish cooperation with Indonesian professional associations working in Japan (Enjinia archipelago) in efforts to improve product quality micro-enterprises, small and medium enterprises (MSME) with a touch of innovation and technology of Japan (Ministry of Cooperative, 2013).

Implementation of innovation MSME food and beverage industry sector in Bandung Raya has been done. For example, product of coffee bandrek, coffee bajigur, and chocolate bandrek. Bandrek is the traditional drink Bandung Raya, which original is a local specialty drink, which aims to heating the body to which consuming, in accordance with the natural conditions of Bandung Raya cold. Currently, to make drink product bandrek more varied and interesting, made by combining innovation bandrek and bajigur with coffee and chocolate. In this study, the research results are expected, to see the extent to which micro small and medium enterprises to innovate, and also see how the influence innovation on variables of competitive advantage and performance of MSME food and beverage industry sector in Bandung Raya.

Strategic decisions, innovation and information technology adoption in this study will be tested its effect on competitive advantage and performance of MSME Bandung Raya. Problems competitive advantage of MSME Bandung Raya, with see the fact that almost all regions of Indonesia, and Bandung Raya in particular has a tradition more and diverse culture, then it will certainly affect the MSME products Bandung Raya and competitive advantage. According to the researchers, each product MSME food and beverage industry sector Bandung Raya, many of which already have a competitive advantage, especially on the side of product differentiation, and an affordable price, for market in Indonesia. Researchers also see a trend of consumers on MSME products to remain loyal to foods and drinks favorite each, which usually is food and drink from the
region of origin of consumers.

Based on some of the gap, and some of the problems that occur in MSME in Bandung Raya, and referring on previous researches, this study is done to find a better understanding based on the existing concepts by considering the result of previous research, which in turn can be used as a basis for further research on the effects of strategic decisions, innovation, information technology adoption on competitive advantage and MSME performance in Bandung Raya.

Based on the background, the question research can be formulated as follows:
1. Is strategic decisions have a significant effect on MSME performance?
2. Is strategic decisions have a significant effect on competitive advantage?
3. Is innovation have a significant effect on MSME performance?
4. Is innovation have a significant effect on competitive advantage?
5. Is information technology adoption have a significant effect on MSME performance?
6. Is information technology adoption have a significant effect on competitive advantage?
7. Is competitive advantage have a significant effect on MSME performance?

2. Literature review

Nisjar and Winardi (1997) stated that a strategy management is knowledge that combines the functions of management in the context of decisions making that the organization has a strategy to achieve organizational goals efficiently and effectively. Strategy management is urgently needed that the corporate environment experienced changes increasingly complex and rapidly, so that the success of the strategy management is determined also by leaders and managers. In conjunction with the changes in the environment, managers have a role to manage the firm as an open system, develop goals, objective, and plan, then unify the overall activity in a broad path. Miller (1983) stated that the strategic decision is a actions to position the company of business ahead of competitors. For example, for the first company to introduce new products or innovative services to the market. Further, that the entrepreneurial process, orientation and strategic management consist of (1) the expansion of business, (2) innovation, and (3) win from competitors (Miller, 1987).

Jensen et.al (2011) stated that in making decision emphasized, that at stake is the individual characteristics that make policy, their interpretation on the situation and social ties also play an important role in the result. In addition it also depends on the breadth of entrepreneurial experience and social capital in the form of an asset or liability for the effectiveness of the decision.

Kremes (2008), in “Inside Drucker’s Brain” stated, Drucker see innovation as the key to keeping the company in order to remain strong and to avoid the crisis. In the view of Drucker, many managers simply think about problem the daily operations of the company while he thinks the future will always be different and the future will always arrive. In the end even the strongest company will have trouble if do not prepare for the future that are always different and always will arrive. The company that are not willing to take risk to create something new, then it must be prepared to bear the risk and be surprised for something will be happen. The company will soon lose competitive advantage and supremacy, and what remains is the company’s operating costs. It is a risk that can not be borne by the rich company and giants though, and does not need to happen to small business. He considers self-satisfaction and self-isolation as the enemy of innovation.

Davish and Olson (1985), defines information technology adoption is like the use of hardware and software applications to support the operations, management and decision making in business. The definition of a very simple and very easy to understand. The definition does not only apply in the business world alone, but in all dimensions of life.

Majeed (2011), stated that competitive advantage and firm performance are two things special and has a complex relationship. Overall, competitive advantage and performance showed a significant effect relationship. Competitive advantage is a very important and have an impact on performance improvement of a business. Kodrat (2009), stated that measurement system for traditional performance to produce information that is too global, too slow, and too distorted for the manager to make the process of planning and decision making. Currently, performance measurement non-finance is becoming increasingly important. This was caused by the increased of level management that aims at finding the “heart” for the operation business them (Stoop, 1996).

Lawyer (1995) in Williams (2002), stated that, “Many business have become global, and as a result, success requires much higher levels of performance in three areas, the quality of goods and services produced, the cost at which they are produced, and the speed with which the producers innovate and new products and services to market.”

3. Research Methods

This research uses explanatory research with hypothesis testing procedures (hypothesis testing) to answer question and research objective. Explanatory research conducted to provide an explanation and description of phenomena that develop in the model. This type of research is usually seen phenomena that occurs, then
developed news models to complement the related research (Sekaran, 1992). This research is included in the category of perceptual research, where as the unit of analysis is the individual (Singarimbun and Efendi, 2001). The individual in question is the owner or manager of a micro, small and medium enterprises (MSME). Research location in Bandung Raya, consisting of Bandung regency, Bandung, Cimahi, and west Bandung. This research conducted within 3 months.

The selection sample by using probability sampling techniques. One of the techniques included in the category of probability sampling techniques, were used in this research is proportionate random sampling area. Data for this research were obtained from data bank of MSME are owned by the department of Cooperatives and MSME, by using Slovin formula, based on the number of population, number of samples, and specified 152 respondents. Data analysis techniques are used to answer the research hypothesis testing is use the Structural Equation Modeling (SEM).

Criteria sample in this research in accordance with that specified in the Law of the Republic Indonesia No.20/2008 on MSME. In accordance with the Central Bureau of Statistics, 2011, the amount of 54.559 million units of micro enterprises, small businesses 602.195 units and 44.280 units of medium businesses. Then the number of samples for micro small and medium enterprises (MSME) sectors food and beverage industry in each region will be adapted to the calculation presentation, which in get calculation result 98.82% for the sample micro, 1.09% for small businesses, and 0.09% for medium businesses of any number of samples in each region.

4. Result
This chapter will explain the analysis result and discussion of research. Explanation performed included an explanation of the characteristics of respondents, and further the evaluation of the assumptions Structural Equation Model (SEM), confirmatory analysis/Confirmatory Factor Analysis (CFA) for each variable, structural analysis which has been modeled and testing of hypothesis.

In this research, there are five variables, namely strategic decisions, innovation, information technology adoption, competitive advantage, and MSME performance. Each variables is measurement by several indicators. For SEM analysis, researchers used AMOS software with estimation maximum likelihood is conducted with several step of analysis, confirmatory factor analysis (CFA) to determine valid and reliable observable variables to be passed to next step, and SEM analysis.

Testing the assumption in SEM is normality and linearity SEM has been done. The assumption of SEM in this research has fulfilled. SEM models on testing the relationship between the variables in this research can be used in further discussion. Testing of linearity assumption has done with curve fit method, calculated with SPSS software. If the value Sig of linear models < 0.05 or Sig all models > 0.05, then the linear assumption has fulfilled. Result of testing the linearity assumption is presented in Table 1. Table 1 shows that all the influence a significant linear model so that the linearity assumption has fulfilled.

Table 1. The Result of Testing Linearity Assumption

<table>
<thead>
<tr>
<th>The relationship between variables</th>
<th>Testing Result</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic decisions on MSME performance</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
<tr>
<td>Strategic decisions on competitive advantage</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
<tr>
<td>Innovation on MSME performance</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
<tr>
<td>Innovation on competitive advantage</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
<tr>
<td>Information technology adoption on MSME performance</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
<tr>
<td>Information technology adoption on competitive advantage</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
<tr>
<td>Competitive advantage on MSME performance</td>
<td>Sig of linear model 0.000 &lt; 0.05 (Significant Linear Model)</td>
<td>Linear</td>
</tr>
</tbody>
</table>

Source: Appendix

The evaluation result of Goodness of Fit structural model shows not all the criteria of good models. However CMIN/DF and RMSEA has complied with the minimum value of the critical cut-off value as a sign that the model has been supported by empirical data. Hair et al (2006), stated that the criteria used to indicate the goodness of the model is the value CMIN/DF ≤ 3.00, and RMSEA ≤ 0.10. Furthermore, the evaluation result of Goodness of Fit structural model, has done the testing of model relationship between research variables in Table 2.
Table 2. Test Relationship Between Research Variables

<table>
<thead>
<tr>
<th>Relationship between variables</th>
<th>Coefficient</th>
<th>P-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic decisions on MSME performance</td>
<td>0.098</td>
<td>0.202</td>
<td>Not significant</td>
</tr>
<tr>
<td>Strategic decisions on competitive advantage</td>
<td>0.331</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Innovation on MSME performance</td>
<td>0.622</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Innovation on competitive advantage</td>
<td>0.340</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Information technology adoption on MSME performance</td>
<td>0.356</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Information technology adoption on competitive advantage</td>
<td>0.319</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Competitive advantage on MSME performance</td>
<td>0.039</td>
<td>0.668</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

Source: Appendix

5. Conclusion
Based on the result of description analysis and analysis of Structural Equation Modeling (SEM) on research model which researchers proposed its variable is strategic decisions, innovation, information technology adoption, competitive advantage, and MSME performance, and test of opinions expressed by Wingwon (2012), Miller (1983), Asaari and Razak (2007), Majeed (2012), Li and Ye (1999), Chen and Tsou (2007), Jen and Tsou (2007), Abu and Rasli (2007), can be concluded some of the following: testing of 7 hypothesis contained in this research resulted in five hypothesis is accepted and 2 hypothesis is rejected. The influence is not significant among variable include: 1) a strategic decision on MSME performance, 2) competitive advantage on MSME performance. The empirical result show that the innovation have a effect on MSME performance is also in line with the opinion of Salim and Sulaiman (2011) which stated that there is a relationship between performance and innovation in micro small and medium enterprises (MSME) to realize company’s competitive advantage. Kremes (2008) stated that innovation is the key to keeping the company remains strong. Strong company basically has a good performance.

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