DESIGNING A BUSINESS INNOVATION STRATEGY TO IMPROVE THE BUSINESS PERFORMANCE OF CHOCOLATE SMEs IN EAST JAVA, INDONESIA

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GRADUATE SCHOOL
BOGOR AGRICULTURAL UNIVERSITY
BOGOR
2015
DECLARATION

I hereby certify that thesis entitled “Designing a Business Innovation Strategy to Improve The Business Performance of Chocolate SMEs in East Java, Indonesia” is true of my work with the direction of the supervising commission. This thesis also presented for the award of a degree in The University of Adelaide as a double degree program between Bogor Agricultural University and The University of Adelaide. Resources originating or quoted from published and unpublished works published from other authors have been mentioned in the text and listed in the Bibliography at the end of this dissertation.

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Bogor, July 2015

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NRP. F351137131
Dilisirah berunjukrana deh meupertianda gugus sabogin aktu seluhul karya tijik, in dokun berurup operum, tungs hikp.

B. Pruplikipan lehak merujukrana, beratupun yang wotil hikp.

C. Pruplikipan laypu uleth beratupun sabogin, penulisan penulisan, penulisan karya, penulisan perapun, penulisan karya, penulisan beratupun sabogin, penulisan merujukrana, penulisan merujukrana, penulisan merujukrana.

1. Dilisirah berunjuk sabogin aktu seluhul karya tijik, in dokun berurup operum, tungs hikp, merujukrana, merujukrana, merujukrana, merujukrana, merujukrana.
SUMMARY


This study explored the obstacles facing for chocolate products from East Java SMEs entering the domestic market. This research also contributed a design strategy for business innovation that might be done by small and medium chocolate enterprises in East Java to improve their business performance.

This study used a mixed method framework. Study literature, field observation, and a semi-structured interview were delivered to gain accurate data. The qualitative data then being processed through a descriptive-interpretive analysis. The study findings were used to construct the content of Analytical Hierarchy Process (AHP) as the quantitative tool to select an innovation strategy.

The findings were for passing the market entry obstacles needs an improvement of collaboration among Indonesian government, East Java government, and the chocolate SMEs. A product with distinctive flavor is the most preferred best practice by respondents as a business innovation strategy.

This study was only focus on the government and chocolate SME as the stakeholders. As practical implications, chocolate SMEs in East Java might apply the product diversification by creating a product with a distinctive flavor as an innovative strategy for their business.

Keywords: East Java, chocolate SMEs, business innovation strategy
RINGKASAN


Penelitian ini mengeksplorasi hambatan yang dihadapi IKM cokelat Jawa Timur untuk memasuki pasar domestik. Studi ini memberikan kontribusi suatu rancangan strategi untuk inovasi bisnis yang mungkin dilakukan oleh IKM cokelat di Jawa Timur untuk meningkatkan performa bisnis.


Hasil penelitian adalah untuk melalui hambatan dalam memasuki pasar domestik diperlukan perbaikan dalam kolaborasi antara pemerintah pusat, pemerintah propinsi Jawa Timur, dan IKM cokelat. Suatu produk cokelat dengan ciri khas rasa merupakan aplikasi langsung yang banyak dipilih oleh responden sebagai suatu strategi inovasi bisnis.

Penelitian ini hanya berfokus pada pemerintah dan IKM cokelat sebagai pihak-pihak yang berkepentingan. Implikasi dari penelitian ini adalah IKM cokelat di Jawa Timur dapat menggunakan diversifikasi produk melalui pembuatan produk dengan ciri khas rasa sebagai strategi inovatif untuk bisnis mereka.

Kata kunci: Jawa Timur, IKM cokelat, strategi inovasi bisnis
DESIGNING A BUSINESS INNOVATION STRATEGY TO IMPROVE THE BUSINESS PERFORMANCE OF CHOCOLATE SMEs IN EAST JAVA, INDONESIA

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Praise and gratitude are dedicated to Alloh *subhanahu wa ta'ala* for the grants so this academic written can be finished. This research had been done since June 2014 entitled: Designing A Business Innovation Strategy to Improve the Business Performance of Chocolate SMEs in East Java, Indonesia.

Thank you very much for Prof. M. Syamsul Maarif and Prof. Machfud as the advisory committee from Bogor Agricultural University. The writer also want to say thank you for Dr. Barry Elsey and Dr. Scott Gordon as the supervisors from The University of Adelaide. I also would like to express gratitude to Dr. Ronald Grill and Amina Omarova for the advice. Appreciations are given to all the participants in this research and for the Indonesia Ministry of Industry.

Great thanks for my lovely mom and dad for the biggest support. Last but not least for all of my friends in this double degree program. Finally we made it mates, thank you for the happiness in the middle of our sufferings.

Hopefully this academic writing can be useful for everyone.

Bogor, July 2015

*Yani Kartika Pertiwi*
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1 INTRODUCTION

1.1. Research Background

The main type of cocoa plants that have been cultivated in Indonesia is bulk cocoa, and the rest is fine cocoa. According to the International Cocoa Organization (ICCO), the difference between those two types is in the flavor. In Indonesia, the fine cocoa is grown by smallholders in East and Central Java. The high quality of Indonesian cocoa means it does not melt easily (Komisi Kakao Indonesia 2006). Thus, it useful for blending with another material in a cocoa based product such as chocolate.

The East Java province has a high potential to fulfil the supply of cocoa downstream industry. The south route of this area has suitable agro ecosystem typology for this commodity. Moreover, based on the data of Indonesian Directorate General of Estate from 2009 until 2013, East Java has led other provinces in Java in cocoa production as presented in figure 1.

However, cocoa from eastern Java faces the same situation with cocoa produced from other regions in Indonesia. It has good quality but sold in the form of dried beans rather than fermented cocoa beans. This is caused by the small number of cocoa processing industries and the other complex factors related to cocoa fermentation (Arifin 2013). The cocoa farmers prefer to sell their unrefined cocoa beans to the middlemen than make it fermented. For the farmers, the profit of selling the fermented cocoa is lower than raw cocoa beans. It caused by the yield of fermented is very small due to the high shrinkage.

![Cocoa Production by Province in Java between 2009-2013](image_url)

Figure 1. Cocoa production by province in Java from 2009 until 2013

Source: Directorate General of Estate (2013)
Cocoa has high potential as a primary commodity of agro-industry products in eastern Java. Several supporting factors of the potential are mentioned below. The Indonesian Coffee and Cocoa Research Institute (ICCRI) is located in East Java. ICCRI is the centre of research and development from seed, cultivation, cocoa processing, machinery, until the implementation in small and medium industries. Moreover, as the second-biggest province in Indonesia, this region has sufficient infrastructure such as transport and power generation to support the industrial development from the small enterprise until the big one (Santosa & McMichael 2004).

The Indonesian government has issued policies to improve the national downstream industries. One of them is from Indonesia Ministry of Industry. Cocoa processing industries are included on the Indonesian Road Map of Developing Agro-industry Priority Cluster Industry 2010-2014. However, whether the policies implementation has been successful, requires a thorough coordination and cooperation between government, cocoa farmers and industry players.

The downstream products of this commodity consists of cocoa powder, cocoa butter, and cocoa based food. Chocolate as one of the cocoa downstream products might be developed by SMEs. Several well-known chocolate SMEs in Java region are Monggo Chocolate from Yogyakarta and Chocodot from West Java (Dilana, Nurmalina & Rifin 2013).

1.2. Problem Statement

Based on the data of cocoa production from Directorate General of Estate in 2013, East Java province is the biggest supplier of cocoa production in the island of Java. However, the chocolate product from this region is rare to be found in the domestic market, even though, this province has numerous chocolate SMEs. According to the data from Industry and Trade Agency of East Java in 2012, there were 25 chocolate SMEs in this province. Hence, there is a gap between cocoa production and chocolate products in the domestic market.

SMEs in Indonesia play a crucial role due to their ability to create employment and to generate added value of the commodities from this agricultural country. However, small and medium enterprises face a greater risk than the big firms. In common, SMEs have lower ability to sustain than big enterprise. Innovative strategies might offer a solution for SMEs to improve their business performance.

1.3. Research Questions

These problem leads to the research questions below:

- What are the obstacles preventing small and medium chocolate industries in East Java from putting their products on the market?
- What kind of business innovation strategy is needed to improve the business performance of small and medium chocolate industry in East Java, Indonesia?
1.4. Research Objectives

East Java has the biggest cocoa production than other provinces in the island of Java. However, the chocolate product from the small and medium enterprises (SMEs) this region is rarely to found in the domestic market. It is considered as a gap between cocoa production and the business performance of chocolate SMEs. This research intends to identify the obstacles facing of small and medium chocolate enterprises for delivering their product into the domestic market.

Furthermore, to flourish in a competitive environment, the company itself needs to have an innovative business strategy. The purpose of this study is to formulate a business innovation strategy to improve the business performance of the small and medium chocolate enterprises in East Java province, Indonesia.

1.5. Significance to the Field

Schaper et al. (2011) declare small and medium entrepreneurs might directly help cocoa farmers to give added value of the commodity because the majority of SMEs in Indonesia are based on agricultural production. Meanwhile Dilana, Nurmala and Rifin (2013) suggest that the performance improvement of cocoa processing industry in East Java required government supports to find the specific market access. This is supported by Santosa and McMichael (2004) that provincial government policies and adequate infrastructure provide significant results on the development of industry in East Java.

Related to regional development, Nijkamp and Abreu (2009) conclude that innovation, entrepreneurship, and knowledge should be considered as indicators of progress. Based on the finding of Setyanti et al. (2013) innovation is associated with the entrepreneurial vision and directly proportional to the improvement of SMEs business performance in East Java. Meanwhile according to De Zubielqui, Lindsay and O'Connor (2014) the appropriate levels of product, process, and marketing sources of ideas are necessary to facilitate innovation that influences company performance.

1.6. The Key Concepts

Related to market entry obstacles in this research, Lofstrom, Bates and Parker (2014) imply that financial factors and entrepreneur background might obstruct a company from entering the market. Another focus in this study is the innovation strategy that will be used to improve the business performance of chocolate SMEs in East Java. Rosenbusch, Brinckmann and Bausch (2011) claim the relation between innovation and SMEs performance depends on the sustainability of firm, the type of innovation, and the culture in the company. Gilbert (1994) in Akman and Yilmaz (2008) defines innovation strategy designates to the degree and method of a firm uses innovation to perform its business plan and to develop the performance.

In accordance with Tidd, Pavitt and Bessant (2001) innovation strategy in this research focus on process, product, management, and marketing. Those focuses would use concept as described in the following. An innovation strategy
that driven by the market, typically based on external content (Schaper et al. 2011) such as consumer awareness. Meanwhile for innovation strategy that related to product and process, technology mastery in SMEs becomes the influential factor. Furthermore, innovative strategy in product might be a new product or development of an existing product. Following Trott (2008), the concept of innovation that focus on management in this study would be particular to human resources.

1.7. Limitations

There are several limitations in this study as mentioned below:

- The chocolate SMEs in this research limited on those who produce chocolate products that are ready to be consumed such as chocolate powder drink, chocolate bar, chocolate confectionery
- Location area is limited in East Java province because this study is about business performance of chocolate SMEs in this region
- The stakeholders of cocoa downstream industries in this study is limited on the government and chocolate SMEs
2 LITERATURE REVIEW

In this chapter, the literature are reviewed as follows. Firstly, it looks at the nature of the cocoa downstream industries in Indonesia, particularly the implementation of government policies. The second part is an overview of the performance and innovation of Indonesian SMEs. Some literature review about innovation strategy and business performance makes up the next section. The last part correlates those three areas and concludes with an exploration of the gap that might be filled in this study.

2.1. Cocoa Downstream Industries in Indonesia and the Government Policies

Indonesia is the third biggest cocoa producer in the world after Ghana and Cote d’Ivoire. The largest cocoa production in Indonesia comes from Sulawesi island. Even though cocoa beans with additional fermentation increase the added value, only 10% of cocoa beans are locally processed while the rest exported as raw beans. This phenomena is created by the import cost and government intervention (Syahruddin 2011). It is ironic because the proper farming practices and cocoa bean quality might lead to several advantages of chocolate product (Saltini, Akkerman & Frosch 2013). The debate about cocoa fermentation has turned out to be complicated since the farmers are more concerned on their economy condition than improving cocoa beans quality through fermentation (Arifin 2013).

As mentioned in the first chapter, the Indonesian government has issued policies to improve cocoa downstream industries. In 2010, government enforced an export duty to the export of cocoa beans. Syadullah (2012) compares the development of cocoa industries before and after the implementation of export duty. His finding shows that the effect of policy implementation has been a decline in cocoa export and an increasing number of cocoa processing companies. However, those cocoa processing companies are ineffective due to the low quality of cocoa beans. He recommends the government to use the export revenue for training the farmers produce qualified cocoa beans.

The unsuccessful outcomes of government policies implementation in the cocoa field are found in some research. Permani (2013) suggests policies that are more focused on the market access and technical support towards farmers might encourage the downstream industry of this commodity. Moreover, the development of cocoa downstream industries needs improvement on domestic supply chains of cocoa markets (Arifin 2013). Hence, small and medium entrepreneurs might directly help cocoa farmers to give added value of this commodity since the majority of SMEs in Indonesia based on agricultural product (Schaper et al. 2011).

Cocoa has high potential as a primary commodity of agro-industry products in eastern Java due to supporting factors that mentioned in previous chapter. Research about cocoa in East Java by Dilana, Nuralina and Rifin (2013) implies that the government is suggested to find a specific market access for the cocoa processing industries. Their research also finds that the most efficient
marketing channel is the one that connects the cocoa farmers directly to the district level collector.

The review about cocoa downstream industries and the government policies will be used as the guide for this research problem. This study will identify whether the gap between cocoa production and chocolate product from SMEs in East Java related to the government policies of cocoa downstream industries.

2.2. The Performance and Innovation of Indonesian SMEs

This research uses the definition of small and medium enterprise (SME) based on Statistics Indonesia (BPS) that SME is an enterprise with less than 100 workers. According to Anggadwita and Mustafid (2014), the Indonesian SMEs contribution towards Gross Domestic Product (GDP) was about 60% and provided 97% of the total worker. The majority of the Indonesian SMEs concern in agriculture, followed by service and industry.

Based on Tambunan (2008) SMEs in Indonesia might exist in a long term due to several factors. They have a niche market and provide employment for Indonesian society. However, only some of them are sustainable because the majority of SME entrepreneurs do not consider their lack as a serious matter. The weaknesses of SMEs development in Indonesia are funding, lack of cooperation among government institution and knowledge of human resources (Bhasin & Venkataramany 2010).

The Indonesian government considers that SMEs supports the national economy. Several policies to improve the development of SMEs have been imposed by the Ministry of Cooperatives and SMEs and the Ministry of Industry. The majority of policies related to the government assistance in the business license, funding, and technical assistance. For example, the government has provided technical assistance to SMEs such as training. However, most of the training results were ineffective to improve technological capabilities of SMEs (APO, 2007).

Based on Kusumawardhani, McCarthy and Perera (2012) SMEs in Indonesia have adopted innovativeness to sustain in the competitive environment. It is supported by Santos and McMichael (2004) that SMEs in East Java have innovative ability to develop their business. Hence, it might be appropriate if the national government gives attention toward innovation in SMEs (Najib & Kiminami 2011). One successful evidence of government supports for innovation in SMEs is stated by Kim (1997). He claims that significant innovation policies of South Korea government towards SMEs resulting the improvement of innovative ability in the SMEs.

The study of Kusumawardhani, McCarthy and Perera (2012) claims that innovation has a significant influence on the SMEs performance improvement in Indonesia to survive in the market turbulence. Related to the business performance of SMEs, a research from Kurniawati and Yuliando (2015) shows that human resources play a role in improving productivity. However, Anggadwita and Mustafid (2014) argue that the entrepreneurial aspects have more influence than human resource because the owner characteristic still determines the company orientation.
That review about the performance and innovation of Indonesian SMEs would be used as the base whether it applies to the small and medium chocolate enterprises in East Java. This study would explore the business performance of chocolate SMEs in East Java such as productivity and daily turnover to solve the research problem.

2.3. Innovation Strategy for the Improvement of Business Performance in the SMEs

The trigger of innovation in an enterprise is the quality of business performance (Trott 2008). Innovation has a relation with business performance, even in a small enterprise context because it might improve business performance in the term of growth, profitability, and productivity (Forsman & Temel 2011). However, Blumentritt and Danis (2006) argue that innovation approach in an enterprise depends on the strategic directions of the business.

As mentioned previously in the first chapter, innovation strategy is a concept insight on how a company competes and sustain through doing innovative activities. Rosenbusch, Brinckmann and Bausch (2011) claim that innovation strategy in the SMEs requires adequate resources and capabilities. Tidd, Pavitt and Bessant (2001) imply that innovation can be managed through a strategy. The strategy focus might be based on the innovation in product, process, marketing, and management as described below:

- **Product innovation** is the changes in the products or services
- **Process innovation** is the changes in the ways the product created or the service delivered
- **Position innovation** is the changes in the context in how the products or services are introduced which is realized as the marketing method
- **Paradigm innovation** is considered as a management change in an organization

Based on Trott (2008) technology mastery becomes a significant factor of the innovation strategy that focus on product and process. Related to product innovation, the lack of resources becomes the barriers of SMEs to do research and development (R & D). According to Qian (2002) product diversification is a solution to solve the problem of research and development in SMEs. His research finding confirms if company performance in terms of profitability is likely to increase as the arising index of product diversification. Forming an alliance such as makes a partnership with the supplier is another method for passing the obstacles of product innovation in SMEs (O'Dwyer, Gilmore & Carson 2011).

Related to marketing strategy, the market vision is an insight to facilitate innovation. It becomes an early step of marketing process in innovation. Schaper et al. (2011) declare that there are several influential factors of market entry. Those factors are entry timing, positioning, and scale of entry. This research considers that new market creation might become a part of marketing strategy. According to Sarasvathy and Dew (2005) new market creation might occur through effectuation approach of entrepreneurship network. Aside from new market creation, branding strategy is an essential element in the marketing. As stated by Trott (2008), a success brand is the combination of efficient product,
distinctive identity, and added value. The purpose of branding is to show the product position in a competitive environment.

The review above will be used to propose the design of innovation strategy in this study. The type of innovation strategy that appropriate to improve the business performance of chocolate SMEs in East Java will be found in the research findings.

2.4. Summary

The potential of chocolate as the main product of cocoa downstream industry in eastern Java requires involvement of both the provincial and central governments. Policies that have been issued to improve the domestic cocoa downstream products are appropriately in line with the strategy to promote SMEs.

The SME entrepreneurs are doing innovation in business strategy as an attempt to survive in the competitive business environment. Implementation of this plan might focused on the product, process, marketing, and management development. However, it relates to the internal and external factors in the company.

This study intends to identify the market entry obstacles of chocolate SMEs in East Java. Besides, this research also purposes to design an innovative strategy that might be done by small and medium chocolate enterprises in East Java to improve their business performance.
3 METHODS

3.1. Introduction

This research used a mixed method framework because both qualitative and quantitative aspect were required to answer the research question (Johnson, Onwuegbuzie & Turner 2007). The method allows a sequential data collection with simultaneous data processing (Creswell 2013). In this research, the methodology step consists of literature study, semi-structured interview towards respondents, and field observation in the East Java province. Those stages would lead to primary and secondary data. The study used descriptive-interpretive analysis to gain information about chocolate SMEs condition in East Java. A semi-structured interview was used to propose a design of business innovation strategy as best practice for the SMEs. Location set of the industries was in East Java province and used a purposive sample.

3.2. Setting

The location setting for the research was in East Java province because the research focuses on the business performance improvement of chocolate SMEs in this region. The schedule had been planned from June 2014 until June 2015 which covered the study literature, data collection, and writing research.

3.3. Sampling and Participant

A purposive sample is used for the various participants from different background. This kind of method is capable of identifying the expert opinion. The technique is also suitable for mixed method research (Tongco 2007).

The participants were nine respondents that consist of:

a) Five entrepreneurs of chocolate SMEs in East Java
b) One representative from Indonesian Ministry of Industry
c) One representative from Industry and Trade Agency of East Java province
d) Two representatives from the associations of cocoa downstream industries in Indonesia

The details of respondents background is described in the table 1.

<table>
<thead>
<tr>
<th>Name</th>
<th>Background</th>
<th>Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arif Zamroni</td>
<td>Chocolate SME entrepreneur/Chairman of The Indonesian Cocoa Farmers Association</td>
<td>Chocolate SME</td>
</tr>
<tr>
<td>Devi Meisita</td>
<td>Owner of Suoklat (Suroboyo Coklat)</td>
<td>Chocolate SME</td>
</tr>
<tr>
<td>Erni</td>
<td>Owner of Erni’s Coklat</td>
<td>Chocolate SME</td>
</tr>
</tbody>
</table>
3.4. Intervention

The interview is the intervention because this research uses an open-ended question. This type of question allows the respondents to explore the answer based on their own perceptions (Bryman & Bell 2011). Based on Yin (2013) an open answer might give a relation between evidence and problem in a case study. However, an open-ended question is commonly time-consuming, and the answers are broader than expected. Hence, this research applies a semi-structured interview. This kind of interview might reduce the disadvantage of an open-ended question because it keeps the respondents within the research scope (Rabionet 2011).

3.5. Instrument

The questions from a semi-structured interview and the Analytic Hierarchy Process (AHP) were the tools in this research. Related to the first research question, this study proposed different interview question based on the type of representatives as presented in table 1. The differences were done to elaborate the answers based on the perceptions of each representative.

Another instrument in this study is the Analytic Hierarchy Process (AHP), it is a hierarchy of problem that presented in a systematic procedure (Saaty 2008). The principle of AHP is a measurement of intangible things through pairwise comparisons where expert judgments are used to determine priorities. AHP has been used in various fields and subjects including strategy election. AHP makes a possibility for a decision maker to merge quantitative and qualitative data (Perera & Sustrina 2011).

In this study, the questions from the AHP were carried out to choose a business innovation strategy for chocolate SMEs. There was no separation of questions for different the type of respondent. As mentioned before, AHP was used to determine a business innovation strategy in this research. The AHP step was translated from Ma’arif and Tanjung (200) in figure 2.
Principle of comparative measurement in AHP are the pairwise comparison and the recommended scale of relative importance. The pairwise comparison is used to present the relative strength of hierarchy elements. Consistency Ratio (CR) is a number that represent whether an AHP measurement is consistent or not. The acceptable value of CR is 10% or less. Meanwhile, the participant judgement is translated into numbers in table 2 as described by Saaty and Kearns (2014).
Table 2. The scale of relative importance in AHP

<table>
<thead>
<tr>
<th>Intensity of Importance</th>
<th>Definition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equal importance</td>
<td>Two activities contribute equally to the objective</td>
</tr>
<tr>
<td>3</td>
<td>Weak importance of one over another</td>
<td>Experience and judgement slightly favor one activity over another</td>
</tr>
<tr>
<td>5</td>
<td>Essential or strong importance</td>
<td>Experience and judgment strongly favor one activity over another</td>
</tr>
<tr>
<td>7</td>
<td>Demonstrated importance</td>
<td>An activity is strongly favored and dominance is demonstrated in practice</td>
</tr>
<tr>
<td>9</td>
<td>Absolute importance</td>
<td>The evidence favoring one activity over another is of the highest possible order of affirmation</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>Intermediate values between the two adjacent judgments</td>
<td>When compromise is needed</td>
</tr>
<tr>
<td>Reciprocals of above nonzero numbers</td>
<td>If activity has one of the above nonzero numbers assigned to it when compared with activity j, then j has the reciprocal value when compared with i</td>
<td></td>
</tr>
</tbody>
</table>

Source: Saaty and Kearns (2014)

AHP is a blend of qualitative and quantitative aspects (Gerdsri & Kocaoglu 2007) for the strategy selection. Besides, AHP might be applied despite the limited availability of experts (Hoseyni et al. 2014). In a study involving multi-participant, the application of AHP is based on the size of the weight criteria (Wu et al. 2012). According to Saaty and Vargas (2012), the elements in AHP should clearly describe the content relationship and should be an equal comparison. Hence, both the element of AHP and the expert judgement might be re-examined.

3.6. Procedure

This study used the procedure as presented in the figure 3 below. This study required a field observation because it focused on East Java as a region. An observation might support better understanding about the condition of chocolate SMEs in East Java. Based on Silverman (2006), parts of the observation were writing field notes and looking as well as listening.
Figure 3. Research procedure

In common, an interview provides abundant intangible data. In this study, a face-to-face interview using a semi-structured interview guideline was carried out to gather information from the respondents. Data framework of each research question was displayed in Table 3. The questions of a semi-structured interview were elaborated from these research questions. The interview questions would be explained in the appendix A.

Table 3. Data framework of research questions

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data Expected</th>
<th>Sources</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What are the obstacles preventing small and medium chocolate SMEs in East Java from putting their products on the market?</td>
<td>Information about current condition of chocolate SMEs</td>
<td>Chocolate SMEs, cocoa associations and government</td>
<td>Descriptive-interpretive Analysis</td>
</tr>
<tr>
<td>• What kind of business innovation strategy is needed to improve the business performance of small and medium chocolate industry in East Java, Indonesia?</td>
<td>Innovative strategy to improve business performance of chocolate SMEs in East Java</td>
<td>Chocolate SMEs, cocoa associations and government</td>
<td>Analytical Hierarchy Process</td>
</tr>
</tbody>
</table>

The interview lasted between sixty to ninety minutes, conducted and taped in the Indonesian language. The answers then being transcribed and coded to get findings. The last step was translating into English language.
3.7. Data analysis

This research used both primary data and secondary data through a semi-structured interview and report from several sources such as Statistic Indonesia, The Industry and Trade Agency of East Java province, and The Indonesian Ministry of Industry. The data then were processed using a descriptive-interpretive analysis.

In this study, the record of the interview was transcribed then coded. The next step was to classify the data to extract the main findings (Elliott & Timulak 2005). Based on Schmidt (2004) the initial phase of semi-structured interview analysis was to set the category related to the theme of questions. The next step was to establish the interpretation of coding that eventually led to the line of findings. The results also directed to the information about chocolate SMEs condition, particularly the answers to the first research question.

Aside from literature, the information about chocolate SMEs condition in East Java also contributed to the content of AHP. In this research, the Analytic Hierarchy Process (AHP) was a method to choose the business innovation strategies. This study used the Expert Choice software as the AHP tool. Based on the software result, a business innovation strategy for chocolate SMEs in East Java which was the second research question, would be answered.
4 FINDINGS AND DISCUSSION

4.1. Market Entry Obstacles of Chocolate SMEs in East Java

The first research question is about market entry obstacles of chocolate SMEs in East Java. There are several problems that obstruct the chocolate SMEs in East Java from entering the domestic market. Data analysis of interview transcription are presented in the appendix B. Based on the result of descriptive-interpretive analysis, the obstacles are described below.

a) The low consumption of chocolate in Indonesia

The level of chocolate consumption in Indonesia is still low, especially when compared to cocoa production in the country and the number of people in Indonesia. According to representative of cocoa association, Indonesian people are consuming chocolate around 0.6 kg per person per year. It is known in society if chocolate is expensive and luxurious. It has to be changed since there are many domestic chocolate products of SMEs. However, the increasing number of chocolate SMEs does not guarantee an increasing number of chocolate consumption.

The first cause of low consumption of chocolate in Indonesia is the culture. The Indonesian culture considers that consuming chocolate is not a healthy habit. Since childhood, Indonesian people are taught that eating too much chocolate is bad for dental health by causing tooth decay. Based on the representative of government, nowadays the health benefits of dark chocolate have begun to circulate in the Indonesian society. One of the dark chocolate benefits is the higher antioxidants content than the ordinary chocolate. However, it is not easy to instill a perception that the dark chocolate is good for health. In common, Indonesian people still prefer the usual chocolate such as milk chocolate than dark chocolate.

Another inhibitor of consuming chocolate is the price, it is quite expensive compared to other local snack. Chocolate price commonly becomes cheaper in a particular event such as Valentine Day. The price of chocolate is relatively high because it requires a long and complicated process to make a qualified chocolate from cocoa beans. The habit of consuming chocolate is far less in Indonesia than in a developed country. Hence, there is no allocated fund to buy the chocolate product. Meanwhile, in the developed countries such as Europe, consuming chocolate is a necessity. According to the International Cocoa Organization, number of chocolate consumption in Europe is almost half of world number.

In order to increase the chocolate consumption, collaboration from government and SMEs is needed. As stated by representative of cocoa association, the government might create a campaign that chocolate is delicious, healthy, and abundant in Indonesia. The primary target of the campaign is to introduce chocolate to children in the elementary school and show them that dark chocolate is healthy. The introduction of dark chocolate benefits to the teenagers might be different because they are more critical and aware of the health advantages of chocolate. The increasing number of chocolate consumption leads to the
development of chocolate SMEs. The development of SMEs might enlight the regional economy because it is increasing employment number.

There is an expectation of the government to promote the socialization of chocolate product from domestic SMEs in internal scope. According to respondent from cocoa association, government might indirectly push the officials to buy chocolate through creating a chocolate purchase program from SMEs. As an example, encouraging the civil servants to set aside funds for buying chocolate from SMEs once a month. In addition, chocolate products of SMEs might be presented as a dish during a meeting in the government offices so that the introduction of chocolate from SMEs would be more effective.

However, SMEs might introduce the benefits of consuming chocolate through an Education-tourism program. Interviewee from chocolate SMEs implies that education about chocolate highlighted the fact that bitter chocolate has many advantages. It appropriately starts from kindergarten level because for cultivating the right knowledge requires a clean thinking.

Meanwhile, an education through tourism (edu-tourism) program has been initiated by Kampung Coklat. The initial goal of this enterprise was for training the cocoa farmers to produce quality cocoa beans. Kampung Coklat has been opened to the public for tourism since 2014. They expected people to know more about chocolate of Eastern Java by tourism education. The main purpose is to introduce that chocolate from East Java is excellent and almost on par with chocolate products from overseas. Their strategy can be considered as a new market creation because this enterprise has the ability to explore the market potential through edu-tourism.

b) Lack of collaboration between government and SMEs

Based on the representative of chocolate SMEs, the government supports are limited in licensing, fund and promotion. Meanwhile, interviewee from cocoa association suggested the SMEs to follow-up the government efforts.

On one hand, SMEs need more than supports in licensing and promotion from the government. They need guidance, motivation and training to sustain in the competitive environment. Moreover, supports in innovation because chocolate SMEs are in the agro-industry field. Indonesia has enormous agricultural commodities such as cocoa that can be commercialized through innovation.

On the other hand, the national government has been doing several efforts to re-energize national cocoa industry. For example, the government established September 16th as the Indonesia’s official Cocoa Day. Based on the government representative, the Indonesian government through the regional government also facilitates handling the business license for SMEs. However, promotion by the government such as an exhibition is a beginning point for SMEs to engage customer and business network. SMEs should not entirely depend on the government supports to develop their business.

To sum up, the government contribution is required for guidance, motivation, and training. Meanwhile, marketing and business development needs entrepreneur effort and initiative. Moreover, these findings justifies if the gap between cocoa production and chocolate product from SMEs in East Java correlates to the government policies about cocoa downstream industries and
SMEs development in Indonesia. The collaboration between central government, provincial government and SMEs are required for passing the market entry obstacles. Indonesia is expected to becomes not only a cocoa exporting country that consume high quality chocolate for an expensive price, but also a quality chocolate producer.

c) **Chocolate quality from SMEs is need an improvement**

The government representative implies that chocolate quality from the SMEs in East Java (particularly taste, shape and packaging) needs to be improved. Both the packaging and the flavour is less attractive compared to chocolate product from the big enterprise in the domestic market.

The main point that arises from the third market entry obstacle is the chocolate quality from SMEs. According to the representative of cocoa association, chocolate made by SMEs classified as compound chocolate. Because, it is made using cocoa butter substitution (CBS). Cocoa butter substitution is made from palm oil or coconut oil. Most of the SMEs use CBS because it does not require tempering process. Based on the interviewee from chocolate SMEs, tempering is a complicated process because it depends on the temperature and pressure. Meanwhile, compound chocolate only needs to be moulded and takes a short time to form a chocolate product. Besides, cocoa butter is expensive so SMEs use CBS although it might affect the chocolate taste.

Chocolate that made using original cocoa butter is classified as real chocolate. A representative from cocoa association said that the flavour of real chocolate is better than chocolate compound. The melting point of cocoa butter is appropriate to the temperature of the human mouth. Hence, real chocolate gives such a unique sensation when it is tasted.

Overall, it cannot be denied that product quality is important. Respondent from chocolate SMEs claims that the health and safety of the chocolate are two critical areas that need to be concerned by SMEs. Because, there is an increasing awareness about food safety in Indonesia. Hence, chocolate SMEs have to fulfill the Good Manufacturing Process (GMP) standards of their product.

Aside from quality, the packaging also becomes the concern of chocolate product. Good packaging will attract customer to try the chocolate product. According to the experience of chocolate producer, customer usually looks at the ingredient, expiry date, and business permit in the chocolate packaging. Those three points will assure the customer that the product is safe to consume.

East Java has a great potential of chocolate SMEs. However, the product quality needs to be improved so the chocolate lovers could accept the quality. Based on the opinion of cocoa association, consumers would prefer better quality even though the price is higher than the others.

d) **The majority of chocolate SMEs in East Java have limited capabilities to directly use cocoa as raw material**

The majority of the chocolate SMEs in East Java have limited access to directly use cocoa as raw material for their product. Hence, they have difficulties to exploit the big cocoa production from this
province which aims to limited capacity to continuously fulfills the domestic market.

Among five respondents of SMEs, only Vanssa Coklat and Kampung Coklat that use raw materials directly from the cocoa plantations in East Java. Those two companies have production capacity up to 100 kg/month. They are eager to express the fact that cocoa from East Java is excellent. They have loyal customers who have proved if their product has same quality with chocolate from overseas. Meanwhile, the rest three of chocolate SMEs which have production capacity around 50 kg/month get their raw materials in the form of chocolate blocks from several prominent companies. Those big companies got their cocoa from local farmers.

There are several causal factors of limited capabilities to directly use cocoa as raw material for chocolate SMEs. First, the majority of cocoa beans from this region have been sold to the big cocoa processing factories by the cocoa farmers. An interviewee from chocolate SMEs claims that those factories give payment directly to the farmers. Hence, the cocoa farmers are able to fulfill their daily needs sooner.

The process of turning cocoa beans into chocolate products which is not within the scope of the SMEs becomes second causal factor. Aside from financial side, this is a complicated procedure, and the machine is not for SMEs level. Hence, most of chocolate producers use unrefined chocolate as the raw material. The unrefined chocolate is commonly in the form of chocolate block and chocolate powder. This is done in order to simplify the production process and reduce the production cost.

On one hand, most of the chocolate SMEs get their raw material from the big cocoa processing companies. There are several big companies that producing chocolate block and chocolate powder in Indonesia. Hence, they might help as the raw material supplier for SMEs and act as the cocoa beans receiver for farmers. It supports a finding from Dilana, Nuralina and Rifin (2013) that most efficient marketing channel is the one that connects cocoa farmers directly to the collector.

SMEs might make cooperation with the big cocoa processing companies as their raw material supplier. Meanwhile, the big industries make SME as their product receiver. This is called a business to business cooperation, and also considered as a business strategy through forming an alliance (O'Dwyer, Gilmore & Carson 2011).

On the other hand, both Vanssa Coklat and Kampung Coklat are directly using cocoa beans from East Java farmer as the raw material. Those two enterprises have ability to make chocolate from cocoa beans. They have strong desire to reveal that cocoa from East Java has good quality through their chocolate product. In addition, they have been innovative in their product, process, management, and marketing strategy.

Overall, this finding supports Lofstrom, Bates and Parker (2014) that financial factors and entrepreneur background might obstruct a company from entering the market. However, a statement from Schaper et al. (2011) that SMEs might directly helps cocoa farmers cannot be applied in this study. Based on the perspective of this research, not all SMEs have capability to directly help the cocoa farmer.
Based on the interview result, all of the chocolate producers have been doing product innovation. For example, Suoklat made customer interested to buy their product by using cornhusk for the packaging. Meanwhile Erni’s Coklat mould their product into cartoon character form. This finding is proving that innovation for the improvement of business performance applies to the small and medium chocolate enterprise in East Java. However, it depends on the entrepreneur how they would improve the business performance. It justifies Anggadwita and Mustafid (2014) that entrepreneurial aspect is the most significant factor in SME performance. Moreover, a theory from Rosenbusch, Brinckmann and Bausch (2011) that the relation between innovation and SME performance depends on the sustainability, innovation type, and company culture can be applied in this research.

In conclusion, to solve the last two obstacles of market entry is the responsibility of the chocolate SMEs. The SME entrepreneurs need motivation to develop their business such as doing innovation in their product, process, management, and marketing strategy.

4.2. A Design of Business Innovation Strategy

The second research question was about what kind of business innovation strategy to improve the business performance of chocolate SMEs in East Java. The Analytic Hierarchy Process (AHP) was used for answering this research question. The elements of AHP were created based on primary and secondary data. Meanwhile, the proposed alternatives of innovation strategy in this research were focus on process, product, management, and marketing based on the concepts of Tidd, Pavitt and Bessant (2001).

The AHP was conducted for the respondents. After they fulfilled the AHP contents, the result was processed using Expert Choice software program. The whole result of Analytic Hierarchy Process have consistency ratio (CR) lower than 10%. Thus, the AHP measurement in this research is consistent. The sample of AHP questionnaire and the comparison of importance level are presented in appendix C and D. Meanwhile the measurement results of AHP in the form of weight value are displayed in figure 4.
As has been stated previously, the chocolate products of SMEs in eastern Java need a quality improvement. Hence, development in quality (0.683) is the main objective of the innovation strategy for chocolate SMEs rather than high competitiveness (0.200) and good sustainability (0.117). Based on the results of AHP measurement, the market segmentation (0.644) is the most important factor than technology mastery, product distribution, and core competency. It is in accordance with Schaper et al. (2011) that market vision is an insight to facilitate innovation in a company. The rank of each alternative strategy is given in the table 4.
From table 4, it obvious that product diversification is the most chosen alternative strategy among the respondent, followed by marketing strategy, management development, and process differentiation. The result indicates that respondents prefer the chocolate SMEs to do innovation strategy through product diversification. This alternative is based on their market segmentation to achieve a quality improvement.

Product diversification is one form of innovation that focuses on the product. Preferences of product diversification as an innovative strategy indicates that the SMEs business performance still depends on the product as a value proposition. The respondents might consider that product innovation is the type of innovative strategy which could easily be done by chocolate SMEs in East Java. This finding aligns with Qian (2002) that profit is proportional with the product diversification in the business performance.

Furthermore, several practical alternatives were made for each strategy. As for product diversification, the best practices were designed from the concept of Trott (2008). He stated that product innovation could be creating a new product or development of the existing products. Hence, shape, packaging, and taste were proposed as the focus for the practical alternatives.

The selection of best practice for each alternative also use Expert Choice software program as the AHP tool. The measurement results of AHP for product diversification alternative is presented in figure 5.

<table>
<thead>
<tr>
<th>Proposed Strategy</th>
<th>Weight Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Diversification</td>
<td>0.523</td>
<td>1</td>
</tr>
<tr>
<td>Process Differentiation</td>
<td>0.089</td>
<td>4</td>
</tr>
<tr>
<td>Marketing Strategy</td>
<td>0.261</td>
<td>2</td>
</tr>
<tr>
<td>Management Development</td>
<td>0.127</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4. Alternative rank of proposed business innovation strategy
Meanwhile, the program output is ranked as given in the table 5.

<table>
<thead>
<tr>
<th>Product Diversification</th>
<th>Weight Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product with distinctive feature</td>
<td>0.345</td>
<td>2</td>
</tr>
<tr>
<td>Product with unique packaging</td>
<td>0.109</td>
<td>3</td>
</tr>
<tr>
<td>Product with distinctive flavour</td>
<td>0.546</td>
<td>1</td>
</tr>
</tbody>
</table>

In table 5, a product with taste characteristic comes as the most preferred practice for product diversification. Meanwhile, product with shape characteristic and packaging characteristic ranked second and third, respectively.

The selection of distinctive flavor as an alternative best practice indicates that respondents believe SMEs can make a breakthrough in the field of flavors. They think SMEs can make chocolate with a distinctive flavor that describes the characteristics of eastern Java. Hence, they expected the chocolate customer interested to buy the SMEs products.

There are unexpected findings of the type of innovation strategy in chocolate SMEs. Two respondents suggest that it should be a difference of innovative activities between new SMEs and the SMEs which has stabilized. Marketing strategy is appropriate for new SMEs, such as creating a new market through a community. The community is an efficient pathway because it creates an emotional bond between the chocolate producer and customer. Based on the representative from chocolate SMEs, a trusty customer is expected to be a reliable customer. Furthermore, a reliable customer has a willingness to advertise the chocolate product.
On the other hand, chocolate SMEs that already stable and well-known in the domestic market might innovate their process such as applying a zero waste process. According to an interviewee from cocoa association, consumers would be more concern about the process of making chocolate. In addition, the company image would be better in the society.

Those unexpected results are proving that innovative strategy depends on the resources and capabilities in the company (Rosenbusch, Brinckmann & Bausch 2011). Both resources and innovation capability between new SMEs and the and the existing ones might not be at the same level. In conclusion, the entrepreneur orientation influences the business performance of chocolate SMEs in East Java region.
5 CONCLUSION

5.1. Summary

a) Based on the findings, the obstacles for chocolate SMEs in East Java for entering the domestic market are:
   - The low consumption of chocolate in Indonesia due to the cultural aspect and high price
   - Lack of collaboration between government and SMEs, because SMEs still need government support meanwhile government prefer the SME not to be too depend on the government
   - Chocolate quality from SMEs requires an improvement, particularly in taste and packaging
   - The majority of chocolate SMEs in East Java have limited capabilities to directly use cocoa as raw material
b) In order to pass the obstacles, an improvement collaboration between the government and SMEs is needed.
c) Product diversification comes as the most chosen alternative strategy. Meanwhile, a product with taste characteristic is the most selected best practice by respondents as a business innovation strategy.
d) There is a suggestion to separate the innovation strategy between new SMEs and the existing SMEs. Those two kinds of SMEs have differences in the resources and ability to innovate their business.
e) Chocolate SMEs in East Java have capabilities to do innovation

5.2. Limitations

There are two limitations in this research. Firstly, the focus of the study is only on the government and chocolate SMEs as the stakeholder. However, not to underestimate the research centre role but those two parties have a primary role in the business performance of chocolate SMEs. Secondly, due to limited amount of respondent, this research might not able to be generalized.

5.3. Recommendations

This study makes two recommendations for further research. The research centre role as another stakeholder might be involved in the future study because the scope of this study is limited on the SMEs and government.

In addition, further research needs to consider the separation between new SMEs and the existing one. As mentioned before, there is a difference in resource and capabilities to make innovation between new SMEs and the well-known established SMEs in the domestic market.
5.4. Research Implications

There are some practical stemming from this research:
• Chocolate SMEs in East Java might apply the product diversification by creating a product with a distinctive flavor as an innovative strategy for their business.
• Policymakers might consider this research as a base to issue a policy for SMEs in Indonesia. For example, a policy that motivate SMEs to make innovation, particularly the SMEs in agro-industry area.
• This study also contributes to the theory-building. Product diversification by making a chocolate with a specific taste might be considered as one of the innovative strategies to improve the business performance for the SMEs.

Indonesia as an agricultural country has a high potential of the agro-industrial downstream product that might be developed in the SMEs scope. Moreover, Indonesian SMEs have innovative ability to develop their business. Hence, the government needs to gives attention toward innovation in SMEs.
BIBLIOGRAPHY


### APPENDIX

Appendix A. List of semi-structured interview questions

#### Table 6. Questions for each representative

<table>
<thead>
<tr>
<th>No</th>
<th>Representative of Chocolate SME</th>
<th>Representative of government and cocoa association</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you know if East Java has the largest cocoa production in Java?</td>
<td>What do you think about the condition of chocolate SMEs in Indonesia today?</td>
</tr>
<tr>
<td>2</td>
<td>How long has your business been running?</td>
<td>Do you know if East Java has the largest cocoa production in Java?</td>
</tr>
<tr>
<td>3</td>
<td>How much the production capacity per month or year?</td>
<td>Have you ever consume chocolate products from East Java?</td>
</tr>
<tr>
<td>4</td>
<td>How many variations of your chocolate products in terms of shape / taste / packaging?</td>
<td>From where did you get the chocolate products?</td>
</tr>
<tr>
<td>5</td>
<td>How many employees do you have?</td>
<td>What do you think about the chocolate products from East Java (in terms of taste, feature and packaging)?</td>
</tr>
<tr>
<td>6</td>
<td>In your opinion, if there are not many people know about chocolate products from East Java, which party has more responsibility? Government or chocolate SME?</td>
<td>In your opinion, if there are not many people know about chocolate products from East Java, which party has more responsibility? Government or chocolate SME?</td>
</tr>
<tr>
<td>7</td>
<td>What is the market segmentation of your chocolate product?</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>From where did you earn the raw material of chocolate?</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>How far consumer demand might influence the development of your business?</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>What kind of innovation did you ever do to develop your business? (In terms of product/process/management/marketing)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B. Data analysis of interview transcription

Table 7. Emerged theme and sample text of each representatives

<table>
<thead>
<tr>
<th>Sample Text of Government and Cocoa Association Representative</th>
<th>Sample Text of Chocolate SMEs Representative</th>
<th>Emerged Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>“…chocolate SMEs in Indonesia still needs to be empowered because chocolate consumption in Indonesia only 0.6 kg / person / year”.</td>
<td>“…Indonesian society has a few knowledge and appreciation towards chocolate from Indonesia. It causes low consumption level of chocolate, even though, the cocoa production is high”.</td>
<td>The low consumption of chocolate in Indonesia</td>
</tr>
<tr>
<td>“…it is better for SMEs to not just waiting for the government help.”</td>
<td>“…so far, government helps are promotion through exhibitions and licensing, but not for the equipment.”</td>
<td>Lack of collaboration between government and SMEs</td>
</tr>
<tr>
<td>“…chocolate products from SMEs in East Java is less fineness, both the packaging and the flavour is less attractive compared to chocolate product from big company that usually found in the market.”</td>
<td>“…the mass produced of chocolate do not use sophisticated packaging because it complicate in the process of production.”</td>
<td>Chocolate quality from SMEs is need an improvement</td>
</tr>
<tr>
<td>“…There are SMEs that producing fermented cocoa bean then entrust their products to the factory since their engine has no capability to soften into cocoa powder.”</td>
<td>“…Processing of cocoa beans into chocolate products is not the segmentation of SMEs.”</td>
<td>The majority of chocolate SMEs in East Java have limited capabilities to directly use cocoa as raw material</td>
</tr>
</tbody>
</table>
Appendix C. The sample of AHP questionnaire

AHP QUESTIONNAIRE FOR RESPONDENT
Designing a Business Innovation Strategy to Improve The Business Performance of Chocolate SMEs in East Java, Indonesia

Respondent Name :
Occupation :
Email / phone number :

This AHP questionnaire is created to help researcher designing a business innovation strategy to improve the business performance of chocolate SMEs in East Java, Indonesia. The hierarchy is shown below:
Instruction:
1. Fill the identity column and give some assessment and mark for each table of importance comparison
2. Following the intensity table below, scale the component based on the level of importance in hierarchy elements

<table>
<thead>
<tr>
<th>Intensity of Importance</th>
<th>Definition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equal importance</td>
<td>Two activities contribute equally to the objective</td>
</tr>
<tr>
<td></td>
<td>Weak importance of one over another</td>
<td>Experience and judgement slightly favor one activity over another</td>
</tr>
<tr>
<td></td>
<td>Essential or strong importance</td>
<td>Experience and judgment strongly favor one activity over another</td>
</tr>
<tr>
<td></td>
<td>Demonstrated importance</td>
<td>An activity is strongly favored and dominance is demonstrated in practice</td>
</tr>
<tr>
<td></td>
<td>Absolute importance</td>
<td>The evidence favoring one activity over another is of the highest possible order of affirmation</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>Intermediate values between the two adjacent judgments</td>
<td>When compromise is needed</td>
</tr>
<tr>
<td>Reciprocals of above nonzero numbers</td>
<td>If activity has one of the above nonzero numbers assigned to it when compared with activity j, then j has the reciprocal value when compared with i</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D. The sample of importance comparison

The sample of importance comparison between objective elements based on focus

<table>
<thead>
<tr>
<th>Element A</th>
<th>Element B</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH COMPETITIVENESS</td>
<td>QUALITY IMPROVEMENT</td>
</tr>
<tr>
<td>HIGH COMPETITIVENESS</td>
<td></td>
</tr>
<tr>
<td>QUALITY IMPROVEMENT</td>
<td>x</td>
</tr>
<tr>
<td>GOOD SUSTAINABILITY</td>
<td>x</td>
</tr>
</tbody>
</table>

The sample of importance comparison between factor elements based on objective quality improvement

<table>
<thead>
<tr>
<th>Element A</th>
<th>Element B</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNOLOGY MASTERY</td>
<td>PRODUCT DISTRIBUTION</td>
</tr>
<tr>
<td>TECHNOLOGY MASTERY</td>
<td></td>
</tr>
<tr>
<td>PRODUCT DISTRIBUTION</td>
<td>x</td>
</tr>
<tr>
<td>CORE COMPETENCY</td>
<td>x</td>
</tr>
<tr>
<td>MARKET SEGMENTATION</td>
<td>x</td>
</tr>
</tbody>
</table>
Appendix E. The measurement results of AHP for process differentiation, marketing strategy, and management development

Figure 6. The measurement results of AHP for process differentiation alternative

Figure 7. The measurement results of AHP for management development alternative
Figure 8. The measurement results of AHP for marketing strategy alternative
AUTOBIOGRAPHY

Yani Kartika Pertiwi, the author of this thesis was born on January 30th 1985 in Mataram, Indonesia. She completed his elementary education in 1997 and joined SMPN 2 Madiun for junior education. She later joined SMAN 2 Madiun and finished in 2003. She graduated from Sepuluh Nopember Institute of Technology major in chemistry in 2007.

She has been working in the Indonesia Ministry of Industry as structural staff since 2010. In June 2013, she was awarded scholarship for Master’s Degree program by Ministry of Industry of Republic Indonesia and joined Bogor Agricultural University. It was a double degree program between Bogor Agricultural University and The University of Adelaide. She is graduated from Bogor Agricultural University with a Master of Science Degree in Agroindustrial Technology.