

ENHANCING COMPETITIVENESS BUSINESS STRATEGY OF ORGANIC VEGETABLES USING ANALYTICAL HIERARCHY PROCESS (AHP)

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ABSTRACT

Public awareness about healthy lifestyles gives the option to the people to understand the food they consume. The choice of organic vegetable is one of the alternatives to have a healthy body and healthy lifestyle for society. Unfortunately, not a lot of organic vegetable farmers in Indonesia who succeed to seize the vegetable organic market rather than non-organic, the competition with import product of organic vegetables into Indonesia prevent for farmers to thrive. This study aims to: 1) Analyze the factors affecting the competitiveness of organic vegetables market; 2) Analyze the appropriate strategy for increasing the competitiveness of organic vegetables market; 3) Analyze the factors priority strategies for improving the competitiveness of organic vegetables market. Porter's Generic Model and Analysis Analytical Hierarchy Process (AHP) are used to determine the best strategy. The research found that organic vegetable marketing channels are still dominated by conventional market; the higher cost for intensive cultivation of organic vegetables. The main strategies are derived from the analysis is focusing on market delivery. There needs to be retailers of organic vegetables either modern or traditional to display these products. The establishment of organic vegetable outlets and online marketing that are not dependent on large retail (hypermarket) become recommendations in this study.

Keyword: competitive, business, strategy, vegetables, organic

ABSTRAK

Kesadaran masyarakat tentang gaya hidup sehat memberi pilihan kepada masyarakat untuk memahami makanan yang mereka konsumsi. Pilihan sayuran organik merupakan salah satu alternatif untuk memiliki tubuh sehat dan gaya hidup sehat bagi masyarakat. Sayangnya, tidak banyak petani sayuran organik di Indonesia yang berhasil merebut pasar sayuran organik daripada non organik. Persaingan produk impor sayuran organik ke Indonesia membuat petani tidak bisa berkembang. Penelitian ini bertujuan untuk: 1) Menganalisis faktor-faktor yang mempengaruhi daya saing pasar sayuran organik; 2) Menganalisis strategi yang tepat untuk meningkatkan daya saing pasar sayuran organik; 3) Menganalisis faktor strategi prioritas untuk meningkatkan daya saing pasar sayuran organik. Model Generik Porter dan Analisis Analytical Hierarchy Process (AHP) digunakan untuk menentukan strategi terbaik. Penelitian ini menemukan bahwa saluran pemasaran sayuran organik masih didominasi oleh pasar konvensional; Biaya yang lebih tinggi untuk budidaya sayuran organik secara intensif. Strategi utama yang didapat dari analisis adalah strategi fokus pada pengiriman pasar. Perlu ada pengecer sayuran organik baik modern maupun tradisional untuk memasarkan produk ini. Pembukaan gerai sayuran organik dan pemasaran online yang tidak tergantung pada ritel besar (hypermarket) menjadi rekomendasi pada penelitian ini.

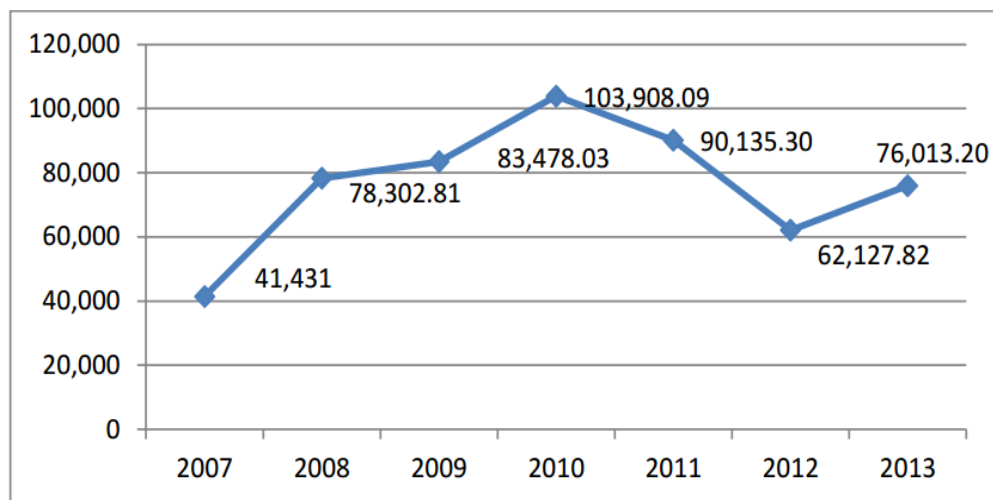
Kata kunci: kompetitif, bisnis, strategi, sayur, organik

1. Introduction

The increase in organic food consumption in Indonesia is marked by the extent of organic farmland. The increase significantly begin in 2007-2008, organic farmland increased by two-fold from 40,000 hectares to 80,000 hectares. Statistics of Organic Agricultural Indonesia (SPOI) is published by Indonesian Organic Alliance (AOI) in 2013 present the total area of organic farming in Indonesia in

2013 was 220,300.62 hectares, an increase of 3.58 per cent from 2012 with an area of 212,696.55 hectares. Meanwhile, 10.285 producers of organic farming in Indonesia which consists of Certified Manufacturers, Manufacturers in the Certification Process, Non Certification Manufacturers and Producers PAMOR (Quality Assurance Organic Indonesia which is one form of participation certification system).

Figure 1. Total Area Organic Growth in Indonesia in 2007-2013 (hectares)

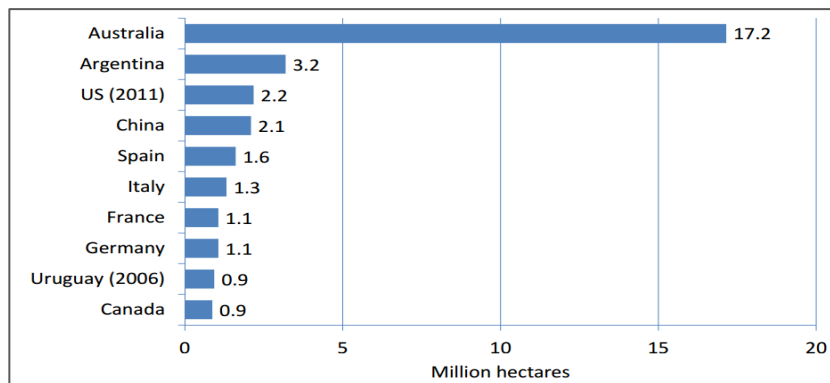


Source: SPOI (2013)

The increase of organic vegetables consumption is influenced by the knowledge of consumers about the benefits for health. Besides that, it is influenced also by the healthy lifestyle promoted in recent flare. Andersen and Lund (2014), found that the increasing organic market share has influenced by different types of organic consumers such the combination of attitudes and actual behavior. Peter et al. (2006) explained in United Kingdom (UK), increasing of food organic has risen dramatically in the wake of a series of high profile scares about food safety. The

most consumers associate organic vegetables and fruits for healthy diet (Padel & Foster, 2006). Comparing to the large economic country such as Europe, has long been familiar and change their healthy lifestyle by consuming organic vegetables, but in Indonesia, organic vegetables become popular lately. In addition to the reasons outlined above, the increase of organic vegetables consumption may be caused by climate change. Heerwagen et al. (2014) found that the people purchase of organic and reduced meat consumption as ways to mitigate climate changes.

Figure 2. The ten countries with the largest areas of organic agricultural land 2013



Source: FiBL-IFOAM survey (2015)

The increase of organic vegetables consumption has not been offset by the development of organic vegetable business itself. Based on farmer's aspiration who has been compiled by the Head of The Department of Agriculture in 2015 obtained the fact, farmers faced price and marketing problem. If an agricultural area focus on business development of organic vegetables, then the government should be able to formulate rules that are capable of supporting farmers. In addition to government support, great effort must be made by producers of organic vegetables to determine appropriate strategies to improve business competitiveness. Aertsens et al. (2009) state the organic product market can be considered as an emerging market since 1990, supermarket chains have become the sales channel with the largest market share and are the main drivers for further growth.

The problem be discovered in the organic vegetable is marketing distribution channels, the majority of modern retail in Indonesia is dominated by foreign ownership and imported products, whereas traditional marketing local products is limited only to the region of the vegetables originated. If using conventional retail channels of

course the classic problems that will arise, organic vegetables have not been able to attract more consumers rather than non-organic vegetables which more affordable. The research practical implication has done by Truong et al. (2012) explained, the potential consumers to purchase organic food can benefit organic food sellers and retailers in developing appropriate sales and marketing strategies by differentiating between organic foods and conventional foods. Selection of modern retail supermarkets is one of the solutions to differentiate between organic and non-organic products. Supermarkets play important roles in connecting farmers to markets through direct procurement while improving cultivation practices of participating farmers in order to enhance quality of produce (Srimanee & Routray, 2009). Based on the many factors that influence the development of this business is to review each of the conditions experienced, it's important to this study for finding the appropriate strategy to increase sale and enhance the business competitiveness. The purpose of this study was to analyze the factors affecting the competitiveness of organic vegetables using SWOT analysis and Porter's Five Force Model to develop

business competitiveness through Analytical Hierarchy Process (AHP).

2. Literature Review

Every business owner should create the better short-term or long-term plan. It means that every business owner must constantly anticipate environmental changes and challenges. Business owners need to do strategic management that consists of analysis, decision and action to create and maintain competitive advantage. Chandler (1962) defined strategy as the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources for carrying out these goals. Tregoe and Zimmerman (1980) defined strategy as the framework which guides those choices that determine the nature and direction of an organization. Then, strategic mean of having to do with strategy. The business owner have to manage strategically are important aspects as their responsibilities. Nag et al. (2007) defined strategic management involves the formulation and implementation of the major goals and initiatives taken by a company's top management on behalf of owners, based on consideration of resources and an assessment of the internal and external environments in which the organization competes.

The previous studies has been done, some of them argued that the differentiation strategy is needed to develop organic vegetables business. Hingley et al. (2008) found that the differentiation strategy in the market for fresh produce might benefit retailers more than in other sector. In addition to differentiation, marketing strategies are strongly advised to develop this type of business. Hutchins and Greenhalgh (2006) proposed that producers of

organic foods should consider consumer research and strategic marketing planning as mechanisms for sustaining a market which has greater potential than is currently realized, in order to be successful, senior management figures in the industry must take the lead and initiate this proposed change in strategy. Consider the potential food organic consumer can be done by clustering analysis of consumer's need. Nasir and Karakaya (2012) revealed that the consumer segment with more favorable attitudes toward organic foods exhibits higher levels of health orientation and socially responsible consumption behavior.

In addition, the vertical relationship between the farmer and the retail also need to be considered or called the supply chain. This chain is characterised mainly by relational contracting between smallholders and their buyers. There was also evidence of vertical integration by some buyers, and of growers selling on informal markets (Bhattarai et al., 2013). Lohmann and Foster (2006) compare niche and mainstream of marketing strategies in UK and Germany found that considers the present situation and future challenges of organic food, In the UK, there is potential for the expansion of small-scale, decentralized marketing outlets, while in Germany greater involvement by supermarkets appears to be appropriate.

As an attempt to win the competition, companies need to formulate a competitive strategy. This study propose Porter (1986) competitive strategy as a broad formula for how a business is going to compete, what its goals should be, and what policies will be needed to carry out those goals. Furthermore, Porter describes three basic

of competitive advantage as cost focus. Cost leadership set the firm to the lowest cost producer in its particular industry rather than the others firms. Differentiation seeks to be the best performer in its industry grouping along some dimension or dimensions of the product or service other than cost. Focus set the firm to select of particular segment or group within the industry as a whole which is to be targeted.

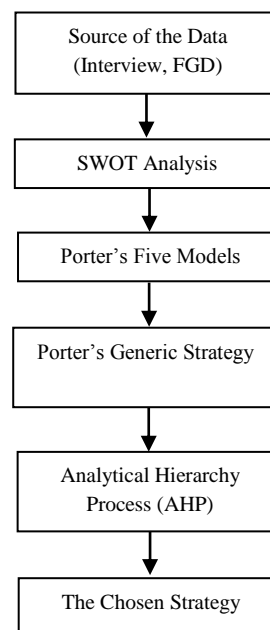
3. Research Method

This study was conducted on 12 producers (owners) of organic vegetables in Batu City, Indonesia. The location was selected by convenience sampling technique or deliberately chosen by the researchers with the consideration that the Batu City is one of the agribusiness cities in East Java, Indonesia. The study was conducted of the month from January to August 2016. The data used are primary data obtained directly from the object of research. Source of the data obtained through interviews with key informants and focus group discussion (FGD) with related parties namely landowners, farmers and local authorities.

Data analysis was carried out by several steps of analysis, ie using a SWOT matrix analysis to determine the factors that influence the business activities both internally and externally. After classifying the data, further analysis is to combine the analysis competition factor by using Porter's Five Models. This model analyzes five factors consist of products, substitutes, new entrants, bargaining power of suppliers, and bargaining power of buyers. After knowing the factors that affect your business, the next step is to consider alternative strategies. The analysis using Porter's Generic Strategy with multiple strategy approach that overall cost

leadership, product differentiation, and leadership, differentiation, cost focus and differentiation focus. Furthermore, analysis of the selection of appropriate strategies used to improve business competitiveness using Analytical Hierarchy Process (AHP). AHP is processed by A Priority Estimation Tool (Priest) application. The first step of AHP is creating a list of available option; second define the criteria for prioritization, then entering the judgment against each criterion that used to calculate the final ranking. Based on the analysis model can be determined the best strategies that can be used to improve business competitiveness. Data analysis model can be described as figure 3.

Figure 3. Data Analysis Model



4. Results and Discussion

Business carried on a particular agricultural cultivation of organic vegetables which produce such as carrots, broccoli and beet. The business scale is regional area with an average yield of 12.5 ton per product 4 months of planting. The process of planting until

harvest is done through several processes. First, prepare the tools and materials, the tool are used such as hoe to cultivate land, the meter to measure the land. While the materials required are seeds carrots, broccoli, beet obtained from the farm shop, which are Taki's carrot seeds, Beet Ayumi's beet seeds Sakata's broccoli seeds. Basic fertilizer use chicken manure. Second, the preparation of land that tillage using a hoe, aims to make the soil became loose. The third process is planting vegetables. Broccoli planting is done by making the planting hole on the base, there are two rows of each plot planting holes with a spacing of 30 centimeters multiplied by 40 centimeters, and planting is done by input broccoli seeds already sown more than 14 days old. After approximately 90 days after planting, flowers can already be harvested. Beet crop cultivation is done by entering the seed at planting holes with a spacing of 15 centimeters multiplied 20 centimeters. The treatment is done is weeding, and watering is done twice a week during the dry season. Harvesting is done after the plant was approximately 120 days after planting. Planting of carrots is by way of seed sowing directly on land. After the plant was approximately 30 days after planting, thinning, namely the lifting of carrot plants to get the ideal spacing, spacing of approximately 10 centimeters multiplied 15 centimeters. To care is weeding and sprinkling done twice a week during the dry season. Plants can be harvested when they are 120 days after planting. After harvesting, its wash with clean water to remove residual soil attached to the roots, and then dried aired after dry sorting is done by removing the bulbs that are too small and tubers rot or disease. After that weigh the appropriate packaging weight and then put into a

plastic container and labeling on the packaging.

4.1 Analysis Factors Affecting Business Using SWOT Analysis

Based on data analysis by providing the weighting on the SWOT matrix outline obtained internal and external factors affecting the business with the following description:

1. Internal Factors

Internal factors are discussing the strengths and weaknesses of the business. The strength of this business is quality of organic seeds. The cultivation process with completely organic without adding chemicals in their production process. While, the other competitors doing the cultivation process does not use organic seeds, but labeled organic into their product. The weakness of this business is in terms of the price of the product. Product price is more expensive than the market price, this is due to the organic farming systems require intensive care and the cost of production is relatively expensive to produce healthier products without contaminated with chemicals.

2. External Factors

External factors are discussing the opportunities and threats of the business. The opportunities of this business are still few farmers who produce similar products, so the opportunity to get the market is still quite broad. Then, public awareness of organic vegetables consumption increase year by year. Along with an increase in healthy lifestyle, the government and other private parties are often held an exhibition of agricultural products both local and national scale to introduce the product. Meanwhile, the threat may arise is the presence of pests that attack crops and extreme weather climate. Moreover,

organic vegetable prices are still relatively expensive, it hard to seize a wider market segment.

4.2 Analysis Factors Affecting Business Using Porter's Five Models

Based on the analysis done by giving the weighting of the questions addressed to the respondent, it revealed the result of Porter's Five Model as present in figure 4.

Figure 4. Analysis Porter's Five Models

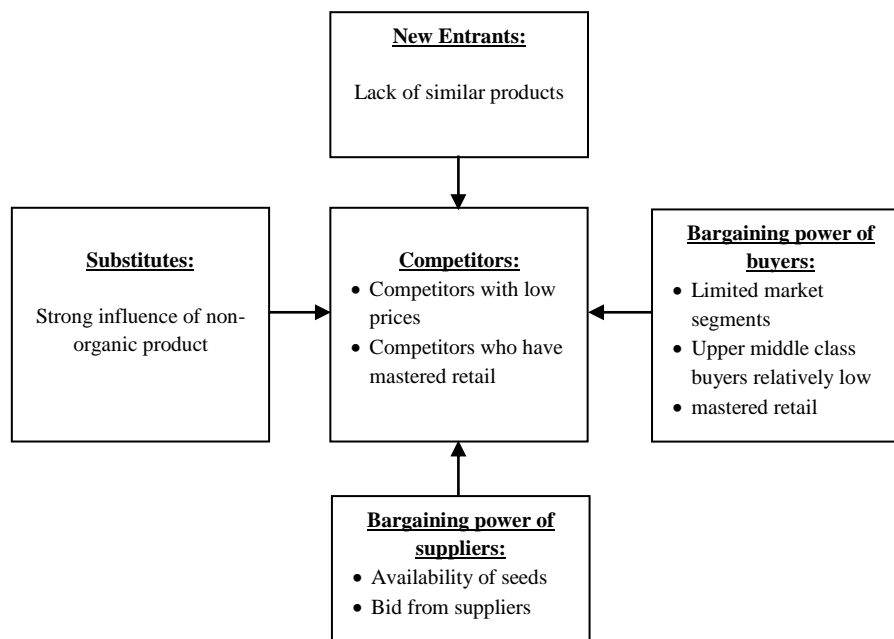


Figure 4 exhibit the competition requires the producer determine the factors that strongly affect its business. The product price is still the mainstay for competitors to seize and dominate the retail market. The market segment is still low due to the price of products from organic vegetables are relatively expensive, so it is generally still addressed to the public with high income. The influence of non-organic products is still dominant, nevertheless new entrants entering the market is still relatively low. The strength of the supplier may be a threat to employers if it lacks some of the suppliers who work together. Availability of seeds is often a problem of production. Based on the

description, the producer of organic vegetables requires appropriate strategies for maintaining the survival of its business and is able to win the market. Some product competitiveness strategy designed to find the best strategies to do.

4.3 Alternative Strategies to Increase Product Competitiveness

In an effort to improve the competitiveness of products, it is necessary indicators to measure it. Ward et al. (1998) suggested dimensions of competitiveness include the cost (cost), quality (quality), delivery time (delivery) and flexibility (flexibility). To achieve these four dimensions, the producer must formulate various alternative strategies.

Porter's generic strategy offers four alternative strategies advantages, including cost leadership, differentiation, cost focus and differentiation focus. Further discussion about the dimensions of competitiveness and alternative strategies described as follows:

1. The dimensions of cost, the cost is the main capital that absolutely must be owned by the producer for the survival of their business. Indicators include the cost of production costs, labor productivity, utilization of production capacity and inventories. Often the problem income margin between farmers and retail big enough experienced. High selling prices in several marketing channels (mainly supermarkets) is able to give different profit margin is relatively high compared with a margin of profit out gained the farmers in this line of on-farm. In addition, handling of commodities or fresh products is very simple in the distribution line through the markets of the parent or wet markets into the commodities have a lower selling price. To raise capital and reduce costs, the right strategy is to use the overall cost advantage which every cost incurred should be able to produce maximum production.
2. The dimensions of quality, improve product quality is an important to producers. The quality of products is a factor to be considered by consumers to assess a product, if the quality of products offered; the consumer will not hesitate to consume these products. To improve the quality of products, the right strategy is using differentiation focus strategy in

which producers should be focused on ensuring the quality and product quality. Producers are obliged to guarantee the quality and product quality by selecting superior seeds which produce high quality organic vegetables and avoid synthetic chemicals that are harmful. Furthermore, organic vegetables organic label must have a trusted and certified Organic Farming Indonesian Certification (INOFICE). Tidy and hygienic packaging will also improve the durability of the product.

3. The dimensions of delivery, increase the timeliness measured include the timeliness of production, reduction of waiting time of production, and timeliness of delivery of products. Punctuality is very influential on the performance of the business in the market ends meet. As noted previously, that most manufacturers only able to supply commodities or organic vegetables on its territory area. To increase the dimensions of the delivery, the appropriate strategy is using the differentiation focus strategy of government and business in one gate distribution patterns or fresh food commodities through agribusiness wholesale market. This is the market that will deliver fresh commodities and products to the entire region.
4. Dimension Flexibility has indicators including a variety of products, speed in adjusting to the environment. To increase the dimensions of flexibility, strategy appropriate is focusing on adaptation to environmental factors that change often, either natural or

environmental factors agriculture industry.

4.4 AHP Modeling

AHP is used Priority Estimation Tool (PriEst) application, the first step is creating the goal that is competitiveness strategy of organic vegetables, second step is listing of available options and

criterion for prioritization that are Porter's generic strategy such cost leadership, differentiation, cost focus and differentiation focus, third step is defining criteria then enter the judgment against each criteria that used to calculate the final ranking. Based on testing revealed result in figure bellows:

Table 1 . AHP Criterion Weight – Alternative Strategy

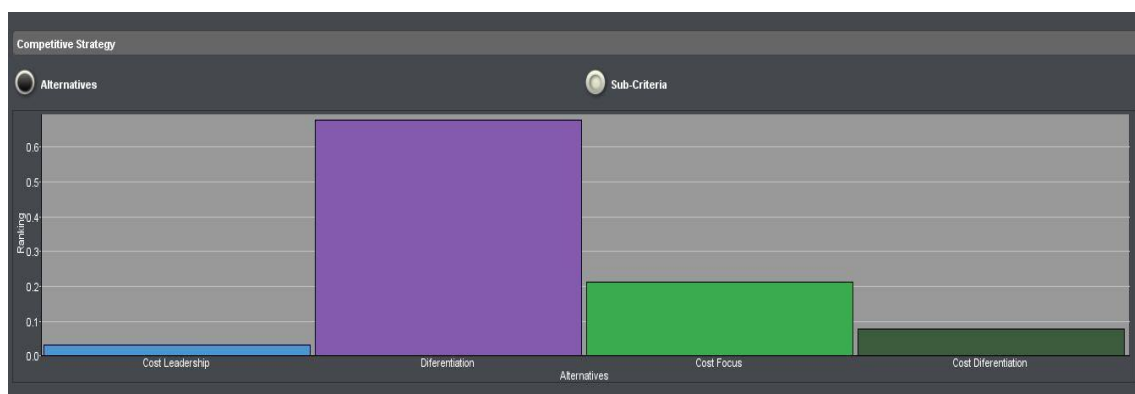
No	Alternative	Rank	Weight
1.	Differentiation	1	0.676
2.	Cost Focus	2	0.214
3.	Cost Differentiation	3	0.078
4.	Cost Leadership	4	0.032
		TD	226.188
		NV	0.0
		TD2	6098.463
		Method	GM (Geometric Mean)

Source: Researcher (2016)

Table 1 represent the alternative strategy in the first rank is the differentiation strategy. The strategy emphasizes the uniqueness of the products of organic vegetables, both in terms of products and marketing. Next results sequentially are cost focus, cost differentiation and cost leadership. This result proved, in addition to the cost, the business strategy today lies in the differentiation strategy, a strategy that has been done is the product processing organic vegetables that are different from the conventional product, ie in terms of

packaging is more neat and hygienic, embedding a label on each package, product information and product usability for consumers. In line with research Via and Nucifora (2006), state the degree of product information and customer service are the variables which best predict the choice to sell organic products, in order to, almost half of the price mark-up between traditional and organic products is explained by store characteristics and the amount of extra service and information provided with organic products.

Figure 5. AHP Criterion Weight - Alternative Strategy



The calculation sub-criterion of the alternative strategy of differentiation in table 2 revealed delivery is a priority strategy factors that necessary to be considered. Delivery is a distribution channel strategy of organic vegetable products. For implementing this strategy, the producers need to attempt hard enough, the domination of foreign retail

market and import product still being the problem that had not been resolved at this time. Farmers it is still difficult to relate directly to modern retail channel because of the limitations. If producers utilize the conventional market is still less competitive with non-organic products in terms of price.

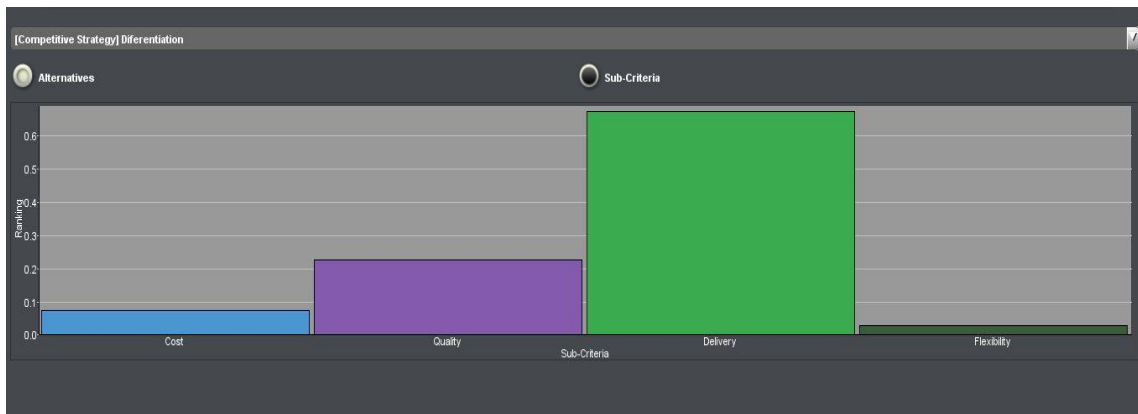
Table 2 . AHP Criterion Weight – Sub Criterion

No	Alternative	Rank	Weight
1.	Delivery	1	0.672
2.	Quality	2	0.226
3.	Cost	3	0.074
4.	Flexibility	4	0.028
		TD	318.743
		NV	0.0
		TD2	10,746.911
		Method	GM (Geometric Mean)

Source: Researcher (2016)

Table 2 revealed the result of sub-criterion strategy sequentially delivery, quality, cost, flexibility.

Figure 6. AHP Criterion Weight – Sub Criterion



Based on the results of AHP in figure 6, the differentiation strategy focus on market delivery is the appropriate strategy to improve the competitiveness of organic vegetable products business. This strategy focuses on different distribution channels. Marketing differentiation is expected to increase sales of these products.

5. Conclusion

Based on the purpose of the present study found that the appropriate strategy to enhance the competitiveness of organic vegetable product is differentiation strategy focus on market delivery. In line with previous research, the problem of the organic vegetable business lies in the distribution channels system that relies on modern retail,

requiring market expansion with a specific outlet model. However specific distribution channels of organic vegetables is needed, given the conventional distribution channels are still dominated by the non-organic vegetables in terms of price. There needs to be retailers of organic vegetables either modern or traditional to display these products. The recommendation for organic vegetable business owners is to open up a distribution channel that promotes in fast delivery at an efficient price. An online distribution channel (e-commerce) for organic vegetables is an option in approaching the market. This shortens the time of sale from the supplier directly to the consumer. Organic vegetable business owners can set up outlets close to housing, offices

and attract communities that are aware of organic lifestyles. The outlets can offer delivery to the customer's home or pick up point will make it easier for customers to receive orders. In addition, governments and businesses in one gate distribution patterns or fresh food commodities through agribusiness wholesale market which is the market that will deliver fresh commodities and products to the entire region.

5.1 Limitation

The limitations of this study are the limited research areas that focus on one city only. Each region has a different culture of consumer behavior and its market approach, thus allowing other strategic options in developing a competitive business strategic.

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