Market Segmentation of Organic Vegetables in Samarinda

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ABSTRACT: *Samarinda as Capital City of East Kalimantan has strategic position for economy in East Kalimantan. Therefore, Samarinda attracts the peoples in the surrounded areas to settle in Samarinda. As a result, populations in Samarinda grow rapidly year-by-year. Data from Central Bureau of Statistics (BPS) recorded that according to population density, those populations at 10 subdistricts in Samarinda are varied, in which the highest density is in Samarinda Ulu subdistrict, 5,869 people/km², and the lowest density is in Palaran subdistrict, 286 people/km². Such population increase along with the increase consumers' awareness toward food security and environmental issues. Therefore, public interest in healthy foods will increase as the increase demand for organic products. Objective of the research was to find out market segmentation of organic vegetables in Samarinda to and determine the potential target market, so that it will be able to maximize marketing, which will effect on a product sale. The research was condustec by quantitative approach, which analyzes latent variables that relate to consumers' purchasing power for organic vegetables using a scale in which the values can be measured. Location of the research was determined by purposive sampling, which was selected in accordance with the largest sales for organic vegetables in Samarinda and used accidental sampling method to take the samples of consumers of organic vegetables. Results of the research showed that market segmentation with the age above 40-50 years old has dominated the consumption and income of each family ranges 3 – 4 million and more. Market segmentation with level of the consumers' knowledge about organic vegetables was 52.00%. The consumers had high level of knowledge, and 4% consumers had very low level of knowledge about organic vegetables. The consumers' perceptions against organic vegetables were 61.00% consumers agreed, and 13.00% consumers less agreed.*

INTRODUCTION

Organic farming commodity is one of commodities consumed for lifestyle and the most wanted by community during pandemic Covid-19. Community's awareness toward healthy lifestyle and must always maintain the body's immunity to minimize contamination of the body with

this virus. Organic vegetable is one of farming sub-sectors that shows significant growth to support national economy at this time. Haring, S. Dabbert, F. Offermann, and H. Nieberg (2001) suggested that marketing and initiative of such organic product processing, even in small-scale, will make a direct contribution to labor sector and the workers' welfare because they will obtain higher income from organic farming than conventional farming. However, even though more consumers look for good qualified and healthier food products to consume, in fact, organic products still face some problems that relate to high price and lack of distribution channel, which cause uneven distribution of the organic products.

According to Kotler and Amstrong (2008), market segmentation is the division of a market into groups of buyers according to their different wishes, characteristics, and behaviors. A company requires market segmentation to comprehend the consumers more deeply. The comprehensions are to detect a fast-changing market, evaluate strengths and weaknesses of the competitors, and determine the potential target market, so that it will be able to maximize marketing, which will effect on a product sale. There are four divisions in the market as follow:

1)   Geographic. According to geographic aspect, market segmentation is intended to assist a company in determining location of marketing in accordance with different geographical units, such as countries, states, regions, provinces, cities or neighborhoods/ households.
2)   Demographic. According to demographic aspect, market segmentation is divided in accordance with age, family size, family life cycle, gender, income, occupation, education, religion, race, generation, nationality, and social class.
3)   Psychographic. According to psychographic aspect, market segmentation is based on lifestyle or personality or value.
4) Behavior. Group division in a market is based on the consumers' knowledge, attitude, usage, or response to specific product.

Therefore, this study becomes important to find out market segmentation of organic vegetables to determine the potential target market, so that it will be able to maximize marketing, which will effect on a product sale as part of organic farming reinforcement in Samarinda as Capital City of East Kalimantan Province, but it has not been included in criteria of a big city.

METHOD OF THE RESEARCH

Research Approach
The study was conducted by quantitative approach. It analyzed latent variables that related to consumers' purchasing power for organic vegetables using a scale whose value can be measured by identifying market segmentation of organic vegetables in Samarinda geographically, demographically, psychologically, and behaviorally.

Location and Time of the Research
The research was conducted at several locations that sell organic vegetables in Samarinda. Locations of the research were determined by purposive sampling or selected the locations based on the biggest sales for organic vegetables in Samarinda.

Technique in Determining Consumers

This research used accidental sampling method to take samples of the organic vegetable consumers. Accidental sampling is a technique in choosing samples of people or units that are easiest to find and access. It conformed to the suggestion from Sugiyono (2011) that accidental sampling is accidentally taking respondents as samples. The consumers are consumers who purchase organic vegetables at several locations that marketing organic products. There were 100 consumers who represented the populations. The research was conducted for 5 months from June to October 2021.

Data Collecting Technique

Data collecting technique used primary and secondary data methods. Primary data was obtained through observation method and interview using questionnaires. Meanwhile, secondary data was obtained from reports and documentation of the related parties, especially business actors, government agencies, research and other relevant documentation.

Data Analysis

Descriptive analysis was applied to identify consumer market segments for organic vegetables. Such segmentation is classified in accordance with geographical segmentation (the distance of the consumers' houses to location where they purchase organic vegetables), demographical segmentation (gender, age, education, and income), psychological segmentation (reasons for purchasing and consuming organic vegetables during Pandemic Covid-19), and behavioral segmentation (how long and how often the consumers consume the organic vegetables).

RESULT AND DISCUSSION

Market Segmentation Based on Consumer Characteristics

Consumers in this study were from diverse shopping centers in Samarinda, as presented in the Table below.

Table 1 presents characteristics of the consumers based on gender.

Table 1. Characteristics of the Consumers Based on Gender

No.	Gender	Total	Percentage
1.	Male	41	41.00
2.	Female	59	59.00

Source: Processed secondary data, 2021

Numbers of consumers were dominated by female consumers, 59%; in general, it is known that most of women go shopping for daily needs such as foods. Meanwhile, male consumers, 41%, go shopping at the shopping center.

Table 2 presents age of the consumer, in which 27% consumers are under 20 years old and 38% consumers are 21-30 years old. Moreover, 28% consumers are 31-40 years old, 5% consumers are 41–50 years old, and 2% consumers are over 50 years old.

Table 2. Characteristics of the Consumers Based on Age

No.	Age (years old)	Total	Percentage
1.	< 20	27	27.00
2.	21 – 30	38	38.00
3.	31 – 40	28	28.00
4.	41 – 50	5	5.00
5.	>50	2	2.00

Source: Processed secondary data, 2021

Such condition above indicates that the age ranges of 21-30 and 31-40 years old dominate the consumption of organic vegetables. It is due to organic vegetables become a trend of healthy lifestyle today, whereas the age range of 21-40 years old is the generation who live in the healthy life era which became the slogan and trend of the world. So that consuming organic vegetables is one of choices in healthy lifestyle today.

Characteristics of consumers based on formal education level are presented in Table 3, in which 0.00% consumers had studied for 0-6 years or were not graduated from Elementary School, 2.00% consumers graduated from Elementary School, 4.00% consumers graduated from Junior High School, and 70.00% consumers graduated from Senior High School. Meanwhile, 24.00% consumers graduated from university/college.

Table 3. Characteristics of the Consumers Based on Education

No.	Education	Total	Percentage
1.	< Elementary School (0 – 6 years)	0	0.00
2.	> Elementary School (7 – 9 years)	2	2.00
3.	> Junior High School (10 – 12 years)	4	4.00
4.	> Senior High School (12 years)	70	70.00
5.	> University/College (> 12 years)	24	24.08

Source: Processed secondary data, 2021

Education is one of essential elements that could change attitude, behavior, and mindset of an individual. Some research suggested that the higher the education, it will facilitate an individual to absorb information and innovation of new technology and it, of course, will affects quality in decision-making.

Table 4 presents characteristics of consumers based on occupation (profession). 22% consumers are students, 6% consumers are Civil Servants or Indonesian National Armed Forces/ Indonesian Police, 50% consumers are private employees, 3% consumers are entrepreneurs, and 19% consumers have other professions.

Table 4. Characteristics of the Consumers Based on Occupation (Profession)

No.	Occupation	Total	Percentage
1.	Students	22	22.00
2.	Civil Servants/Indonesian National Armed Forces/ Indonesian Police	6	6.00
3.	Private Employees	50	50.00
4.	Entrepreneur	3	3.00
5.	Others	19	19.00

Source: Processed secondary data, 2021

Table 5 presents characteristics of consumers based on numbers of family members. 57% consumers have more than 4 family members, 24% consumers have 3 family members, 7% consumers have 2 family members, 6% consumers have 1 family member, and 6% consumers have no family member.

Table 5. Characteristics of the Consumers Based on Numbers of Family Members

No.	Number of Family Member	Total	Percentage
1.	> 4 people	57	22.00
2.	3 people	24	6.00
3.	2 people	7	50.00
4.	1 people	6	3.00
5.	None	6	19.00

Source: Processed secondary data, 2021

Table 6 presents characteristics of consumers based on income. 16% consumers earn less than IDR 1,000,000; 18% consumers earn IDR 1,000,000 – 1,999,999; 30% consumers earn IDR 2,000,000 – 2,999,999; 22% consumers earn IDR 3,000,000 – 3,999,999; and 14% consumers earn more than IDR 4,000,000.

Table 6. Characteristics of the Consumers Based on Income

No.	Income	Total	Percentage
1.	< IDR 1,000,000	16	16.00
2.	IDR 1,000,000 – 1,999,999	18	18.00
3.	IDR 2,000,000 – 2,999,999	30	30.00
4.	IDR 3,000,000 – 3,999,999	22	22.00
5.	> IDR 4,000,000	14	14.00

Source: Processed secondary data, 2021

Table 7 presents characteristics of consumers based on expenditure. 30% consumers expend less than IDR 1,000,000; 39% consumers expend IDR 1,000,000 – 1,999,999; 19% consumers expend 2,000,000 – 2,999,999; 4% consumers expend IDR 3,000,000 – 3,999,999; 8% consumers expend more than IDR 4,000,000.

Table 7. Characteristics of the Consumers Based on Expenditure

No.	Expenditure	Total	Percentage
1.	< IDR 1,000,000	30	30.00
2.	IDR 1,000,000 – 1,999,999	39	39.00
3.	IDR 2,000,000 – 2,999,999	19	19.00
4.	IDR 3,000,000 – 3,999,999	4	4.00
5.	> IDR 4,000,000	8	8.00

Source: Processed secondary data, 2021

Market Segmentation Based on Knowledge Level of the Consumers
Knowledge level of the consumers about organic vegetables in Samarinda is divided as presented in Table 8:

Table 8 presents knowledge level of the consumers about organic vegetables are as follow: 10.00% consumers have higher knowledge, 52.00% consumers have high knowledge, 4.00% consumers have medium knowledge, 10% consumers have low knowledge, and 4% have very low knowledge about organic vegetables.

The data shows that frequencies of the consumers, on average, who know about organic vegetables, are dominated by high knowledge level. It indicated that, in general, the communities in Samarinda recognize the benefits of organic vegetables, which are not only good for health, but also for environmental conservation. Consumers have also known that organic vegetables have already been available in Samarinda, so that they are easier to be obtained than purchasing in other cities. It also prevails to price of the organic vegetables; consumers have already known that prices of the organic vegetables are relatively higher than the conventional vegetables. It conforms to the research by Mulyadi, et al. (2014), which indicated that the farmers, on average, have medium knowledge in applying organic farming. On average, the farmers have good perception or agree with the application of organic vegetable farming in Samarin

Table 8. Knowledge Level of the Consumers about Organic Vegetables

Type of Knowledge	Frequency (%)				
	Really don't know (1)	Don't know (2)	Know a little (3)	Know (4)	Really know (5)
1. Organic vegetables in general	10.00	14.00	14.00	51.00	11.00
2. Organic vegetables are available in Samarinda	7.00	21.00	18.00	49.00	5.00
3. At present, organic vegetables are cultivated by consumers in Samarinda	10.00	30.00	22.00	33.00	5.00
4. Organic farming is beneficial for soil fertility	10.00	20.00	19.00	43.00	8.00

5. Organic farming is beneficial for environment	**6.00**	**17.00**	**18.00**	**47.00**	**12.00**
6. Organic farming is beneficial for health	**0.00**	**4.00**	**9.00**	**56.00**	**31.00**
7. Price of organic vegetables are more expensive than conventional vegetables	**6.00**	**15.00**	**11.00**	**55.00**	**13.00**
8. Organic farming will increase the production of vegetable farming	**9.00**	**19.00**	**22.00**	**45.00**	**5.00**
9. Organic vegetable farming will increase income of the consumers due to the price of organic vegetable is more expensive than the conventional vegetable	**7.00**	**16.00**	**21.00**	**49.00**	**7.00**
10. Development of organic farming will motivate the consumers to think creatively, such as utilizing traditional knowledge, local resources, and biodiversities, as well as efforts to conserve it	**5.00**	**19.00**	**17.00**	**51.00**	**8.00**
Average Frequency (%)	**7.00**	**17.50**	**17.10**	**47.90**	**10.50**
Total Score	**9 – 15**	**16 – 22**	**23 – 29**	**30–36**	**37- 45**
Frequency (%)	**4.00**	**10.00**	**24.00**	**52.00**	**10.00**
Level of Knowledge	**Very Low**	**Low**	**Medium**	**High**	**Very High**

Source: Processed secondary data, 2021
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Market Segmentation Based on Consumer Perception
Identification of consumer perception level in Samarinda for organic vegetables is divided into five (5) categories, as follow: (1) Do not know; (2) Disagree; (3) Less Agree; (4) Agree, and (5) Totally Agree.
Table 9 presents the Consumer Perception for organic vegetables that shows 26.00 % consumers totally agree, 61.00% consumers agree, and 13.00% consumers less agree. However, 0.00% consumers disagree and do not know.

Table 9. Level of Consumer Perception About Organic Vegetables

Type of Perception	Frequency (%)				
	Do not know (1)	Disagree (2)	Less Agree (3)	Agree (4)	Totally Agree (5)
1. Consuming organic vegetables as the embodiment of a healthy lifestyle.	0.00	1.00	18.00	51.00	30.00
2. Consuming organic vegetables as the fulfillment of guaranteed nutritional needs.	0.00	1.00	19.00	46.00	34.00
3. Organic farming is beneficial for soil fertility	0.00	1.00	37.00	45.00	17.00
4. Organic farming is beneficial for environment	0.00	2.00	24.00	62.00	12.00
5. Organic vegetables are beneficial for health	0.00	0.00	12.00	54.00	34.00
6. Organic vegetable price is higher than conventional vegetables	1.00	7.00	33.00	49.00	10.00
7. Organic farming will increase the farmers' income because organic vegetable price is more expensive	0.00	3.00	32.00	55.00	10.00
8. The price of organic vegetables is in accordance with the quality and benefits	0.00	1.00	26.00	58.00	15.00
9. Organic vegetables are also sold in traditional markets, so that more people will be able to buy and consume them	0.00	3.00	23.00	56.00	18.00
10. Even though the price of organic vegetables is higher than conventional vegetables, but B/I/S will still buy and consume the organic vegetables	0.00	4.00	52.00	35.00	9.00
Average Frequency (%)	0.10	2.30	27.60	51.10	18.90
Total Score	10 - 17	18 - 25	26 - 33	34 - 41	42 - 50
Frequency (%)	0.00	0.00	13.00	61.00	26.00
Category of Perception	Don't Know	Disagree	Less Agree	Agree	Totally Agree

The consumers' perceptions about organic vegetables were dominated by agree statement, 61.00%, which means that half of the consumers agreed with diverse statements about organic vegetables. It can be assumed that the consumers of organic vegetables in Samarinda have completely understood everything related to organic vegetables. Few consumers, 13.00%, less agreed, but the number was very small in comparison with the numbers of consumers who

agreed with organic vegetables. Moreover, 26.00% consumers totally agreed, and it confirmed that organic vegetables have been well accepted by consumers in Samarinda.

CONCLUSION AND SUGGESTION

Conclusion

Market segmentation of organic vegetables was above the age of 40-50 years old that dominated the consumption, in which most of them were Civil Servants/ Indonesian National Armed Forces/ Indonesian Police, and private employees. On average, the consumers had completed their studies from Senior High Schools and Colleges. Each consumer has 3 – more than 4 family members, on average. Income of each family ranged 3 – 4 million and more. Levels of the consumers' knowledge about organic vegetables were as follow: 10.00% consumers had very high level of knowledge, 52.00% consumers had high level of knowledge, 24.00% consumers had moderate level of knowledge, 10% consumers had low level of knowledge, and 4% consumers had very low level of knowledge about organic vegetables. The consumers' perceptions against organic vegetables were as follow: 26.00% consumers totally agreed, 61.00% consumers agreed, and 13.00% consumers less agreed. 0.00% consumers disagreed and did not know.

Suggestion

It is important for consumers to know the content of conventional and organic vegetables, so that consumers will find out which vegetables are more beneficial for consumers and their families.

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