

The Effect of Product Quality on Organic Vegetable Purchase Decision-Making

Risca Kurnia Sari, Yani Quarta Mondiana, Anisa Zairina

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Abstract- Indonesia began to show efforts to start a healthy life by cultivating organic food. Since it was first introduced in Indonesia in 1997 organic vegetables are healthier and safer for the body than non-organic ones. The demand for organic food has increased throughout the world which is increasing by around 20 percent per year so that the demand is able to create a potential market for organic products. Therefore, researchers want to figure out to what extent the quality of organic vegetables influences consumer purchasing decisions. Based on the background, the formulation of the problem in this study is whether the quality of organic vegetable products has an effect on consumer purchasing decision-making. Based on the results of data analysis, the regression model formed is $\hat{y} = 6.56 + 0.37 PQ$. This model shows a positive relationship between product quality and purchasing decisions. The results of hypothesis testing indicate that product quality has an effect on purchasing.

Index Terms- organic vegetables, purchase decision making

I. INTRODUCTION

Indonesia is an agrarian country with a total area of 1,990,250 km² and ranks 13th out of the total area in the world (https://id.wikipedia.org/wiki/Daftar_negara_menurut_luas_wilayah). The total area of Indonesia ranks second after China (in the scope of Asia) and is the largest region in Southeast Asia. This is at risk of narrowing agricultural land into residential land, while the agricultural sector is a strategic sector and plays an important role in the national economy and the survival of the community, especially in its contribution to GDP, employment providers, and domestic food provide (<https://agribisnis14.wordpress.com/2015/03/03/alih-fungsi-lahan-pertanian/>).

Indonesia began to show efforts to start a healthy life by cultivating organic food. Since it was first introduced in Indonesia in 1997 organic vegetables are healthier and safer for the body than non-organic ones. In general, organic vegetables are vegetables that have health standards that are recommended for consumption because they are good for long-term health (Islam, 2014).

Some big cities such as Jakarta, Bandung, Surabaya, and Malang have sprung up places for selling organic food such as vegetables, fruit and rice and there are restaurants that have special food menus from organic food. The increase in organic food sales is triggered by consumer awareness and a healthy lifestyle with the slogan 'back to nature'. Consumers are increasingly aware that the use of non-natural chemicals such as fertilizers, synthetic chemical pesticides, and growth hormones used in agricultural

production has a negative influence on human health and the environment. Organic vegetables are produced by a different process from non-organic vegetables. People sometimes cannot distinguish organic and non-organic vegetables because its taste, color and appearance almost resemble non-organic vegetables (Sinne, 2012).

Image 1 Organic Label



*Source: SNI OKPO (2007)

The Organic Food Safety Authority (2012) considers that organic food is a labeling term stating that a product has been produced in accordance with the standards of organic (natural) production and is certified by an official authority or certification body. The main purpose of organic farming is to optimize the health and productivity of life on land, plants, animals and humans. The demand for organic food has increased throughout the world which is increasing by around 20 percent per year so that the demand is able to create a potential market for organic products (Deliana, 2012). Therefore, researchers want to figure out to what extent the quality of organic vegetables influences consumer purchasing decisions. Based on the background, the formulation of the problem in this study is whether the quality of organic vegetable products has an effect on consumer purchasing decision-making.

II. THEORETICAL FRAMEWORK

ORGANIC AGRICULTURE

The growing number of organic agriculture in Indonesia shows the awareness of farmers and various parties engaged in the agricultural sector on the importance of health and environmental sustainability. Organic farming is agriculture that does not use chemicals but organic matter, instead. Consumers of organic plants are still limited to consumption by health conscious people. Many organic agricultural products are marketed through promotions and exhibitions that aim so that in the following years more people will switch to organic plants.

Organic agriculture according to the Indonesian National Standard (SNI) 2005 is a holistic production management system

that enhances and develops agro-ecosystem health, including biodiversity, biological cycle, and soil biological activity. Furthermore, IFOAM (International Federation of Organic Agriculture Movements) describes organic farming is a holistic agricultural system that supports and accelerates biodiversity, biological cycles and soil biological activities.

According to IFOAM (2006) the purposes of organic agriculture include:

1. Producing food with high nutritional quality and sufficient amount
2. Training patience and self-awareness in carrying out organic farming activities
3. Creating effective interactions with natural systems and cycles that support all existing forms of life
4. Restoring and fertilizing the soil so as to help preserve biodiversity to create a friendly and healthy environment
5. Encouraging recycling in farming systems by activating the life of microorganisms, flora and fauna and soil

Budiharsana (2005) states that consuming organic foods brings several benefits to the body, such as preventing disease, cleansing the body, resting organs, reducing body weight, making skin brighter, slowing down the aging process, helping the body's detoxification process and many others.

There are several reasons that make organic food highly recommended, including:

1. The survey results prove that organic food is far more beneficial for health.
2. The University of Copenhagen's research results revealed organic food is rich in antioxidants, protects against the risk of cancer, prevents premature aging, and prevents accumulation of toxins in your body.
3. It is proven that pesticide residues will never be washed clean because they have been absorbed into the fruit/vegetable.
4. According to WHO research results - about 3 million people / year suffer from poisoning from active pesticides.

III. PRODUCT QUALITY

The products offered by the company will affect the company's activities starting from designing, conducting production and operating systems, creating marketing programs, distribution systems, advertising and directing salespersons to sell. In general, the definition of the product is everything that can be offered to the market to meet consumer needs. According to William. J Stanton in Alma (2004: 139), products are a set of tangible and intangible attributes including color, price, product name, store name that sells (retailer) and factory service and retailer service received by the buyer to satisfy needs and desire. Whereas according to Kotler (2005: 84) the product is everything that can be offered to satisfy a consumer's needs and desires.

Factors Affecting Product Quality

According to Assauri (2001: 123), the quality of a product is influenced by the following factors:

1. Function of a product : what the product is used or intended for.
2. Outward form : the outer form factor contained in a product is not only visible from the shape but the color and packaging.
3. The cost of the product concerned : Costs for the acquisition of an item, for example, the price of goods and the cost of the goods reaching the buyer.

Product Quality Dimensions

According to Tjiptono (2008: 25) there are eight dimensions of product quality as follows:

1. Performance
2. Features
3. Durability
4. Reliability
5. Service ability
6. Aesthetics
7. Conformity with Quality (Perceived quality)

IV. PURCHASING DECISION

Kotler (2007: 223) states Purchasing Decision is several stages carried out by consumers before making a product purchase decision, while according to Chapman and Wahlers (1999: 176), Purchase Decision means consumers' desire to buy a product. Consumers will decide which products to buy based on their perception of the product related to the ability of the product to meet their needs. Several factors can influence consumer purchasing decisions, including:

- a. Personal Factors, which includes reference groups, family, roles and status.
- b. Social Factors, which includes work, economic conditions, lifestyle, personality and self-concept.

V. RESEARCH METHOD

Research Design

This research employed an explanatory research design and carried out based on primary data collected from the questionnaire. This research used a quantitative approach that works with numbers, data in the form of numbers, analyzed using statistics to test hypotheses or answer specific research questions and to predict that certain variables affect other variables (Creswell et al., 2010). The SPSS 23.0 statistical method (Statistical Product and Service Solutions) was used in analyzing data.

Population and Sample

The population in this study is the people of Malang who consume vegetables. Sugiyono (2008) suggests that sample is part of the number and characteristics possessed by the population, whereas according to Ferdinand (2006), the sample is a subset of the population, consisting of several members of the population.

Purposive sampling technique was used. According to Indiantoro and Supomo (1999), purposive sampling using a particular consideration, generally adjusting to the purpose of a study. The purposive sampling method requires that the respondent must have a criterion that is in accordance with the

research objectives. Criteria for samples that are suitable for the purpose of this study are:

1. Respondents have bought organic vegetables
2. Respondents aged over 18 years with reason that respondents aged over 18 years are able to
3. make a decision to make a purchase.

The determination of the sample of this study is based on the guidelines proposed by Kuncoro (2003). Sample determination is influenced by the analytical tool used. The analytical tool in this study uses Multiple Linear Regression, because the population is not known exactly, so the researchers determine the size of the sample taken based on the proposed rules of Roscoe (1975) in Sekaran (2006), namely:

1. A sample size of more than 30 and less than 500 is appropriate for most studies.
2. In multivariate research (including multiple analysis), the sample size should be several times (between 5-10) greater than the number of variables in the study.

Based on these statements the number of samples taken by researchers is a minimum of 75 respondents.

Operational Variables
Tabel 1
Operational Variables

| Variables | Indicators | Items |
|---|---------------------------|--|
| Product Quality (PQ) Hidayati, 2014 | Performance PQ 1 | PQ 1.1 Organic vegetables have a better nutritional content PQ 1.2 Organic vegetables are safe for consumption |
| | Features PQ 2 | PQ 2 Features of organic vegetables (settled brand) |
| | Durability PQ 3 | PQ 3 Durability of organic vegetables |
| | Reliability PQ 4 | PQ 4 Reliability of organic vegetables |
| | Services ability PQ 5 | PQ 5 Service ability of organic vegetables |
| | Aesthetics PQ 6 | PQ 6.1 The aesthetics of organic vegetables is looking fresh PQ 6.2 The aesthetics of organic vegetables have striking colors PQ 6.3 The aesthetics of organic vegetables have a tastier and softer taste PQ 6.4 The aesthetics of organic vegetables appear more natural PQ 6.5 The aesthetics of refined and less fibrous organic vegetables |
| | Perceived quality PQ 7 | PQ 7 Compliance with specifications on organic vegetables |
| Purchase Decisions (PD) Tangkalung, 2015 | Product selection | PD 1.1 Product purchases PD 1.2 Purchase other products |
| | Purchase frequency | PD 2.1 Repurchase now PD 2.2 Future repurchases PD 2.3 Repurchase of other products |
| | Purchase quantity | PD 3.1 Little purchases PD 3.2 Multiple purchases |

VI. RESULTS AND DISCUSSION

General Characteristics of Vegetable Consumers in Modern Markets

The general characteristics of vegetable consumers taken as respondents in this study are based on gender, age, marital status, education level, income level, number of family members, and employment. Based on gender, the majority of respondents were females as many as 60 respondents (80%), while male respondents were 15 (20%). Women are more dominant than men in buying vegetables, because in this case women are more knowledgeable about household needs while most men are busy to make a living for their families.

Based on age, most of them are respondents who have an age interval of 26-35 years (41%). The second largest percentage is adults aged 36-45 years (34%) and adolescents aged 15-25 years are third (25%). Overall, vegetable buyers are dominated by young mothers who begin to pay attention to the health of their families. The marital status of vegetable respondents was mostly married with 48 people (79.75%), while those who were unmarried were 27 people (20.25%), because respondents stated that people who were married had to provide healthy and clean food for his family. The number of respondent family members is 1-4 people (67%) and more than 4 people (33%). Most consumers have a family of no more than four so that consumers in fulfilling family needs are quite adequate, especially in consuming vegetables.

Based on the level of income obtained from the work of respondents, most of them earn IDR 2,000,000 per month – IDR 3,000,000 (as many as 46 respondents). Monthly income greatly affects them in buying vegetables in the modern market because most respondents who shop for vegetables in the modern market say they are able to shop for vegetables, although not regularly (every day).

Most of the respondent's education was Diploma graduates who acted as housewives. Level of education also encourages a person to have a better, healthier and better-quality lifestyle. Viewed from education, vegetable buyers are those with relatively good education and from the middle to upper class.

The Effect of Product Quality on Purchasing Decisions

Based on the results of data analysis, the regression model formed is $\hat{y} = 6.56 + 0.37 PQ$. This model shows a positive relationship between product quality and purchasing decisions. The results of hypothesis testing indicate that product quality has an effect on purchasing (Sig. <0.05).

The quality of organic vegetable products includes good and safe nutrients. Organic vegetables that also have clear brands are in demand by consumers. Organic vegetables have a longer resistance than non-organic vegetables and the community believes in the reliability of organic vegetables. The community also prefers to buy organic vegetables that look fresher with a softer taste. The results of the analysis show a coefficient of determination of 0.8. This shows that 80% of the diversity of purchasing decision variables is influenced by product quality. The remaining 20% is influenced by other variables that have not been included in the regression model.

VII. CONCLUSION

Based on the results of the analysis and discussion presented in the previous chapter, this study presents answers to the research problems as follows: It is evident that the quality of organic vegetable products which includes performance, features, durability, reliability, service, aesthetics, conformity with quality has a positive and significant influence on purchasing decisions. This shows that high product quality tends to create high consumer purchasing decisions.

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AUTHORS

First Author – Risca Kurnia Sari

Second Author – Yani Quarta Mondiana

Third Author – Anisa Zairina

