

Buying Behavior Of Organic Vegetables Product: The Effects Of Perceptions Of Quality And Risk

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Abstract: Consumer behaviors are more important in the study of "Green Marketing". This studied aims to examined buying behavior of consumers on organic products, which is formed by perception of quality and perception of risk. The research model with three hypotheses to explained the relationship and influenced between the constructs that perception of quality, perception of risk and purchase decision. In these empirical studied treated 366 respondents from customer of retail supermarkets in West Java - Indonesia. Results of research founded a significant negative relationship between perception of quality and perception of risk. As well as the behavior of perception of quality and the perception of risk has a significant influenced on purchase decision. Retail self-service needs to improve the perception of quality and reduces the risk perception of the consumers, if purchasing behavior of consumers want increase on organic products. This studied was useful in raising awareness of self-service retail and consumers for environmentally friendly products.

Index Terms: Perception of Quality; Perception of Risk; Purchase Decision

1 INTRODUCTION

In this marketing era increasingly emphasized the importance of treating nature and the environment as a stabilized force in gains business competitiveness. Therefore, the impact of industrial activities on the Earth's environment intensified in the 1970s, and the serious environmental pollution eventually stimulated movements throughout the world (Chen et al., 2015:10136). The problems are taken as the issue in a competitive business, it is indicated on the changing patterns of business approach began to steer business to business activity-based approach to environmental sustainability (Chen, 2009:307). The creation of products that can conserved the environment started to create the company to realize the issue of environmental problems and one of the company's concern for the environment. Another thing seems from retail supermarkets that have provided options of products with environmental friendly products, namely organic vegetables (Alamsyah et al., 2015:173). Today's consumer is given the choice of organic and non-organic products (Wirth et al., 2011), of course both of the products have the same kind but also has a difference. The difference on organic products is how to growing, where organic products is avoid from chemicals that can harm the environment with strict of preservation. Thus making organic products are more expensive than conventional products (Ankomah & Yiridoe, 2006:9). Vegetables fresh and pollution-free or organic vegetables believed to be vital for nutritious food and health that is beneficial to detoxify the body and prevention of diseases such as cancer, heart disease, hypertension, diabetes, kidney and stroke (Supriati et al., 2008:9). One of

the countries in Asia as Malaysia had more intentions of organic products from the customers in view of the importance of health on environmental issues (Saleki et al., 2012:99). This shows that attentions to organic products are already quite well received by the community. However, there needs to be studied perception of organic products in Indonesia, because Indonesia is a developing country which has a population density is quite high compared from Malaysia. And consumption of vegetable, especially organic vegetable products is still low in Indonesia (Amin, 2014:13), in particularly the province of West Java. An organic vegetable product offered by retail supermarket is assessed by consumers in both of sides, quality and risk. Price is a risk that should be accepted by consumers when buying organic vegetables. Hence, price of organic vegetables is more expensive than conventional vegetable products (Radman, 2005:263). Value of the risk products is very important for customer, which has an impact on consumer purchasing decisions (Yee et al., 2011:55). Nowadays consumers buy organic products is not as aware of the health and environmental effects but because of advised and habit of surroundings (Guido et al., 2010:99). In addition, not all consumers considered that by buying organic products, have been keeping or help conserve the environment (Arvola, 2008:449). It is alleged lack of consumer understanding of product quality organic vegetables. On last study it was discovered that the perceived quality is strong relationship with consumer purchasing decisions (Yee et al., 2011:55). Consumer's had perception of organic products is because of quality and safety, in addition to some other benefits (Zanoli et al., 2012:70). Customer value of product influenced purchase decision of products (Shareef, 2008:105). Organic vegetable products have value in consumer where quality and satisfactions become value for consumers (Ying & Chiu, 2012:125). Higher value of consumer product quality of organic vegetables is more possibility to purchase decisions of organic vegetable products who offered in retail supermarkets. Based on previously phenomenon, this study examines the level of consumer perceptions of quality and risk in organic vegetables, as well as the impact on consumer purchasing decisions.

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2 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Perception of Quality (PoQ)

Quality is defined as the degree of excellence or superiority that an organization's product possesses (Khan, 2005:28). Consumers judge or perceive the quality of the products and it also called perception of quality, because perception of quality derived from the analysis of consumers on product quality (Sanyal & Datta, 2011:605). Customer perceived value of product quality is a consumer opinion as ability of the product who suitable with expectation of consumer (Terenggana et al., 2013:326). Perception of quality is formed on consumers can be affected by several things including past experience, education, purchasing and consumer community (Yaseen et al., 2011:834), and perception of quality is important in improving the quality of products in the view of consumers (Parrol et al., 2013:603). Since knowledge and consumer needs change time by time, it taken an understanding related consumer perception of quality in evaluated to be known how big influence on purchase intention (Sanyal & Datta, 2011:607). Reviewing consumer behavior in foods, in previous research is often studied through perception of quality (Carrasco et al., 2012:1414). On last studied, perceived quality is the consumer's judgment about a product's overall excellence or superiority (Zeithaml, 1988). Meanwhile perceived quality is the judgment a consumer of product which refers to the physical characteristics of the product, and is related more to engineering and food technology (Carrasco et al., 2012). Several things that concern on perception of quality, first are spoke on the advantages related to the assessment of consumer products and the second on the technology applied to products that are both better than similar products. That matter is a critical element for consumer decision making, consequently, consumers will compare the quality of alternatives with regard to price within a category (Jin & Suh, 2005). Organic vegetable products have advantages and technologies related of environmental friendly. Perceived quality is not the actual quality of the brands or products. Rather, it is the consumers' judgment about an entity's or a service's overall excellence or superiority (Aaker, 1991). Sometimes is directly related to the reputation of the firm that manufactures the product (Davis et al. 2003), and viewed as the degree and direction of discrepancy between consumers' perceptions and expectations (Chen & Chang, 2005). Perceived quality and perception of quality had closer theoretical, perception defined is the mental process that persons go through in selecting, organizing and interpreting information into meaningful patterns (Truong & Yap, 2010:532). It can be interpreted that perception of quality is overall judgment of superior quality of organic products as result from selecting, organizing and interpreting form the alternative product. Measurement of customer perception of quality on organic products is divide on several things, included guarantee (origin, brand, label, variety), organoleptic characteristic (firmness, color, flavor, aroma), and external factors (damage, size, price) (Carrasco et al., 2012:1422). In other side on organic product it measured with environmental concern, environmental consideration, environmental performance, environmental image, and environmental reputation (Chen & Chang, 2013:71).

2.2 Perception of Risk (PoR)

Risk is important construct on marketing, especially to

describe and understanding the evaluated of customer and customer behavior (Tuu & Olsen, 2011:29). Consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which at least are likely to be unpleasant (Bauer, 1960) and sacrifice to obtain a product (Zeithaml, 1988). Value of risk often in empirical study on customer behavior in foods (Knight et al., 2007:794), considering food is basic needs of customer every day. Perceived risk is not only related to consumers' information acquisition and processing activity but to post-decision processes as well, where people will seek out information that confirms the wisdom of their decision (Horvat & Dosen, 2013:273). Consumer risk perception and its impacts on purchasing behavior are a critical component of the management of food safety (Yeung et al., 2010:306), perceived risk can be explained as consumers' doubt on the results of their buying decisions (Arslan et al., 2013). It can be interpreted that perception of risk is sacrificed value of customer when buying products as result from selection until interpretation from alternative product. Described of organic product can be measure with financial risk, performance risk, physical risk and social risk (Yee et al., 2011:54). Research on the same years is delivered of measure of risk, especially food include health risk, performance risk, psychosocial risk, and financial risk (Tuu et al., 2011:368). Perception of risk have negative relationship with perception of quality (Kim & Lennon, 2013:33), and on last research found that perception of quality have negative relationship with perception of risk received by customer (Chen & Chang, 2005:521). Based on theoretical study which has been discussed, next determined research hypothesis.

Hypothesis 1 (H1). Perception of quality has negative relationship with perception of risk of organic product.

2.3 Purchase Decision (PD)

On customer behavior in related with purchase decision of customer, said that behavioral intentions were defined as intentions or certain activities toward to a product or business when customers after purchasing, and they can be regard as a signal of customer retention rate (Chi et al., 2008:131). Decision of consumer on purchase decision is different, the decision mentioned involved many considering on faced many differentiation of brands (Kotler & Armstrong, 2006:176). Consideration of customer affected in many activities, including purchase decision (Choubtarash et al., 2013:276). Behavior intention is behavior which comes from values of customer; behavior delivered by customer of organic product came from previous comprehension of customer perception (Chi et al., 2008:131). Behavior of customer to organic vegetables is come from customer perception of quality of organic product and that behavior effected consumer decide to consume of organic product (Terenggana, 2013:324). In decision of buying the goods, there are often two or more parties are involved in the process of exchange or purchase. Marketers need to know who is involved in buying decisions and the role played by each person (Schiffman & Kanuk, 2007:289). Consumer awareness of the environmental damage due to the products to be increased, marked by the consumption patterns of environmentally friendly products or so-called "Green Consumerism", the behavior affected the purchasing behavior of consumers, especially on organic

products (Kim & Chung, 2011:40), so it's important to recognize consumer purchasing behavior. Many companies use marketing strategies by analyzing consumer behavior in order to study the effect on purchase decision (Jalalkamali & Nikbin, 2010:235). The purchase decision is also influenced by the perceived quality which is also an aspect of brand value that makes consumers pay for certain products or services (Yaseen et al., 2011:833). It confirms that the consumer purchase decision on products or services is strongly influenced by customer perception of quality of value brand. Decision making is a way of choosing between two or more possible options when a person has a choice between purchasing or not (Schiffman & Kanuk, 2007). In the assessment stages of different choices, the consumers classify different brands and the purchase intention is created in his mind. Shareef et al. (2008) revealed purchase decision is a continuous process, which refers to thoughtful, consistent action undertaken to bring about need satisfaction. Choubtarash et al. (2013) confirmed that purchase decision is a person in the mind who is carefully analyzing the features of products, trademarks or services and tries, by using logical methods, to choose a choice that can satisfy the recognized need with the least expenses. Consumers perceived organic as a healthier alternative to conventional foods in that they contain more nutrients which enhance personal well-being organic produce is also considered safer and better in taste and more enjoyable than conventional products (Shaharudin et al., 2010:72). Last organic purchasing is defined as purchasing goods and services which have less harmful for environmental and human health (Othman & Rahman, 2014:93). Purchasing decisions can be measured through several dimensions, including recommend, purchase frequency, overall satisfaction and purchase intention (Shareef et al., 2008:101). The measure is not different from the study by Liu et al. (2009:72) which provide specifications for purchasing decisions by some measures, including product selection, brand selection, object selection, purchase opportunity, and purchase quantity. Consumer purchasing decisions on products had relationship with consumer perceptions of quality and risk products (Yee et al., 2011:47). Consumer interest in the products can be improved by an increase in the quality of products (Kwak & Kang, 2009:85). And previous research has argued that a consumer perception of quality has a positive impact on consumer buying behavior (Wang & Tsai, 2014:27). Based on these studies, next hypothesis as follows:

Hypothesis 2 (H2). *The levels of consumer perceptions of the quality of organic products have a positive relationship and influence on purchase decisions.*

On previous research, customer value of products risk has a negative impact on consumer buying behavior (Knight et al., 2007:792). Based on previous literature review, it was determined on the following hypotheses:

Hypothesis 3 (H3). *The level of consumer perceptions of the risk of organic products has a negative relationship and influence on purchasing decisions.*

In this study confirms that consumer perception of quality and risk of organic products has an influence on purchasing decisions. Research framework presented in Figure 1.

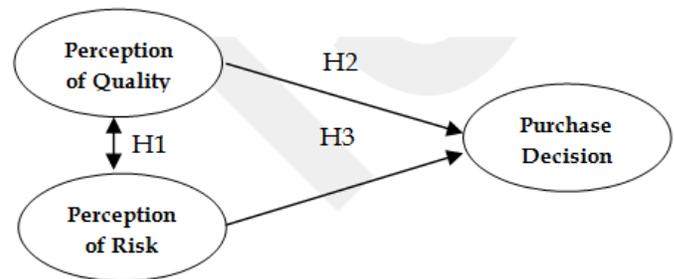


Figure 1. Research Framework

3 METHODOLOGY AND MEASUREMENT

3.1 Purchase Decision (PD)

Scientific research is basically an attempt to express the semantics occurring phenomenon, controlled, empirical, and critical. Type of this research is descriptive studies conducted to gain an overview of research variables, and verification which is a research study to determine the effect between variable through a hypothesis testing. Relating to types of research in this study using survey research methods, given the way data and information collection went to the field. To be more accurate data from the study population, namely the self-service retail consumer research method used is descriptive survey and explanatory survey. In this study, survey used questioner to collect the information about the constructs. Collection sheet question of supermarket consumers is carried out at a certain time with time horizon used and cross-sectional (*one shot*), whereas the data and information in the year 2014 in view of the limited consideration of research time and costs. Time horizon reflects the cross-sectional illustration of a situation at a particular moment. This study used a survey of supermarket customers in West Java Indonesia 500 respondents, which is divided into 26 regions. Questionnaires distributed randomly in retail supermarkets by 25 retailers in West Java Province, and valid data obtained about 366.

3.1 The Measurement of the Constructs

The constructs used in this study as the dependent variable purchase decisions and independent variable is perception of quality and perception of risk. Each constructs is measured via the dimensions of research and indicators, as outlined in the questionnaire. In measuring the constructs used a five-point Likert Scale of 1-5, with a range of "strongly disagree" to "strongly agree". Explanation of dimensions and indicators on variables as follows.

Perception of Quality is overall judgment of superior quality of organic products as result from selecting, organizing and interpreting form the alternative product. In some previous studies perception of quality is often assessed for food products (Carrasco et al., 2012:1414). On this studied perception of quality used to assess organic vegetable products, which have characteristics of environmental friendly. Perception of quality formed with 3 dimensions, followings guarantee (label, origin, being safer, healthier), organoleptic characteristics (firmness, color, freshness, tastier), and external factors (damage, pesticide free, environmental friendly, environmental concern).

Perception of Risk is sacrificed value of customer when buying products as result from selection until interpretation from alternative product. Perception of risk is seen by consumers on negative values, related organic vegetable products. More precisely is the consumer views on the weakness of environmentally friendly products (Yeung et al., 2010:306). Several dimensions to measurement of perception of risk, followings financial risk (price, cost, funding), functional risk (needs, functions, beliefs), and psychosocial risk (stress, dislike, refuse).

Purchase Decision is defined as purchasing goods and services which have less harmful for environmental and human health (Othman & Rahman, 2014:93). On some previous research found than purchase decision have relationship with perception of quality (Yee et al., 2011:47; Kwak & Kang, 2009:85; Wang & Tsai, 2014:27) and perception of risk (Yee et al., 2011:47; Knight et al., 2007:792). Purchase decision measured which several dimension, followings product selection (product selection, selection the other product), purchase frequency (repeat purchase now, repeat purchase in the future, repeat purchase the other product), and purchase quantity (purchase a little, purchase more).

4 EMPIRICAL RESULTHS

Structure Equation Model (SEM) used in the analysis of the suitability of a model based on empirical data exist. SEM model also used to assess causality between constructs observed in the research model, with maximum method approach likelihood (ML). This study used a questionnaire to described three latent variables, which is perception of quality, perception of risk and purchase decision. Linier Structural Relationship (LISREL) is software data processing in analyzing SEM model, examine the parameters of the fit model and verify the research hypothesis. SEM used in this studied to explain the two phases of research that the measure model and the structure model.

4.1 Sample Demographics

Respondents have different demographics. Demographics related gender dominated by woman (867%), with average ages of 31-40 years (46.6%) and married status (69.1%). From the demographic data it appears that a consumer’s retail of supermarket in West Java province has a maturity of age. Furthermore, from the number of family members appeared to be dominated category 2 – 5 persons (70.2%), with the last education is bachelor degree (40.1%) and job as a private employees (29%), and income between 2 – 6 billion per month. Completed demographic data of the study sample presented in the following Table 1.

Table 1. Results of Sample Demographics

Variables	Category	N	Rate (%)
Gender	Man	49	13.3
	Woman	320	86.7
Age	< 20 years	16	4.3
	20 – 30 years	112	30.4
	31-40 years	172	46.6
	> 40 years	69	18.7
Status	Marriage	255	69.1
	Single	114	30.9
Family	1 – 2 persons	72	19.5

	2 – 5 persons	259	70.2
	> 5 persons	38	10.3
Education	< Senior High		
	School	33	8.9
	Senior High	100	27.1
	School	48	13
	Diploma	148	40.1
	Bachelor Degree	40	10.8
Works	Master Degree		
	Students	22	6
	Public Employees	63	17.1
	Private Employees	107	29
	Entrepreneurs	54	14.6
	Housewife	96	26
	Doctor	3	0.8
	Lectures/Teachers	24	6.5
Incomes (per month)	< 2 billions	18	4.9
	2 – 6 billions	144	39
	6 – 10 billions	139	37.7
	> 10 billions	68	18.4

Note: “N” represents the total frequency of the all respondents “Rate” in % means the frequency divided by the total valid response number

4.2 Sample Demographics

Before evaluated the measurement model we analyze construct for all constructs this research that is perception of quality, perception of risk and purchase decision. This research used confirmatory factor analysis to test all indicator constructs. Measurement model is performed by testing reliability and validity. Reliability conducted by reviewing Cronbach’s Alpha and Composite Reliability. All value Cronbach’s Alpha > 0.5, this indicates all measurement high consistency. Furthermore value of Composite Reliability > 0.5 on this research, its indicated that instrument is reliable. The properties of the measurement model are summarized in Table 2.

Table 2. Results of Confirmatory Factor Analysis

Const.	Sub Construct	Items	Factor Loading	Cron Alpha	Composite Reliability
Perception of Quality	Guarantee	Q11	0.66	0.816	0.819
		Q12	0.79		
		Q13	0.68		
		Q14	0.72		
	Organizational Char.	Q15	0.75		
		Q16	0.78		
		Q17	0.72		
		Q18	0.74		
		Q19	0.67		
		Q20	0.60		
External Factor	Q21	0.79			
	Q22	0.74			
	Financial Risk	R11	0.57	0.824	0.826
		R12	0.51		
		R13	0.54		
		R14	0.63		
Functional Risk	R15	0.77			
	R16	0.66			

	Psycho. Risk	R17 R18 R19	0.80 0.76 0.73		
	Product Selection	P11 P12	0.67 0.72		
Purchase Decision	Purchase Frequency	P13 P14 P15	0.61 0.65 0.46	0.567	0.584
	Purchase Quantity	P16 P17	0.72 0.85		

Further in this study examined the validity of research instruments through calculation average variance extracted (AVE). Table 3 shows Mean and Average Variance Extracted, and the result AVE's value > 0.5. Indicated the measure construct has a high value for the validity of the research instruments. The results of measurements on reliability and validity both is accepted, its mean reliable and valid for all constructs.

Table 3. Results of Mean and Average Variance Extracted

Construct	Mean	Average Variance Extracted
Perception of Quality	3.831	0.747
Perception of Risk	2.721	0.623
Purchase Decision	3.614	0.684

4.3 The Results of the Structural Model

In this study we used LISREL analysis to described research framework. Results processing of LISREL show in Figure 2, containing of path coefficients and explained variance (R^2). The path coefficient for this study is shown in standardized form. The R^2 values for endogenous constructs are treated as the predictive power of the research model. Value of R^2 from purchase decision as 0.64, it's indicated that purchase decision is affected by perception of quality and perception of risk (64%). On the other hand found perception of quality and perception of risk had negative correlation with value -0.32.

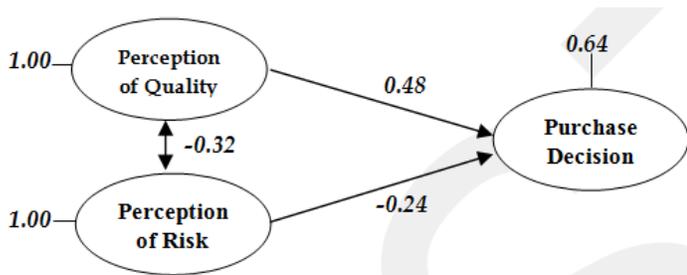


Figure 2. LISREL Results of Direct Effects

The results have been submitted in Figure 2, reaffirmed by the results by Table 4 who show Standardized Path Coefficients. As presented in Table 4, found that t -value for perception of quality to perception of risk as -5.50. And found t -value perception of quality to purchase decision as 6.54, other side found t -value perception of risk to purchase decision as -3.78. All values of hypothesis (H1, H2, and H3) supported, where perception of quality had negative relationship with perception of risk. Perception of quality had significant impact to purchase decision and perception of risk had significant impact to purchase decision.

Table 4. Standardized Path Coefficients

Hypothesis Relationship	Path Coefficients	t -value	Result
Perception of Quality - > Perception of Risk	-0.32	-5.50	Supported
Perception of Quality - > Purchase Decision	0.48	6.54	Supported
Perception of Risk -> Purchase Decision	-0.24	-3.78	Supported

Note: $p < 0.05$

5 CONCLUSIONS AND IMPLICATIONS

This study focused on consumer purchasing behavior on organic products. Organic products in question are organic vegetables in retail supermarkets in West Java - Indonesia. There were 366 respondents that were examined in this studied, respondents were spread across the retail supermarket in West Java Province. It examined in this study of consumer purchase decision relating to consumer behavior, which is perception of quality and perception of risk. And through LISREL approach discovered the relationship and influence between the constructs, which are described in the research model. Results on the mean values (3.831), found description of consumer perception of quality for organic vegetables product is better. Different for description of consumer perception of risk (2.721) is bad and purchase decision (3.614) is average high. The third difference from the mean value contained in perception of risk, it is certainly an impact on other variables it is purchase decision. However, in-depth overview of each variable was not studied, and research focused on testing the model through research hypothesis. The research model was tested through the research hypothesis. The final goal is to be conveyed is how to maintain self-service retail business through organic product offerings approach as the choice of products. Give the organic products in addition to healthy when consumed, as well as innovative new products that have not been chosen by the public in the province of West Java. By consumed and businesses in the field of environmentally friendly products, can participate in keeping the earth from global warming, as well as the sustainability of human life on earth.

5.1 Perception of Quality and Perception of Risk

Results of the study found a negative correlation between customer perception of quality and perception risk. These results are marked by value of correlation is -0.32. Based on these results marked that consumer's perception of quality for organic products increased, if consumer's perception of risk for organic products decrease. Perception of quality is a better value from consumers of organic product, otherwise perception of risk is bad values from consumers of organic products. So proper, if the correlation is inversely related between constructs. These results are supported by t -value as -5.50, which indicated that relationship perception of quality with perception of risk is significant. The implications of the results of the Hypothesis 1 are greatly affects to the consumer behavior. It's seen from the side of companies that supermarket. (1) Supermarket needs increase consumer perception of quality on several things by followings guarantee, organoleptic characteristics and external factor. Considering all three dimensions has well of loading factor on

formed perception of quality. And consumer perceived of perception quality from organic products has advantages over conventional products. (2) Supermarket needs to press other consumer behavior in this research that perception of risk. Perception of risk is a bad view of the consumers of organic products. Some dimensions that need to be considered in view of the decrease them are financial risk, functional risk and psychosocial risk. The third dimension has a good loading factor in shaping the perception of risk. When retail supermarket is able to understand both these variables, supermarket will be able to provide the right marketing strategy, especially for environmentally friendly products. The results are consistent with previous researches; one of them on research is Kim & Lennon (2012). Distinguishing the research contained in the object of study, previous research has studied the problems of online products.

5.2 Perception of Quality and Purchase Decision

Consumer buying behavior, namely purchase decision can be enhanced through the perception of quality. The statement is based on research results found in this study. Where value of coefficient perception of quality to purchase decision 0.48. Based on these findings it's important to form perception of quality consumer of organic product, considered the impact on consumer purchase behavior. These results are supported by *t*-value 6.54, and marked influence perception of quality to purchase decision is significant. The results could be used as input of information for retail supermarket, in improving consumer purchase decision on organic vegetable products, through an increase in value of consumer perception of quality. Management retail is expected to examine how to create a green marketing strategy through consumer behavior. Realized that the Green Marketing Strategy is a current marketing strategy, and adopted by many companies in attracting customers. Strategy increased perception of quality consumer of organic product can be appropriate tools to practice of Green Marketing Strategy. Results of this research have corresponding with Yee et al. (2011), despite having differences on the object of research.

5.3 Perception of Risk and Purchase Decision

Perceptions of risk is a negative view of customers for organic products, and has an impact on consume purchase decision. The results based on value of coefficient on Table 4, which perception of risk has affected to purchase decision as -0.24. Negative marked is described that customer purchase decision of organic product will be increase when perception of risk can be decreased. These results significantly reaffirmed by *t*-value -3.78. The findings in this study are consistent with previous studies of Yee et al. (2011), as well as the influence of perception of quality in purchase decision, which was discussed earlier. Based on both results the essence of this studied enhanced the research that has been done previously by Yee et al. (2011). Differentiation with previous studies is in the object of the research study. Where previously focused on the vehicle products in Taiwan (non-green), while current focused on the food product in Indonesia (green). The implications of this research is helpful for (1) the retail supermarket in determining the Green Marketing Strategy through increased perception of quality and emphasis on perception of risk of organic products. (2) The government in Indonesia on faced the global warming, through the behavior of private consumption in environmentally friendly products.

This research is still needs for improvement, there are some things that are not examined in this study. Retail Image is one of the constructs related to the consumer purchase decision in the supermarket (Alamsyah et al., 2015). And other constructs that have a relationship it is religious factor (Shaharudin et al., 2010), considering that Indonesia is a country of Muslim dominance. The aim of further research is certainly to enhance current research, in developing research on environmental friendly products and sustainability of human healthy.

References

- [1] Aaker, D.A., 1991. *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. 1st End. The Free Press. New York
- [2] Alamsyah, D., Sucherly, Ariawati, R., & Helmi, A. 2015. Increasing Purchase Decisions of Organic Vegetable Products through Perceived Risk and Store Image. *International Journal of Marketing and Technology*. 5/3. 171-188.
- [3] Amin, Muhamad Nasikun. 2014. *Sukses Bertani Buncis*. Garudhawaca. Sleman
- [4] Ankomah, Samuel Bonti & Yiridoe, Emmanuel K. 2006. *Organic and Conventional Food: A Literature Review of The Economics of Consumer Perception and Preferences*. Organic Agriculture Centre of Canada.
- [5] Arslan, Y., Gecti, F., & Zengin, H. 2013. Examining Perceived Risk and Its Influence on Attitudes: A Study on Private Label Consumers in Turkey. *Asian Social Science*. 9/4. 158-166.
- [6] Arutselvi, M. 2012. A Study on Women's Purchase Decision of Durable Products. *International Journal of Management Reserch and Review*. 2. 316
- [7] Arvola, A, Vasassalo, M, Dean, M, Lampila, P. (2008). Predicting intentions to purchase organic food: the role of affective and moral attitudes in the theory of planned behavior. *Appetite*. 50. 443-454
- [8] Bauer, R. 1960. Consumer behavior as risk taking. *Dynamic Marketing Offer a Changing World*, Proceedings of the 43rd Conference of the American Marketing Association. Chicago, IL. 389-98.
- [9] Beneke, J., Flynn, R., Greig, T., & Mukaiwa, M. 2013. The Influence of Perceived Product Quality, Relative price, and Risk on Costumer value and Willingness to buy: a study of private label merchandise. *Journal of Product & Brand Management*. 22/3. 218-228.
- [10] Carrasco, L. Martitez, Brugarolas, M., & Poveda, A. Martinez. 2012. Modeling Perceived Quality of Tomato by Structural Equation Analysis. *British Food Journal*. Emerald. 114/10. 1414-1451.
- [11] Chen, A., Huang, K., Peng, M., Hackley, C., Tiwsakul, R., & Chou, C. 2015. Antecedents of Luxury Brand Purchase Intention. *Journal of Product & Brand Management*. 20/6. 457-467.

- [12] Chen, Tser Yieh & Chang, Hong Sheng. 2005. Reducing Consumers' Perceived Risk Through Banking Service Quality Cues in Taiwan. *Journal of Business and Psychology*. 19/4. 521-542
- [13] Chen, Yu Shan & Chang, Ching Hsun. 2013. Enhance Green Purchase Intention. *Management Decision*. Emerald. 50. 502-520.
- [14] Chen, Yu Shan. 2009. The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust. *Journal of Business Ethics*. 93. 307-319.
- [15] Chen, Yu-Shan, Lin, Ching-Yin & Weng, Chia-Sui. (2015). the Influence of Environmental Friendliness on Green Trust: The Mediation Effects of Green Satisfaction and Green Perceived Quality. *Sustainability*. 7. 10135-10152.
- [16] Chi, H., Yeh, H., & Jang, B. 2008. The Effects of Service Quality, Customer Perceived Value, Customer Satisfaction on Behavioral Intentions: A Study of Mobile Value-Added Services in Taiwan. *The Business Review Cambridge*. 10 /1. 129-135.
- [17] Choubtarash, Neshat., Mahdieh, Omid., & Marnani, Ahmad Barati. 2013. The Study of the Relationship Between Consumer Involvement and Purchase Decision. *Institute of Interdisciplinary Business Research*. 4. 12.
- [18] Davis, M.M., N.J. Aquilano & R.B. Chase, 2003. *Fundamentals of Operations Management*. 4th Edn. McGraw-Hill.
- [19] Dowling, G.R. & R. Staelin, 1994. A model of perceived risk and intended risk-handling activity. *Journal Consumer Res*. 21. 110-134.
- [20] Goyal, Anita. 2007. Managing Perceived Risk For Credit Card Purchase Through Supplementary Services. *Journal of Financial Services Marketing*. 12/4. 331-345.
- [21] Guido, Gianluigi., Prete, M. Irene., Peluso, Alesandro., Maloumy-Baka, R. Cristian., & Buffa, Carolina. 2010. The Role of Ethics and Product Personality in The Intention to Purchase Organic Food Products: a Structural Equation Modeling Approach. *Internasional Rev. Economic*. 57. 79-102.
- [22] Hansen, Torben. 2005. Understanding Consumer Perception of Food Quality: The Cases of Shrimps and Cheese. *British Food Journal*. 107/7. 500-525.
- [23] Hellier, P., Geursen, G., Carr, R., & Rickard, J. 2003. Customer Repurchase Intention A General Structural Equation Model. *European Journal of Marketing*. Emerald. 37/11-12. 1762-1800.
- [24] Horvat, S., & Dosen, D. 2013. Perceived Risk Influence on the Consumer Attitude to Private Labels in the Product's Life Cycle Growth Stage. *Economic and Business Review*. 15/4. 267-91.
- [25] Jalalkamali, M. & Nikbin, D. 2010. The Effects of Motivation on Purchase Decision. *Interdisciplinary Journal of Contemporary Research in Business*. 2/8. 234-245.
- [26] Jin, B. & Y.G. Suh, 2005. Integrating effect of consumer perception factors in predicting private brand purchase in a Korean discount store context. *Journal Consumer Market*. 22. 62-71.
- [27] Khan, Mohammad Ayub. 2005. The Relative importance of The Factors Influencing Consumer Perception of Product Quality across Cultures: A Two Country Empirical Analysis. *Touro University International*.
- [28] Kim, H., & Chung, J. 2011. Consumer Purchase Intention for Organic Personal Care Products. *Journal of Consumer Marketing*. 28/1. 40-47.
- [29] Kim, Jiyoung & Lennon, Sharron J. 2012. Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention. *Journal of Research in Interactive Marketing*. 7/1. 33-56.
- [30] Knight, John., Holdsworth., & Mather, Damien. 2007. Determinants of Trust in Imported Food Products: Perceptions of European Gatekeepers. *British Food Journal*. 109. 792-804.
- [31] Kotler, Philip & Keller, Kevin Lane. 2012. *Marketing Management 14^e*. Pearson Prentice.
- [32] Kotler, Philip dan Armstrong. 2006. *Principle of Marketing 11th edition*. Upper Saddle River. New Jersey. Person Education Ltd.
- [33] Kwak, D. & Kang, J. 2009. Symbolic Purchase In Sport: The Roles of self-image Congruence and Perceived Quality. *International Journal of Management Decision*. 47/1. 58-99
- [34] Laforet, Sylvie. 2008. Retail Brand Extension – Perceived Fit, Risks and Trust. *Journal of Consumer Behavior*. 7/3. Page 187-209.
- [35] Lin, Long-Yi & Liao, Jui-Chi. 2012. The Influence of Store Image and Product Perceived Value on Consumer Purchase Intention. *International Journal of Advanced Scientific Research and Technology*. 2/3. 306-321
- [36] Liu, Shuo Fang., Wang, Wen Cheng, & Chen, Ying Hsiu. 2009. Applying Store Image and Consumer Behavior to Window Display Analysis. *The Journal of America Academy of Business*. 14. 2.
- [37] Manohar, S. Devaru, S. & Arundathi. 2012. Consumer Perception towards Organic Food Products: an Exploratory Study in Bangalore Using Factor Analysis. *International Journal of Management Research and Review*. 2/10. 1733-1747.
- [38] Othman, C. & Rahman, M. 2014. Investigation of The Relationship of Brand Personality, Subjective Norm and Perceived Control on Consumer's Purchase Intention of Organic Fast Food. *Modern Applied Science*. 8/3. 92 –

- 106.
- [39] Parrol, C., Mangin, J., & Corti, I. 2013. Perceived Quality in Higher Education: an Empirical Study. *Marketing Intelligence & Planning*. 31/ 6. 601-619.
- [40] Radman, Marija. 2005. Consumer Consumption and Perception of Organic Products in Croatia. *British Food Journal*. 107/4. 263–273
- [41] Saleki, Zeinab Seyed, Saleki, Seyedeh Maryam, & Rahimi, Mohammad Reza. 2012. Organic Food Purchasing Behavior in Iran. *International Journal of Business and Social Science*. 3. 13.
- [42] Santonino, M. (2003). A Study of the Relationship between Consumers Risk Perception, Information, and Knowledge to Assess Product Safety, Business Policies and Government Regulation: Wire Cellular Phone Uncertainty as a Public Health Hazard. Dissertation Nova Southeastern University.
- [43] Sanyal, S., & Datta, S. 2011. The Effect of Perceived Quality on Brand Equity: an Empirical Study on Generic Drugs. *Asia Pacific Journal of Marketing and Logistics*. Emerald. 23/ 5. 604-625.
- [44] Schiffman, Leon G & Kanuk, Leslie Lazar. 2007. *Customer Behavior—Ninth Edition*. Person International Edition.
- [45] Shaharudin, Mohd Rizaimy., Pani, Jacqueline Junika., Mansor, Suhardi Wan., Elias, Shamsul Jamel., & Sadek, Daing Maruak. 2010. Purchase Intention of Organic Food in Kedah, Malaysia: A Religious Overview. *International Journal of Marketing Studies*. 2. 1
- [46] Shareef, Mahmud Akhter., Uma, Kumar., and Kumar, Vinod. 2008. Role of Different Electronic-Commerce Quality factors on Purchase Decision: A Developing Country Perspective. *Journal of Electronic Commerce Research*, 9. 2.
- [47] Standar Nasional Indonesia [SNI-6729]. 2013. *Sistem Pertanian Organik*. Badan Standar Nasional. Indonesia.
- [48] Supriati, Yati., Yulia, Yuyu., & Nurlaela, Ida. 2008. *Taman Sayur*. PT. Penebar Swadaya. Jakarta.
- [49] Terenggana, C., Supit, H., & Utami, C. 2013. Effect of Value, Consumer Trust and Attitudes Towards Intention Buy Environmentally Friendly Air Conditioners Product in South Sumatra. *Social Sciences and Humanities*. 4/3. 2223-9944.
- [50] Truong, T., & Yap, M. 2010. Potential Vietnamese Consumers Perceptions of Organic Foods. *British Food Journal*. 114/4. 529-543.
- [51] Tuu, H., & Olsen, S. 2011. Certainty, Risk and Knowledge In The Satisfaction-Purchase Intention Relationship In A New Product Experiment. *Asia Pasific Journal of Marketing and Logistics*. Emerald. 24/1. 78-101.
- [52] Tuu, H., Olsen, S., & Linh, P. 2011. The Moderating Effects of Perceived Risk, Objective Knowledge and Certainty in The Satisfaction-Loyalty Relationship. *Journal of Consumer Marketing*. Emerald. 28/ 5. 363-375.
- [53] Tzeng, S.C., J.P. Yeh & W.P. Ma, 2005. Industrial academic co-operation of technical university and automobile industry in Taiwan. *American Journal Applied Sci*. 2: 367-371.
- [54] Wang, Ya Hui & Tsai, Cing Fen. 2014. The Relationship between Brand Image and Purchase: Evidence From Award Winning Mutual Funds. *The International Journal of Business and Finance Research*. 8/2. 27-52.
- [55] Wirth, F., Staton, J., & Wiley, J. 2011. The Relative Importance of Search Versus Credence Product Attributes: Organic and Locally Grown. *Agriculture and Resource Economics Review*. 40/1. 48-62
- [56] Yaseen, N., Tahira, M., Gulzar, A., & Anwar, A. 2011. Impact of Brand Awareness, Perceived Quality and Customer Quality on Brand Profitability and Purchase Intention: A Resellers View. *Interdisciplinary Journal of Contemporary Research in Business*. 3. 833-839
- [57] Yee, Choy Johnn., San, Ng Cheng., and Khoon, Ch'ng Huck. 2011. Customers' Perceived Quality, Perceived Value, and Perceived Risk Towards Purchase Decision on Automobile. *American Journal of Economics and Business Administration*. 3. 47-57
- [58] Yeung, R., Yee, W, & Morris, J. 2010. The Effects of Risk-Reducing Strategies on Consumer Perceived Risk and On Purchase Likelihood. *British Food Journal*. Emerald. 112/3. 306-322.
- [59] Ying, Ching Lin & Chiu, Chi Angela Chang. 2012. Double Standard: The Role of Environmental Consciousness in Green Product Usage. *Journal of Marketing AMA*. 76. 125-134.
- [60] Zanolli, R., Scarpa, R., Napolitano, F., Piasentier, E., Naspetti, S., & Bruschi, V. 2012. Organic Label as an Identifier of Environmentally Related Quality: A Consumer Choice Experiment on Beef in Italy. *Renewable Agriculture and Food Systems*. 28/1. 70-79.
- [61] Zeithaml, Valerie A. 1988. Consumer Perception of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*. 52. 2-22.
- [62] Zheng, L., Favier, M., Huang, P., & Coat, F. 2012. Chinese Consumer Perceived Risk and Risk Relievers in E-Shopping For Clothing. *Journal of Electronic Commerce Research*. 13/3. 255-274.