

INFLUENCE OF HEALTHY AWARENESS, ORGANIC KNOWLEDGE, SAFETY CONSUMPTION, ATTITUDE TO THE PURCHASE OF ORGANIC PRODUCTS

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ABSTRACT. Consumer awareness of organic rice products is low, whereas most consumers who shop at retail have adequate income. Demand for rice shows growth but not yet maximal in the consumption of organic rice. Therefore, consumer awareness of health need to be promoted, especially the consumption of healthy foods such as organic food. Knowledge of organic products is less known to consumers. Therefore, needs to be introduced to the public to consume organic products. Consumer attitudes toward organic products need to be re-examined. If the consumer has a positive attitude then affects the intention of buying organic products. The objective of the study was to examine influences of health awareness, organic knowledge, safety, and attitudes toward the intention of purchasing organic rice. Specifically, attitude plays as intervening variable. Survey method was applied to collect data and resulted in 164 respondents. Data then was analyzed through the structural equation modeling. The results showed that consumer knowledge, awareness of health benefits affect the positive attitude of consumers.

Keywords: Knowledge, health, safety, attitude and intention to buy organic rice.

Introduction

Organic food products became a trend in 2004 for marketers as consumers showed a particular interest in organic foods (Ham et al., 2016). Public awareness of a healthy lifestyle leads consumers to buy organic food. Not only that, increased human knowledge also leads to the consumption of safe foods from chemicals and health. At this point it is necessary to investigate the factors of attitude formation and intent on the consumption of organic food products. Individual and family health consumers pay more attention. This development has been motivated to investigate and explore information about organic food consumers. The main purpose of this study is to determine whether these factors affect the attitudes and intentions of consumers to buy organic food. This study conducted a quantitative analysis of several factors that influence consumer attitudes toward the intention to decide the purchase or consumption of organic rice.

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Literature Review

Health Awareness, Knowledge, Consumptive Safety, Attitude and Orization of Organic Purchase

Zanolian and Naspetti (2002) found that health is the most important consumer motivation to buy organic food. Consumer concern for health is the most commonly asked motive for choosing organic foods (Magnusson et al., 2003; Schifferstein and Ophuis, 1998). Consumer knowledge is the specific information that influences consumer purchasing decisions. Ritson & Oughton, 2007; Padel & Foster, 2005 also argues that among other factors, consumer knowledge about organic food, compared to conventional food products is considered as a major obstacle in the development of the organic food market. Ruswanti et al (2017) found that consumers have the intention of buying organic food from direct marketing. Food safety is the most important consideration when making purchasing decisions of organic food products among UK consumers (Rimal et al., 2005).

The choice of organic food products by consumers is influenced by attitudes and attitudes influenced by factors such as health awareness, consumer knowledge, and the safety of organic food consumption. Based on this research there is a positive correlation between the variables of health awareness, consumer knowledge, security with attitude and intention of consumption of organic food products. Kumar and Muthukumar (2016) study found that food attributes have a negative correlation with attitudes. So it can be concluded that at this time consumers are aware of health than artificially made taste, color, content or attributes of organic food. Consumers love to preserve the environment for future generations. By increasing consumer knowledge about the attitude of purchasing organic food products can be improved. The findings (Ham, Pap and Bilandzic, 2016) suggest that several factors such as health awareness, consumption knowledge and safety positively influence organic purchasing decision making but there are constraints to the intention of purchasing organic food. Knowing how consumers view organic food products and by understanding their purchasing barriers can help organic food marketers to create the right communication message.

Knowing how consumers view organic food products and by understanding their purchasing barriers can help organic food marketers to create the right communication message. Negative attitudes, such as expensive and hard-to-get, organic foods containing artificial tastes and additives, buying organic food does not seem to interest me. Organic food is without the use of pesticides or chemical fertilizers and does not contain synthetic hormones. Organics are produced by legally defined methods, and their composition must conform to general laws and regulations regarding the quality of food. Organic food is one segment of agriculture and retail sells with the fastest growth. The United States has sales of organic food increased from \$ 1 billion in 1990 to \$ 25 billion in 2011, which accounts for more than 3.5% of total food sales in 2011 (Osteen et al., 2012). The organic food market in Croatia is currently backward and far behind from Western European markets developed with laws on organic production and the EU has set up this area in 1992 (Renko, and Bošnjak 2009).

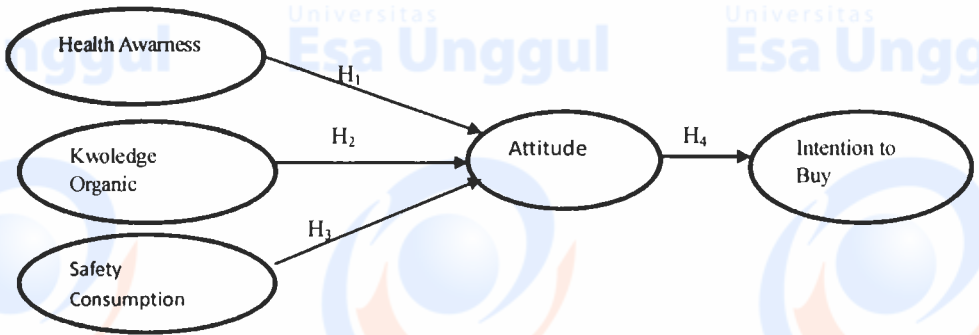
Healthy foods have more knowledge barriers when it comes to knowledge barriers, it is difficult to influence and takes time with much effort to give consumers the information they need. The lack of knowledge and inability to perform simple calculations leads to failure in providing information (Fullmer et al., 1991). It is possible that the level of purchases of low organic food linked to the inability of available information has been reported for some consumers, the lack of information about organic foods acts as a barrier to buying more organic products (Harper and Makatouni, 2002; Demeritt, 2002). However, additional knowledge about organic production processes can help increase consumer engagement (Aertsens et al., 2009). In a previously mentioned study conducted by Jakowska-Biemans, (2009), Polish respondents expressed a lack of information as one of the reasons for not buying organic food.

An interesting finding of the Lappalainen et al. (1998) surveys is that there is no relationship between the subject level of education and the selection of the barrier categories lacking knowledge. Gil et al. (2000) mentioned that the organic food market is small and the important task is to increase consumer knowledge about organic products and how to differentiate them in the market. Previous research has shown that most consumers have a positive attitude towards organic food. The organic food market share is relatively small and it can be concluded that a positive attitude towards environmental food does not necessarily lead to purchases (Suprpto & Wijaya 2012). It is useful to point out that, although the health aspects of organic food are the most common motives for buying organic food among respondents in the type of research it has a correlation between attitudes toward organic products and insignificant health awareness (Tomia et al., 2015). But according to Plummer (1974) in predicting consumer behavior, experts argue that one's lifestyle will determine consumption behavior.

Consumption safety, nutritional value, taste, freshness, appearance and other sensory characteristics affect the preferences of organic food consumers (Gil et al., 2000). The more conventional organic food choices are driven by several motives, including those relating to social and environmental responsibility, economic incentives, barriers and factors related to well-being, altruistic fears. Welfare Organic food purchases among older consumers have lower levels of education found (Urban et al., 2012). The findings of Ruswanti et al. (2017) show that what affects the buying intentions of organic food product consumers is direct marketing whereas sales promotion, personal selling and advertising do not affect purchasing intentions. The proposed research hypothesis:

- H₁: Health awareness has a significant effect on the attitude of organic food consumption
- H₂: The knowledge of organic food has a significant effect on the attitude of consumption of organic products
- H₃: Safety of organic consumption has a significant effect on attitudes on organic products
- H₄: Consumer attitudes have a significant influence on the intention of buying organic products

Research Model



Respondents who fill out the questionnaire are consumers who are shopping at Lotte Mart stores in South Jakarta. Respondents are asked to fill out the questionnaire and return it to the researcher. Total Respondents a number of people, consisting of 97 women and 67 male respondents. Age between 24 years old for 65 years. This questionnaire is specifically designed to give rise to consumer buying behavior intentions and their views on organic products. The questionnaire is closed with five options: strongly agree (5), agree (4) neutral (3) disagree (2) and strongly disagree (1). The independent variable is health awareness has five indicators (organic healthy food, organic food content, organic health impact, organic good for treatment, organic food to keep the disease). These five indicators are adopted from the research of Magnusson et al., (2003); Schifferstein and Oude Ophuis, (1998). The consumer's knowledge of the products of the four indicators (organic does not contain chemicals, low organic information, organic interaction, very little informed organism). Four indicators were adopted from the research (Houghton, 2007; Hampap & Bilandzic, 2016). The safety of organic food consumption includes four indicators (organic safe for consumption of children, organic safe for the stomach, organic products more expensive, organic refresh consumption) adopted from research (Rimal, Moon and Balasubramanian, 2005). Consumer attitudes toward organic foods include four indicators (I have a positive attitude to organic food, organic food is expensive, organic food does not use carpetides). These four indicators are adopted from research (Hill& Lynchehaun, 2002). The intention of purchasing organic foodsthe four indicators (I intend to get organic food, I will find an organic seller's shop, I decided on organic consumption, I prefer organic). Four indicators are adopted from the study (Verbeke & Vackier, 2005).

Analysis and Discussion

Hair et al. (2008) suggests that, evaluation of the level of matching data with the model is done through several stages of the overall testing and individual testing for structural model and measurement model. The measurement model analysis is performed to specify the indicator (observed variable) for each construct variable, and calculate the reliability value for the constructs. Validity Testing by factor

analysis. As recommended by Hair, et al. (2008) that the appropriate observation variable used as operational to the construct or latent variable must have a loading factor greater than 0.5 so that the model used has a good match, in addition to the t-value value and the loading factor must be more greater than the critical value (> 1.96). Table 1 shows the construct validity analysis.

The number of twenty-one research indicators (21) after being tested for the validity of the results indicates that all indicators of each variable of health awareness, organic knowledge, consumption safety, attitudes and intentions are acceptable or valid because their factor loading values all have a good match ($> 0,50$), whereas the value of t-value is greater than t-table (1.96) at the 5% significance level.

According to Hair, et al. (2008), a good reliability requirement is to have construct reliability > 0.70 and variance extracted > 0.50 . From the calculation shows that not all questionnaires on each variable qualify reliably with the value of construct reliability on health awareness (0.79), organic knowledge (0.79), consumption safety (0.83), attitude (0.88) and intention (0.94) and on the value of variance extracted health awareness (0.44), organic knowledge (0.49), consumption safety (0.55), attitude (0.64) and intention (0.79) (variance extracted > 0.50).

The overall fit of the model

To see the overall fit of the model (goodness of fit) there are several criteria that can be used. The result of goodness of fit analysis on this research model is as follows:

Table 3
Result of Goodness of Fit Analysis

<i>Group</i>	<i>Indicator</i>	<i>Value</i>	<i>Keterangan</i>
1	<i>Degree of Freedom</i>	169	<i>Good fit</i>
	<i>Chi Square</i>	257,05	
	<i>NCP</i>	73,85	
	<i>Confidence Interval</i>	36,41 ; 119,30	
2	<i>RMSEA</i>	0,052	<i>Good fit</i>
	<i>Confidence Interval</i>	0,036 ; 0,066	
	<i>P Value</i>	0,41	
3	<i>ECVI Model</i>	2,25	<i>Good fit</i>
	<i>ECVI Saturated</i>	2,83	
	<i>ECVI Independence</i>	51,84	
	<i>Confidence Interval</i>	2,02 ; 2,53	
4	<i>AIC Model</i>	366,85	<i>Good fit</i>
	<i>AIC Saturated</i>	462,00	
	<i>AIC Independence</i>	8449,13	
	<i>CAIC Model</i>	621,04	
	<i>CAIC Saturated</i>	1409,07	
	<i>CAIC Independence</i>	8535,22	

contd. table 3

Group	Indicator	Value	Keterangan
5	NFI	0,97	Good fit
	CFI	0,99	
	NNFI	0,99	
	IFI	0,99	
	RFI	0,96	
	PNFI	0,78	
6	Critical N	137,14	Marginal fit
7	Standardized RMR	0,049	Good fit
	GFI	0,88	
	AGFI	0,83	
	PGFI	0,64	

From the analysis in groups 1 to group 7 some tests showed good compatibility between Chi Square, RMSEA, ECVI, AIC, CAIC, Fit Index and Goodness of Fit. There is a result of marginal fit in Critical N. From the above analysis results, it can be concluded that the fit throughout the model meets the requirements (goodness of fit). Furthermore, this research produces the path diagram as follows:

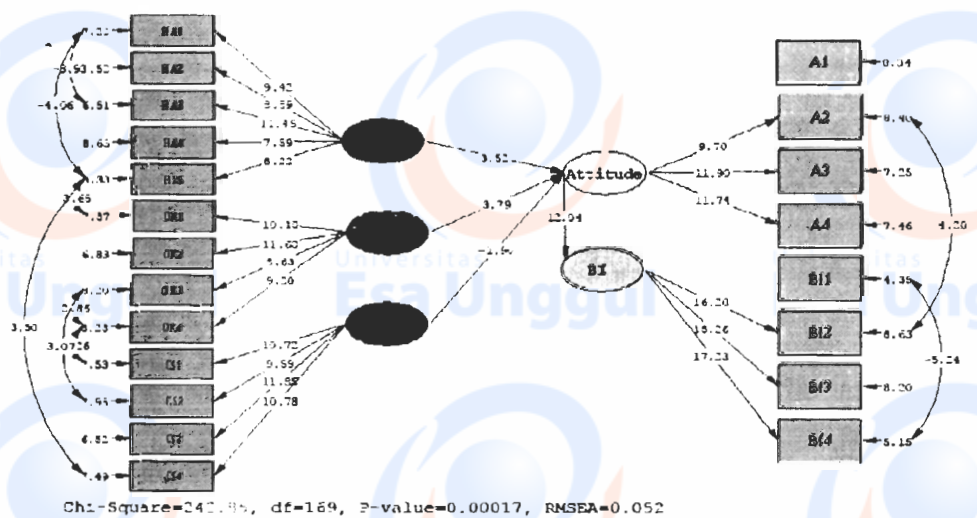


Figure 1: Path Diagram T.Value

The results showed that information about organic matter is important to be delivered to consumers such as the benefits of organic food. Information is credible and verifiable and helps consumers distinguish between non organic and organic. Knowledge of organic products is important to consumers because by understanding the benefits of organic consumption, it is useful for healthy and avoid disease attacks. The findings of Zanolì and Naspetti (2002) show that health is the most important consumer motivation in buying organic food. Consumer concern for

health is the motive most often expressed in choosing organic food has been found by Magnusson et al (2003). Organic knowledge related to the environment that is planting organic is useful to maintain the environment, because the soil is not contaminated with chemicals. A healthy environment can promote a green lifestyle proposed by Wagner and Hansen (2002). Awareness about health and knowledge of organic products required consumers to strengthen consumer confidence in organic farming. But the results of consumption safety research does not affect attitudes, this shows that some consumers already understand if organic is very aman dan dikonsumsi baik by children and elderly people. Food purchased by consumers needs to be understood in choosing products based on the production process, content, packaging, recycling, type of waste generated. That is, the purchase of organic products because it has a high environmental awareness and useful to reduce waste and is perfect for health care.

Manager Implications

Managerial implications, that the study is more appropriate and focused on the importance of consumers have a high awareness for health aware. Consumer knowledge about organic products needs to be improved so that consumers have a positive attitude and with a positive attitude ultimately affects the intention of buying and consuming organic products. Retail business to sell organic food is encouraged to accommodate the needs of consumers and increase the purchase of organic foods. This requires strengthening consumer perceptions in health awareness, knowledge of organic products to link with attitudes and intentions to buy organic products.

Conclusions and Limitations of Research

The results show that health awareness, knowledge of organic products affect the consumer's positive attitude and further increase the consumer's intention to buy organic rice and vegetables. However, consumption safety does not affect the positive attitude of consumers because consumers already understand the organic benefits for children and the elderly.

Consumer limitations are the respondents need to expand to a large number and some provinces for the results of research can be generalized. Variable research needs to be developed in order to capture how the behavior of onsumen in organic food.

Reference

1. Aertsens, J., Verbeke, W., Mondelaers, K. and Huylenbroeck, G. (1899). Personal determinants of organic food consumption: a review. In C. J. Griffith (ed.), *British Food Journal*, Vol.111 No.10, (p. 1140-1167.). UK, Bingley: Emerald.
2. Demeritt, L. (2002). *All Things Organic 2002: A Look at the Organic Consumer*, Washington, Bellevue: The Hartman Group
3. Donahue, Marie Elizabeth, 2011, *Theory of Planned Behavior Analysis and Organic Food Consumption of American Consumers* by Marie MBA, The Royal University of Agriculture, BS, Arizona State University.
4. Fullmer, S., Geiger, C. J. and Parent, C. R. M. (1991). Consumer's knowledge, understanding, and attitudes toward health claims on food labels. In L. G. Snetselaar, L. A. Ahrens, D. L.

- Hollinger, D. K. Mueller, T. Marshall, K. Mellen, L. Roth-Yousey (ed.), *Journal of American Dietetic Association*, Vol.91 No.2, pp. 166-171.
5. Gil, J.M., Gracia, A., Sanchez, M. (2000). Market segmentation and willingness to pay for organic products in Spain. In G. Schiefer, (ed.), *International Food and Agribusiness Management Review* 3, (pp. 207-226.). Wageningen: IFAMA 11.
 6. Gracia, A. and de Magistris, T. (2007). Organic food product purchase behaviour: a pilot study for urban consumers in the South of Italy, In C. Chueca, Ó. González-Recio, C. De Blas, M. V. Baonza, G. Pérez-Rivera (ed.), *Spanish Journal of Agricultural Research*, Vol. 5 No. 4, (pp. 439-451.). Spain, Madrid: India.
 7. Ham, Marija, Pap, Ana and Bilandžić, Karla 2016. Perceived Barriers for Buying Organic Food Products. *18th International Scientific Conference on Economic and Social Development "Building Resilient Society"* - Zagreb, Croatia, 9-10 December 2016.
 8. Harper, G.C., and Makatouni, A. (2002). Consumer perception of organic food production and farm animal welfare. In C. J. Griffith (ed.), *British Food Journal*, Vol. 104 No.3-5, (pp.287-299.). UK, Bingley: Emerald.
 9. Hill, H. and Lynchechaun, F. (2002). Organic milk: Attitudes and consumption patterns. In C.J. Griffith (ed.), *British Food Journal*, Vol. 104 No. 7, (pp. 526-542.). UK, Bingley: Emerald.
 10. Kumar, M.S dan Muthukumar, 2016. Effect of Influential Factors on Consumers Attitude towards Organic Food Products. *The International Journal Of Business & Management*, Vol. 4 No. 3.
 11. Lappalainen, R., Kaerney, J. and Gibney, M. (1998). A pan EU survey of costumers' attitudes to food, nutrition and health: an overview. In A.V. Cardello, S.R. Jaeger, J. Prescott (ed.) *Food Quality and Preference*, Vol. 9 No.6, (pp. 467-478.). Amsterdam: Elsevier.
 12. Lea, E. and Worsley, T. (2005). Australians' organic food beliefs, demographics and values. In C. J. Griffith (ed.), *British Food Journal*, Vol. 107 No. 11, (pp. 855-869.). UK, Bingley: Emerald.
 13. Magnusson, M.K., Arvola, A., Koivisto Hursti, U.-K., Aberg, L. and Sjoden, P.-O. (2003). Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behavior, *Appetite*, Vol. 40 No. 2, pp. 109-17.
 14. Osteen, C., Gottlieb, J. and Vasavada U. (2012). *Agricultural Resources and Environmental Indicators*, Washington: United States Department of Agriculture
 15. Padel, S. and Foster, c. (2005). Exploring the gap between attitude and behavior: Understanding why consumers buy or do not buy organic food. *British Food Journal*. Vol.107 No.8, pp.606-626.
 16. Lummer J., (1974). The concept and application of life style segmentation. In V. Kumar, R. Meyer (ed.) *Journal of Marketing*, Vol. 38 No. 1, (pp. 33-37.). Chicago: AMA
 17. Renko, dan Bošnjak 2009. Aktualno Stanje I Perspektive Budućeg Razvoja Tržišta Ekološke Hrane U Hrvatskoj. UDK 338.433(497.5) JEL Klasifikacija Q18, L66 Prethodno priopćenje
 18. Rimal, A.P., Moon, W. and Balasubramanian, S. (2005). Agro-biotechnology and organic food products
 19. Ritson, C., and Oughton, L. (2007). Food consumers and organic agriculture. In: Cooper, J., Niggli, U., and Leifert, C. (Eds.). (2007). *Handbook of organic food safety and quality*, Cambridge: CRC Press, pp.74-94.
 20. Ruswanti, Endang; Rilla Gantino and Sabrina Sihombing 2017. Predicting The Influence of Integrated Marketing Communication On Intention to Buy organic Product: An Empirical Study, *Prosiding International Summit of Knowledge Advancements*, Johor Malaysia 26-27 Juli 2017.
 21. Schifferstein, H.N.J. and Oude Ophuis, P.A.M. (1998), "Health-related determinants of organic foods consumption in The Netherlands", *Food Quality and Preference*, Vol. 9 No. 3, pp. 119-33.
 22. Rodríguez E., Lacaze, V. and Lupin, B., Contingent Valuation of Consumers' Willingness-To Pay for Organic Food in Argentina, Mar del Plata, Argentina (2008) 12th Congress of the European Association of Agricultural.
 23. Tomic, M., Matić, K., Matić, and Cerjak M. (2015). Ėimbenici kupnje ekološkog kruha i pekarskih proizvoda. In R. Lončarić (ed.) *Agroekonomska Croatica*, Vol. 5 No. 1, (pp.11-20). Zagreb: HAED

24. Urban, J., Zverinova, I. and Šeasny I. (2012) What Motivates Czech Consumers to Buy Organic Food? In T. Stöckelová (ed.), *Czech Sociological Review*, Vol. 48 No. 3, (pp.709-736.). Prague: Sociologický ústav AV ČR.
25. Suprpto, B. and Wijaya, T. (2012). Intentions of Indonesian consumers on buying organic food. In Tung-Zong (Donald) Chang (ed.), *International Journal of Trade, Economics and Finance*, Vol. 3 No. 2, (pp. 114-119.).
26. Verbeke, W., and Vackier, I. (2005). Individual determinants of fish consumption: Application of the theory of planned behavior. *Appetite*, 44, 67-82. <http://doi.org/b6v4k6> World Survey: <http://www.wsurvey.net>.
27. Żakowska-Biemans, S. (2009). Factors underlying consumption of organic food in the opinion of Polish consumers. In T. Kikas (ed.), *Agronomy Research*, Vol. 7 (Special Issue II), (pp. 768-774.). Põltsamaa, Estonia: Vali Press.
28. Zanolli R, Naspetti S, 2002. Consumer motivations in the purchase of organic food: a means-end approach.