

Consumer Factors Buying Organic Products in North Sumatera

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Abstract

The market condition for organic products in Sumatera Utara is still very small. This can be seen from the very few companies engaged in organic products. The market is very small due to low consumer awareness and consumer knowledge of organic products. This research was conducted to analyze the characteristics and behavior of consumers about organic products in Sumatera Utara. The locations of research activities are Medan, Binjai, Deli Serdang, Serdang Bedagei and Langkat. In addition, the lack of involvement of local governments and related institutions in encouraging the development of organic products is indicated by the low level of commitment in developing organic products in Sumatera Utara. The results of this study indicate that organic knowledge, environmental science, health science, pricing and subjective norms are the factors that determine whether consumers buy organic products.

Keywords: *Organic Products, Purchasing Decisions*

Abstrak

Kondisi pasar produk organik di Sumatera Utara masih sangat kecil. Hal ini terlihat dari sedikitnya perusahaan yang bergerak di bidang produk organik. Pasar sangat kecil karena rendahnya kesadaran konsumen dan pengetahuan konsumen tentang produk organik. Penelitian ini dilakukan untuk menganalisis karakteristik dan perilaku konsumen tentang produk organik di Sumatera Utara. Lokasi kegiatan penelitian di Medan, Binjai, Deli Serdang, Serdang Bedagei dan Langkat. Selain itu, masih rendahnya keterlibatan pemerintah daerah dan instansi terkait dalam mendorong pengembangan produk organik ditunjukkan dengan rendahnya komitmen pengembangan produk organik di Sumatera Utara. Hasil penelitian ini menunjukkan bahwa pengetahuan organik, ilmu lingkungan, ilmu kesehatan, penetapan harga dan norma subjektif merupakan faktor-faktor yang menentukan konsumen membeli produk organik.

Kata kunci: *Produk Organik, Keputusan Pembelian*

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INTRODUCTION

Marketing includes not only determining consumer needs but also helping to create consumer needs. Marketing is the key to the success of a business. Marketing helps reach and connect companies with potential buyers. Marketing also aims to make the company stay in business. Therefore, the function of marketing is to provide value to customers, satisfy, and retain customers. Through learning about marketing, it will make it easier for companies to have the opportunity to know, identify, and determine market segments precisely and accurately. Information about consumers and their behavior is needed at every stage of the process of designing a marketing strategy. Apart from marketing, an understanding of consumer behavior is important. Consumer behavior, namely the company's ability to understand perceptions and be persuasive (Makarewicz, 2013)

In the 1960s, economic models and thinking about consumer behavior depended on the assumption of rationality. The assumption is that consumers are always rational in purchasing and therefore consumers buy products that can provide maximum satisfaction (Le and Liaw, 2017). Consumer involvement is an understanding of a person's experience in an activity related to consumption. High involvement produces a high level of power and with this power, consumers are directed to consume. Sometimes consumers don't go through the entire buying process. In fact, consumers will reduce one or more stages depending on the level of involvement, personal, social, and economic. High involvement usually occurs in types of purchases with product characteristics, including expensive, causing serious personal consequences or can reflect a person's social image. For this purpose, consumers go through the stages of searching for information, considering many product and brand attributes, the form of attitudes and promotions (Kotler and Keller, 2012).

Purchasing decisions begin with the problem recognition stage when consumers identify a need. Usually, a purchase decision is defined as the difference between the current state of the consumer and the state they want. The forces of necessity drive the entire decision-making process. Information seeking is the phase in which consumers scan both internal memory and external sources for information about products or brands that could potentially meet their needs. The purpose of searching for information is to identify a list of options that represent realistic buying options. Throughout the whole process, consumers are involved in a series of alternative mental evaluations and look for the best value (Khosla, 2012).

Approaches in purchasing decisions are divided into affection and cognition. Affection refers to how consumers feel about a stimulus or event, for example, whether consumers like a product or not. Cognition refers to consumer thinking, for example what consumers believe about a product. Affection and cognition originate from a system called the affection system and the cognition system. Even though they are different, both of them have a very strong relationship and influence each other. Behavioral regulation is not only limited in time and space, but also by a complete sequence of behaviors or "patterns of action" (Belk, 1975).

Cognitive learning is a complex mental process that involves all mental activities of consumers in solving the problem of purchasing a particular product or service and how consumers solve the problem that is happening. This learning involves learning ideas, concepts, attitudes and reasoning abilities (Batkoska and Koseska, 2012). Cognitive science

can improve the lives of consumers through interactions with their choices. People don't always choose what they are passionate about in the long term. Companies and policymakers want to help consumers make better choices. The most recent trend today is a shift from studying cognitive function for itself to learning cognition to explain other things, which sometimes means involving statements from other fields (Bartels and Johnson, 2015).

One of the consumers with these characteristics is consumers who are included in the ecological market segment. Where ecological market consumers are characterized by self-fulfilment who believe in self-improvement and take challenging actions. Consumers in this segment are attracted to ecological products while shopping, not only because of healthier choices but also because they hope to protect the environment for future generations. These customers as long as buyers are interested in ecological products, not only a healthier choice but also expect improvements for the environment to come on people's livelihoods (Alamsyah et al, 2020).

Unfortunately, the amount of benefits obtained from consuming organic products is not followed by the growth of the organic market in Indonesia. The organic market in Indonesia is still very low. The land area for organic agriculture is equal to 0.2% of the total agricultural land area in Indonesia. Of this total organic area, only 67,426 hectares are certified as organic agricultural land, with 1,142 hectares undergoing the certification process, and being cultivated by 5700 farmers (Willer and Lernoud, 2016). The Indonesian organic food market has been around for a long time and has become part of the lifestyle for a small part of society; however, in line with the country's population increase and the resulting economic growth it has not led to an increase in consumption of organic products in Indonesia. (David and Ardiansyah, 2016).

The number of organic rice fields in Sumatera Utara Province is still very limited, spread over 3 districts, namely Deli Serdang, Serdang Bedagai and Toba Samosir. The amount of land in the three regions is approximately 59.5 hectares. With the largest land in Deli Serdang Regency with a total rice land area of 31 hectares. The low level of organic rice farming is inseparable from the low demand for this product in the market. Farmers find it difficult to penetrate supermarkets and large plazas. Because farmers do not have a network there and in selling organic products they only rely on word of mouth, so the products still pile up in warehouses. The results of organic products are very good, but until now they are still unable to compete with conventional products.

METHODS

The location of this study activity in Sumatera Utara consists of Medan City, Deli Serdang Regency, Serdang Bedagai Regency, Langkat Regency and Binjai City. The data collected includes primary data. Primary data were collected through a survey using a list of questions (questionnaire) that had been prepared in advance. The interviewed respondents included organic farmers and community users of organic agriculture as well as organic farming traders. Secondary data were obtained from various stakeholders related to organic agriculture and environmentally friendly products in Sumatera Utara Province and various other sources of information from literature studies, the internet, publications from related agencies and research results.

The data collection technique in this study was a questionnaire conducted with the accidental sampling method by limiting as many as 299 respondents consisting of organic consumers who buy products at several places where organic products are sold.

Before the data were analyzed, the validity and reliability tests were carried out. Reliability is measured using the Construct Reliability (CR) test, which must be greater than 0.5. In addition, the measurement model is considered to be of good validity when the loading factor t-value is greater than 1.96. The validity measurement model is good if the Standard Loading Factor is greater than 0.5 (SLF > 0.5) (Igarria et al, 1993).

To determine the factors that affect the second-order confirmatory factor analysis (2ndCFA) or second order confirmatory factor analysis. This technique is for interpreting the scale as either multi-level or multidimensional by bringing the various dimensions under the general higher level factor rubric. To determine whether a model is good or not, an evaluation is carried out on the suitability of the model criteria, namely: p-value, RMSEA, NFI, NNFI, CFI, IFI, RFI, and GFI. The criteria values are as follows:

1. p-value ≥ 0.05. = good fit
2. IFI ≥ 0.90 = good fit,
3. AGFI ≥ 0.90 = good fit,
4. Standardized RMR ≤ 0.05 = good fit.
5. RMSEA ≤ 0.08 = good fit
6. CFI ≥ 0.90 = good fit
7. GFI > 0.90 = good fit,

Tabel 1. Research Variables

Variables	Indicators
Organic knowledge X1	Consumers know the benefits of organic food with non-organic food Consumers can recognize the characteristics of organic food Consumers can recognize the taste of organic products Konsumen mengetahui proses dari produk organik
Environmental knowledge X2	Consumers are knowledgeable about environmental issues Consumers have knowledge about environmental activities Consumers have knowledge of government policies regarding the environment
Health X3	Organic products are safe for consumption Eating organic products further reduces the risk of disease Organic products are more nutritious
Price X4	Willingness to pay higher prices to buy organic food The price paid is in accordance with the quality received Healthy food is definitely more expensive
Subjective norm X5	Believing that the norms held by organic consumer groups are good Trust from others to become organic consumers Other people influence consumers to buy organic products

Measurement of variables using a Likert rating scale with an assessment interval of one (1) to five (5). With scoring strongly agree = 5, Agree = 4, Uncertain Agree or Disagree = 3, Disagree = 2, Strongly Disagree = 1.

RESULTS AND DISCUSSION

In this study, the number of respondents consist of 63% women and 37% men. Women is higher than men because women are food buyers and household decision makers. The number of respondents aged varies from 20-65 years with the largest age group being 41-50 years. The majority of buyers have a higher education background (97%), around 3% have completed secondary school and around 73% of respondents receive a monthly income of more than IDR 5,000,000.

VALIDITY TEST

Measuring validity is through the test of fit model. This evaluation is carried out on each measurement construct or model of the relationship between latent variables and several variables which are observed separately through validity evaluation. The validity test is related to the level of a variable to be measured. To measure the validity of a construct, it can be seen the value of the variable loading factor.

Table 2. Standard Loading Factor (SLF)

Variable	Variabel Laten	Standard Solition	Evaluation
Organic knowledge X1	X11	0.78	Good
	X12	0.78	Good
	X13	0.70	Good
Environmental knowledge X2	X21	0.62	Good
	X22	0.76	Good
	X23	0.85	Good
Health X3	X31	0.84	Good
	X32	0.73	Good
	X33	0.61	Good
Price X4	X41	0.82	Good
	X42	0.84	Good
	X43	0.82	Good
Subjective Norm	X51	0.80	Good
	X52	0.78	Good
	X53	0.69	Good

The table 2 above explains the reliability value of the composite measurement model obtained by the second order confirmatory factor analysis in the model which has a value of > 0.5 indicating that the indicator variables in the second-order confirmatory factor analysis are consistently high and the constituent variables can measure accurately the endogenous latent variables and variables.

The confirmatory factor analysis model is a method with a pre-established model, latent variables are determined at the beginning of the model and require parameter identification. A higher model is the second-order confirmatory factor analysis. It was used as a confirmatory technique analysis. Models in second-order confirmatory factor analysis are correctly determined based on the type of analysis that the researcher is attempting to confirm. Confirmatory factor analysis is one of the main approaches in analyzing the factor test. The difference between confirmatory factor analysis and second-order confirmatory factor analysis is that in the second-order confirmatory factor analysis, latent variables are not measured directly but through assessment indicators or other latent variables. Second-order Confirmatory Factor Analysis has multivariate normal assumptions that must be met in a multivariate analysis.

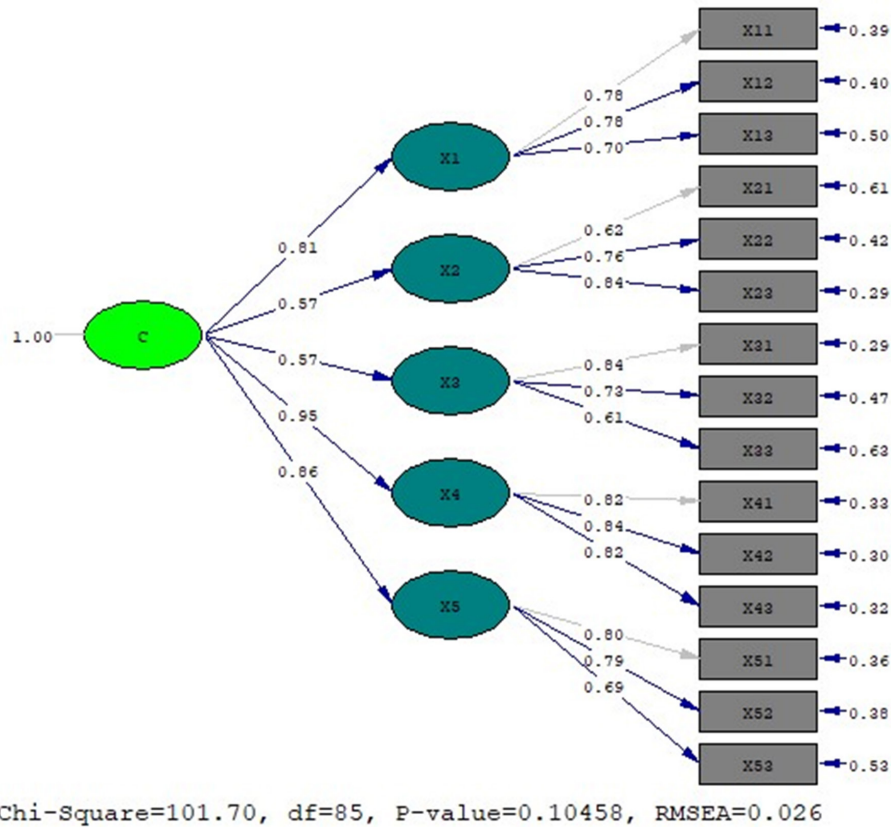
Furthermore, to see the level of consistency or stability of measuring instruments or constructs. The concept of reliability is in line with the construct or qualitative validity. A valid construct is certainly reliable, while a reliable construct is not necessarily valid. Measuring instrument is called reliable when the instrument in measuring a symptom at different times always shows the same results. Evaluation of the reliability of the measurement model shows the Standard Loading Factor (SLF). The measurement model has received validity because the Standard Load Factor is $SLF > 0.5$.

Table 3. Reliability Model

Variables	Variance Extracted	Reliability
Organic knowledge (X1)	0.74	accepted
Environmental knowledge (X2)	0.77	accepted
Health (X3)	0.83	accepted
Price (X4)	0.78	accepted
Subjective Norm (X5)	0.75	accepted

In this study, the variables acting as variables are organic knowledge (X1), environmental knowledge (X2), health knowledge (X3), price (X4), and subjective norms (X5). The results of data analysis from this study are as follows:

Figure 1. Standard solution model



From the results of data analysis using the second order confirmatory factor analysis, It can be seen that all the latent standard loading factor (SLF) variables are positive. This means that all latent variables used have consistency with the indicators used. Furthermore, the error value for each indicator is considered good because it does not have a negative value. This means that the variables of organic knowledge (X1), environmental knowledge (X2), health knowledge (X3), price (X4), and subjective norms (X5) and their indicators already have a model fit.

After a valid and reliable measurement model of the research model is obtained, the next step is to conduct a structural model analysis of the research model, where this analysis is related to testing the research hypotheses. The research hypothesis is accepted if the absolute number t value > 1.96 with a coefficient sign in accordance with the proposed research hypothesis (positive or negative). The results of the second-order confirmatory factor analysis analysis show that the hypothetical model or the theoretical model is able to explain the empirical facts in the field even though there are still variables that have a load factor value < 1.96, where this model is the most optimal model.

Figure 2. t-value

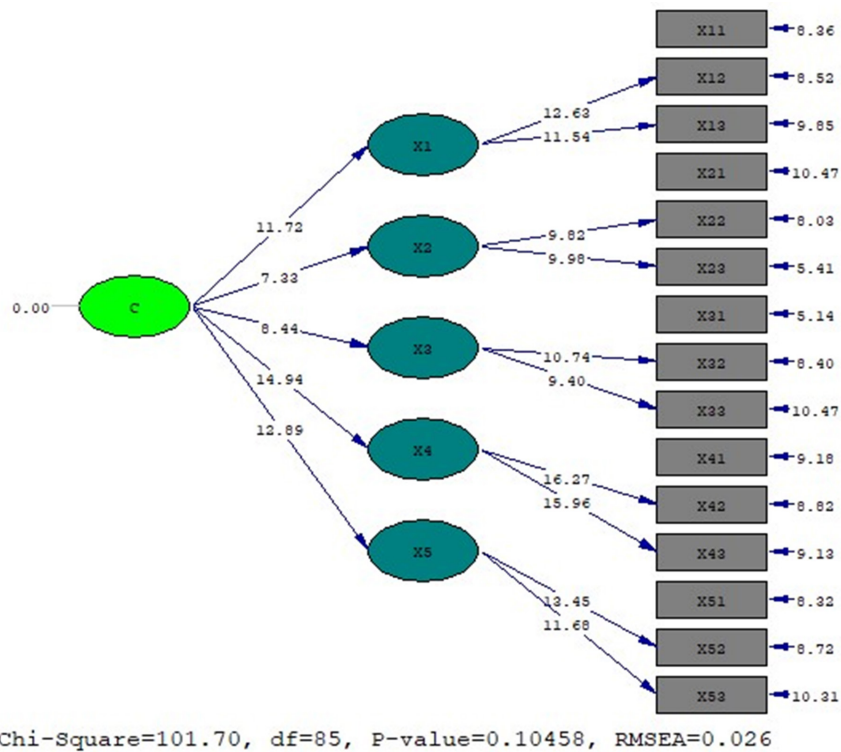


Table 4. Results of the Structural Model Significance Test

Latent Variables	t-value	Conclusion
Organic knowledge(X1)	11,75	accepted
Environmental knowledge (X2)	7.33	accepted
Health (X3)	8.44	accepted
Price (X4)	14.94	accepted
Subjective Norm (X5)	12.89	accepted

From the data analysis in table 4 above, all latent variables can be concluded as accepted. Furthermore, seen from the second-order confirmation factor, it can be seen that the price variable (X4) has the highest t- value followed by subjective norms (X5) and organic knowledge (X1). While the t-count of environmental knowledge (X2) and health knowledge (X3) has the t- value.

The model accuracy index in this study is the Chi-Square value (Joreskog & Sorbom, 1993). Furthermore, to assess the fit model, it is expected that the Chi-Square value is not significant with a p-value > 0.05, indicating that this study has no difference between the model and the data. With a study using a sample of 299 respondents, the estimation results tend to be significantly better. Root mean square error of approximation (RMSEA) describes the residues contained in the model. The RMSEA value in the study was rated good with 0.026 (RMSEA ≤ 0.08). Thus the model in this study is good and does not need to be modified by further models.

Table 4 Goodness Of Fit Index (GOFI)

GOFI	Results	Fit Indices	Conclusion
p-value	0.10458	$p\text{-value} \geq 0.05$	Good
Chi-Square	101.70,	Kecil	Good
RMSEA	0.026	$RMSEA \leq 0.08$	Good
NFI	0.95	$NFI \geq 0.90$	Good
NNFI	0.99	$NNFI \geq 0.90$	Good
CFI	0.99	$CFI \geq 0.90$	Good
IFI	0.99	$IFI \geq 0.90$	Good
RFI	0.94	$RFI \geq 0.90$	Good
GFI	0.96	$GFI \geq 0.90$	Good

Organic products are currently still difficult to reach by people in Sumatera Utara at large. Apart from the higher price factor compared to non-organic vegetables, people also do not fully understand the benefits of agricultural products for health so that these agricultural products are still slightly absorbed by the market. The high price of organic vegetable products has been suspected because of the high cost of production and the low production capacity of organic compared to inorganic products, which have made consumers consider buying organic products. Price is the main obstacle in marketing organic products, but for consumers who are consistent as consumers, price is not a constraint. (Sungkumchalianga & Wen, 2012)

From the survey conducted, it is known that the respondents' knowledge about the benefits of organic food for health is quite good, where respondents have experienced the health benefits directly. One of them is to get other long-term health benefits by means of a healthier organic food diet which when combined with healthy living habits can help get rid of internal diseases in the body. In addition, organic food allows consumers to benefit from every food calorie for sure, prevents calorie gain, maintains a healthy weight and promotes weight loss. Respondents also know that consumption of organic food can help minimize toxic substances that can be ingested through food. Harmful toxins in food can cause several health problems such as cancer risk.

Organic knowledge is also the most important factor in the consumption of organic products. This shows that increasing organic knowledge also improves consumer attitudes. This is in line with the factor test, showing that knowledge has an effect on purchasing attitudes and behavior. This may be due to consumers expressing attitudes towards organic products for nutritional and food security. Although in general consumers are still skeptical of claims of organic products. However, it is still in accordance with the research conducted by Yu et al. (2018).

The decision to buy organic products, respondents are not only influenced by internal factors (attitudes) but also influenced by external factors outside the product, namely subjective norms. Subjective norms look at the influence of people in a person's social environment on their behavioral intentions and people's beliefs which are calculated by the importance of

one attribute for each of their opinions that will influence a person's behavioral intentions. It is assumed that subjective norms are determined by the total normative beliefs accessed regarding the expectations of important references. In making purchasing decisions, respondents are not only influenced by internal factors, but also by external factors outside the product, namely subjective norms. Subjective norms are an important factor in shaping the intention to buy organic products. To do something important, usually organic consumers consider what other people's expectations (closest people, family, friends, husband / wife) have of them. In this study, subjective norm factors can shape attitudes on organic products, which means that organic consumers have more influence to become organic consumers from the people around them who have previously become organic consumers who are motivated to follow other people's opinions. Thus social pressure affects consumer attitudes of organic products which is supported by the research of Tarkiainen & Sundqvist (2007).

So far, the government's role in organic agriculture is still focused on the production of organic products, not on the promotion of it. From the questionnaire to the respondents, it shows that the role of government is only 3%. The remaining organic consumption is driven more by non-governmental organizations and organic communities. This is very unfortunate because the potential for consumers is actually very large and has not been explored. Lack of promotion by various parties is also an issue that needs to be resolved. Apart from the problem of production, the government must focus more on the marketing aspects of the product. Farmers in Lubuk Bayas in Serdang Badagai Regency are still complaining about the low demand for their rice.

Nowadays consumers are increasingly aware and selective in terms of the health quality of agricultural products. They now prefer to consume organic products rather than those using inorganic ingredients. However, this awareness cannot be translated directly into purchasing organic products. Marketing of organic products in Sumatera Utara must have a foundation of traditional and scientific knowledge. Organic agriculture in its marketing must promote increased biodiversity. For this reason, the level of public knowledge about organic products must be increased. This is due to the lack of management practices that are restoring, maintaining, and ecological harmony as a form of local wisdom.

Some alternative development strategies that can be carried out by the government are innovating development, providing high added value to face conventional product competition, building product distribution jointly coordinated by the government, and building collaborative networks to create business governance, by utilizing information technology as well as conducting continuous promotions to penetrate the market and customers, as well as attracting public interest in organic products. Eco-friendly organic products found in Sumatera utara can be used to build a public image for the love of Indonesian products in this area, with environmentally friendly products produced including kratom, Sidilakang civet coffee, nata de coco, rice, vegetables, fruits, soy milk and natural medicines and organic coffee.

CONCLUSION

Market conditions for environmentally friendly products in Sumatera Utara, especially organic products, are still very small due to low consumer awareness of buying organic products. This can be seen from the number of companies engaged in organic products.

Consumers in Sumatera Utara are now starting to consider the impact of the products which they buy on their health, which is indicated by the development of organic or green markets in this area. Based on the analysis of the factors that influence the use of organic products starting from price (X4), the influence of subjective norms (X5), organic knowledge (X1), health knowledge (X3) and environmental knowledge (X2)

The Provincial and District / City Governments through the Department of Agriculture and the Food Security Agency in Medan for the development of organic agricultural products need to jointly socialize environmentally friendly products in order to increase awareness of the importance of environmentally friendly products for consumers and for the community. as a whole through developing public knowledge about the environment and organic products of this area. There is a need for cooperation between NGOs and the Agriculture Office and Provincial and District / City Food Security Agencies to socialize organic products to the public at any important events held by local governments. Provincial and district / city governments need to make policies in the form of local regulations on organic products and environmentally friendly products in order to increase the competitiveness of local products in the global market that demands environmentally friendly products and increases the loving of domestic products.

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