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The Relationship between Perceived Value, Attitude and Behaviour towards Purchasing Organic Products (Case Study in Indonesia)

L. SUMARTO[‡],
I. E. MARYANTI[#],
DARSONO[##],
KASIDIN[###],
K. DARMANINGRUM[####]

Purpose: This research work attempts to review the effect of determinants like perceived uniqueness and perceived healthiness, as well as attitude amongst the consumers towards their purchase intention of organic food, which subsequently results in the actual purchase.

Design/Method/Approach: Quantitative approaches and explanatory research are used in this study. This research data was collected by means of a questionnaire distributed across a sample of consumers living in Indonesia. An online survey was used and conducted in November 2022 in Indonesia to measure this research. The sample, which was collected through the online survey using Google Form, consisted of 780 participants and was representative of gender, age, and region. Actually 800 participants were contacted to participate in the survey, but only 780 participants responded to the online survey.

Findings: The first objective of this study was to test the ability of the extended Value Attitude Behaviour (VAB) model to explain the consumption of organic food products by Indonesian consumers. The results show a good fit of the data. The third hypothesis was confirmed because attitudes are closely related to organic food consumption. Organic food products were considered and perceived as something unique and natural; therefore, they provided a favorable attitude among the part of the respondents.

Theoretical Implications: The study contributes to existing literature on organic food products especially about variables used in this study. In addition, in this study, consumers' perception of organic food products as unique, natural, healthy and sustainable was positively related to their overall attitudes.

Practical Implications: Given the high production costs and limited quantities of organic food products, marketers should present and promote (through packaging and stores) organic food products as the ones of unique quality and should emphasize their natural character.

Originality/Value: This paper provides a comprehensive overview and links the literature on organic food consumption to Value Theory and the Theory of Planned Behaviour, including the role of perceived uniqueness and healthiness. The proposed integration of perceived uniqueness and healthiness in an organic food consumption model leads to interesting hypotheses and recommendations for policy makers, researchers and stakeholders involved in the organic food market.

Research Limitations/Future Research: This study provides a good indication regarding consumers' attitudes, perceived naturalness, and perceived uniqueness of organic food products. However, as only 55% of the respondents had consumed organic food products, the attitude and beliefs of 45% of the respondents were not based on actual experience, but on expectations and beliefs. We believe consumers' attitudes and beliefs may differ after trying organic food. Therefore, it would be interesting to study eventual variations in attitudes and beliefs before and after trying organic food products.

Paper Type: Empirical

[‡]Laksono SUMARTO,
Lecturer, Faculty of Economics and Business,
Tunas Pembangunan University, Indonesia
e-mail: laksonosumarto@gmail.com
https://orcid.org/0009-0004-6542-8689

[#]Istinganah Eni MARYANTI,
Lecturer, Faculty of Economics and Business,
Tunas Pembangunan University, Indonesia
e-mail: istinganah.maryanti@lecture.utp.ac.id
https://orcid.org/0000-0002-2995-0435

[##]DARSONO,
Lecturer, Faculty of Economics and Business,
Tunas Pembangunan University, Indonesia
e-mail: darsono4364@gmail.com
https://orcid.org/0009-0006-6559-1464

[##]KASIDIN,
Lecturer, Atma Bhakti Institute of Economics, Indonesia
e-mail: Kasidinsala@gmail.com
https://orcid.org/0009-0006-7197-8964

[###]Kurniawati DARMANINGRUM,
Lecturer, Faculty of Economics and Business,
Tunas Pembangunan University, Indonesia
e-mail: Kurniawati.darmaningrum@lecture.utp.ac.id
https://orcid.org/0000-0002-5921-4762

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Взаємозв'язок між сприйняттям цінності, ставленням та поведінкою щодо купівлі органічних продуктів (на прикладі Індонезії)

Лаксоно СУМАРТО‡,
Істінгана Ені МАР'ЯНТІ‡,
ДАРСОНО‡,
КАСІДІН⧣,
Курніаваті ДАРМАНІНГРУМ‡

‡*Університет Тунас Пембангунан, Індонезія*
⧣*Інститут економіки Атма Бхакті, Індонезія*

Мета роботи: У цій дослідницькій статті зроблено спробу проаналізувати вплив таких детермінант, як сприйняття унікальності та здорового способу життя, а також ставлення споживачів до органічних продуктів харчування на їхній намір придбати органічну продукцію, що згодом призводить до фактичної купівлі.

Дизайн / Метод / Підхід дослідження: У цьому дослідженні використовуються кількісні підходи та пояснювальні дослідження. Дані дослідження були зібрані за допомогою анкети, поширеної серед вибірки споживачів, які проживають в Індонезії. Для вимірювання цього дослідження було використано онлайн-опитування, проведене в листопаді 2022 року в Індонезії. Вибірка, яка була зібрана за допомогою онлайн-опитування за допомогою Google Form, складалася з 780 учасників і була репрезентативною за статтю, віком та регіоном. Насправді з 800 учасниками зв'язалися для участі в опитуванні, але лише 780 учасників відповіли на онлайн-опитування.

Результати дослідження: Першою метою цього дослідження було перевірити здатність розширеної моделі VAB пояснити споживання органічних продуктів харчування індонезійськими споживачами. Результати показали хорошу відповідність даних. Третя гіпотеза підтвердилася, оскільки ставлення тісно пов'язане зі споживанням органічних продуктів харчування. Органічні харчові продукти розглядалися і сприймалися як щось унікальне і природне, тому вони забезпечили сприятливе ставлення серед частини респондентів.

Теоретична цінність дослідження: Дослідження доповнює існуючу літературу про органічні харчові продукти, особливо щодо змінних, які використовувалися в цьому дослідженні. Крім того, в цьому дослідженні було виявлено, що сприйняття споживачами органічних продуктів харчування як унікальних, натуральних, здорових і стійких позитивно пов'язане з їхнім загальним ставленням до них.

Практична цінність дослідження: Враховуючи високу вартість виробництва та обмежену кількість органічних продуктів харчування, маркетологи повинні представляти та просувати (через упаковку та магазини) органічні продукти харчування як такі, що мають унікальну якість, та підкреслювати їхній натуральний характер.

Оригінальність / Цінність дослідження: Ця стаття надає всебічний огляд і пов'язує літературу про споживання органічних продуктів харчування з теорією цінності та теорією запланованої поведінки, включаючи роль сприйнятої унікальності та корисності для здоров'я. Запропонована інтеграція сприйнятої унікальності та корисності в модель споживання органічних продуктів харчування призводить до цікавих гіпотез та рекомендацій для політиків, дослідників та зацікавлених сторін, залучених до ринку органічних продуктів харчування.

Обмеження дослідження / Майбутні дослідження: Це дослідження дає хороші дані щодо ставлення споживачів, сприйняття натуральності та унікальності органічних харчових продуктів. Однак, оскільки лише 55% респондентів споживали органічні харчові продукти, ставлення та переконання 45% респондентів ґрунтуються не на фактичному досвіді, а на очікуваннях та віруваннях. Ми вважаємо, що ставлення та переконання споживачів можуть змінюватися після того, як вони спробують органічну їжу. Тому було б цікаво дослідити можливі зміни у ставленні та переконаннях до і після того, як вони спробували органічні харчові продукти.

Тип статті: Емпіричний

Ключові слова: органічні харчові продукти, споживання органічних продуктів, сприйняття унікальності, сприйняття корисності для здоров'я, ставлення.

1. Introduction

here is a growing global trend towards organic and chemical-free products. In the past few decades, the global demand for organic food has increased dramatically, between 1999 and 2017 worldwide sales of organic food increased from $15.2 to $97 billion (*Liu et al., 2022*). This is largely due to the growing demand for healthier food, environmental awareness and considering the impact of environmental degradation (*Michaelidou & Hassan, 2008; Hurtado-Barroso et al., 2017; Stukalo et al., 2018; Xu et al., 2020; Ali, 2021; Parashar et al., 2023*).

The global pandemic has served as a reminder of our general well-being. What you put in your body determines how you stay fit and improve your endurance. How food is grown can have a huge impact not only on the environment, but also on your emotional health. As an agricultural system with environmental sustainability at its core, organic farming is gaining worldwide attention (*Basha & Lal, 2019; Molinillo et al., 2020; Parashar et al., 2023*). Organic food is grown without synthetic fertilizers or pesticides, which can reduce allergy symptoms associated with the food you consume (*Parashar et al., 2023*).

Studies have shown that organic food has fewer pesticide residues, such as pesticides and herbicides, than conventional food (*Smith-Spangler et al., 2012*). Organic food contains more nutrients and improves consumer health and well-being. Organic diets convincingly show that consumers are less exposed to chemicals associated with human diseases such as cancer, autism, and infertility (*Hyland et al., 2019*). Maximum residue level excesses for organic products are significantly lower than for conventionally produced foods. Countries and regions around the world have uniform requirements to produce certified organic food without the use of most synthetic pesticides, including pesticides and fertilizers (*Carrasco Cabrera & Medina Pastor, 2021*).

Organic farming is more sustainable, but usually produces lower yields than conventional farming, resulting in higher food prices. Growing consumer food preferences and interest in organic food could be a game changer in motivating farmers to adopt organic farming practices (*Wheeler, 2008*). Therefore, by buying organic food, people not only improve their health and well-being, but also subsidize eco-friendly agriculture (*Taghikhah et al., 2020*).

There are several reasons for a lower interest in organic food. According to a recent *Australian Organic Market Report (2018)*, rising prices, lack of trust and lack of knowledge are the top three barriers to buying organic products. Australians generally value organic products much less than conventional, they are less willing to pay more for sustainability features and are less willing to pay premium prices for organic food (*Lockshin & Corsi, 2012*).

The purchase of organic products (green food) in Indonesia is inseparable from consumer spending in households where consumers do not purchase green food because the price is significantly higher than similar non-green food (*AOI, 2019*). According to the Ministry of Commerce, Indonesian own organic product market share was 0.4% of the global market share with a total of about 17,948 organic product producers and a land area of 280,000 hectares in 2020. Based on this, the opportunity market for organic raw materials is still very wide globally. Therefore, Indonesia must make every effort to produce agricultural products, especially organic livestock, that meet the Sustainable Development Goals (*Ministry of Agriculture, 2022*).

Certain sectors of the food market consist of so-called vice products. Vices and virtues are usually defined in relation to each other. Vice food or "wants" refers to products such as chocolate, chips, wine that are more satisfying and appealing in the short term but have negative health impacts in the long-term. On the contrary, virtue food or "should" may not possess the hedonic allure of vices or immediate pleasurable experience but provide utilitarian benefits. In general, consumers are much more willing to consume vice food than virtue food (*Martinez-Carrasco et al., 2007*). On the

other hand, (*van Doorn & Verhoef, 2011*) report that consumers pay more price premiums for organic virtue food in comparison to vices due to negative quality connotations for vice products.

Recently, research on sustainable food and healthy lifestyles has grown so much that researchers are increasingly investigating different aspects of organic food consumption. This study first aims to contribute to current literature by evaluating the relationships between values, attitudes and behaviors associated with organic food. Second, this study examines whether and how two specific product attributes, namely perceived naturalness and perceived uniqueness, influence consumer attitudes towards organic food. Finally, this study also includes the relationship between attitudes and organic food consumption. This study applies and extends *Value Attitude Behaviour (VAB)* model to understand possible precedents for Indonesian attitudes towards organic food consumption. It includes two related specific attributes: perceived uniqueness and naturalness.

2. Theoretical Background and Hypotheses Development

2.1. Value Attitude Behaviour Theory

AB (Value Attitude Behaviour) theory was developed by *Homer & Kahle (1988)*. VAB theory proposes a causal model that integrates values, attitudes, and behaviors. VAB model postulates the existence of a hierarchy of influences on a given action from more abstract cognitions (values) to intermediate cognitions (beliefs and attitudes) (*Homer & Kahle, 1988*). This model postulates that values directly influence attitudes and indirectly influence behavior through attitudes. Since then, VAB model has been widely used in literature in various contexts of green behavior, such as recycling, conservation (*Milfont et al., 2010*), and organic food consumption (*Grunert & Juhl, 1995; Sharma & Jha, 2017; Shin et al., 2017; Vermeir & Verbeke, 2006*).

Values are defined as "desired trans-situational goals of varying importance that serve as guides for the lives of individuals or other social entities" (*Schwartz, 1992*). Values are stable beliefs and can be viewed as accumulated global attitudes that influence context-specific attitudes and behaviors (*Homer & Kahle, 1988; Stern, 2000*), whereas attributes (belief-evaluation) can be defined as the subjective probability that a particular object has a particular trait or characteristic. We therefore define perceived uniqueness as the likelihood that a consumer will perceive organic food as something that has uniqueness. Similarly, perceived naturalness refers to the likelihood that consumers will perceive organic food as natural. Attitudes are defined as a person's overall positive and negative appraisals of attitude objects. Attitudes are based on the sum of expectations of relevant attributes (or beliefs) that constitute an individual's general appraisal of the attitude object (*Eagly & Chaiken, 1993*). Finally, behaviour results from consumers' attitude towards engaging in specific behaviour. This study defines behaviour as the tendency to consume organic food products.

2.2. The Relationship between Perceived Uniqueness and Attitude towards Organic Food

niqueness is defined as 'the quality of being very special or unusual' according to the Oxford Dictionary, or 'by the fact of being the only one of its kind' according to food consumption literature (*Cardello et al., 2016*). A unique food is "a food that is significantly different from other products in its category based on sensory, visual, functional and emotional attributes that consumers positively value." However, product attributes not only define the concept of uniqueness, but they can also be defined in terms of consumer response. From a consumer perspective, unique products are unusual, novel, or unfamiliar (*Cardello et al., 2016; Jaeger et al., 2017*).

Olsen & Tuu (2021) noted that perceived uniqueness influences willingness to eat premium seafood products. Moreover, in the

context of ethnic cuisine and restaurants, the perceived uniqueness of ethnic cuisine/menus is particularly attractive to consumers as it is positively related to consumer attitudes and intentions towards such restaurants (*Liu & Mattila, 2015*). It is important and relevant to assess whether consumer perceptions of uniqueness influence their attitudes towards food. Few studies have measured the impact of perceived uniqueness on consumer attitudes and food choices (*Jaeger et al., 2017*). Hence, the following hypothesis is proposed:

H1: The perceived uniqueness of organic food is positively related to attitudes towards organic food products.

2.3. The Relationship between Perceived Naturalness and Attitude towards Organic Food

Being natural or naturalness is often associated with good health and minimally processed organic food. In addition, consumers have found natural food to be healthier than conventional food (*Michel & Siegrist, 2019; Román et al., 2017; Rozin, 2005*). This study defines perceived naturalness based on (*Román et al., 2017*) as "belief that organic food is safe, healthy, organic, and natural/no additives". In general, consumer positive attitudes towards whole food are an important factor in food selection (*Román et al., 2017*). Moreover, beliefs in naturalness can have important implications for management as consumers are reluctant to purchase food perceived to be less natural (*Etale & Siegrist, 2021*). Previous research has also shown that naturalness has a positive impact on consumer attitudes and intentions. For example, *Aschemann-Witzel & Grunert (2017)* showed that Danes have more positive attitudes towards food perceived as natural than processed food. Therefore, we suggested the following hypothesis:

H2: The perceived naturalness of organic food is positively related to attitudes towards organic food products.

2.4. The Relationship between Attitudes and Organic Food Consumption

A positive causal relationship between environmentally friendly attitudes and environmentally friendly behavior is supported by well-established general models of attitudes such as TPB (*Fishbein & Ajzen, 2011*) and VAB (*Homer & Kahle, 1988*) as well as by environmental attitudes, concerns, and engagement that are proposed by various studies (*Bamberg et al., 2007; Rodríguez-Casallas et al., 2020; Zerbini et al., 2019*). This study expects that positive attitudes towards organic food products positively influence individuals' organic consumption. Accordingly, this study proposes the following hypothesis:

H3: Attitude is positively related to the consumption of organic food.

3. Research Methodology

3.1. Measures

This research uses a 5-point Likert scale to measure perceived uniqueness and perceived naturalness. Perceived uniqueness was assessed by using two items: (1 = ordinary/5 = unique or 1 = traditional/5 = new). The respondents were asked to range two bipolar items that were adapted from (*Jaeger et al., 2017*). Perceived naturalness was measured by asking the respondents to evaluate the following characteristics of organic food. Perceived naturalness is a latent construct which is measured by three theoretically based items = unhealthy or healthy, non-organic or organic, synthetic, or natural. The items were adapted from *Michel & Siegrist (2019)*.

Attitude was measured by using three items preceded by the stem 'To eat organic food is …'. The respondents were asked to range each item along a 5-point Likert scale (bad/good, negative/positive, and unpleasant/pleasant). These items are commonly used in food-related studies (*Hayley et al., 2015; Honkanen et al., 2005*) and cover

general, cognitive, and affective evaluations of attitude (*Fishbein & Ajzen, 2011; Crites et al., 2016*).

Organic food consumption was measured by using a single item asking how often the respondents purchased organic food in the past year. The latter scale was originally rated from 1 (never) to 11 (more than 3 times a week). However, as the data were not normally distributed, the scale was changed into a dichotomous variable: 0 = did not consume organic food in the past year vs 1 = consumed organic food products in the past year.

3.2. Analytical Approach

This research used Stata 16 as a tool to perform statistical analyses. We first performed a principal component analysis using varimax rotations to confirm the validity of the concepts used in this study. Then, we conducted maximum likelihood confirmatory factor analysis (*CFA*) with maximum likelihood estimation and multivariate structural equations (*SEM*). If the sampled mean variance (*AVE*) estimate is > 0.5, convergent validity of the components is established and the *AVE* value of one latent component indicates the squared correlation (*SC*), there is discriminant validity. We used combined reliability (*CR*) to assess the reliability of the scale.

Several measures are given to assess the goodness of fit: χ^2 (chi-square), *CFI* (comparative fit index), *TLI* (Tucker-Lewis index), *RMSEA* (root mean square error of approximation), and *SRMR* (standardized root mean residual). According to *Brown (2015)*, model fit is good when *CFI* and *TLI* indices are > 0.90, and *RMSEA* and *SRMR* are <0.08.

Finally, the one-step estimation approach by *Cortina, Chen, and Dunlap (2001)* was taken and applied to Stata. The interaction term was first calculated by multiplying the mean-deviated values of independent variables by moderator variables to avoid multicollinearity. The interactions were then incorporated into the structural model and all variables were analyzed simultaneously.

4. Data and Methods

This research data was collected by means of a questionnaire distributed across a sample of consumers living in Indonesia. A pre-test of the questionnaire was conducted on a sample of 50 consumers to (1) assess whether the questions were clear to the respondents, (2) assess whether the questions effectively measured what they were intended to, and (3) test the time required to complete the questionnaire.

An online survey was used and conducted in November 2022 in Indonesia to measure this research. The sample, which was collected through the online survey using Google Form, consisted of 780 participants and was representative of gender, age, and region. Actually 800 participants were contacted to participate in the survey, but only 780 participants responded to the online survey. The respondents were required to answer all the questions to complete the survey. The respondents comprised age 18-67 (*Tab. 1*), the majority respondents (65%) were well educated (graduated from university).

5. Results

5.1. Validity and Reliability

CFA was conducted with a maximum likelihood estimation method to estimate the measurement model. The results of the measurement model, including 3 latent variables with a total of 8 indicators and one observable variable (*Tab. 2*), indicated a good fit to the data (χ^2 (120)) = 303.34, $p < 0.001$, RMSEA = 0.06, CFI = 0.96, TLI = 0.94, SRMR = 0.05).

Table 1: Sociodemographic Characteristics

Variables	Percent
Gender	
Female	56
Male	48
Age	
18-29 Years Old	25
30-39 Years Old	33
40-49 Years Old	18
50-59 Years Old	15
Above 60 Years Old	9
Level Of Education	
Primary And Lower Secondary School	15
Upper Secondary School	28
Bachelor's degree	46
Master's degree	11

Source: Research results, 2022

Table 2: Standardized Factor Loadings, Reliability, and Validity

Constructs and item	Mean	Standard deviation	Indicator loading	Composite Reliability	Average variance extracted
Attitude				0.93	0.82
"Bad or good"	3.98	1.91	0.95		
"Negative or positive"	4.36	2.00	0.89		
"Unpleasant or Pleasant"	3.72	1.83	0.87		
Perceived uniqueness				0.66	0.52
"Ordinary or unique"	4.65	1.77	0.93		
"Traditional or new"	5.02	1.91	0.53		
Perceived naturalness				0.84	0.60
"Non-organic or organic"	5.42	1.60	0.81		
"Synthetic or natural"	5.44	1.69	0.82		
"Unhealthy or healthy"	5.22	1.61	0.78		

Source: Research results, 2022

The results of assessment of convergent and discriminant validity show that there is no problem found of convergent validity and distinction between latent variables such as attitude, perceived uniqueness, and perceived healthiness. With AVE > 0.5 and AVE > SC, respectively. CR was all>0.5 (0.93, 0.66 and 0.84 respectively), indicating good construct reliability.

Table 3: Mean, Standard Deviation, and Correlations

	Mean	Standard deviation	1	2	3	4
Organic food consumption	0.44	0.49	1.00			
Attitude	4.02	1.79	0.45***	1.00		
Perceived Uniqueness	3.82	1.72	0.36***	0.54***	1.00	
Perceived Naturalness	4.83	1.59	0.02	0.30***	0.17***	1.00

Source: Research results, 2022

5.2. Structural Model Analysis and Indirect Effects

SEM with a maximum likelihood estimation methodology was used to test the two models (*Tab. 4*). The basic VAB model showed a good data fit ($\chi2 = 107.24$ with df = 51, RMSEA = 0.05, CFI = 0.98, TLI = 0.98, SRMR = 0.03). The extended VAB model had an acceptable datafit ($\chi2 = 259.66$ with df = 109, RMSEA = 0.05, CFI = 0.96, TLI = 0.95, SRMR = 0.04). Attitude ($\beta = 0.46$, p < 0.001) significantly explained organic food consumption, thereby supporting *H3*. Attitude explained 22% of organic food consumption. Perceived naturalness ($\beta = 0.13$, p < 0.05) was significantly related to attitude, thus confirming *H2*. Perceived uniqueness ($\beta = 0.45$, p <0.001) was also significantly related to attitude, confirming *H1*. Together, perceived uniqueness and naturalness explained 35% of attitude.

6. Discussion

The first objective of this study is to test the ability of the extended VAB model to explain the consumption of organic food products by Indonesian consumers. The results show a good fit of the data. The third hypothesis has been confirmed because attitudes are closely related to organic food consumption (*Grunert & Juhl, 1995; Scalco et al., 2017; Basha & Lal, 2019; Liang & Lim, 2020; Tandon et al., 2020; Eyinade et al., 2021*).

The second objective of this study is to investigate the relationship between two specific product attributes (perceived uniqueness and perceived naturalness) and attitude. The model explained 35% of the variation in attitude. Together, perceived uniqueness and perceived naturalness increased the explained variation in attitudes by 27%; therefore, the addition of perceived uniqueness and attitude improved the explanatory power of the model. The explanatory capability of assessing specific attributes associated with the general evaluation (attitude) of organic food products is in accordance with previous studies (*Scalco et al., 2017; Ham et al., 2018; Dangi et al., 2020; Tandon et al., 2020*).

Organic food products were considered and perceived as something unique and natural; therefore, they provided a favorable attitude among the part of the respondents. This result is interesting because consumer perception of a food product that is healthier, non-artificial and more environmentally friendly has a positive effect on the overall acceptance of a particular food (*Román et al., 2017; Smith-Spangler et al., 2012*). In addition, in this study, consumer perception of organic food products as unique, natural, healthy, and sustainable was positively related to their overall attitudes. Given high production costs and limited quantities of organic food products, marketers should present and promote (through packaging and stores) organic food products as the ones of unique quality and should emphasize their natural character.

7. Conclusion

The current study uses an extension of VAB framework to describe organic food consumption in the Indonesian context. This result has enhanced our understanding of the factors that directly and indirectly influence organic food consumption. Not all consumers know, but the respondents had positive attitudes and expectations of organic food consumption. Moreover, the positive relationship between attitudes and consumption becomes stronger when consumers find organic food products easily available.

Table 4: Testing result of the proposed model (Hypothesis Testing)

Relationships	Hypothesis testing	Original VAB		Extended VAB	
		β	z	β	z
Attitude → Organic Food Consumption	H3 supported	0.45	11.34***	0.46	11.85***
Perceived Naturalness → Attitude	H2 supported	-	-	0.45	7.78***
Perceived Uniqueness → Attitude	H1 supported	-	-	0.13	2.08*
R^2(%) Organic food consumption		20%		22%	
R^2(%) Attitude		8%		35%	
Model fit indices					
X^2(df)		107.24(51)		259.66(109)	
RMSEA		0.05		0.05	
CFI		0.98		0.96	
TLI		0.98		0.95	
SRMR		0.03		0.04	

Source: Research results, 2022

Indonesian consumers perceive organic food as unique and natural. Both perceived uniqueness and naturalness provoke a positive response to organic food in the public. Similarly, if organic food is perceived as natural, consumers are more likely to have a more positive attitude towards organic food. Therefore, values are positively related to attitudes, so products that activate values are beneficial. This suggests that most Indonesian consumers frame their attitudes towards organic based on their health considerations.

Beyond theoretical contributions, these findings will help the organic food industry develop its marketing strategy by promoting naturalness and healthiness of organic food. Marketers should also try to encourage consumers to associate organic food with pleasure. Ultimately, organic food can be positioned as a luxury or premium product as organic food is perceived as unique. Additionally, the conclusions can be used to promote organic food to policy makers and investors. Indonesian organic food sector is still new and needs more private investment and public support for development. Therefore, promoting the uniqueness and naturalness of organic food and highlighting their positive outcomes are the ways in which policy makers and investors can be positively influenced.

8. Funding

9. Competing interests

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