

ANTECEDENTS AFFECTING ORGANIC FOOD PURCHASE INTENTIONS

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Abstract

The issue of environmental pollution in modern life presents its threat to human life, while at the same time public awareness of health issues increased. Organic food offers a solution to the problem of healthy foods and beverages and drives the growth of the organic product market. The following research aims to explain how the information revealed on organic food labels and perceived organic knowledge influences consumers' trust and attitudes towards organic foods, which in turn together with subjective norms ultimately affects the purchase intentions. A total of 206 respondents answered the questionnaire shared online and analysed using SEM (Structural Equation Modelling). The results showed that perceived knowledge did not significantly influence attitudes toward organic food. Revealed information influences positive attitudes and trust about organic food which in turn together with subjective norms positively influence subsequent purchase intentions.

Keywords: Purchase intention, perceived knowledge, revealed information, theory of reasoned action, organic food

Introduction

Public awareness of health has an impact on the consumption of healthy foods and beverages that are increasing. The use of pesticides, organisms produced from genetic engineering, and other non-natural materials used

to increase agricultural production will harm health and the environment so as to foster consumers and producers' interest in marketing organic food products (Chih and Yu, 2014). According to the Department for Agriculture and Rural Affairs (DEFRA, 2018), organic food is a system that is useful for the use of human-made fertilisers, pesti-

cides, growth regulators and livestock feed additives. Irradiation and the use of genetically modified organisms (GMOs) or products produced from GMOs are generally prohibited by organic legislation. In Indonesia, if a product gets an "organic" label, it means that a product has been produced following the standards of organic production and has been certified by an official authority or certification body (National Standardization Agency, 2002, in Mayrowani, 2012). Other studies focus more on the factors that influence the purchase and consumption of organic foods, as stated by Nutrition Today (2009, in Nasir and Karakaya, 2014). Research conducted by Magnusson et al. (2003) found health to be a strong predictor of attitudes and intentions to buy organic food. Honkanen et al. (2006) found that environmental and animal motives had a strong influence on attitudes towards organic products. Theory of Reasoned Action and Theory of Planned Behavior is widely used to explain consumer behaviour in consuming organic foods (Chen, 2007; Dean et al. , 2008; Saba and Messina, 2003 in Chih and Yu, 2014). Chih and Yu (2014) found that attitude, trust and subjective norms significantly influence consumers in choosing organic foods. Chiew et al. (2014) found that attitude and perception toward organic food products did not affect the purchase intentions of organic foods.

Literature Review

Theory of Reasoned Action and Theory of Planned Behavior explains that intention is the main factor of an actual behaviour (Ajzen, 1991). Sub-

jective norm refers to someone's perception of the performance of a particular behaviour, which explains the extent to which an individual may be influenced by perceptions of family members, peers, etc. as social normative pressures (Kim et al. 2011; Al-sajjan and Dennis, 2010; Casalò et al , 2010; Lee and Chen, 2010; Lee, 2009 in Kaushik et al, 2015). Purchase intentions according to Fishbein and Ajzen (1975, in Nan and Bih, 2007) are consumer's subjective tendencies towards certain products and have proven to be key factors for predicting consumer behaviour. Bredahl (2001) says that attitudes toward products are the only significant determinant of purchase intentions. Revealed information is information revealed on organic food labels to identify the quality of food products that can create trust in the product. Providing sufficient and reliable information about organic food labels is important to increase consumer confidence and attitudes towards organic food (Chih and Yu, 2014). Based on the presentation of previous research and the theoretical foundation stated above, the present study formulates two hypotheses as follow:

- H1: Revealed information on organic labels has a positive effect on trust in organic food.
- H2: Revealed information on organic labels has a positive effect on attitudes in organic food.

Perceived knowledge is knowledge received by consumers about organic food products including health benefits and processing methods,

which can affect consumers in purchasing decisions for organic products (Yiridoe et al. , 2005 in Gracia and Magistris, 2008). Padel and Foster (2005) also support that knowledge of organic food positively influences consumers' perceptions and attitudes towards organic food. Increasing knowledge of organic food greatly influences consumer attitudes that will determine the intention to buy organic food (Magistris and Gracia, 2008). One study by Padel and Foster (2005, in Chih and Yu, 2014) also supports knowledge about organic positively influencing consumer attitudes and beliefs about organic food. Based on the previous research described above, the current research formulate another two hypotheses as follow:

H3: Perceived knowledge has a positive effect on attitudes in organic food.

H4: Perceived knowledge has a positive effect on trust in organic food.

One important factor in understanding consumers' desire to buy organic food is that consumer trust is associated with certification and labeling on organic food packaging and promotion (Krystallis et al. , 2005; Angulo et al. , 2003 in Dickieson and Arkus, 2009). Chih and Yu (2014) say that trust and attitude are the intermediaries that connect revealed information and perceived knowledge with purchase intentions of organic food. Furthermore, two important attitudes, namely the belief in food and health awareness has emerged as the main attraction for consumers of organic food (Coddington, 1993 in Paul and

Rana, 2012). Based on the previous research and the theoretical foundation stated in the study, the study formulates hypothesis as follows:

H5: Trust has a positive effect on attitudes on organic food.

H6: Trust has a positive effect on purchase intentions on organic food.

Several studies on the consumption of organic food have shown a positive and significant relationship between consumer attitude and purchase intentions (Gifford and Bernard, 2006; Honkanen et al. , 2006; Padel and Foster, 2005; Saba and Messina, 2003 in Chih and Yu, 2014). According to Magistris and Gracia (2008) and Voon et al. (2011) consumers who have a positive attitude towards organic food will have a high purchase intention for organic food. Based on the previous research and the theoretical foundation stated above, thus, the current study test below hypothesis:

H7: Attitudes have a positive effect on purchase intentions of organic foods.

Subjective norms will influence consumer attitudes and in turn will affect consumers' intention to buy organic products (Ajzen, 1991 in Basha et al. , 2015). Significant positive relationships between subjective norms and purchase intentions of organic food occur when consumers believe someone who is considered important has positive attitudes and opinions about organic food, so consumers are more likely to have a positive intention to buy organic food, (Chen, 2007;

Dean et al, 2008 in Chih and Yu, 2014). Based on the previous research and the theoretical foundation stated above, lastly, the research will investigate below hypothesis:

H8. Subjective norms have a positive effect on purchase intentions on organic food.

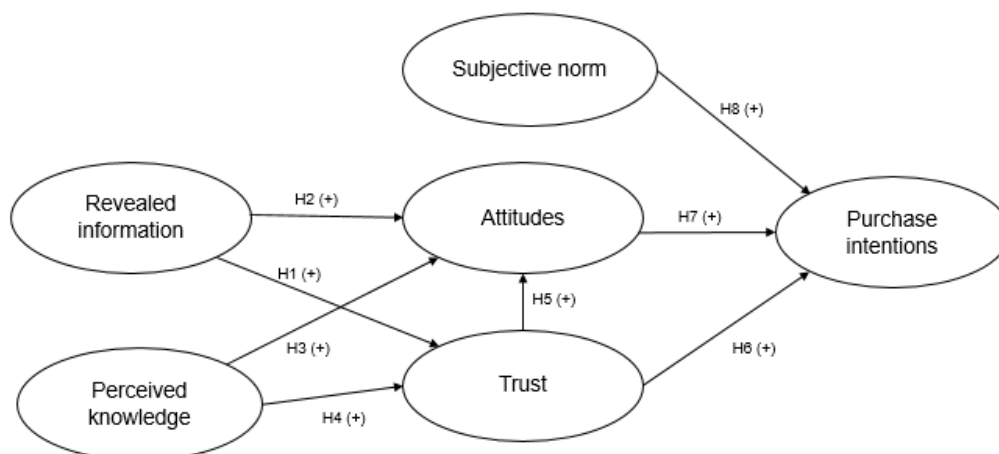


Figure 1. Research Framework

Methods

The data using in this study were obtained directly from respondents by distributing questionnaires. The target population of respondents is consumers who have bought or consumed organic food, with characteristics of consumers domiciled in the territory of Indonesia, having a minimum age of 17 years, minimum education in high school/equivalent, owning their income. Revealed information, perceived knowledge, attitude, trust, subjective norms, and the purchase intentions will be measured by using indicators. Purposive sampling method is used to capture 206 respondents. The measurement scale in this study uses five alternative answers or assessments. Structural equation modelling is used to examine the proposed conceptual model.

All items were assessed using a five-point Likert-type scale, ranging from 1 to 5, where 1 denotes “strongly disagree”, and 5 represents “strongly agree”. The following section introduces the scales used in this study:

- Revealed information: this four-item scale was adopted from Doll and Torkzadeh (1988), and measured whether organic labeling provides correct, timely, sufficient, and relevant information. Example items include: “organic labeling provides correct information on organic foods”.
- Perceived knowledge: this five-item scale adapted from Chen (2008) was used to measure the perceptions regarding the level of organic knowledge that consumers, the government, science, and respondents themselves have. Example items include: “I’m

personally very knowledgeable about organic foods”.

- Trust: this four- item scale was developed based on the measures developed by Krystallis and Chrysohoidis (2005) and Siegrist (2000) to assess respondent trust in organic food producers, vendors, labels or logos, and certifiers. Example items include: “I trust those who sell certified organic foods indeed sell quality organic foods”.
- Attitudes: this seven- item scale was adopted from the measures developed by Gil et al. (2000) and Lockie et al. (2004) to assess respondent attitudes to organic foods. Example items include: “organic foods are healthier than conventionally grown foods”, and “organic foods have superior quality than conventional foods”.

- Subjective norm: this four- item scale adapted from Chan (1998) was used to assess respondent perceptions of the degree of social pressure associated with purchase of organic foods. Example items include: “my family think I should buy organic foods”, and “my friends think I should buy organic foods”.

- Purchase intentions: this three- item scale was adopted from Schifferstein and Oude Ophuis (1998) and Bredahl (2001) to measure respondent willingness to buy organic foods. The statements were as follows: “if organic foods were available in the shops, I would buy them”, “I am willing to buy organic foods despite their higher prices”, and “the probability I would buy organic foods is very high.

Results and Discussion

Table 1. CFA Result – Validity and Reliability

Construct	Standardized factor loading (λ)	AVE	Cronbach's Alpha	CR	Conclusion
Revealed Information (RI)					
RI1	0, 755	0, 569	0, 835	0, 841	Valid and reliable
RI2	0, 704				Valid and reliable
RI3	0, 798				Valid and reliable
RI4	0, 758				Valid and reliable
Perceived Knowledge (PK)					
PK1	0, 693	0, 528	0, 832	0, 846	Valid and reliable
PK2	0, 570				Valid and reliable
PK3	0, 845				Valid and reliable
PK4	0, 698				Valid and reliable
PK5	0, 795				Valid and reliable

Subjective Norm (SN)					
SN1	0, 707	0, 401	0, 724	0, 726	Valid and reliable
SN2	0, 610				Valid and reliable
SN3	0, 647				Valid and reliable
SN4	0, 559				Valid and reliable
Attitude (AT)					
AT1	0, 626	0, 402	0, 820	0, 823	Valid and reliable
AT2	0, 679				Valid and reliable
AT3	0, 655				Valid and reliable
AT4	0, 575				Valid and reliable
AT5	0, 736				Valid and reliable
AT6	0, 582				Valid and reliable
AT7	0, 564				Valid and reliable
Trust (TR)					
TR1	0, 658	0, 484	0, 789	0, 790	Valid and reliable
TR2	0, 728				Valid and reliable
TR3	0, 705				Valid and reliable
TR4	0, 691				Valid and reliable
Purchase Intentions (PI)					
PI1	0, 837	0, 650	0, 849	0, 848	Valid and reliable
PI2	0, 817				Valid and reliable
PI3	0, 763				Valid and reliable

The Measurement Model

The measurement model was estimated using the maximum likelihood model and the model fit was tested using several fit indices. The relative chi-square (CMIN/DF) was statistically significant (1, 666); root mean of squared error of approximation (RMSEA) 0, 057; goodness of fit index (GFI) 0, 854; comparative fit index (CFI) 0, 919; Tucker Lewis index 0, 908. The fit indices indicate good model fit. The CFA result listed in table 1 shows that the standardized factor loading (λ) is higher than 0, 5 and

the AVE coefficient is minimum at 0, 4 means that all six constructs are valid (Bagozzi and Yi, 1988; Gerbing and Anderson, 1988 in Verhoef et al, 2002).

Regarding internal reliability, the results show that all six constructs show good internal reliability with composite reliability ranging from 0, 726 to 0, 848 higher than the threshold value 0, 60. The average variance extracted (AVE) for 3 constructs are higher than the suggested value 0, 50, but not for the construct of subjective norm, attitude, and trust. Hair et al

(2010) stated that if CR and Cronbach's alpha of all variables are higher than 0,6, then they are reliable.

Table 2. Structural Model Hypothesis

Path	Standardized estimates	Critical ratio	P-value	Conclusion
RI --> TR	0,175	1,758	0,079	H1 is supported
RI --> AT	0,358	3,620	***	H2 is supported
PK --> AT	0,052	0,480	0,631	H3 is not supported
PK --> TR	0,592	5,399	***	H4 is supported
TR --> AT	0,526	4,157	***	H5 is supported
TR --> PI	0,273	2,221	0,026	H6 is supported
AT --> PI	0,337	2,678	0,007	H7 is supported
SN --> PI	0,294	2,772	0,006	H8 is supported

Hypothesis Testing

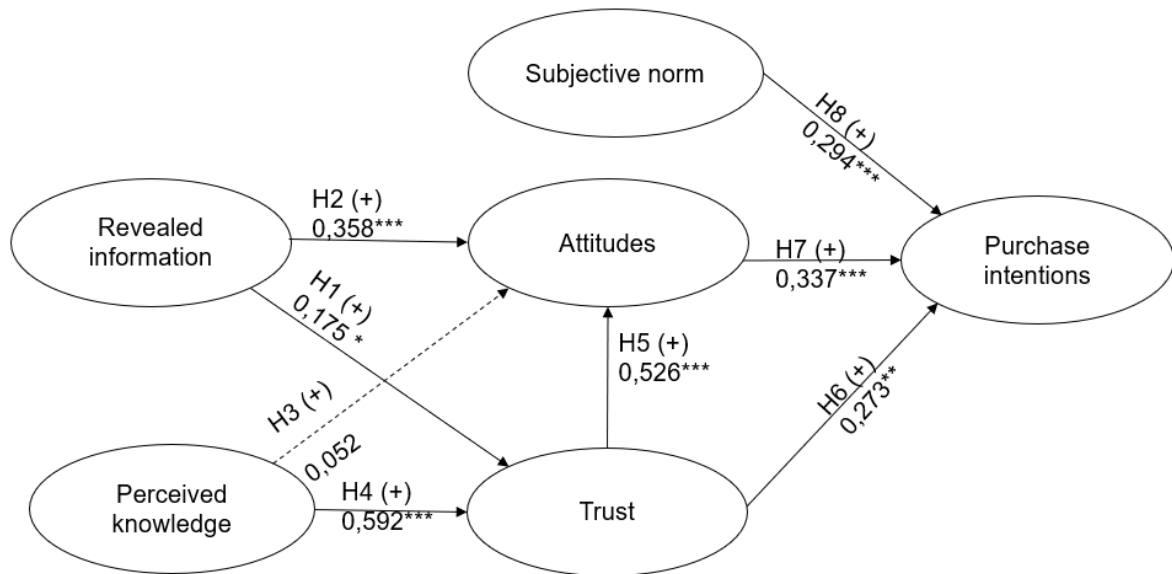
This study used path analysis to perform hypothesis testing to determine the model validity. Figure 2 shows the result of standardized path coefficients of the model. All of the hypotheses are supported except the H3 (dashed line). Results of this study found that revealed information on organic labels has a positive effect on trust and there is a significant positive effect of revealed information on attitudes. Kotler (2012; 619) says that the attraction of information is to describe the attributes or benefits of a product or service, so that if there is sufficient information about a product or service it will be more value for the product or service which will ultimately affect one's attitude towards the product and trust the product more. Sufficient information about organic food is very important to expand market demand because this information can increase consumer confidence and

attitudes towards organic food products (Magistris and Gracia, 2008).

The results of this study also found that perceived knowledge had a positive but not significant effect on attitudes. If the level of perceived knowledge is too low for a fairly complex job, it will have a debilitating effect on one's motivation, a low level of perceived knowledge will not facilitate motivation to learn in solving the problem of (Park et al., 1988). There is a positive and significant effect of perceived knowledge on trust. Perceived knowledge about organic food is recognized as a critical antecedent of consumer confidence in organic food (O'Fallon et al., 2007). Knowledge factor is one of the main influences on consumer trust and behavioural intention because most consumers do not really understand the meaning of organics (Hughner et al., 2007 in Chih and Yu, 2014). Consumers tend to have limited knowledge about organic

food and its production processes, and consequently lack of confidence to understand the implications of organic food purchasing decisions (Vermeir and Verbeke, 2006 in Chih and Yu, 2014). The lack of knowledge and awareness of organic food is considered an important obstacle to buy or-

ganic food (Demeritt, 2002 in Chih and Yu, 2014). Related knowledge perceived by consumers has an effect on consumer trust which in turn will influence the attitudes and intentions of consumers to buy organic food (Chih and Yu, 2014).



Notes : *p<0, 1, **p<0, 05, ***p<0, 01 Dashed line : not significant

Figure 2: The Results of the Analysis

Trust has a positive effect on attitudes on organic food and trust also has a positive effect on purchase intention. In the organic food market, consumer trust is a complicated problem, because even after consuming, consumers cannot verify the authenticity of organic products (Janssen and Hamm, 2012). There is a link between consumption of organic food and behaviors such as health awareness, environmental awareness, trust in organic foods such as taste, texture, and freshness (Hughner et al, 2007; Gil and Soder, 2006; Thogersen, 2006, Aryal

et al, 2009 in Voon et al, 2011). Trust is an important predictor of customer attitudes and future behaviour (Garbarino and Johnson, 1999; Gifford and Bernard, 2006 in Chih and Yu, 2014). Consumer trust in food labels is considered to be one of the most important components in influencing people to make purchases (Mhlophe, 2015).

The study also found that attitudes and subjective norms positively influence purchase intentions on organic food. Attitude represents what consumers like and dislike, and product

purchase decisions are often based on consumer attitudes. Attitudes represent what consumers like and dislike, and product purchasing decisions are often based on consumer attitudes (Blackwell et al. , 2006 in Tan and Lau, 2010. Honkanen et al. (2006) state that individual attitudes are the most important antecedents for predicting and describing consumers choices of products and services, including organic food. A significant positive relationship between subjective norms and purchase intention occurs when consumers believe in someone who is considered important, and that person has positive attitudes and opinions about organic food.

Conclusion

This study found that the perceived knowledge will produce a positive attitude towards organic food only if the perceived knowledge can foster consumer trust in organic food, a positive attitude will not be formed if the perceived knowledge is unable to foster consumer trust. This result is consistent with the previous research (Chen, 2008; Hughner et al. , 2007; O'Fallon et al. , 2007; Pieniak et al. , 2010 in Chih and Yu, 2014). This study provides several implications. Firstly, of which theoretically supports and strengthens theories from previous studies, that revealed information presented on organic food labels influences consumer attitudes and trust in organic food, perceived consumer knowledge about organic food products could foster a positive attitude and trust in organic food. This positive attitude and trust together with subjective

norms will foster interest in buying organic food. Secondly, it practically shows that revealed information and perceived knowledge are very important to foster trust and positive attitudes towards organic food which in turn will affect purchase intentions of organic food. In addition to trust, the closest people who will give influence (subjective norm) are important in affecting consumers' buying interest in organic food.

This research provides recommendations to the government, organic food vendors, organic certification institutions to provide clear and correct knowledge to the public on the importance of the benefits of consuming organic food and clear information on organic labelling including the percentage of organic matter content. Organic food sales companies can make promotions, hold seminars and participate in various social activities in order to introduce organic products to influence the closest people to consumers such as family, close friends or community leaders who become the role models for many people. The ultimate aim is to make closest people to consumer having a subjective norm to grow the purchase intentions of organic food. This research was conducted by collecting data online so that it was limited to only respondents who had internet access, further researchers needed to do methods of collecting data online and offline for example by conducting surveys in shopping centers, and conducted in different countries in order to know the comparison of results if done in different cultures.

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