Effects of health consciousness and environmental attitude on intention towards organic food purchase

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Abstract. The objective of this research is to study the effect of health consciousness and environmental attitude towards intention to purchase organic food. The research is using Theory of Planned Behaviour (TPB). The study variables are health consciousness, environmental attitude, availability, subjective norm, attitude and intention to purchase organic foods. Survey method is applied, with the 150 respondents intending to purchase organic food in Surakarta. Structural equation model (SEM) is applied to analyze data. The result shows that health consciousness and environmental attitude are the determinants of an individual’s positive attitude to purchase organic food. In addition, the attitude and subjective norm are also being the determinants of intention to purchase organic food. The study suggests that increasing organic food consumption can be achieved by increasing the knowledge about the benefit of organic food on health and environmental maintenance of potential consumers.

1. Introduction
Environmental damage due to conventional agriculture and food safety issues are factors that make people switch to organic products. Health consciousness and Environmental attitude make people assess that organic food is healthier and environmentally friendly. One of the most consumed organic products is organic vegetables which are a source of minerals and vitamins that are important for human health. Communities with healthy lifestyles emphasize activities to maintain health such as eating organic food, caring for health, and the existence of a balance of life. They will tend to have a positive attitude towards organic food. Consumers have a perception that organic labeled foods are healthier than conventional foods [1].

Availability will affect the purchase intention of organic food. The availability of products in the market and the diversity of types of vegetables will influence consumers in making purchases. Availability of shopping places is also a consideration, considering that not all shopping places sell organic food that consumers need [2]. This research was conducted in Indonesia which is one of the agrarian countries who has potential as producers and consumers of organic food. Therefore, this study aims to test the variables affecting the consumers attitude and intention to purchase organic food by using the Theory of Planned Behavior (TPB). This theory is appropriate approach to determine the attitude and intention to buy organic food since the theory was intended to explain all behaviours over which people have the ability to exert self-control with specific time and place [1, 2, 3]. The study of health consciousness has not been explored well in Indonesia. There is only one study about health consciousness and environmental attitude on intention towards organic food purchase in Indonesia [3]. However, this study differs with the previous [3]. In this study, variable of availability organic food is
added as one of important explanatory variable. This study uses variables of health consciousness, environmental attitude, availability, subjective norms, attitudes, and intentions to buy organic food.

2. Development of research hypotheses
The structure of this research design is shown in figure 1. In total 6 hypotheses are drawn from 6 constructs. There are health consciousness, environmental attitude, availability, subjective norm, attitude and purchase intention.

![Research Framework]

Figure 1. The research framework

2.1. Health Consciousness
Health consciousness is a person’s tendency to focus on health. Previous research shows that this variable is a strong factor that influences attitudes and buying intentions of organic food [1,2,3,4]. If individual health awareness increases, the attitude and intention to purchase organic food will increase positively [4]. Based on these facts, the first hypothesis is determined as H1.

H1: Health Consciousness influences the attitude of organic food purchase

2.2. Environmental Attitude
Organic food is considered more environmentally friendly [5] and is considered less dangerous and more beneficial to the environment [6], which has been accepted as one of the factors that encourage consumers to buy organic food. Eating organic foods is strongly recommended, compatible with ecology and sustainability [7]. This shows that the attitude towards organic food is influenced by environmental issues, consumers who have more knowledge about environmental problems will be more likely to consume organic food. Based on the results of previous studies [5, 6, 7], the second hypothesis is defined as below.

H2: Environmental Attitude affects the attitude of organic food purchase

2.3. Availability
One of factors that influence consumers’ purchasing intention is product availability. Previous research identifying the lack of availability of organic food in stores is considered as one obstacle for consumers to buy organic products [7,8]. The availability feature also includes product range. Some stores only sell in limited quantities and variety of organic products so that consumer choices are often
limited [9]. Therefore, product availability is important to encourage organic food purchases. Surakarta City has a number of Supermarkets that provide organic food, so that people can easily get organic food for consumption. Based on the above explanation, the third hypothesis can be arranged as follows.

H3: availability affects the attitude of organic food purchase

2.4. Attitude to Purchase Organic Food

Attitude describes the results of a person’s evaluation of an entity (object or deed), whether that person likes or dislikes. Attitude towards behaviour refers to the extent to which a person evaluates or assesses the behaviour [10]. Attitude serves as a determinant of behavioural intention. A positive attitude towards organic food is a starting point to stimulate the consumption of organic food [11]. Previous research also showed positive results of the influence of attitudes towards the purchase intention of organic food [2,3,11]. Based on the above facts, the fourth hypothesis can be constructed as below.

H4: Attitude affects the intention of organic food purchase

2.5. Subjective norm

According to the Theory of Planned Behaviour [10], subjective norm has been identified as important determinant of the impact of social influence on behavioural intentions. Previous research also identified significantly positive relationships between consumers' subjective norms and intention to buy organic food [2,3,11]. If the consumers have the positive attitudes about organic food, they tend to have positive intentions to buy organic food. Trends in society have been shifted to healthier diets and increased individual responsibility for their health, this trend has greatly influenced consumer decisions to buy organic food. Therefore, the fifth hypothesis is defined as follows.

H5a: Subjective norm affect the attitude of organic food purchase
H5b: Subjective norm affect the intention of organic food purchase

3. Methods

3.1. Sample and Data Collection

The location of the research was determined purposively in Surakarta, Central Java of Indonesia. The Surakarta city is one of the major cities in Central Java, known as trading city in the traffic of Jakarta-Surabaya. Surakarta area is the potential one for organic food market because it is surrounded by the organic food producers and also the per capita income of the population increases every year [15]. Primary data obtained by survey method by using standard questionnaires. Non probability sampling applied with the 150 respondents intending to purchase organic food. Structural Equation Modeling (SEM) applied to analyze and test the hypotheses.

3.2. Instrument testing

The instrument is tested by validity, reliability and normality tests. The validity test conducted based on the factor loading, according Hair et al [12], the factor loading should be greater than 0.50. The reliability tests were conducted by using Cronbach’ alpha coefficient and applying the reliability margin 0.70. The results of validity and reliability tests on 150 samples showed that all variables were valid and reliable. The result of normality test showed that there were 10 outlier observations to be eliminated from the analysis model. Then, the data were analyzed by SEM analysis.

4. Results and Discussion

SEM was conducted by AMOS 22.0 using a maximum likelihood parameter to evaluate the hypotheses. The results of the evaluation of goodness of fit show a chi square value of 396,956 which had met the minimum chi square based on the output of AMOS 22.0. The probability value is 0.000. The value of CMIN/df, RMSEA, TLI and CFI with the results of 1.821, 0.077, 0.901 and 0.915 meet
the reference value so that it can be concluded to be good fit. The value of another fit indices such as RMR, GFI, NFI are 0.052, 0.809, and 0.832 that close to the reference value, so that it marginally fit.

| Table 1. Hypotheses results |
|-----------------------------|
| **Hypotheses** | **Variable** | **Parameter Estimation** | **Standard Error** | **P** |
| H1 | AT \(\prec\) HC | .198* | .118 | .068 |
| H2 | AT \(\prec\) EA | .615*** | .080 | .000 |
| H3 | AT \(\prec\) AV | -.102 | .085 | .424 |
| H4 | PI \(\prec\) AT | .098*** | .103 | .000 |
| H5a | AT \(\prec\) SN | .613 | .099 | .441 |
| H5b | PI \(\prec\) SN | .306*** | .069 | .000 |

Source: Primary data analysis (2018)
Description: ***= p< 0.01 **= significant p< 0.05 *= significant p< 0.1

Based on the results in Table 1, it is known that health consciousness (HC) positively influences attitude towards organic food purchase (AT) with an estimated value of 0.198 and is significant at a significance level of 90%. Environmental attitude (EA) positively influences attitudes towards purchasing organic food (AT) with an estimated value of 0.615 and is significant at 99% significance level. Environmental attitudes (EA) have a stronger influence on attitudes towards the purchase of organic food compared to health consciousness. Attitude (AT) positively affects the purchase intention of organic food (PI) with an estimated value of 0.613 at a 99% significance level. Subjective norm (SN) positively affect the purchase intention of organic food with an estimated 0.098 at and significant at 99% significance level.

The result shows that Health Consciousness (HC) has a positive effect on the attitude of organic food purchase (AT). This indicates that the increase of health awareness will affect the attitude of organic food purchase. The results of this study contradict the findings of Hossain and Lim [2] that there was no influence between health consciousness and attitude towards organic food. However, this study remains consistent with previous studies [1,3,4,13], which is the study shows a positive relationship between health consciousness and attitude towards organic food purchase. Based on these findings, the people of Surakarta City who have health awareness and aware of the benefits of consuming organic food for health will encourage the emergence of a positive attitude towards organic food as a healthy food product, which will encourage the emergence of buying organic food.

Environmental Attitude (EA) has a positive influence on attitude towards organic food purchase (AT). This means that the higher of someone’s caring attitude towards the environment, the more people will have a positive attitude towards organic food. This finding is consistent with previous study [3]. Respondents are the people of Surakarta who have an environmental care attitude, that the environment needs to be maintained and preserved will be positive towards organic food. The respondents aware the negative impact of using synthetic chemicals on conventional agriculture on environmental damage such as soil, water and air pollution due to pesticides and land degradation. Thus, they have a positive attitude towards organic food as environmentally friendly products.

Availability (AV) does not have an influence on the attitude towards the purchase of organic food (AT). This finding contrasts with previous studies by [2,8,14] where the availability of organic food has a positive effect on attitudes towards the purchase of organic food and is an important factor for the intention of organic food purchase. In Surakarta City, there have been some modern/self-service markets that provide organic food and can make it easier for consumers to purchase organic food, but the result shows that there is no influence between availability and attitudes towards purchasing organic food. This is possible due to other factors such as price which affects consumer attitudes towards purchasing organic food. The price of organic food is more expensive than non-organic food, so respondents will rethink buying organic food even though their availability is abundant.
Attitude (AT) has a positive influence on the intention to buy organic food (BI). This finding is consistent with previous studies [2, 11]. A person's positive attitude towards organic food will encourage them to consume organic food. The results of this study are in accordance with the Theory of Planned Behaviour where the attitude will affect a person's intention to do something.

Subjective Norm (SN) does not have an influence on the attitude towards the purchase of organic food (AT). This finding contrasts with Irianto [3] which shows that subjective norms influence attitudes to the purchase of organic food. This is due to the attitude of people around who are considered to play an important role in the life of a person (family, friends, friends or community leaders) towards organic food may not immediately change someone's attitude towards organic food. In the hypothesis test it is also known that the Subjective Norm (SN) has a positive influence on organic food purchasing Intention (PI). This finding is consistent with Irianto [3] and Pomsanan [14]. The higher subjective norms will affect someone's intention to purchase organic food. Intention to buy organic food is influenced by people who influence the lives of people. If people who are considered influential for the life of a person such as family, friends, friends and community leaders consider good organic food and have already consumed organic food, then it will affect them to intend to buy organic food as well. This findings show that subjective norm does not affect a person's attitude, but affects a person's intention to perform an action, in accordance with the Theory of Planned Behaviour that the subjective norm is one of the things that can affect a person's intention to do something.

5. Conclusion
Health Consciousness (HC) and Environmental Attitude (EA) have positive effect to the attitude of organic food purchase (AT), while Availability (AV) and Subjective Norm (SN) do not influence it. In addition, Attitude (AT) has a positive influence on the intention to buy organic food (BI). These findings highlight several implications that may help developing strategies for organic product purchasing. Increasing consumption of organic food can be done by increasing the knowledge of the community as potential consumers of the benefits of organic food for environmental health and sustainability through advertisements in print and electronic media. Organic farming entrepreneurs can use well-known figures/celebrities endorses strategies to sound the organic food benefit. Intention to buy organic food is influenced by people who influence the life of consumers. Manufacturers and marketers can promote the benefits of organic food to the community, for example safe, healthy, environmentally friendly, and accessible to increase consumer recognition about organic food. Word of mouth strategies can also be used as a marketing strategy that is useful to increase the purchase intention of organic food consumers. This study considers organic food as organic product, so the finding could be different for different products. Future research should test the proposed model for another organic product as organic rice, organic fruits and so on or the general of organic foods. This study regarding the area of Surakarta, so the finding could be different in another city. Future research is expected to be done in another area, as metropolitan city with the dynamic lifestyle and more pollution to know the attitude and intention of purchasing organic food. The future research also expected to expand the variables of research such as price that involve in someone intention of organic food purchase.

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