



The Effect of Green Awareness, Organic Product and Eco Labelling on Willingness to Pay More on Consumers of Bottled Drinking Water Products

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Abstract

The purpose of this study was to determine the effect of green awareness, organic products and eco labeling on the willingness to pay more of consumers of bottled drinking water products. This research is quantitative research. This research was conducted on consumer/users and those who have not used drinking water products with the brands Equil, Cleo, Amidis, Pristine, Aqua Sparkling and Super O2 throughout Indonesia. The population of this study is all consumer/users and those who have not used the drinking water product. The number of samples in this research is as many as 150 people, chosen by adapting the Convenience Sampling technique and data analysis used is partial least squares (PLS). The results showed that: (1) Green Awareness, Organic Product, Eco Labeling had a significant effect on Willingness to Pay More (2) Green Awareness had a significant effect on Organic Products (3) Organic Products had a significant effect on Eco labeling (4) Organic Products had a significant effect on Willingness to Pay More (5) Eco labeling has a significant effect on Willingness to Pay More (6) Green Awareness has a significant effect on Willingness to Pay More.

Keywords: *Green Awareness; Organic Product; Eco Labelling; Willingness to Pay More*

1. Introduction

The environment is one of the important aspects in the life of living things on earth. As we know that currently environmental issues are a hot topic of discussion in the eyes of the public, considering that people in Indonesia are starting to realize the importance of the environment. But not all people understand and care about the importance of the environment. It is proven that Indonesia is the second largest waste contributor country in the world after China (Binus, 2019). As we know, during this pandemic, Indonesian's awareness of health is increasing. People are required to always maintain

immunity to avoid the Covid-19 virus. One way to maintain immunity is to consume foods that can provide benefits to the human body. Foods that can meet the needs of the human body consist of organic and non-organic foods.

Kasali (2005) views organic products as products that are not harmful to humans, products that do not threaten environmental damage, the manufacturing process until the end use does not produce excessive waste and does not involve cruelty to animals. In the packaging of organic products, information is needed to convince consumers that the product meets the criteria for organic products. According to Lewis et al (2010), the purpose of environmentally friendly labeling is to provide important information about expiration dates, nutritional value information, content, health information and environmentally friendly product information. The media used by producers to communicate their products to consumers is to put environmentally friendly labels in the form of certifications issued by institutions that have been appointed by the government. One of the certification organizations is the International Organization for Standardization (ISO). As we know the purchasing power of the people in each city is different. According to Private and Irawan (2003), the factors that influence the purchasing power of a community in a city are income, tastes and prices.

There are several aspects that underlie consumers to want to pay more. Starting from the consumer's vision of environmental threats that can cause a sense of care for the environment itself. The health aspect can influence consumers to want to pay more for a product. This is realized by consuming organic products which can basically fulfill both aspects. This is in line with the research of Wei, Ang and Jancenelle (2018) which says that green consumers are willing to pay more due to two aspects, namely concern for the environment and health.

This research started from the inconsistency of several studies regarding willingness to pay more and organic products focusing on agricultural products (Anselmsson, 2017). Meanwhile, research related to willingness to pay more for bottled water products is minimal (Ghali, 2020). In addition, there are inconsistencies in previous studies such as research conducted by Sriwaranun, Gan, Lee and Cohen (2014) which stated that there was a significant relationship between organic products and willingness to pay more for organic product consumers in Thailand. Sari, Raskimayati, Saefudin, Karyani and Dewi (2020) said the same thing where there was a relationship between organic products and willingness to pay more for organic rice consumers in Sumedang. Meanwhile, research conducted by Sanjuan, Sanchez, Gil, Gracia and Soler (2003) said that there is no relationship between organic products and willingness to pay more because each family has different purchasing power, especially consumers in developing countries. Research conducted by Yau (2017) found that Eco Labeling had a significant effect on Willingness to Pay More. This can be seen from the respondents' desire to pay more for environmentally friendly apartment units in Hong Kong. Meanwhile, research conducted by Brat (2011) states that the environmentally friendly labeling process can convince consumers to pay more for an organic product due to the legality of the environmentally friendly label itself. However, research conducted by Bengu (2017) says that there is no influence between eco labeling on willingness to pay more because most consumers do not pay attention to environmentally friendly labels in each product packaging.

2. Literature Review and Hypothesis Development

2.1 The Effect of Green Awareness on Organic Products

Consumers who have knowledge of the importance of the environment will be stimulated to consume organic products (Junaedi, 2005). Consumers who have a sense of care for the environment will automatically always consume products that will reduce the rate of environmental damage. The next stage after consumers care about the environment, they will use environmentally friendly products or services

(Wu & Chen, 2014). Research conducted by Hariyanto (2017) says that Green Awareness has an effect on Organic Products. This concern is the reason why some consumers will always consume organic products.

H1: Green Awareness has a positive and significant effect on Organic Products

2.2 The Effect of Organic Product on Eco Labeling

Organic products need to be supported by environmentally friendly labels because the presence of environmentally friendly labels can help consumers to know that these products have benefits for the surrounding environment. So that organic products cannot be separated by environmentally friendly labels, on average organic products have environmentally friendly labels where the label explains the process of making the product until the product reaches the hands of consumers. The results of research by Brat, Hallstedt, Robert, Broman, Oldmark (2011) say that there is a relationship between organic products and eco labeling, this is because some types of organic products do not certify environmentally friendly labels in the products they create. This can make consumers hesitate to consume the product.

H2: Organic Product has a positive and significant effect on Eco Labeling

2.3 The Effect of Organic Product on Willingness to Pay More

Organic products have a higher price when compared to similar products. This is because organic products have more benefits, so someone has a desire to pay more because someone sees the benefits offered by the organic product. The results of research conducted by Sriwaranun, Gan, Lee and Cohen (2014) say that there is a relationship between Organic Products and Willingness to Pay More. Some respondents said they have a desire to buy environmentally friendly products because there are good benefits for human health.

H3: Organic Product has a positive and significant effect on Willingness to Pay More

2.4 The Effect of Eco Labeling on Willingness to Pay More

Eco labeling can increase someone's confidence to want to pay more because the person believes that the product has an environmentally friendly label issued by trustworthy institutions. Research conducted by Yau (2017) found that Eco Labeling had a significant effect on Willingness to Pay More. This can be seen from the respondents' willingness to pay more for environmentally friendly apartment units in Hong Kong.

H4: Eco Labelling has a positive and significant effect on Willingness to Pay More.

2.5 The Effect of Green Awareness on Willingness to Pay More

The sense of care for the environment that arises in every consumer can lead to a desire to pay more for a product even though there are other products that are relatively cheaper. This sense of care can make a person willing to pay more to realize a form of caring for the environment.

Research conducted by Kang, Stein, Heo and Lee (2012) said that there is a relationship between Green Awareness and Willingness to Pay More. This is evident from some respondents who have a desire to pay more for hotel rooms with environmentally friendly hotel concepts.

H5: Green Awareness has a positive and significant effect on Willingness to Pay More.

Based on the explanation above, the empirical model in this study is presented in the following figure:

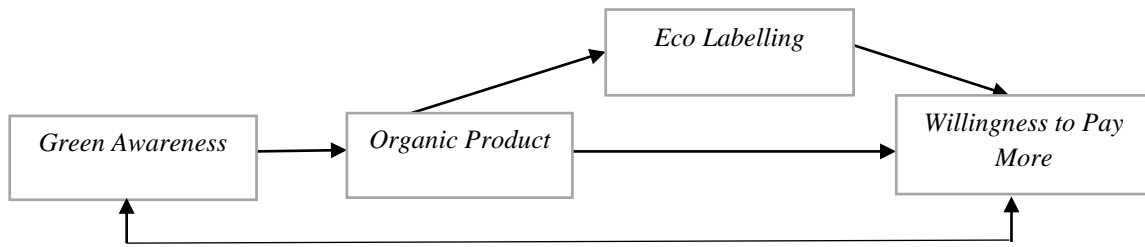


Figure 1. Conceptual Framework

3. Research Method

The type of this research is quantitative. A quantitative approach is used to identify all the concepts that are the research objectives (Malhotra, 2009). Respondents in this study were all people who had consumed and had not consumed bottled water products with the brands Equil, Cleo, Amidis, Pristine, Aqua Sparkling and Super O2. The number of samples is 150 people. Hair et al (2010) suggested that the appropriate sample size ranged from 100-200 respondents.

Validity and reliability tests were performed using IBM SPSS version 23 before examining the model completely. The variable is said to be valid and reliable if it gives value of Cronbach's Alpha (α) and Composite Reliability ≥ 0.70 (Hair et al., 2013). The Structural Equation Modeling (SEM) method was implemented to fully test the model using Smart PLS software version 20.

4. Results

This study collected responses from 150 respondents. Characteristics of respondents vary widely, the results are as follows: Female respondents (53%) The majority of respondents are between 20-30 years old (45%), the majority are self-employed (49%). Complete data can be seen in Table 1.

Table 1. Characteristics of Respondents

Variable	Description	Sum.	%
Gender	Male	52	34,6%
	Female	98	65,4%
Age	18-25 years old	11	7,3%
	26-30 years old	28	18,7%
	31-35 years old	41	27,4%
	36-40 years old	37	24,6%
	>40 years old	33	22%
Education	High School	9	6%
	Diploma	29	19,3%
	Bachelor	62	41,3%
	Master	36	24%
	Doctorate	14	9,4%

4.1. Measurement model (Outer Model)

The measurement model (outer model) was used to test the construct validity and instrument reliability. According to Abdillah, Willy and Jogiyanto (2015), the outer model or measurement model describes the relationship between groups of indicators and their latent variables. Based on the AVE value and communality, all indicators of this research variable were declared to meet the requirements of convergent validity. Where the AVE and communality of all variables above the cut-off value of 0.5. Items are declared to meet the requirements of convergent validity if the AVE and communality values are > 0.5 and the outer loading is > 0.6. (Hair et al., 2013)

Table 2. Indicator Measurement Model

Code	Variable	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
	Green Awareness		0.927	0.912	0.535
GA1	I believe every human being is responsible for the environment.	0,711			
GA2	Health is the most important thing for me	0,716			
GA3	I have knowledge of the environment	0,705			
GA4	I am responsible for protecting the environment	0,747			
GA5	I realize the importance of consuming products that are good for the environment	0,755			
GA6	I invite the closest people to consume products that are good for the environment	0,706			
GA7	I am willing to always take care of the environment	0,779			
GA8	I always use products that are environmentally friendly	0,729			
GA9	I feel satisfied after using eco-friendly products	0,729			
	Organic Product		0.970	0.942	0.518
OP1	The bottled water that I consume provides information about the content contained in the product	0,719			
OP2	The bottled drinking water that I consume has no side effects	0,735			
OP3	The bottled drinking water that I consume puts the health of its users first	0,726			
OP4	The bottled drinking water I chose has safe packaging	0,720			
OP5	I understand the current environmental conditions	0,726			
OP6	The bottled drinking water that I consume does not produce excessive waste	0,705			
OP7	I know the bottled drinking water I consume is an environmentally friendly product	0,705			
OP8	The bottled water I consume provides the information I need	0,717			
OP9	The information contained on the product packaging can be accounted for	0,728			
OP10	The safety of the bottled drinking water I consume can be accounted for	0,711			

OP11	I get many benefits from the bottled water that I consume	0,722			
OP12	In my opinion, good quality bottled water is drinking water that prioritizes health and the environment in its products	0,721			
OP13	The bottled drinking water that I chose has met health standards	0,721			
OP14	The bottled drinking water I consume contains more nutritional and nutritional value than other products	0,714			
OP15	The bottled drinking water I consume is more beneficial for health	0,723			
Eco Labeling			0.940	0.908	0.551
EL1	I believe that the environmentally friendly label is issued by a competent agency in environmental matters	0,722			
EL2	I believe that environmentally friendly labels can be justified	0,738			
EL3	I always use bottled water that has an environmentally friendly label	0,747			
EL4	I know some eco-friendly labels found on bottled drinking water	0,761			
EL5	I have knowledge of the purpose of an environmentally friendly label on a bottled water product	0,747			
EL6	I believe that the information provided on the bottled water that I consume can be trusted	0,748			
EL7	Information about the content of bottled drinking water that I consume can be accounted for	0,736			
EL8	I trust the agency that issues eco labelling certification	0,742			
Willingness to Pay More			0.972	0.909	0.526
WTP M1	I want to consume environmentally friendly products because I see firsthand the environmental damage that exists	0,721			
WTP M2	I am willing to spend a lot of money to get environmentally friendly drinking water	0,722			
WTP M3	I consume bottled water products whose manufacturing process does not harm the environment	0,725			
WTP M4	I consume high-PH drinking water because it is to meet the body's needs	0,711			
WTP M5	I get information about health to maintain health	0,744			
WTP M6	I have bad experience with health so I choose good bottled drinking water	0,707			
WTP M7	I will not change the brand of bottled drinking water that I consume with another brand	0,727			

WTP	I got recommendations for high PH bottled water from other people	0,754
M8		
WTP	I will recommend a good brand of bottled water to others based on my experience	0,713
M9		

4.2. Structural Model (Inner Model)

After the measurement evaluation (outer model) is fulfilled, it is necessary to evaluate the structural model (inner model). The following are the results of the evaluation of the structural model in this study.

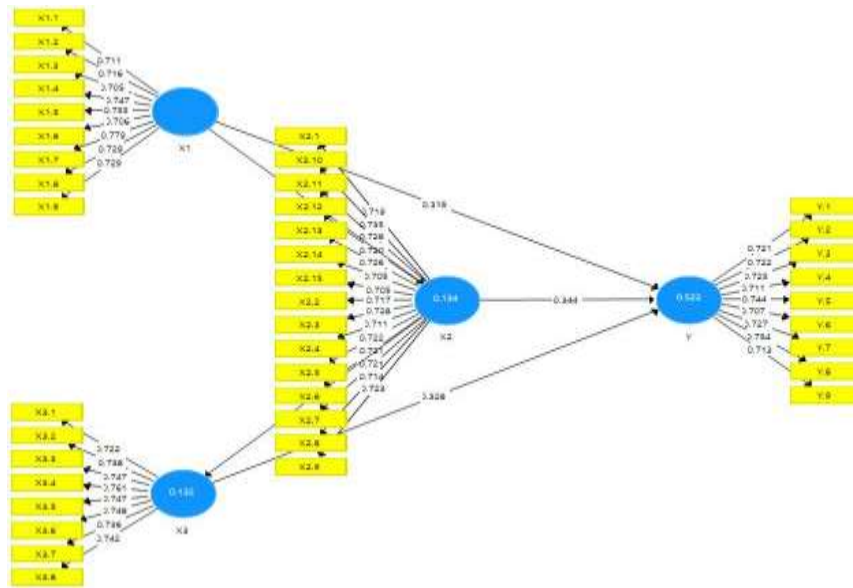


Figure 2. Structural Model (*Inner Model*)

Based on the equation, the path coefficient or the weight of the influence of the X1 (green awareness) variable on X2 (organic product) is 0.363. Based on equation 2 shows the weight of the influence of the variable X2 (organic product) on X3 (eco labeling) is 0.176. Equation 3 shows the influence weights of X1 (green awareness), X2 (organic product), and X3 (eco labeling) are 0.405, 0.239, and 0.238, respectively, on Y (willingness to pay more).

The PLS Structural Model can be assessed by looking at the R-Square value of each endogenous variable as the predictive power of the structural model. Based on the picture above, the R-Square value is 0.522, meaning that the variation in the value of the consumer satisfaction variable can be explained by variations in the value of green awareness, organic product, and eco labeling of 52.2%. It is difficult to generalize an acceptable R-Square value because it depends on the complexity of the model and the research discipline. R2 value of 0.20 is considered high for disciplines such as consumer behavior (Hair et al., 2014).

Effect size is an absolute value to measure the contribution of a predictor variable to the response variable removed from the model. Changes in the value of R² can be used to see whether the effect of the exogenous latent variable on the endogenous latent variable has a substantive effect. Effect size (F²) is grouped into three categories, namely weak (0.02), moderate (0.15), and large (0.35) (Sholihin & Ratmono, 2013).

Table 3. Effect Size of the Exogenous Latent Variable

Model	Overall R ²	Exclude Variable	R ² Exclude	F ²	Category
3	0.455	Green Awareness	0.439	0.185	Moderate
		Organic Product	0.433	0.191	Moderate
		Eco Labelling	0.428	0.196	Moderate

The effect size of Green Awareness, Organic Product, Eco Labeling on the Willing to Pay More variable is 0.439, 0.433 and 0.428, respectively, or all categorized as having a Moderate effect size on Willing to Pay More.

Hypothesis Testing

If the t-statistic value is higher than the t-table value, it means that the hypothesis is supported. For the 95 percent confidence level (alpha 5%), the t-table value for the two-tailed hypothesis is ≥ 1.96 (Jogiyanto, 2009). The results of the structural model testing can be seen in the image below:

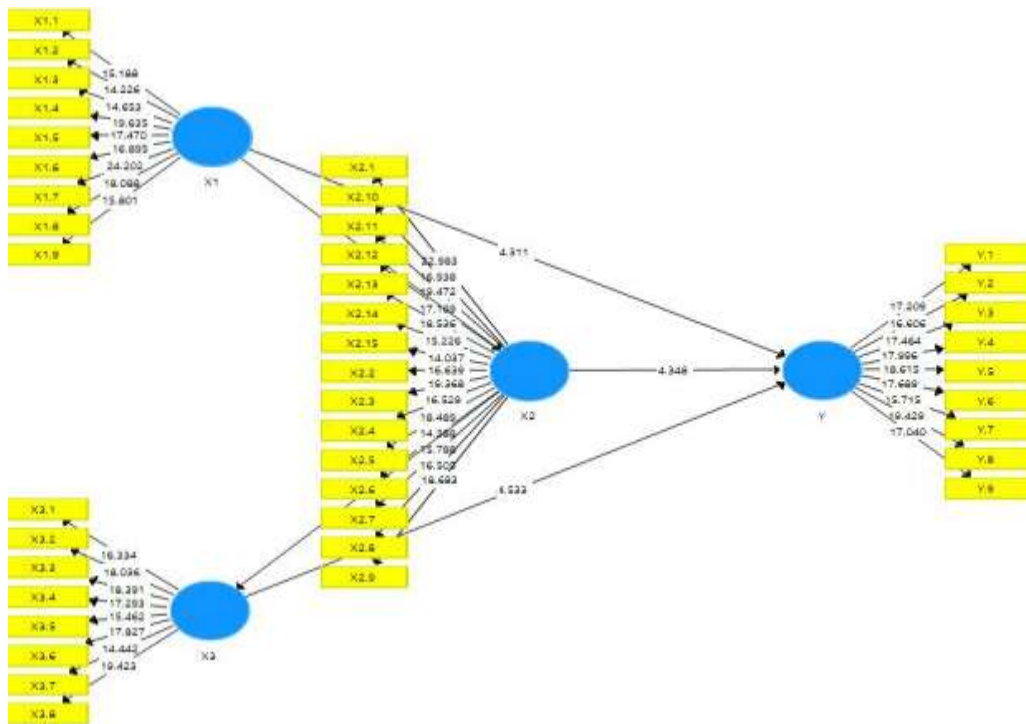


Figure 3. Output (Bootstrapping Method)

The Effect of Green Awareness, Organic Product, Eco Labeling on Willingness to Pay More

The results of hypothesis testing for H1 obtained a t-count value (4,982) > 1.96 so that H1 is accepted, means that green awareness has a significant effect on organic products. The results of hypothesis testing for H2 obtained t-count value (5,093) > 1.96 so that H2 is accepted, means that organic product has a significant effect on eco labeling. The results of hypothesis testing for H3 obtained a t-count value (4.348) > 1.96 so that H3 is accepted, means that green awareness has a significant effect on willingness to pay more. The results of hypothesis testing for H4 obtained a t-count value (4.533) > 1.96 so that H4 is accepted, means that organic product has a significant effect on willingness to pay more. The

results of hypothesis testing for H5 obtained a t-count value $(4.311) > 1.96$ so that H5 is accepted, means that eco labeling has a significant effect on willingness to pay more.

Table 4 Summary of Hypothesis Test Results

Hypothesis	Influence	t-stat	Decision	Description
H1	$GA \rightarrow OP$	4,982	H1 is accepted	Significant
H2	$OP \rightarrow EO$	5,093	H2 is accepted	Significant
H3	$OP \rightarrow WTPM$	4,348	H3 is accepted	Significant
H4	$EL \rightarrow WTPM$	4,533	H4 is accepted	Significant
H5	$GA \rightarrow WTPM$	4,311	H5 is accepted	Significant

4.3. Discussion

Research findings reveal that green awareness has a significant effect on organic products. This means that the higher the consumer's sense of concern for the environment, the higher the consumer's tendency to consume products that favor the environment. Perceptions of the importance of the environment can be influenced by the closest people, where someone provides knowledge about the environment that can change the mindset of others, realizing that protecting the environment can have a good effect on human survival. This finding is in line with research by Junaedi (2005) which revealed that there is a significant effect between green awareness on organic products, consumers who have knowledge of the importance of the environment will be stimulated to consume organic products.

The research findings reveal that the organic product variable has a significant effect on the eco labeling variable. This means that organic products cannot be separated from eco labeling, where organic products require environmentally friendly labels that can be trusted by respondents who consume organic products. Eco labeling can strengthen one's trust before deciding to consume bottled drinking water, this is because eco labeling is issued by agencies that have legality. This finding is in line with Ayu's (2019) research which says that organic products cannot be separated by eco labeling, this is because consumer needs guidance on organic products for environmental and health-based products. In addition, organic products will get recognition through eco labeling for product's guarantees to meet environmental and social criteria so that they have a picture of organic products that focus on environmental safety and health insurance.

Another finding of this study reveals that the organic product variable has a significant effect on the Willingness to pay more variable. Currently, consumers are given the convenience of choosing bottled drinking water to meet their needs. Various bottled drinking water offer benefits that can be felt by consumers. As we know organic products have a relatively high price due to the benefits offered by the product's content. This research is in line with research conducted by Sriwaranun, Gan, Lee and Cohen (2014) which states that there is a relationship between Organic Products and Willingness to Pay More. Some respondents said they have a desire to buy environmentally friendly products because there are good benefits for human health.

In addition, the findings of this study also reveal that the eco labeling variable has a significant effect on willingness to pay more. This means that consumers trust the information contained on environmentally friendly labels. Environmentally friendly labels are generally in the form of a logo that is easily recognizable by consumers. The benefit of having an eco-friendly label is that it makes it easier for consumers to differentiate between organic and non-organic products. This is in line with research conducted by Brat (2011) which states that the environmentally friendly labeling process can convince consumers to pay more for an organic product due to the legality of the environmentally friendly label itself.

Lastly, the research findings also reveal that the green awareness variable has a significant effect on willingness to pay more. This means that a sense of concern for the environment can influence a person to have a desire to pay more for a type of product related to environmental preservation. This is in line with research conducted by Kang, Stein, Heo and Lee (2012) which states that there is a relationship between Green Awareness and Willingness to Pay More. This is evident from some respondents who have a desire to pay more for hotel rooms with environmentally friendly hotel concepts.

Conclusion

This research produces a theoretical impact of the relationship between four variables, namely: green awareness, organic product, eco labeling, and willingness to pay more; where green awareness, organic products, eco labeling have a significant effect on willingness to pay more. These findings are in line with research conducted by Junaedi (2005) and Ayu(2019) which also stated that consumers who have knowledge of the importance of the environment will be stimulated to consume organic products.

This study explores the effect of green awareness, organic products, eco labeling, and willingness to pay more for all people who have consumed and have not consumed bottled water products with the brands Equil, Cleo, Amidis, Pristine, Aqua Sparkling and Super O2. Consumers understand the importance of organic products to their health and can afford to pay a high price to get products that include eco labeling on each of their products.

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