

Factors Influencing Purchase Intention Towards Eco-Friendly Products

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Abstract—The greatest global challenges during this modern era is to integrate environmental sustainability as healthy environments will make the people around the world healthy. It is not only for the people but also to the animals and living things. The twenty-first century threats to our environment puts wildlife populations at risk. The world is facing a lot of environmental issues today and one of the main causes is the use of non-eco-friendly packaging materials for various consumer goods is one of the problems that the world is facing today and one of the main reason is due to the widespread use of non-eco-friendly packaging of food and other goods. Since the non-eco-friendly products has been used a lot, this study aiming to identify factors that influencing purchase intention towards eco-friendly products especially in Shah Alam area. Quantitative research was adopted for this research as the research strategy. Questionnaire-survey has been used in this research with 382 sets of questionnaires distributed to the respondents to get the data required. The results show a positive influence with consumer awareness being the most influencing factors followed by environmental knowledge and product attributes. Lastly, this research will be able to help both consumers and firm to identify what's best for the environment to create a better world with the use of more eco-friendly products.

Keywords—purchase intention, eco-friendly, product, consumer awareness, product attribute

I. INTRODUCTION

The environment is our basic life support system and is composed of living beings, physical surroundings, and climatic conditions. Healthy environments also support healthy wildlife. Twenty-first century threats to our environment including invasive species, diseases, pollution, and a warming climate are putting wildlife populations at risk. The world is facing a host of environmental issues today and one of the main causes is the use of non-eco-friendly packaging materials for various consumer goods is one of the problems that the world is facing today and one of the main reason is due to the widespread use of non-eco-friendly packaging of food and other goods. These packaging materials emit toxic pollutants or poisonous gases that affect human health and the environment. Eco-friendly products are products that are not harmful to the environment. These are products made from organic and all-natural ingredients. They also come in recyclable compostable, or biodegradable packaging.

In Malaysia, a recent study has confirmed that 38,000 tonnes of environmental waste have been generated every day without considering the labour cost, social cost and environmental cost Greenpeace Malaysia (2019). Malaysia imported ½ a million metric tons of environmental waste from the United State between January to July 2018 Greenpeace Malaysia (2019) because of it is a source of revenue for the government according to Greenpeace East Asia Ananth Lakshmi, Greenpeace Malaysia. (2019). Only 9 per cent from environmental waste have been recycled, 12 per cent incinerated and 79 per cent end up in landfills and natural environment according to Leoi, S. L. (2019). However, the government is coming up with implementing policies coupled with a greater awareness campaign to stimulate sustainable consumption among its nationals and consumer have begun to notice their purchasing behaviour is having a direct impact on environmental challenges according to Yahya, W.K., (2019). A shift in the attitude level and awareness level has to exist first in order to implement a swift in green behaviour.

This study was conducted to identify factors that influencing purchase intention towards eco-friendly products. It also aims to determine the dominant factors of purchase intention towards eco-friendly products and to examine the relationship between the factors (Consumer Awareness, Environmental Knowledge and Product Attributes) and purchase intention.

II. LITERATURE REVIEW

A. Dependent and independent variable

Purchase intention is the preference of consumer to buy the product or service (Keller, 2001). To describe it in another words, purchase intention has another aspect that the consumer will purchase a product after evaluation. There are a lot of factors that influence the consumer's intention when selecting the product and services they wanted to buy and they need. The decision to buy the product depends on the consumer's purchase intention. There are many external factors that cause them to intent purchase intention such as consumer awareness, environmental knowledge and product attributes.

The increased awareness about the environment friendly products made a large number of consumers to boycott such manufacturer and companies who were not implementing green marketing practices. Many firms had adopted this green

marketing concept to target such consumers who were environmentally conscious and were willing to pay more for the green products. Thus, green marketing had become a source sustainable of competitive advantage for many firms (Chen and Chai, 2010).

Mostafa, M.M, (2007) showed that environmental knowledge is positively linked with attitude towards green products which further influences their purchase intention. Consumers with a high level of environmental knowledge have a much better pro-environmental attitude and have a stronger intent to purchase green products for consumption Huang et al., (2014).

Some studies have stated that some of the product offerings such as value and quality, price, features of product are the main indicators to determine the customers understanding of green product concepts (Lee et al., 2010). The credibility of the green products is one of the elements that boost the purchasing powers of the customers because the performance and quality must reach their expectation (Ng et al, 2013).

B. Hypotheses and Framework

- H1: There is relationship between consumer awareness of eco-friendly products and purchase intention
- H2: There is relationship between environmental knowledge of eco-friendly products and purchase intention
- H3: There is relationship between product attributes and purchase intention.

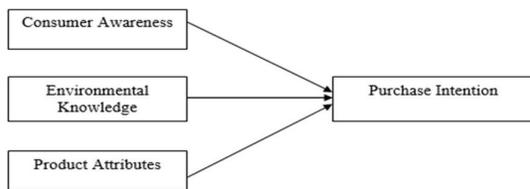


Fig. 1. Research framework

III. RESEARCH METHODOLOGY

A. Sampling and Measurement Instruments

The survey was conducted through an online survey by using google form link and a total 382 survey questionnaires are collected within Shah Alam residents in Selangor, Malaysia. The questionnaire design consists two part: Section A demographic factors of respondents such as gender, age, monthly income and educational information. Section B are questions regarding purchase intention towards eco-friendly products.

B. Data Analysis

The data was analyzed using Statistical Package of the Social Science (SPSS), employed both the descriptive and inferential analysis techniques (correlation analysis, multiple regression analysis and ANOVA). The statistical analysis was used is SPSS package 22.0.

IV. RESULTS AND DISCUSSION

A. Respondents' Demographic Analysis

There were 382 respondents of the questionnaire that all indicated their demographics. The demographic profile such as their gender, age, education level and monthly income has been analyzed and illustrated as shown in the Table I below.

TABLE I. RESPONDENT DEMOGRAPHIC PROFILE

Respondent's Demographic	Percentage (%)
Gender	
Male	47.1%
Female	52.9%
Age	
18-25 years old	59.9%
26-35 years old	9.7%
36-45 years old	9.7%
46-55 years old	12.3%
56 years and above	8.4%
Education	
SPM	30.4%
Diploma	41.6%
Degree	17.3%
Masters	6.5%
PhD	4.2%
Monthly Income	
Less than RM1500	56.3%
RM1600-RM3000	18.3%
RM3100-RM5000	13.1%
RM5100-RM7000	5.2%
RM7100 and above	7.1%

B. Descriptive Analysis

Table II indicates total average mean for independent variables. The highest mean is product attributes with average mean value at 4.17 followed by consumer awareness with mean value 4.16 and environmental knowledge with mean value 4.15. It shown that product attributes are the most dominant factors towards purchase intention of eco-friendly products.

TABLE II. DESCRIPTIVE ANALYSIS

	Number of items	Total Mean	Standard deviation
Consumer Awareness	5	4.16	0.8392
Environmental Knowledge	5	4.15	0.8165
Product Attributes	5	4.17	1.2102

C. Correlation Test

Pearson correlation test were used to examine the relationship between factors (consumer awareness, environmental knowledge, product attributes) and purchase intention towards eco-friendly products. According to the analysis, all the factors are significantly giving impact on consumer purchase intention towards eco-friendly products.

TABLE III. PEARSON'S CORRELATION COEFFICIENTS OF THE STUDY VARIABLES

	PA	CA	EK	PI
Product Attributes	1.00			
Consumer Awareness	0.715**	1.00		
Environmental Knowledge	0.738**	0.889**	1.00	
Purchase Intention	0.688**	0.908**	0.815**	1.00

** Correlation is significant at the *p<.05, **p<.01 level.

PI = Purchase Intention

CA = Consumer Awareness

EK = Environmental Knowledge

PA = Product Attributes

D. Regression Test

In this study, multiple regression analysis is used to provide pattern or relationship between the factors and outcome factor (purchase intention). Table IV, indicates a summary of the results. R Square value is 0.827 and in can be interpreted that 82.7% of the variance in purchase intention of consumers is significantly explained by the independent variables of consumer awareness, environmental knowledge, and product attributes.

TABLE IV. MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.909 ^a	0.827	0.826	1.51122

^a Predictors: (Constant), Consumer Awareness, Environmental Knowledge, Product Attributes

^b Dependent Variable: Purchase Intention towards Eco-friendly Products

The ANOVA table below is indicating the significant value is less than α alpha 0.05 level with value of 0.000. Therefore, hypothesis is accepted.

TABLE V. ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4131.340	3	1377.113	602.998	.000 ^a
Residual	863.267	378	2.284		
Total	4994.607	381			

^a Predictors: (Constant), Consumer Awareness, Environmental Knowledge, Product Attributes

^b Dependent Variable: Purchase Intention towards Eco-friendly Products

Generally, consumer awareness is the most influence independent variable among three variables, the reason is that it has the highest standardized beta coefficients with the value of 0.908. Based on the result of multiple regression analysis in Table VI below, consumer awareness, environmental knowledge, product attributes interpret that there are the significant positive relationship with purchase intention towards eco-friendly products. The reason is that all of their P- value regard with 0.000 which is less than significant value of 0.05.

TABLE VI. RESULT OF MULTIPLE REGRESSION ANALYSIS

Variable	Standardized Coefficient Beta (β)	Sig.
Consumer Awareness	0.908	0.000
Environmental Knowledge	0.815	0.000
Product Attributes	0.688	0.000

Note: *p< .05, **p< .01

The study has shown that consumer's purchase intention towards eco-friendly products has a positive relationship with consumer awareness. The increased consumer awareness about the eco-friendly products made a large number of consumers to boycott non eco-friendly products and the firms after knowing the effects. This is in the same lane as research that are conducted by (Chen and Chai, 2010), (Maniatis, 2015; Tseng & Hung, 2013) and (Rex & Baumann, 2007, p. 567). Thus, many firms are working hard to adopt this eco-friendly concept into their products to target such consumers who were environmentally conscious and were willing to pay more for more eco-friendly products.

Next, there is also a positive relationship between consumer's purchase intention towards eco-friendly products and environmental knowledge. This can happen to both the consumer and the producer of the product itself it's because if consumer are looking for the best product and find out about the benefit it gives to the environment, they might choose the product. Same goes to the firm, they will promote more about environment after knowing that it gives benefits to not just to the environment but to gain profits. This is in sync with past literature from Wang, P., Liu, Q., Qi, Y., (2014) and Huang et al., 2014; Rokicka, (2002).

There is a positive relationship between consumer's purchase intention towards eco-friendly products and product attributes. It is because nowadays attributes such as the features of the product whether they are energy or water efficient, whether they use healthy and nontoxic materials, whether they are made from recycled or renewable sources are also important in sync with how important the product offerings such as value, quality and price. Past research that can relate to this are (Lee et al., 2010), (Napolitano, 2010) and (Bui, 2005).

TABLE VII. TEST OF SIGNIFICANT

Hypothesis	Result	Supported /Rejected
H1: There is a relationship between consumer awareness and purchase intention.	Beta: 0.908	SUPPORTED
H2: There is a relationship between environmental knowledge and purchase intention.	Beta: 0.815	SUPPORTED
H3: There is a relationship between product attributes and purchase intention.	Beta: 0.688	SUPPORTED

V. CONCLUSION

The findings of the research conclude that consumer awareness, environmental knowledge and product attribute can affect the purchase intention of the customers strongly. This study provides insights that these factors could influence the performance of business on eco-friendly products. In conclusion, this study would be able to provide a reference or guideline for industries related to eco-friendly products in strengthening their sustainability in the industry.

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