

## **THE INFLUENCING FACTOR OF PURCHASING ECOLOGICAL PRODUCTS: LET'S THINK GREEN**

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### **Abstract**

This article was intended to examine the factors that influence the purchasing behavior toward ecological product among Universiti Malaysia Kelantan's students. Quantitative approach was selected using 346 respondents (students) from UMK. The questionnaires were distributed and data were analyzed using SPSS. Based on the research that has been conducted, the result shows that among significant factors that influence the purchasing behavior toward ecological products are environment concern, awareness about green product, benefit to user and the not significant factor is awareness about price.

**Keywords:** *Ecological products, environment concern, awareness*

### **1.0 Introduction**

Since 1990s, environmental concern has become one of the most important issues (Ali & Ahmad, 2016; Gutierrez & Seva, 2016). Nowadays, consumer prefers to buy ecological product rather than commercial product. Ecological product has become one of the main concerns among consumer (Boztepe, 2016; Gutierrez & Seva, 2016). Ecological product or also known as green product is those that use recyclable materials, produce with less wastage including water, energy and generate less toxic substance (Francis, et. al 2012). Referring to the definition, many activities have led to the behavior worldwide as prove of environmentally concern. For instance, energy-saving campaign of switching off lights for one designated hour that is known as Earth Hour, reducing the consumption of energy and water and also *No Plastic Bag Day campaign* (Norazah Mohd. Suki, 2013).

The campaign get major support from a lot of consumers which again indicate the changing toward the environmentally concern. Also, starting from the past decade; a new business phenomenon, i.e. the adaptation of environmental concern into corporate practice has been gaining huge popularity (Afzaal Ali & Israr Ahmad, 2012). Since then, many manufacturers are producing ecological product due to increasing demand. According to Nature Marketing Institute reports, more than 200 billion market of Lifestyle, Health and Sustainability (LOHAS) is expected to become double by 2010 and quadruple by the end of 2015 (Afzaal Ali & Israr Ahmad, 2012). LOHAS is the indication of particular market segment related to sustainable living and ecological initiatives. Environmental concern also has received much attention where it replicates the rising public concern and the awareness of people on environmental problems (Adinyra, N., & Gligui, E., 2012).

### **2.0 Problem Statement**

Students are part of the consumers that concern on environmental issues since they are generally exposes with such issues daily. Ironically, even when they realized that certain product is bad for the environment, they still consume the product. On the other hand, ecological product is still not their priority. According to Young et. al. (2009), consumers are aware and concern about

environment issues but still have a hard time to apply it during purchasing decision (Memar, N., & Syed Ayub Ahmed, 2012). Furthermore, it has been identified a significant gap between environmental concern and actual ecological product purchase among consumers (Peattile, K., & Crane, A., 2005). Thus it is suggested that the marketer play an important role in attracting consumers (i.e. students) to purchase ecological product.

### **3.0 Significant of Study**

The outcome of this study are suggested to benefit various parties; 1) to examine the factors that able to attract consumers in purchasing ecological products, 2) to contribute to the body of knowledge on the factors influencing purchasing behavior on ecological products and 3) to benefit the new industry that concern with ecological product on dealing with issues such as consumer awareness and actual purchasing on ecological products.

### **3.1 Research Objective**

- i. To examines the *benefit of user* in influencing behavior toward purchasing ecological product.
- ii. To examines the *environmental concern* in influencing behavior toward purchasing ecological product.
- iii. To examines the *awareness about ecological product* in influencing behavior toward purchasing ecological product.
- iv. To examines the *awareness about price* in influencing behavior toward purchasing ecological product.

### **4.0 Literature Review**

Ecological products are suggested to benefit both the consumers and the Mother Nature since they are naturally processed and produced. Students as part of today's consumer are suggested to buy ecological products as much as their awareness on ecological products. This study suggests the factors of 1) benefit to user, 2) environmental concern, 3) awareness about ecological product and 4) awareness about price that influence the actual purchasing behavior of ecological product.

#### **4.1 Benefit to user**

According to Williams (2014), ecological product can improve health and safety due to it helps reduce airborne chemicals and the formulations. For instance, most of natural skincare product can be applied without harming the skins. As we know most of commercial cosmetic products are actually not natural and chemical based. As the result, the chemical reaction in the product can harm the consumers and lead to major skin diseases such as skin cancer, skin allergic, certain tumor and many more. Wachob (2012) suggests that many producers using harmful chemical substances in developing their cosmetic products. Those chemical substances will affect the consumers if used for a long period.

#### **4.2 Environmental concern**

Environmental concern is related to the interest towards the biophysical environment and the problem related to the consumers and their surroundings (Norazah, 2013). According to Udgirkar, (2014) almost 67% of consumers are likely to buy apparel, personal care, hygiene and household products made from bio-based ingredients that offer environmental benefits. It shows that consumers are in state of awareness about environment and constantly trying to reduce using products that gave negative effects to the environment. Murphy et. al. (1978) suggests that it has been noted by ongoing research that women are more concerned about the environment than men (Norazah, 2013). On the other hand, Barr and Gilg (2006)

found that committed individuals or mainstream environmentalists skewed and put forward a higher importance on environmental issues where they develop a high level of concern and express a personal responsibility and moral obligation to play their role to help the environment. A study conducted by Dunlap and Jones (2002), stated that environmental concern indicates the degree to which people are aware of environment problems and assists struggles to solve the problem. For instance, environmentalist keep trying to minimize the usage of paper bag in order to reduce deforestation and at the same time not using the plastic bag since it is not environmental friendly. Therefore, the best solution is to use the recyclable plastic bag with the aim of protecting the environment.

### 4.3 Awareness about ecological product

Udgirkar (2014) suggests that Indian consumers are more concerned about ecological products compare to other consumers in USA, Canada and China. It is suggested the demographic factor of India which is too saturated made them more aware about ecological product. If the issue of ecological product is not addressed among them, most likely India will face more problems sooner than other countries. Due to this factor, Indian consumers are more understanding about the importance of actually using ecological product. However, other countries like USA also make progress in awareness on ecological product. The study by *Gesellschaft fur Konsumforschung (Society for Consumer Research, May 2012)* in Germany suggested that 73% of American consumers purchase organic product, 93% of them are improving in conserving the energy and 77% of them are improving in conserving the water. Figure 1 shows the comparison of awareness between the year 2005 to 2007. The study conducted by Office of Gas and Electricity Markets in 2007 shows that 62% of British adults agree that British consumers had become more environmentally aware during the previous 12 months.

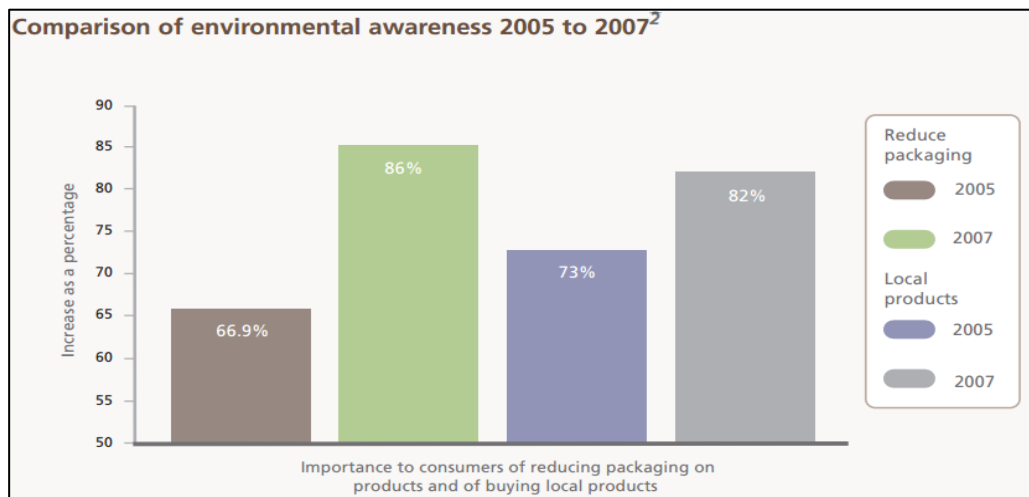


Figure 1: Consumer Attitudes and Awareness of Green Issues and Energy  
(Adapted from OFGEM, September 2008)

### 4.4 Awareness about price

Hansen & Sorenses (1993) contended that consumers' price sensitivity refers to the importance of price in making purchase decision. Blend and van Ravenswaay (1991) cited from D'Souza et al. (2006) stated that consumers are less likely to purchase green products if they are more expensive (Norazah Mohd. Suki, 2013). It shows that environmental concern and awareness is not enough to promote ecological product if the products are relatively high compare to other

commercial products. In contradiction, the study conducted by Dunlap and Scarce (1991) and Lung (2010) show the existence of environmentally conscious consumers among Thais, Malays and Korean. These consumers are willing to pay premium price to purchase ecological product (Norazah 2013). Thus, based on studies conducted, there are two groups of environmental concern consumers; one group is price sensitive and the other group is price insensitive. Therefore, it is suggested that marketers play an important role in determining and influencing consumers to buy ecological product. A study conducted by (Nurul Zarirah Nizam, 2011), suggests that the factors influencing customers' decision to buy ecological product in Malaysia are environmental benefit, benefit to self and comparative cost. Thus, it is suggested that there are a lot of factor that can influence customer to buy ecological product. These factor can use by the marketers to attract consumers to buy ecological product.

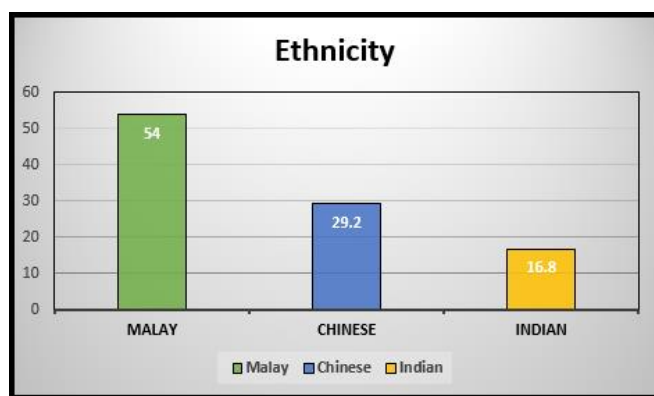
## 5.0 Research Methodology

Causal method was used as the research design as the objective is to obtain evidences regarding cause and effect (causal) relationship on the purchasing behavior toward ecological product among students.

Causal method also can help researcher to determine the nature of the relationship between the causal variables and the effect to be predicted. This study applies convenience sampling technique whereby the researcher develops a set of questionnaire and distribute to all respondent at campus. This study involved the students from Universiti Malaysia Kelantan Kampus Pengkalan Chepa. There are 3,699 students from the variety of course. The questionnaires were divided into six sections namely section A, B, C, D, E and F. For section A, respondents were asked about their personal information. Section B, the benefit of ecological product towards its user, Section C the environmentally concern, section D the awareness toward ecological product, Section E the awareness about ecological price and the last section, Section F on the factors that influence students to buy ecological products. The questionnaire also is attached at the appendix section at the end of the article.

## 6.0 Findings

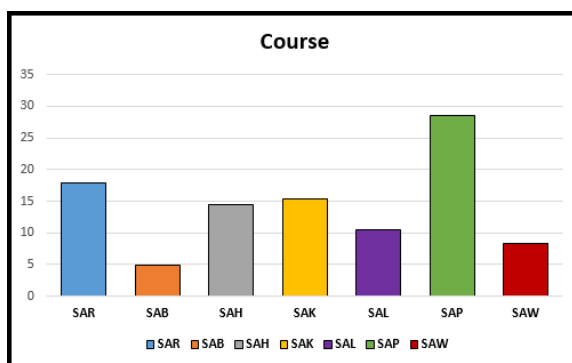
There are 3699 students at Universiti Malaysia Kelantan and 346 respondents have been chosen as sample size. From the 346 respondents, there are 158 are male and 188 are female that answer the questionnaire. For the ethnicity, Malay students contribute 54% followed by Chinese students, 29.2% and Indian students 16.8% as shown in Figure 2.



**Figure 2:** Ethnicity

Figure 3 shows seven courses that are offered by Universiti Malaysia Kelantan such as Bachelor of Entrepreneurship Islamic Banking and Finance (SAB), Bachelor of Entrepreneurship Hospitality (SAH), Bachelor of Entrepreneurship Commerce (SAK), Bachelor of Entrepreneurship

Logistic (SAL), Bachelor of Entrepreneurship Tourism (SAP), Bachelor of Entrepreneurship Retailing (SAR) and Bachelor of Entrepreneurship Health Entrepreneurship (SAW). The highest number of respondents came from SAP which accounted for 99 respondents and followed by SAR, 62 respondents while the lowest was SAB, 17 respondents.



**Figure 3:** Courses offered by UMK

Figure 4 shows that most of the respondents purchased ecological products once in the month and 83 respondents (24%) suggests that they purchased ecological products less than once in the month. It is suggested that the financial condition of students prevent them to purchase more than one item of ecological product for every month



**Figure 4:** Frequency of buying ecological products

## 6.1 Correlation Analysis

Correlation analysis was used to measure the relationship between each variable. Based on the result, it shows that the relationship between environment and intention to buy ecological product is strong which is 79.8% and it significant at 0.01 levels. The relationship between awareness about ecological product and intention to buy ecological product are at 34.3% and it significant at 0.01 levels. Benefit and intention to buy ecological product are significant at 0.05 levels which is 12.6%. However, there is no relationship between price and intention to buy ecological product. Based on independent variable, only awareness about ecological product and awareness about price have a relationship which is 21.8% and it's significant at 0.01 levels.

**Table 1:** Correlation analysis

	Benefit	Environment	Product	Price	Intention
Benefit to User	1				
Environment Concern	-.063	1			
Awareness about Product	-.011	-.078	1		
Awareness about Price	-.037	-.003	.218**	1	
Intention to buy ecological products	.126*	.798**	.343**	.048	1
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					

## 6.2 Regression Analysis

According to table model summary, we can see that 83.7% can be explaining through independent variable and another 16.3% cannot be explained.

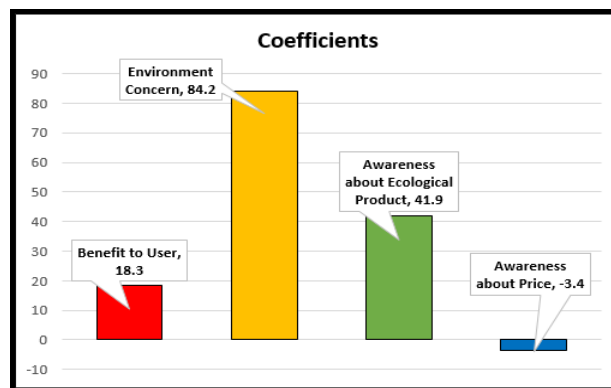
Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915 <sup>a</sup>	.837	.835	.33136
a. Predictors: (Constant), Price, Environment, Benefit, Product				

**Table 3:** Coefficients analysis

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.330	.235		-1.402	.162
	Benefit	.314	.038	.183	8.342	.000
	Environment	.381	.010	.842	38.325	.000
	Product	.387	.021	.419	18.624	.000
	Price	-.025	.016	-.034	-1.538	.125
a. Dependent Variable: Factor						

According to coefficients table, the researcher can summarized that, independent variable such as benefit to user; environment concern and awareness about the product are significant to the .000 level. These factors can be manipulated by marketers to promote their ecological product. On the other hand, the awareness about price are not significant which is  $.125 > p (.005)$ . It suggests that respondents were not willing to pay more even it is ecological products compare to other commercial products.

**Table 4:** Coefficients analysis



Based on the bar chart, it shows the environment concern have a high beta value which gives a strong effect. Second is awareness about ecological products which is 41.9% and followed by benefit to user which is 18.3%. Awareness about price has the lowest beta value which is -3.4%.

## 6.3 Hypothesis Testing Results

### Hypothesis 1: Benefit to user

H<sub>0</sub>: There are no relationship between benefit to user and purchasing behavior towards ecological products.

H<sub>1</sub>: There are relationship between benefit to user and purchasing behavior towards ecological products.

Hence, based on the finding acquired from this study, the hypothesis of  $H_1$  is accepted.

Hypothesis 2: Environment concern

$H_0$ : There are no relationship between environment concern and purchasing behavior towards ecological product.

$H_1$ : There are no relationship between environment concern and purchasing behavior towards ecological product

Hence, based on the finding acquired from this study, the hypothesis of  $H_1$  is accepted.

Hypothesis 3: Awareness about ecological products

$H_0$ : There are no relationship between awareness about ecological product and purchasing behavior towards ecological product.

$H_1$ : There are relationship between awareness about ecological product and purchasing behavior towards ecological product.

Hence, based on the finding acquired from this study, the hypothesis of  $H_1$  is accepted.

Hypothesis 4: Awareness about price

$H_0$ : There are no relationship between awareness about price and purchasing behavior towards ecological product.

$H_1$ : There are relationship between awareness about price and purchasing behavior towards ecological product.

Hence, based on the finding acquired from this study, the hypothesis of  $H_1$  is rejected.

## **7.0 Conclusion**

This brief article actually helps the marketers to gain certain idea on how to sell ecological products. From the findings, the researcher suggested that environment concern, benefit to user and awareness about the product are the reasons consumers (student) to buy ecological products. According to Norazah Mohd Suki (2013) and Junior, Gabriel & de Oliveira Braga (2015), consumers' environmental concerns are related to the interest towards the biophysical environment and its problem related to the consumer and the surroundings. This article shows that, UMK students are very much concern about the environment. Thus, marketers can utilize an advertisement about the ecological products; they can highlight that ecological can save the environment. Marketers also can show the comparison between ecological products and commercial product and how does both effect the environment. This action can educate students and attract them to buy ecological products. Consumer also agrees that ecological products actually give a good benefit to its user. Williams (2014) said that, ecological product can improve health and safety because ecological product actually helps reduce airborne chemicals and the formulations can typically come into minor contact with skin without incident. In this article, it is suggests that respondents are very sensitive about the price. As we know, ecological products usually sold at relatively high price than other commercial products. According to past research, the respondents were willing to pay more for ecological products but for this research, respondent which were students are price sensitive. Their financial are limited and they are not willing to pay more for the ecological products. For marketers, they need to consider this factor. They need to reduce the price of ecological product if the target market is generally students.

Not limited to that, they also can make a promotion or give discount to the students. This action can encourage more youngsters (students) to buy ecological products.



## References

- Ali, A., & Ahmad, I. (2016). Environment friendly products: factors that influence the green purchase intentions of Pakistani consumers. *Pakistan Journal of Engineering, Technology & Science*, 2(1), 84-117.
- Afzaal Ali & Israr Ahmad. (2012). Environment Friendly Products. *Factors that Influence the Green Purchase Intentions of Pakistani Consumers*, 84-109.
- Akter, J. (2012). Consumer Attitude towards Green Marketing in Bangladesh. *ASA University*, 159-162.
- Boztepe, A. (2016). Green marketing and its impact on consumer buying behavior. *European Journal of Economic and Political Studies*, 5(1), 5-21.
- Consumer Attitudes and Awareness of Green Issues and Energy. (2008). *ofgem*, 2-4.
- Francis, W.V.N., Lee, M.Y., Lin, X.R. & Low, S.Y. (2012). A Study of Youth Attitudes toward Purchase Green Products in Malaysia and Singapore. 4-36.
- Gutierrez, A. M. J. A., & Seva, R. R. (2016). Affective Responses in the Purchase of Consumer Eco Products. *DLSU Business & Economics Review*, 25(2), 129-146.
- Junior, S. S. B., da Silva, D., Gabriel, M. L. D., & de Oliveira Braga, W. R. (2015). The Effects of Environmental Concern on Purchase of Green Products in Retail. *Procedia-Social and Behavioral Sciences*, 170, 99-108.
- Noamesi Adinyra & Elliot Gligui (2012). Green Marketing Potential as Assessed from Consumer's Purchasing Behavior : The Case of Ghana. 7-66.
- Norazah Mohd. Suki. (2013). Green Awareness Effects On Consumers' Purchasing Decision : Some Insights From Malaysia. 9, 50-60.
- Noushan Memar & Syed Ayub Ahmed. (2012). Determinants which Influence the Consumers' Green Purchasing Intention. *Malardalen University*, 2 - 53.
- Nurul Zarirah Nizam, N. M. (2011). Factor Influencing Customers' Decision to Buy Green Product Design in Malaysia. *Prosiding Perkem*, 363-365.
- Robert V. Krejcie, D. W. (1970). Determining Sample Size for Research Activities . *Educational and Psychological Measurement*, 607-610.
- Stewart Barr & Andrew Gilg. (2005). Sustainable lifestyle : Framing Environmental Action In and Around the Home. *Geoforum*, 906-920.
- William Young, Kumju Hwang, Seonaidh McDonald & Caroline J. Oates. (2009). *Sustainable Consumption : Green Consumer Behaviour when Purchasing Products*. Wiley Inter Science.