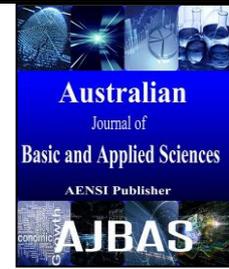




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### Understanding The Effect Of Environmental Studies In Lifestyle By Analyzing The Awareness, Knowledge And Attitudes Of Faculty Of Environmental Studies' Students In UPM Regarding The Consumption Of Eco Label Products

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#### ABSTRACT

Eco labeling can be served as an essential tool for environmental protection and sustainable development. However, it depends too much on consumers' buying power. Thus, it is crucial to study the awareness, knowledge, and attitude of the consumers towards Eco labeling and Eco label products. A number of 250 students from Faculty of Environmental Studies in UPM were selected as the respondents using random sampling method. Descriptive analysis and Spearman's correlation between awareness and attitude, knowledge and attitude, and awareness and knowledge were also used in this study. Results showed that most of the respondents are aware and know about the Eco labeling. However, most of them are restrained from buying the Eco label products due to the money constraints. It also indicated that those correlations have a significant, but with different relations. Relation between awareness and attitude ( $r=0.203$ ) showed a very weak pattern, relation between attitude and knowledge ( $r=0.360$ ) showed a weak pattern, while relation between awareness and knowledge ( $r=0.666$ ) showed a moderate pattern. These significant correlations showed that environmental studies do affect the Faculty of Environmental Studies students' lifestyle for better environmental protection and sustainable development.

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#### INTRODUCTION

Eco labeling can be served as an essential tool for protecting the environment and promoting sustainable development, in terms of encouraging sound environmental practices, and in identifying and establishing markets in domestic and international, as an environmentally preferable products (DC Geneva, Switzerland, 2005). Eco Labeling can give positive impacts towards environment and human being as comply with Eco labeling objectives; focusing on environmental protection, environmentally sound innovation and leadership encouragement, and building consumer awareness of environmental issues (General Eco Labeling Network, 2004). Due to that, Eco labeling should be deeply implied for more consumption of Eco label products. However, the consumption and effectiveness of Eco labeling and Eco label products

depends too much on consumers, as Eco Labeling are used for products and services (purchase and use).

According to previous studies, consumers' purchase decision is based on how they perceive the label information, and environmental concern. However, environmental concern is a weak influence's factor in consumers' purchase decision. Moreover, there are complains about the ambiguous meaning of Eco labels from consumers (Lien, Q.N. and D. Qian, 2010). All these scenarios showed that consumer's awareness, knowledge, and attitude towards Eco labeling can be considered as the main obstacles for the effectiveness of Eco Labeling and Eco label products' implementation. Furthermore, there is only a few of researches taking Eco-label itself as a subject (Lien, Q.N. and D. Qian, 2010).

Therefore, a study on understanding the effect of environmental studies in lifestyle regarding the consumption of eco label products among Faculty of Environmental Studies' students is more than

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necessary. As the respondents are considered as the potential customers for the Eco label products, this study might reflect some similarity part of other customers, for better understanding the concept of awareness, knowledge, and attitude towards Eco labeling and Eco label products. Furthermore, it can serve as a test for environmental students, on their attitude grid behavior towards Mother Nature.

### Methodology:

A survey research was carried out at Faculty of Environmental Studies in Universiti Putra Malaysia (UPM) to obtain the information on understanding the effect of environmental studies in lifestyle by analyzing the awareness, knowledge and attitudes of Faculty of Environmental Studies' students in UPM regarding the consumption of eco label products. The survey was conducted by using convenience sampling method with a related number of 20 respondents for pilot study, and 250 respondents for the real survey, using random sampling method.

In order to determine the sample size for this study, Krejcie and Morgan table was being referred. Based on the table, a number of 191 respondents from a population size of 375 students were selected. However, the number of respondents was increased to a number of 250 respondents, for the larger the sample size, the better, since it is closer to the total population size (Krejcie, R.V. and D.W. Morgan, 1970). Questionnaires survey forms were used as the research instrument with total of four components of Part A (demographic), Part B (awareness), Part C (knowledge), and Part D (attitudes).

Pilot study is a crucial element of a good study design to test the reliability and validity of the questionnaires for a better study as it gives advance warning about where the main research project could fail, where research protocols may not be followed,

or whether proposed methods or instruments are inappropriate or too complicated. There are three reliability tests that had been conducted in this pilot study to finally achieve the Cronbach Alpha reading of 0.671, which is more than 0.65 for the item to be applicable to be used in this study.

Descriptive analysis and Spearman's correlation were used in this study as the survey analysis's method. Descriptive analysis was used to answer the first research question; how far Faculty of Environmental Studies' students understand about the Eco label products and their knowledge about it. Descriptive statistics provide important information about variables to be analyzed like mean, median, and mode measure central tendency of a variable (Hun, M.P., 2008). However, this study only done by using mean and percentage to answer research question number one. It is enough as long as the research question has been answered.

Meanwhile, Spearman's correlation was used to answer the second research question; are there correlation between Faculty of Environmental Studies' students' awareness, knowledge and attitude towards the Eco label products. Spearman's correlation coefficient is a statistical measure of the strength of a monotonic relationship between paired data. The more it is closer to 1.00, the stronger the correlation is, and at 0.00, it will indicates that no correlation is involved.

## RESULTS AND DISCUSSION

### (i) Descriptive Analysis:

Table 1 shows the accumulated mean and percentage of 3 variables on the understanding and knowledge of Faculty of Environmental Studies' students about the Eco label products.

**Table 1:** Accumulated Mean and Percentage for Awareness, Knowledge, and Attitudes

Part	Description	Mean	Percentage (%)
B	The Students' Awareness towards Eco Label Products	26.35	67.56
C	The Students' Knowledge towards Eco Label Products	23.75	67.86
D	Attitudes of Students towards Eco Label Products	30.39	60.78

Part C gives the most significant result with 67.86%. Followed by Part B with 67.56%, and lastly is Part D with 60.78%. This indicates that respondents know about the Eco label products, however with an average level of knowledge on Eco label products as most of them recognized the Eco label logo, but they cannot differentiate between Eco label products and Organic label products. The respondents also are not quite aware about the existing of these products as there are fewer advertisements on Eco label products in media. Lastly, the result also indicates that the respondents are not quite purchasing these products in their

lifestyle as most of them emphasize more on the price of Eco label products. They care about the environment and know the benefits on consuming Eco label products, however since the respondents are students, money constraints are the main issue to buy the Eco label products.

### (ii) Spearman's Correlation:

Table 2 shows the correlation between awareness and attitude, attitude and knowledge, and awareness and knowledge of the respondents towards Eco label products.

**Table 2:** Correlation between Awareness, Knowledge and Attitude

Correlations			Awareness	Attitude	Knowledge
Spearman's rho	Awareness	Correlation Coefficient	1.000	.203**	.666**
		Sig. (2-tailed)	.	.001	.000
		N	250	250	250
	Attitude	Correlation Coefficient	.203**	1.000	.360**
		Sig. (2-tailed)	.001	.	.000
		N	250	250	250
	Knowledge	Correlation Coefficient	.666**	.360**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	250	250	250

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Correlation between awareness and attitude is 0.203, which shows a very weak relationship. Meanwhile, correlation between attitude and knowledge is 0.360 with a weak relationship. Lastly, correlation between awareness and knowledge is 0.666, which shows a moderate relationship. This indicates that all of those three correlations are significant even though with difference level of relationship. In other words, every pair of correlations is significant at different levels of significances as the strength of correlation is based on the size of the correlation coefficient ( $r$ ).

#### Summary:

Based on the results, descriptive analysis for awareness is 67.56%, and the correlation between knowledge and awareness is the highest with 0.666. The respondent know about the Eco label products but not quite aware about it since there are less environmental information of products in market same goes as a number of studies report that consumers declare a need for more environmental information, in general, to be able to make greener product choices (Armila, M. and N. Kähkönen, 1997; Niva, M., E. Heiskanen and P. Timonen, 1996).

Attitude shows the lowest percentage with 60.78 % and the correlation between attitude and awareness is in the weakest state with 0.203 as money constraints are the main issue to buy the Eco label products. So, to sum up, attitudes, as opposed to knowledge and awareness, is the most significant predictor of consumers' willingness to pay more for ecologically favorable products (Laroche, M., *et al.*, 2001).

In terms of knowledge on Eco label products, it shows the highest result with 67.86% and the correlation between knowledge and attitudes is moderate with 0.360. From the results, we can conclude that there is a significant relationship between knowledge and human behavior which complies with this statement of "Knowledge is commonly seen as a necessary precondition for a person's behavior" (Frick, J., *et al.*, 2004). Besides that, the importance of knowledge and the impact of lack of knowledge in the decision-making process

have been demonstrated in numerous studies (Laroche, M., *et al.*, 2001; Verdugo, C.V., 1996; Oskamp, S., *et al.*, 1991).

All in all, even the correlation between all elements (awareness, attitudes, knowledge) in this study is not high, but there are significant correlation between elements involves in this study.

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