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Youth Perception towards Green Credential Advertisements in a Malaysian context

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Abstract

Protection of environment is increasingly becoming a major concern not only for governments but also consumers. Today, informed consumers are very discerning about spending their money on brands/manufacturers that are perceived as environment friendly. Objective of this study is to explore the effectiveness of incorporating green credentials of brands/manufactures into advertisements. The study explored the motivation and willingness of Malaysian youths to patronize brands/manufacturers who advertise their green credentials. A total of 550 questionnaires were distributed and of which 384 samples examined from the targeted group youths from 18 years to 29 years old. Analysis of the results showed that out of five predictors that were tested, three namely information provision policy, sources of informal environmental education and intrinsic motivation clearly showed significant positive relationship on the willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential. Environmental concern and financial incentives did not show any significant relationship. Research showed that Malaysian youth as having a positive response towards eco-label brands/products.

Keywords: - Green credential, information provision policy, sources of informal environmental education intrinsic motivation, Environmental concern and financial incentives

1.0 Introduction

Societies in their quest to quench their insatiable thirst for wealth and economic success are guilty of neglecting the very environment that sustains them. Today's issues involving the sorry fate of the environment are hotly debated from the corridors of power of nations to the man on the street. The environmental Armageddon faced by the world particularly for the quarter of the 20th century often hits the news headlines. Armed with awareness on the rapid and continuous *deterioration* of the environment, Green Movements from various hues are increasingly voicing their discontent. According to Grunert (1993) conspicuous consumption culture and related business activities contributes up to 40 percent to the environmental degradation. Thus many stakeholders including businesses, governments and people are taking note and realigning their modus-operandi to emphasize wellbeing of environment in general. Hence, consumer groups are spearheading "Green Revolution" around the world to ensure stakeholders particularly businesses to take a responsibility over environmental in their operations.

Businesses are also seemingly coming to an understanding economic gain at the expense of environment is ephemeral. Advance and ever growing awareness of the environmental issues culminated in discerning consumers mostly from western developed countries to shun products or services offered by organizations that are seen as less responsible towards the environment.

Forward looking businesses on their part are increasingly incorporating green credentials to attract customers. Today a business's "green credentials" are deployed as a marketing tool encompassing corporate social responsibilities (CSR) to appeal to the ever growing segment of environmentally conscious consumers. An effective use of a business's green credentials could be a winning strategy against competitor in a fiercely competitive market. One such example is camera manufacturer Canon through its advert in National Geographic Magazine – highlighting its commitment to safeguarding the environment.

While consumers contribution or role towards environment are hotly debated in advanced countries particularly in the Western Hemisphere and Japan, the rest of the world including developing nations such Malaysia is still lacking. However, recent socio-economic advancement in Malaysia may have aligned Malaysian consumers along with their counter-parts in the West and Japan. This development in Malaysia could have been spearheaded by its youths. As youths are known to be more flexible than their earlier generations in their habits and as the closest inheritors of the earth they are expected to play a crucial role in protecting the environment.

2.1 Review of the Literature

2.1.1 Green Credential

Empirical studies supported the effects of guilt appeal on green advertising effectiveness. Participants were found to have more favorable attitudes towards the green advertisement and advertised brand when exposed to a low guilt advertisement when compared to a high guilt advertisement. Among three guilt-induced feelings, self-conscious emotion and angry-

irritated emotion were found to moderate consumers' attitudes towards the green advertisement and the advertised brand (Jiménez & Yang, 2008).
Bjørner et al (2004) have found out that consumers are more willing to pay for the certified environmental label of 13-18% of the price for green products. Furthermore, there are a growing number of customers willing to pay a premium price for green products ranged from organic foods to energy-efficient appliances (Ginsberg & Bloom, 2004). Consumers who would intentionally buy green products with strong green claims due to environmental concerns are older; who do not perceive that green products are low in quality and agree green consumption could help improve environmental quality; are more likely to pay more for green products (Tsay, 2009).
Research shows that consumers, who have more proactive environmental behavior, will have better or favorable attitudes toward green advertising. Result also shows that green advertising will be the best methods to reach those who already practice green behaviors (Haytko & Matulich (2008). Besides, consumers who respond to the green advertising and production may be due to loyalty to a particular brand or product as they are more willing to pay higher prices and they have the perception that the product is safe (Mefford ,2011).

2.1.2 Information Provision Policy

In 1996 Standards and Industrial Research Institute of Malaysia (SIRIM) launched the national eco-labeling program verifying products according to environmental criteria such as Environmentally Degradable, Non-toxic Plastic Packaging Materials, Hazardous Metal-Free Electrical and Electronic Equipments, Biodegradable Cleaning Agents and Recycled Paper. A sound eco-label program would look at the entire life cycle of the product including production, distribution, use and disposal (Nik Abdul Rashid, 2009).

Malaysian government through the Malaysian Energy Commission has established an energy labeling scheme for household appliances to assist and promote energy efficiency in line with national policies. The Commission follows a precedent set by Western nation whereby a “Five Star” rating is used to discriminate the energy efficiency of the electrical appliances. The most efficient product will be accorded a five star label so to assist customers to make a more informed purchase decision. Energy efficiency rating label could help customers spend less resources while being “Green”

Teisl et al (2002) provided market-based proof that consumers could respond optimistically to eco-labels and therefore contributed to the increased market share of the green products. Besides, information about environmental impact whether positive or negative that are provided by eco-labels did influence product preference, especially those having strong concern for the environment (Grankvist, Dahlstrand, & Biel, 2004).

A study by Loureiro and Lotade in 2005 has found that consumers who are more willing to pay higher premium for eco-labeled products are normally living in much developed countries. Anderson and Hansen (2004) also proved that consumer preferences for eco-labeled products are more than the product without eco-label when both of them are priced at same level.

Fujii (2007) suggested that educating public on environmental concern and having a positive attitude towards frugality would be an effective way of promoting pro-environmental behavior. As such electrical appliance manufacturers could stimulate more awareness from

the consumers by developing environmental concern among the public and promoting the positive impact of frugality.

2.1.3 Financial Incentive

Power generation namely electricity using renewable resources is an option that is taken seriously by the power generation industry. However, considering the current state of technology, the cost of production of green electricity is costly, thus government needs to take visible action to compensate for the high cost of production (Yoo & Kwak, 2009).

To overcome these barriers, financial incentives and technical support are needed to encourage public and commercial entities to install renewable energy for private or commercial use. The government has established Sustainable Energy Development Authority of Malaysia (SEDA) a statutory body formed under the Sustainable Energy Development Authority Act 2011 [Act 726]. SEDA plays an important role to advice government ministries and agencies on matters of renewable energy.

There is a great potential for operating a large scale of Photovoltaic (PV) Solar power plants in Malaysia. Recently the government with the advice of Sustainable Energy Development Authority of Malaysia (SEDA) instituted a Renewable Energy law and successfully established a feed-in-tariff (FIT). FIT would enable consumers who deploy Solar panel to generate electricity to sell their excess electricity to the national power grid.

Consumers are normally heterogeneous; some of them may be guided by intrinsic motivation and some of them may be guided by extrinsic motivation. Financial scheme like tax exemption, tax rebate or subsidies are more attractive for the extrinsically-motivated consumers (Coad, de Haan, & Woersdorfer, 2009).It must be also highlighted that governments' support is crucial in determining the programs' credibility, financial stability and long term viability (Banerjee & Solomon, 2003).

In Malaysia, several initiatives are introduced by the government to promote green technology and products. As an example, on 21 May 2009, the government has launched the Green Building Index (GBI) which serves as a green rating index on buildings. Owners of residential property and buildings awarded GBI certificates that was bought from real property developers are eligible for stamp duty on instruments of transfer of ownership of such buildings. Owners will also be given tax exemption equivalent to 100% of the additional capital expenditure incurred to obtain the GBI certificate ("Budget 2010", 2009). Another initiative is to provide rebates to those consumers who purchased 5 star rating on energy efficient appliances.

2.1.4 Sources of Informal Environmental Education

Informal education can also be defined as the lifelong process by which every individual acquires and accumulates knowledge, attitudes, skills and insights from daily experiences and exposure to the environment – at work, at home, at play: from the example and attitude of friends and families; from travel, reading newspapers, magazines and books; or by listening to the radio or viewing television.

Environmental education is defined in Tbilisi Declaration (UNESCO, 1978) as the learning process necessary to improve the awareness and the knowledge on the environmental issues. It also develops skills and experiences needed to address properly the resolution of environmental problems. It as well promotes attitudes and commitments either to make decisions based on reliable information or to implement action plans in a responsible way ("Environmental Education for Sustainable Development", 1995-2009). Environmental education is also multidisciplinary in nature. It involves learning and developing knowledge, awareness, attitudes, skills and values. This enables society to contribute more efforts to maintaining and improving the quality of their surroundings (Chaudhry & Tewari, 2010). Then, most of the environmental learning is not acquired in school, but outside of school through free-choice learning experiences where the learner exercises a large degree of choice and control over the when, what, why of learning that plays a major role in lifelong learning (Falk, 2005).

There are 5 sources of informal environmental education: government, non-government organization, educational institutions, individuals and business entity that have a significant relationship with the green consumption behaviour. They could be an accurate forecaster of the extent to which the consumers engage in green consumption behaviour, whether consumers are non-users, light users, moderate users or heavy users of green products (Pearcy, 2010). This can be further supported by Ballantyne and Packer (2005) who stated that informal educational settings can promote environmentally sustainable attitudes and behaviour.

2.1.4.1 Individual

Influence from reference group, family learning among the family members and discussions among the friends can be the sources of individual in informal environmental education. People are easy to be influenced by others and or likely to imitate the others when they believe the results from others are able to satisfy the consumers (Janssen & Jager, 2002). So reference group is one of the sources that able to educate someone to become green and environmental conscious people. Reference groups, therefore, are important when the mode of consumer choice is imitation or social comparison (Welsch & Kuhling, 2009).

Besides, the family is also one of the important sources in informal environmental education A positive attitude toward frugality would be an effective means of promoting pro-environmental behaviour and this may help to cultivate the children to become environmental conscious (Wilke, 1991). Friends are also the other important sources, because people spend most of the time with friends besides family members, so friends also playing an important role in influencing and educating people to become green.

2.1.4.2 Business Entity

Researches have shown that consumers do care about organizations' ethics and will adjust their purchasing behaviour accordingly (Creyer & Ross Jr, 1997). It has been shown that older people share a sense of moral responsibility in their purchase behaviour and they would be a significant force in the consumers' resistance movements in broader ethical purchasing activities (Carrigan, Szmigin, & Wright, 2004). Boulstridge and Carrigan (2000) supported that positive consumer purchasing in return for responsible marketing.

If the business entities intend to attract the consumers to have a try on their products, they need to let the consumers aware of their green products by establishing a communication between the business entities and the consumers through the marketing activities like advertising, promotion, public relation and so on.

2.1.4.3 Government

In 2011, the Penang State Government implemented a state wide campaign to reduce plastic bag consumption which was later adopted by the Federal government. Later, the campaign was adapted by other Malaysian State governments. Currently, the campaign has morphed into various other campaigns designed to protect the environment by encouraging "Green Habit" to the Malaysians.

2.1.4.4 Non Government Organizations (NGO)

Non-government organizations can be Malaysian Environmental NGO like Malaysian Nature Society or newspaper publisher (Sin Chew Daily, The Star, and New Strait Times) or broadcasting network. The *Environmental Education* unit of Malaysian Nature Society works towards raising public awareness, with an emphasis among school children through hands-on experience and project involvement. They have as well established School Nature Clubs in collaboration with the Ministry of Education, across the country, where children could learn about the importance of the environment and nature conservation ("Introducing MNS", 2006). Pro-environmental change is more likely to endure in the long term if it is driven by the meaningful and significant experience whereas behaviour that is changed accordingly to the regulations or incentives, it is more likely to be temporary and prone to revert back to old habits (Maiteny, 2002).

2.1.4.5 Educational Institutions

Educational institutions like primary school, secondary school could launch some environmental education programs to the students on the outskirts in order to let them learn something beyond the bound of the classrooms. Ballantyne, Fien and Packer (2001) found out that environmental education program could successfully engage students in thinking and learning about environmental issues. Further, Ballantyne, Connell, and Fien (1998) also mentioned that school environmental education programs can potentially reach a wider audience other than the student population through the process of intergenerational influence. This is because some of the environmental education activities encourage students to discuss with their parents and other adults in the community.

2.1.5 Environmental Concern

Environmental concern can be considered as an environmental attitude and the attitude is formed by three components. They are cognitive, affective and conative dimensions whereas attitudes are sometimes narrowed down to the affective component involving an emotional and an evaluative element (Dunlap & Jones, 2002).

Cognitive attitudes consist of beliefs and norms and it is logical to assume a positive relationship between cognitive and affective attitudes but this is not always the case (András, 2007). For example, some might aware of the Australian sand storm issue but they might not be interested in the fate of people there. The results of the empirical studies of Sjöberg (1998) confirm this view. This shows that there is a weak correlation between the cognitive and

affective attitude. Although there is a strong cognitive attribute, a weak affective attitude will weaken the predisposition to the behaviour.

A positive correlation could be assumed between the affective component and conative component and is likely stronger than that between cognitive and affective attitudes. However, the pro-environmental behaviour sometimes is independent of the environmental concern (András, 2007). For example, a person who is more frugal will buy energy efficient product because of the amount of money he or she can save and not because of the environmental concern attitude they have.

However, it is not enough to define environmental concern simply as affective environmental attitude because it is only subset of environmental attitudes. Therefore, the environmental concern means that (1) the worry, fear, sadness, etc. felt towards environmental problems or risks as attitude objects, (2) the pity, sympathy, etc. felt about those affected by environmental problems as attitude objects, and (3) the contempt, guilt, anger, outrage, etc. felt towards those causing environmental problems or towards their actions as attitude objects, or about the situations caused by them as attitude objects (András, 2007).

The rise of global warming and deforestation that lead to damage of natural environment have led many to focus more on environmental concern. Environmental concern, with all the debate over its nature and definition, has typically been related with variables such as age, gender, income, education, urbanity, and political ideology (Guagnano & Markee, 1995; Scott & Willis, 1994; Stern, Dietz, & Kalof, 1993). Environmental concern indicates “the degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution” (Dunlap & Jones, 2002). There are four areas of environmental concern issues; are water, air, waste and land pollution and climate change issues.

2.1.6 Intrinsic motivation

Frey and Stutzer (2006) found that individuals are driven by altruism, social norms, internalized norms and intrinsic motivation, to define the linkage between the environmental morale and motivation.

First, altruism is a personal norm and social behaviour in which an individual gives primary consideration to the interest and welfare of other individuals, member of groups or the community as a whole. Studies by Stern, Dietz, & Kalof, (1993) examined the social altruism (concern for the welfare of others), and biospheric altruism (a concern for the non-human elements of the environment) play an important role in influencing consumers’ green behaviour, they believe that individual and other social actor have obligation to alleviate environmental problems. According to Schwartz (1977), theory of altruism suggests that consumer is more likely to have pro-environmental behaviour when they are aware of the consequences of the environment to others and ascribe responsibility for environment changing. By recognizing the seriousness of ecological problems; people have become more ecological conscious. This ecological awareness has led an increasing number of individuals toward environmentally friendly behaviours in their everyday lives (Kalafatis, Pollard, East, & Tsogas, 1999) and (Laroche, Bergeron, & Barbaro-Forleo, 2001).

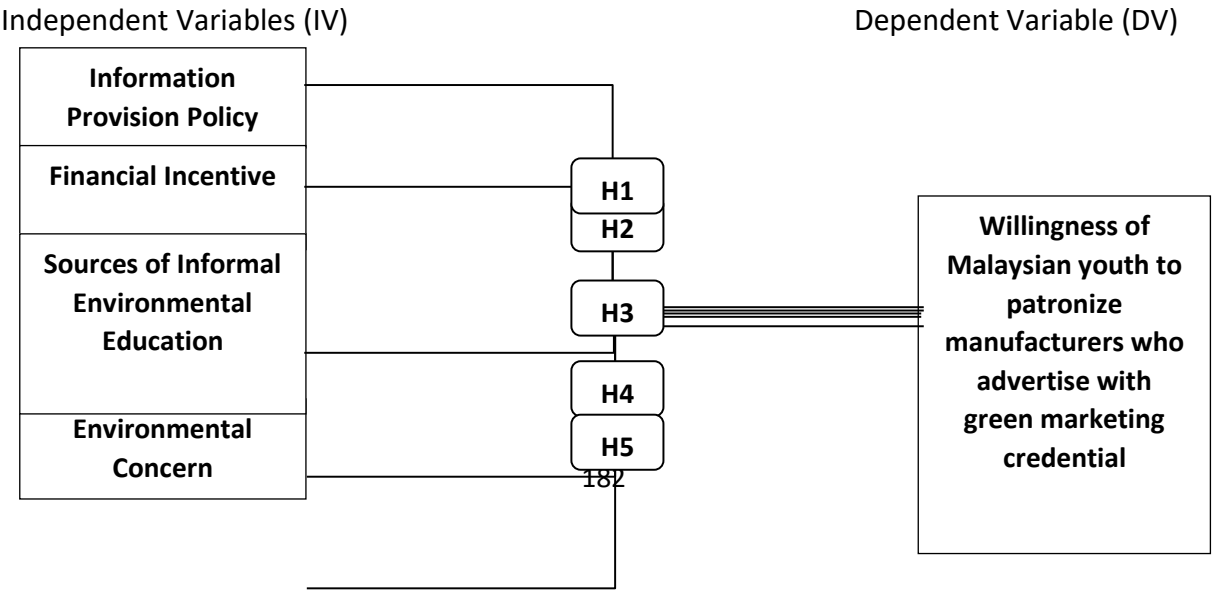
Second, social norms are the socially shared beliefs concerning individual behaviour and the sanctions come from the society members whereas with the internalized norms, individuals sanction themselves. Benabou and Tirole (2006) showed that theoretical importance of social reputation in the degree of altruism. The intrinsic motivation scheme is used to test the achievement of an activity for the welfare it induces in itself. For example, the purchase fresh milk with the bio-degradable label as packaging, the intrinsic motivation corresponds to the satisfaction derived from the bio-degradable label. Therefore, green demand increases with the degree of altruism. According to Dorothee Brecard (2009) the determinants of green product consumption is because of the intrinsic motivation from altruism, social norms, education and economic constraints as income.

On the part of social environmental issue, Schwartz's (1977) mentions that pro-environmental behaviour has been conceptualized as altruistic, on the other hand, theoretical of altruism has been extended into the environmental field (Hopper & Nielsen, 1991; Widegren, 1998). Schwartz (1977) founds that personal norms and altruistic values are important to impel individuals to act in ways to support social movement goals, claim that the social movements is unlike pure self-interest groups, they are more concern about welfare of other rather than self-interest. The theory holds that pro-environmental actions occur due to personal moral norms towards positive actions and who believe that degraded environmental conditions will threat other people or the biosphere. The other moral obligation or personal norm has also been shown to be important as the basis for a pro-environmental behavioural disposition (Stern, 2000).

Another researches also showed that consumers who prefer to use green electricity tend to have a pro-environmental orientation, and are orientated towards altruistic values (Rowlands, Scott, & Parker, 2003). These findings imply that consumers who have altruistic value are more likely to patronize green manufacture. Empirical evidences show that personal norms can contribute pro-environmental behaviours such as 'green' consumerism (Thøgersen, 1999), this attitude can be contributed the consumer willingness to buy the green products.

2.2 Conceptual Framework

Figure 2.1: Conceptual Framework



Intrinsic Motivation

Sc he research

As one of the component of Promotion, advertising plays a crucial role in building awareness of a product or services including convincing consumers to commit to a particular brand or product. Based on our research on available literature, there are five factors that can influence the willingness of the Malaysian youth to patronize manufacturers who claim that they are green. These factors are a) environmental concern, b) intrinsic motivation, c) information provision policy, d) financial incentive, and e) sources of informal environmental education.

3.0 Methodology

The study seeks to investigate the relationship between information provision policies, financial incentives, sources of informal environmental education; environmental concern and intrinsic motivation with the willingness of Malaysian youth in consider patronizing the manufacturers who advertise their green marketing credentials. This study was carried out among the Malaysian youth, and the main analysis tools used in this research to test the hypothesis generated are reliability test, Pearson correlation analysis, and multiple regression analysis.

3.1 Research Design

3.1.1 Target Population

Our target populations are Malaysian youth who fall in the age between 18 to 29 years old. These groups are easily influenced by the social trends, so they might be the faster and keener to adapt green products or services and generally more aware about the importance of being green.

3.1.2 Sample Size

384 respondents participated in our marketing survey research questionnaire from all over Malaysia.

3.1.3 Sampling Design

The sampling method used is non-probability judgment sampling. This means selecting the units from population for the study based on the population's parameters. This method is applied by using our own judgment to select appropriate sample or target respondent. The research also used quantitative technique, which involved the use of structured questions in which response options have been predetermined. Therefore, the measurements are objective, quantitative and statistically valid. Statically Package for Social Science (SPSS) is used in order to get the result that can be measured in numerical form.

3.1.4 Data Collection Method and Measurement Scales.

Both primary and secondary data were used to collect the data. 9 points Likert scales were used to measure the primary date.

3.1.6.2 Questionnaire Layout

The questionnaire is designed using "closed-ended" questions, whereby respondents have limited alternative responses and are required to choose the one closest to his or her viewpoint.

3.2.2 Reliability Test Analysis

Reliability test is conducted to ensure the consistency or stability of the item based on the respondent feedback. The relationship between individual items in the scale can also be determined significantly. Thus, we can determine whether the items in the questionnaires are related to each other or not. The Cronbach's Alpha test is used to analyze the reliability of the instruments. According to Nunnally (1967), for internal consistency, the minimal acceptable level of reliability coefficient should not be below 0.5. If the Cronbach's Alpha Value is less than 0.50, item measuring the independent and dependent variable will be deleted one by one in order to increase the reliability to acceptable level which is above 0.50.

3.2.3 Multiple Regression Analysis

Multiple regression analysis is conducted in this study to analyze the relationship between single dependent (criterion) variable and several independent (predictor) variables (Pallant, 2007). It is used to find out the coefficients of the linear equation which consists of more than one independent variable. This analysis is conducted in a way to determine which of the independent variables (predictors) that contribute the most for single dependent variable that is the patronizing green manufacturers with green credential. The equation of the straight line for the model is:

$$Y= \beta o+ \beta 1\ x1+ \beta 2\ x2+.....+ \beta n\ xn+ \varepsilon$$

Correlation coefficient shows the value of un-standardized, (β), standardized coefficient (Beta), F-value, R, Coefficient of Determination (R^2), and the adjusted R^2 so that the model will be a good descriptor of the relationship by looking at the collinearity diagnostic in which the condition index must not exceed the cut-off point of 0.30 that means a serious problem.

4.0 Results and Discussion

4.1 Normality Data Analysis

On the other hand, we have referred the alternative assumption of normality at the normality probability plots, where most of the points fall roughly near on the linear line. Since the data are approaching to normal, skewed values are within -2 and +2, and kurtosis values are within -3 and +3, so the normality assumption is met (Refer to Appendix 1.2).

4.2 Reliability Analysis

The inter-item consistency reliability or the Cronbach's Alpha reliability coefficients of the independent and dependent variables are obtained. The range between 0 and 1 for Cronbach's Alpha coefficients can be used to reflect the reliability of the data. The Cronbach's

Alpha value for the five independent variables and dependent variable are all above 0.50 that meets the minimum acceptable value that is proposed by Nunnally.

The highest reliability scored by the information provision policy at 0.742 Cronbach's Alpha value, followed by the financial incentive at 0.695, informal environmental education at 0.789, environmental concern at 0.672. The dependent variable, willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential scores the value at 0.757. However, the lowest reliability scored by the intrinsic motivation at 0.703.

Table 4.3: Reliability Coefficient for the Independent and Dependent Variables

Variables	**Cronbach's Alpha Value**
Independent Variables	
Information Provision Policy	0.742
Financial Incentive	0.695
Informal Environmental Education	0.789
Environmental Concern	0.672
Intrinsic Motivation	0.703
Dependent Variables	
Willingness of Malaysian Youth to Patronize Manufacturers who advertise with Green Credential	0.757

Source: Developed for the research

4.4 Regression Analysis

4.4.1 Factors that Lead to Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise with Green Marketing Credential

Multiple Linear Regression analysis is used to forecast factors (independent variables) that contribute most or best value to willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential. Enter Method is normally adopted since it is the simplest method in examining the linear regression equation analysis with only a single step. The equation of the straight line for multiple linear regression models is shown as below:

$$Y = \beta 0 + \beta 1\, X1 + \beta 2\, X2 + \beta 3\, X3 + \beta 4\, X4 + \beta 5\, X5 + \varepsilon$$

Whereby

Y = Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise With Green Marketing Credential
X1 = Information Provision Policy
X2 = Financial Incentive
X3 = Sources of Informal Environmental Education
X4 = Environmental Concern

X5 = Intrinsic Motivation
ε = error

4.4.1 Results for Regression Analysis

A Multiple Linear Regression analysis has been conducted to predict the best set of predictors that contribute most to the criterion, willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential (Y), so that we propose a multiple linear regression model that includes five independent variables (predictors). The five predictor variables are information provision policy (X1), financial incentive (X2), sources of informal environmental education (X3), environmental concern (X4), and intrinsic motivation (X5). The equation of the proposed multiple linear regression models is computed as below:

Y (Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise with Green Marketing Credential)
$= \beta 0 + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \beta 4\ X4 + \beta 5\ X5 + \varepsilon$
Whereby

Y = Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise With Green Marketing Credential
X1 = Information Provision Policy
X2 = Financial Incentive
X3 = Sources of Informal Environmental Education
X4 = Environmental Concern
X5 = Intrinsic Motivation
ε = error

Enter regression method has been used here to find out the best predictors in predicting the willingness of Malaysian youth to patronize manufacturers who advertise with green credential. By using the Enter method, only three predictors are found having significant positive relationship with the willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.

The analysis indicates that there are three predictors that have greatly significant results in explaining the variation in willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential. The predictors are information provision policy (X1) with (p= 0.000, t-value= 3.876, Beta= 0.280), sources of informal environmental education (X3) with the (p= 0.000, t-value= 4.351, Beta= 0.343) and intrinsic motivation (X5) with the (p = 0.000, t-value= 4.026, Beta= 0.319). This is due to the significant value possessed by each of the factors are much smaller than the alpha value of 0.05. Yet, there are two variables have been excluded since their p-value is exceeding 0.05 that do not contribute to the variation of the dependent variable in a significant way. They are financial incentive (t= -1.892, p= 0.06) and environmental concern (t= -0.018, p= 0.986) since these two predictors do not contribute much towards the variation in the dependent variable (willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential). The estimated coefficient of the model is shown as below:

Table 4.5: Unstandardized Regression Coefficient

Constant, β0	.674
Information Provision Policy, β1	.280
Financial Incentive, β2	-.101
Informal Environmental Education, β3	.343
Environmental Concern, β4	-.001
Intrinsic Motivation, β5	.319

Source: Developed for the research

Therefore, the actual Multiple Linear Regression Equation is shown as below:

Y (Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise with Green Marketing Credential)
= 0.674 + 0.280 (X1) + 0.343 (X3) + 0.319 (X5) + ε

Whereby,
Y= Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise with Green Marketing Credential
X1= Information Provision Policy
X3= Informal Environmental Education
X5= Intrinsic Motivation
ε = error

The R-squared, 0.410 implies that the three predictor variables are able to explain about 41% of the variance or variation in willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential. This is a good and reputable result. On the other hand, the ANOVA table discovered that the F-statistics (26.941) is large and the equivalent p-value is greatly significant (0.000) and lower than the alpha value of 0.05 as well. This implies that the slope of the estimated linear regression model line is definitely not equal to zero giving confidence that there is a linear relationship between the willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential and the

other three predictors (information provision policy, sources of informal environmental education, intrinsic motivation).

Regarding the predictors, there is not much problem among them since the value variance proportion pairs do not exceed 0.9. Furthermore, none of the tolerance value smaller than 0.10 and VIF statistics is above than 10.0 (Refer to Appendix 1.6). Therefore, this shows that there is no serious multicollinearity problem among the predictor variables of the regression model. Since there is no problem exist between the predictors included in the final model and the assumptions of normality, equality of variance and linearity are all met, hence, it is rational to bring to a close that the estimated multiple linear regression model to explain willingness to patronize manufacturers who advertise with green marketing credential is stable, good and quite respectable.

Table 4.6: Results for Regression Analysis for Factors Influencing the Willingness of Malaysian Youth to Patronize Manufacturers Who Advertise with Green Marketing Credential

Coefficients(a)								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.674	.531		1.270	.206		
	Information Provision Policy	.280	.072	.247	3.876	.000	.748	1.336
	Financial Incentive	-.101	.054	-.119	-1.892	.060	.763	1.311
	Informal Environmental Education	.343	.079	.307	4.351	.000	.609	1.641
	Environmental Concern	-.001	.057	-.001	-.018	.986	.661	1.514
	Intrinsic Motivation	.319	.079	.287	4.026	.000	.599	1.669

R= 0.640, R Square = 0.410, Adjusted R Square = 0.395, F = 26.941, p-value = 0.000

Source: Developed for the research

4.5 Discussion

The results of the hypotheses are summarized in Table 4.7 based on the analysis performed in this study. Findings from all analyses were deliberated after the data was compiled.

Table 4.7: Result of the Analysis

Hypothesis	Statement of Hypothesis	Result

H1	Information provision policy has significant positive relationship on willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.	Supported
H2	Financial incentive has significant positive relationship on willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.	Rejected
H3	Five sources of informal environmental education have significant positive relationship on willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.	Supported
H4	Environmental concern has significant positive relationship on willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.	Rejected
H5	Intrinsic motivation has significant positive relationship on willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.	Supported

Source: Developed for the research

Research findings indicate that the overall findings shows that information provision policy, sources of informal environmental education and intrinsic motivation are significantly related to willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential. However, the independent variable, environmental concern and financial incentive show no significant positive relationship towards the willingness of Malaysian youth to patronize manufacturers who advertise with green marketing credential.

There are positive relationships between information provision policy and willingness of Malaysian youth consider patronizing manufacturers who advertise green marketing credentials. Previous study mentions that, “Five Star” rating will be used to discriminate the energy efficiency of the electrical appliances and the most efficient product will be affixed a five star label so that customers could make a better purchase decision. Energy rating label could help customers concentrate their limited efforts while being “green” (Young, Hwang, McDonald, & Oates, 2009). This eco-label can leads customer to purchase the green products as customer will judge the product based on the label, information and logo.

Five sources of informal environmental education have positive relationship with the willingness of Malaysian youth considers patronizing manufacturers who advertise green marketing credentials. The sources of informal environmental education are government, non-government organization, educational institutions, individuals and business entity. According to Janssen and Jager (2002), people are easy to be influenced by people that close around them and or likely to imitate the others when they believe the results from others are able to satisfy them, and they are also exposed to the information from family and friends, so they will become green if the people around are green. Besides, the campaign of government about “No Plastic Day” is more effective to influence and encourage people to use recycled bag when they are shopping or buying products. On the other hand, business entities use marketing activities like advertising; promotion and public relation to influence customers in purchasing green products. From the previous study, it shows that informational and

informational-emotional advertising appeals, which match consumer's processing style (thinking and thinking-feeling processors, respectively), can generate more positive attitudes toward the brand, purchase intention and brand choice (Ruiz & Sicilia, 2004).

Intrinsic motivation has a positive relationship with the willingness of Malaysian youth consider patronizing manufacturers who advertise green marketing credentials. There is a studies providing an empirical evidence that personal norms can contribute pro-environmental behaviours such as 'green' consumerism (Thøgersen, 1999), this attitude can contributed to the willingness of consumer to buy the green products because altruism will lead the consumers to aware that normal products will bring negative impact to the environment and affect the people's health.

Environmental concern has no significant positive relationship with the willingness of Malaysian youth consider patronizing manufacturers who advertise green marketing credentials. The reasons maybe because global warming and climate change are not occurring in Malaysia so Malaysians are not aware and less knowledge about the seriousness of the environmental change around the world. Although they know about the seriousness of the climate change, they are not willing to be green as well, because they do not care about the situation and perceive that this is the responsibility of government but not them.

Financial incentive has no significant positive relationship with the willingness of the Malaysian youth consider patronizing manufacturers who advertise green marketing credentials. As our major target respondents are mainly from the university and college students (49%), they might not believe that there are such incentives or subsidies since they are not aware of the government policies while pursuing their study. Besides, Malaysia government has recently announced that government is going to reduce the incentive and subsidies on household products, so consumer will perceive that incentive or subsidies for green products might not come into reality.

5.0 Limitation of the study

One of the limitations of the study can be attributed to the lack of secondary information on the issue addressed in our paper. Also, the majority of respondents of our research are students, which hold 49% of the total number of our target respondents (Malaysian youth in age 19-35 years old). This is a relatively homogeneous age group including its income level. The result generated from the respondents may not comprehensively represent the whole youth generation in Malaysia, as students groups alone does not represent the whole of Malaysian youth.

Another limitation that we could identify is that the research has generalized manufacturers without segmenting them into their respective industries. We believe a more in-depth understanding could be realized with narrowing down the research into manufacturers within a respective industry. Eg. Cement, furniture, car industries etc.

Finally, the result (e.g. increase sales in green products) of advertising highlighting green marketing credentials will not appear in a short time period, because from educating consumers to become green until they take action to purchase the green product normally takes long time. Other than that, it is hard to measure the effectiveness of highlighting ones

green credentials in an advertisement as consumer may have purchased the product anyway due to other reasons like promotion or product availability.

6.0 Suggested for future research

Research could be carried out to find out of the 5 sources of informal education which is the most significant that could influence Malaysia youths to align themselves with manufacturers who advertise their green credentials. Besides that, research can be also initiated to find out why the financial incentive does not have significant positive relationship or impact in regards to our study. Researchers could find out what types of financial incentive Malaysian would like to adopt and what types of product they want the financial incentive most.

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