

An Overview Profile and Green Purchasing Behavior of Consumers in the Northern Region of Malaysia

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Abstract- *Green purchasing has been an important topic since the introduction of green products in the late 1980s which led in later years to a new market segment known as green consumers, and since then governments and rules regulators became part of this wave which encouraged the growth of green products. Therefore, this study aims to investigate an overview of profile of Malaysians and the level of green purchasing behavior. The paper reports and analyses the findings of 383 questionnaires which were collected from selected states in north Malaysia namely: Penang, Kedah and Perlis. The paper illustrates an overview consumer profile among Malaysians. Furthermore, the results show that green purchasing level among Malaysian is at a moderate level. Discussion and implication of this study are introduced in the last section of this paper.*

Keywords- *Green marketing; Purchasing behavior; Malaysia*

1. INTRODUCTION

Since the 1990s, more consumers started to show their concern over environmental issues. Many of those consumers turned to a powerful green consumerism force and demanded corporations to take their responsibility towards the society and the social issues (Peattie, 2001)[30]. Such a force lead marketers from these corporations to start considering green products and green processes in their plans. Thus, such as important issue drove global communities in many countries towards passing strict and new laws that support the environment (Ramezani, Ismailpor & Tondkar, 2010)[33]. The first actual change towards going green corporations was applied in 1992, when guidelines on labels that designate environment support was enforced by the European Commission (Hessami & Yousefi, 2013)[19].

The term “green consumers” refers to consumers who are concerned about the environment (Ahmad & Juhdi, 2008)[1]. They are internally controlled, and obtain a strong believe that every person can participate in protecting the environment, and this action should not be left for environmentalists, scientists, businesses and governments to deal with them alone (Boztepe, 2012)[4]. Green consumers are less dogmatic and are more tolerant with new ideas and products, this tolerance helps in accepting green products readily (Boztepe, 2012[4]; Shamdasani, Chon-Lin & Richmond, 1993)[36].

With the high influence of going green, Malaysia’s rank in the World Environmental Performance Index (WEPI) was set at number 27 among 163 nations around the world in 2008, however this position dropped to number 54 two years later (Yale University, 2016). The bases of ranking in the index is explained by the management of

environmental issues such as air pollution and solid waste management, and the importance of ranking high in this index comes from the fact that Malaysia has a goal of becoming one of the developed countries by the year 2020.

2. LITERATURE REVIEW

2.1 Green Purchasing Behavior

Pro-environmental behavior refers to individuals’ or groups’ actions that participate in using natural resources sustainably (Halpenny, 2006[17]; Tan & Lau, 2011)[40]. It can have many categories such as green purchasing behavior (Tarkiainen & Sundqvist, 2005[41]; Kim & Choi, 2005[22]; Gupta & Ogden, 2006[16]; Mostafa, 2007[29]; Mohamed & Ibrahim, 2007)[28], waste and recycling behavior (Kim, 2002[20]; Barr & Gilg, 2007)[3], energy saving (Kim, 2002[20]; Kim & Choi, 2003)[21], and participating in activities that are related to the nature (Mat, Ahmadun, Paim & Masud, 2003[27]; Haron, Paim & Yahaya, 2005)[18]. Consequently, green purchasing behavior can be defined as the purchase or consumption of products that do not harm the environment (Mainieri, Barnett, Valdero, Unipan, & Oskamp, 1997[26]; Tan & Lau, 2011)[40]. Scholars and marketers use some terms to refer to green purchasing behavior such as environmentally responsible purchase behavior (Follows & Jobber, 2000)[12], environmental purchase behavior (Soutar, Ramaseshan & Molster, 1994[38]; Tilikidou, 2007) [42]and green buying behavior (Kim, 2002[20]; Kim & Choi, 2003; 2005)[21][22].

The concept of green purchasing came in the late 1970’s when the rise of pro-environmental activists emerged in the western countries, this type of activity spread around

the globe reaching the Asian region (Lee, 2008)[24]. The main contributor to the popularity of green purchasing behavior came from the fact that many environmental issues kept coming in the late years (Alwitt & Pitts, 1996[2]; Eriksson, 2004)[11]. According to Griskevicius, Tybur & Van-den-bergh (2010)[15], the increase of concerns over environmental issues led to many academic attempts in order to specify pro-environmental behavior. Different scholars (e.g. Alwitt & Pitts, 1996[2]; Eriksson, 2004[11], Peattie & Crane, 2005)[31] suggested that the factors that help in shaping a pro-environmental behavior can be categorized into two main factors; the first is individuals' surroundings such as family and peers, and social influence, while the second factor is based on a person's norms such as attitude. On the other hand, in his research Stern (2005)[39] categorized green purchasing behavior into public domain and private domain, and he used those two domains to conduct his study. He concluded that public's supports for environmental policies is a form of a public domain because it plays a big role in making significant change, while the purchase of environmentally friendly products such as purchasing hybrid cars, buying organic food, or using energy saving home appliances is an example of a private domain.

According to Li and Geiser (2005)[25], the concept of green purchasing have been accepted in developed countries and widely campaigned for it. A study that was conducted in the UK on the impact of environment concluded that 70 percent of the respondents have a strong believe that the environment can be effected either positively or negatively by green purchasing, moreover, 83 percent of those respondents think that buying green tagged products is essential to conserve the environment (Dansrichaisawat & Suwunnamek, 2014[8]; Gilg, Barr & Ford, 2005)[13]. Consumers around the world who support the going green movement associate their green purchase behavior to a lifecycle value where they have a strong believe on how the environment can directly benefit from their green purchasing behavior (Chung & Wee, 2008)[7]; consumers who relate green purchasing to sustainability (Gilg et al., 2005)[13]; and consumers who think that green purchasing can help in preventing climate changes (Edwards-Jones, Plassmann, York, Hounsome, Jones & Canals, 2009)[10]. However, the real motivation to purchase green products can differ from one person to another; depending in different factors.

3. METHODOLOGY

The population of this study is comprised of adult Malaysian from the northern region, namely: Penang, Kedah and Perlis. Citizens from these three cities are well suited for the purpose of this study due to various reasons. First of all, most of the studies related to green purchasing are conducted in major cities such as KL and Selangor; few have been done in the northern region especially in less developed states like Kedah and Perlis. Secondly, respondents from these states have similar characteristics

due to the environment they live in and their average income. Finally, this market segment is considered as a huge opportunity for green product industries due to its high population.

According to the Department of Statistics Malaysia (2015) the population of Penang is (1,711,800), Kedah is (2,123,900) while in Perlis is (253,600), hence the total population of the current study will be (4,089,300). For a population of over (1000,000), the minimum sample size of 384 is appropriate for research as determined by several researchers (Cavana, Delahaye & Sekaran, 2003[6]; Krejcie & Morgan, 1970)[23]. Since the researcher is not sure to be able to get a 100% response rate, the total number of questionnaires can be increased by 40% to ensure a more accurate response (Salkind, 1997)[35], hence the sample size will be increased from 384 to 537. The oversampling is done to help make up any possible loss that can occur due to the existence of non-cooperative subjects and damages (Salkind, 1997)[35]. Furthermore, the oversampling helps ensuring that the non-response bias and non-response rate would not affect the results (e.g., Phokhwang, 2008[32]; Ringim, Razalli, & Hasnan, 2012)[32]. The present study used a mall intercept technique to obtain samples. This method for data collection allows the researcher to have a face-to-face contact with the respondents and to screen them for appropriateness (Green & Krieger, 1991)[14]. According to Bush and Hair (1985)[5] a mall intercept technique is better in providing less distorted responses and more complete responses, besides that, respondents who don't understand the terms were able to clarify their concern. Nevertheless to overcome one concern of ensuring that correct respondents are sampled, the present study used a systematic random sampling technique. Five hundred and thirty seven (537) questionnaires were distributed to the respondents, four hundred and forty eight (448) questionnaires were finally retained for analysis from the total number. Out of the total number of given questionnaire fifty four (54) questionnaires were found to be incomplete due to not responding to some sections therefore were rejected and the final number of the approved questionnaires is three hundred and ninety four (394) yielding a response rate of 73.4 percent.

Measures for the key constructs were developed from prior literature. In the process of coding, the orderable options from Strongly Disagree to Strongly Agree in the five-point Likert Scale has been coded from "1" to "5". This coding meant that a low value represented a low level for the variable (e.g. 1 = Strongly Disagree) while higher values indicated a higher level of the variables.

4. DATA ANALYSIS

This section provides profile information on the Malaysian consumers that participated in the survey. The characteristics examined include the consumer's age, gender, race, education level, and monthly income.

Table 1: Respondent Profile

Category	Frequency	Percentage	
Age	Less than 20 years old	24	6
	Between 20 and 29 years old	190	48
	Between 30 and 39 years old	84	21
	Between 40 and 49 years old	66	17
	50 years old and more	30	8
Gender	Male	164	41.6
	Female	230	58.4
Race	Malay	193	49
	Chinese	159	40.4
	Indian	38	9.6
	Others	4	1
Education level	SPM	136	34.5
	Undergraduate	153	39
	Postgraduate	62	17.7
	Others	43	10.9
Monthly income	Less than RM2000	169	42.9
	Between RM2000 and RM3999	158	40.1
	Between RM4000 and RM5999	48	12.2
	Between RM6000 and RM7999	12	3
	Between RM8000 and RM9999	4	1
RM10000 and more	3	0.8	

From the results shown on the table above, descriptive statistics indicate that the majority of respondents' were between the age of 20-29 years (48%), followed by 30-39 (21%) and 40-49 (17%), this can point that majority of the respondents are from generation Y which is considered a young segment and hence should be exposed more to environmental knowledge.

The result also shows that 41.6% of the respondents were male while 58.4% were female, in terms of the race of the respondents, the analysis also revealed that Malay made 49% of the total respondents, followed by Chinese with (40.4%), then Indians (9.6%), 1% were from other races such as the Thais, Khmers, Chams and natives originated from Sabah and Sarawak. These characteristics "excluding the gender" are close to the actual demographic characteristics of the actual Malaysian population which makes this study fit to represent the Malaysian public in the northern region.

With regards to the respondents' education level, the result shows that majority of the respondents obtain an undergraduate degree with a total percentage of 39% followed by SPM holders who made 34.5% and this indicates that more than half of the respondents have been to college hence would be more exposed to knowledge therefore understanding environmental issues .

In order to identify the purchasing power of the respondents, they were asked to indicate their monthly

income; the result shows the majority of the respondents make more than RM2000 a month with a cumulative percentage of 57.1%, while 42.9 make less than RM2000, which is considered low and hence might affect their ability to purchase green products.

5. GREEN PURCHASING BEHAVIOR

The exploratory factor analysis of the EO scale was conducted by including all the items based on the sample of 394 cases. The Cronbach's alpha of the green purchasing behavior was .83. Table 2 shows the mean and standard deviation of green purchasing behavior among the respondents. For ease of interpretation, the range of the five point Likert scale was categorized into equal sized categories of low, moderate and high. Therefore, scores of less than 2.33 (4/3 + lowest value 1) is considered as low; scores of 3.67 (highest value 5 – 4/3) is considered high and those in between are considered moderate. And those in between are considered moderate. It is important to highlight that the respondents tend to have and practice green purchasing. This is shown by the mean score of 3.36 on a five point scale. Thus, regard to the level of entrepreneurial orientation, the result shows that the entrepreneurial orientation level is at a moderate level.

Table 2 Descriptive Statistics of Green Purchasing Behavior

Variable	Mean	Std. Deviation
Green purchasing behavior	3.36	0.83

6. DISCUSSION

Firstly, the descriptive statistics represents data collected from a sample of Malaysian consumers in Kedah, Perlis

and Penang. The descriptive statistics shows that majority of the Malaysian consumers tested in this study are female with almost half of them coming from a Malay ethnicity and also half of them are considered generation

Y as they are aged between 20 and 30 years old, this kind of segment can shed light into many facts starting with the gender aspect as what triggers female consumers to purchase could be different from what males prefer whether we are talking about the type of green product or even how these products are packaged. Another important aspect is that fact that young consumers made almost half of the respondents while all other age groups combined made the other half. This piece of information is important for companies when they plan to target their segments, younger consumers tend to be more educated and exposed to facts about the environmental issues hence they have more environmental knowledge which leads to a growing environmental concern. Another important point is that majority of the respondents make more than RM2000, the importance of this comes from the fact the previous studies suggested that price of green products could be the most critical obstacle facing Malaysian consumers (Sharaf & Isa, 2017)[37], and the more the consumers can afford purchasing them the more demand is generated which contributes in the overall wellbeing of the environment.

The results of green purchasing behavior in the present study helps strengthening and validating the literature of green purchasing behavior. Findings from this study as discussed above contributes by extending knowledge in green purchasing behavior in the context of Malaysia. The study helps in profiling consumers when it comes to their actual behavior as green consumers. To a certain extent, the research profiled the consumers who frequently visited hypermarkets and supermarkets in Kedah, Perlis, and Penang and evaluated who and which segment tends to purchase green products more. With such a profiling, local authorities together with green marketers will have the ability of targeting the proper age groups hence launching their go green campaigns. There are several limitation faced by the present study. The most significant limitation for this research is that this study was limited to the use of sample obtained from hypermarkets and supermarkets patrons in Kedah, Perlis and Penang. As such, their responses may not be representative of all consumers of different age bracket, residing in diverse geographic locations. While this impedes the generalizability of the study, it must be acknowledged that this is indeed a common limitation of most survey research which has constraints in both time and budget.

7. CONCLUSION

The present study showed that there is a big number of young consumers who have a decent income which in return could result in having them as a potential consumers for green products manufacturers. Generally, the tested consumers showed a favourable behavior towards green purchasing and this reflects on their knowledge of the environmental issues the country is facing, having Malaysian consumers going green can contribute in its 2020 vision to transform the country into

a developed country. The existing research may deliver beneficial facts for managers in Malaysian companies that promote green products as well as policy makers in relative to the different levels of Malaysians' green purchasing behavior.

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