

Assessing Determinants of Green Purchase Intention

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Abstract. The rising environmental issues have led to a considerable increase in the number of people concerning on green initiatives. This had also resulted the growing of products marketed as environmentally friendly or also known as green product. The development of green purchase has yet to mirror in current research particularly within Malaysian context. Hence, the aim of this study is to determine factors that influence consumers to purchase green product. The framework of this study consists of five independent variables (social influence, environmental concerns, pro environmental behavior, price sensitivity and personal values) against the dependent variable (green purchase intentions). The framework was developed based on prior literatures in related field. The result of this study was based on 112 valid responses from two cities in Malaysia. Preliminary findings reveal that three out of five hypotheses were supported. The findings suggested that pro environmental behavior was the most significant determinant of consumers green purchase intentions. We also furnished details on the implications and suggestions for future research.

Keywords: Green purchase, Intention, Consumers, Malaysia

1. Introduction

Pollution, a problem that affects most of the countries in today's world. Pollution increases the burden of disease, reduce the expectancy and reduce a country's overall quality of life. Unfortunately, limited clean up has been done, especially in developing countries. In fact, these clean up works can be done with minimal costs incurred. It is possible to clean up polluted site with cost effective and inexpensive advanced technologies which can mitigate the health of citizens. According to Hartmann and Ibanez [1], most of the developing countries are now taking initiatives to promote green marketplaces to develop a sustainable living place. These initiatives covers delivering greener and cleaner alternatives to consumers based on socio-demographic segments. In addition, today, global warming perhaps is one of the major threats towards the planet. The weather is changing and disasters are happening all over the places. People are now more concerned with ways to protect the environment. For instance, consuming green products is one of the key initiatives that could use applied by consumers. A green product can be defined as "a product which the design and/or attributes (and/or production and/or strategy), uses recycling resources, and which benefits the impact on the environment, or reduces toxic damage on the environment in the entirety of the life-cycle" [2, pp. 7]. There has been many research conducted in this area, however, there are limited research works on within Malaysian context. Hence, the objective of this study is to examine the factors that influence consumers to purchase green products in Malaysia. This study will be expanding related works from several studies in the past (i.e: [3, 4, 5]) by adding additional variables and context. Generally, this study provides informational sources to industry especially for green marketers. The research findings would provide information on the key determinants that influence consumers to purchase green products. With this, green marketers can formulate effective marketing strategy to target greater segment of consumers.

2. Conceptual Framework and Hypotheses Development

The conceptual paper of this study was published in 2011 in the proceedings of Asia Pacific Management Conference 2011. The conceptual framework was proposed based on prior literatures on consumer behavioural intention and related ideas in this subject. We believed that theory of reasoned action from Lezin [6] serve as a more appropriate framework for this study. Since this is a cross sectional study and data will only be collected at one point of time, it is not appropriate to include both behavioural intention and

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behaviour in the framework of this study [5, 7]. Hence, in this study, we will only focus on factors influenced consumers' intention to purchase green product. Figure 1 shows the research framework for this paper and illustrate five independent variables namely social influence, environmental concerns, pro environmental behaviour, price sensitivity and personal values. Finally, these variables will be analysed in the study to determine their importance and significance in consumers' intention to purchase green product. Based on aforementioned, we developed the following hypotheses:

- H1: Social influence will have a positive influence on Malaysian consumers' green purchase intention.
- H2: Environmental concerns will have a positive influence on Malaysian consumers' green purchase intention.
- H3: Pro environmental behaviour will have a positive influence on Malaysian consumers' green purchase intention.
- H4: Price sensitivity will have a positive influence on Malaysian consumers' green purchase intention.
- H5: Personal values will have a positive influence on Malaysian consumers' green purchase intention.

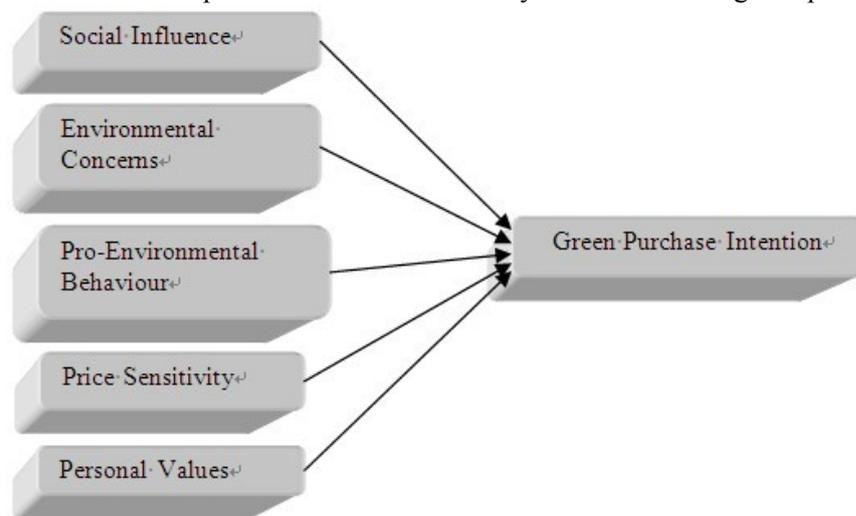


Fig. 1: Conceptual framework of Determinants of Green Purchase Intention in Malaysia

3. Research Methodology

Data was collected using survey questionnaire. Survey questionnaire is chosen because it can cover a wider range of respondents in different geographical areas and it is less expensive to conduct [8]. Previous studies which also employed this method include [9, 10]. There are two sections in the questionnaire. Section I will consist of questions regarding the demographic profile of respondents and questions on the general knowledge about green product. In section II, it will consist of questions regarding the variables analysed earlier in this study. A seven-point Likert scale was used to measure the items for the variables. Pilot study was conducted to ensure the validity and reliability of the questionnaire [11]. A pre-designed questionnaire was pre-tested based on a small sample of 50 respondents and 4 experts to gather their responses and feedbacks. Corrective measures were taken to revise and restructure the identified items in the final survey questionnaire. We employed convenience sampling in this study due to the convenience of research. The sample size of this study was 250 respondents in Melaka and Kuala Lumpur. These are the main cities chosen because higher population and environmentally friendly programs (e.g. zero plastic bag campaign) were placed and made publicly known in these cities. We gave a pen to each respondent as an appreciation token for their participation in our survey.

4. Data Analysis

The participants returned 112 questionnaires, representing 44.80% response rate. However, out of the 112 returned questionnaires, 9 were invalid due to incomplete data. Therefore, 103 valid questionnaires were used for this study, where they represent a valid response rate of 41.20% questionnaire.

Table 1 presents the mean values, standard deviations and the number of items of the variables. The lowest mean value of variables is 5.43 to the highest of 5.57. Reliability test was conducted and result indicates that the Cronbach Alpha's value of variables was ranging from 0.760 to 0.842. Thus the data on these variables are reliable and good for further analysis [11, 12].

Table 1. Mean and Reliability of Variables

ID	Variable name	Mean (n = 103)	Std. Deviation	Number of Items	Cronbach's Alpha
SI	Social Influence	5.50	0.641	7	0.785
EC	Environmental Concerns	5.43	0.544	7	0.760
PEB	Pro Environmental Behavior	5.49	0.627	6	0.771
PS	Price Sensitivity	5.56	0.708	4	0.801
PV	Personal Values	5.57	0.614	6	0.820
GPI	Green Purchase Intention	5.43	0.664	5	0.842

In addition, during factor analysis, items were retained according to the following criteria: (i) factor loadings greater than 0.5 and (ii) no cross-loading of items. In other words, items were dropped where they have a loading of less than 0.5, or where their loadings were greater than 0.5 on two or more factors [13, 14]. Both convergent and discriminant validities were satisfied, as the items measuring each factor clustered together to form distinct factors, and there were no cross-loading of items.

Pearson correlation analysis on a two-tail test at 0.05 significance level indicates that there are positive relationships among dependent variable and the independent variables. In addition, the value of R^2 equals to 0.700, this represent that 70% of the variation in dependent variable can be explained by all five independent variables.

Table 2 shows the estimated coefficients where β (constant) is -0.668, β_{SI} is 0.246, β_{EC} is 0.220, β_{PEB} is 0.259, β_{PS} is 0.233, and β_{PV} is 0.152. The results show that three out of five variables emerged significant with p-values less than 0.05 significance level. This indicates that there is linear relationship between the dependent variable (green purchase intention) and the predictor variables. However, environmental concerns and personal values indicates not significant.

Regression Equation:-

$$Y = -0.688 + 0.246 (SI) + 0.220 (EC) + 0.259 (PEB) + 0.233 (PS) + 0.152 (PV)$$

Interpretation:-

For every increase in social influence, green purchase intention will go up by 0.246, provided that all

Other variables; social influence (SI), environmental concerns (EC), pro-environmental behaviour (PEB), price sensitivity (PS), and personal values (PV) remains unchanged.

Table 2. Multiple Regression Analysis

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	-0.688	0.425		-1.618	0.109
	SI	0.246	0.073	0.237	3.385	0.001
	EC	0.220	0.098	0.180	2.235	0.028
	PEB	0.259	0.084	0.245	3.085	0.003
	PS	0.233	0.074	0.249	3.171	0.002
	PV	0.152	0.077	0.141	1.977	0.051

5. Discussion and Conclusion

In conclusion, the major finding of this paper was the investigation of determinants that influence Malaysian consumers' green purchase intention. The three out of five hypotheses emerged significant against

green purchase intention, namely social influence, pro environmental behavior and price sensitivity. It is vital for marketers to understand these determinants in order for them to develop effective strategies to target greater segment of customers.

By investigating what motivates consumers to transform their behaviour, it will assist in the development of effective marketing and communication strategies for green products or services. Understanding what will motivate consumers to increase their involvement in pro-environmental decisions is important for marketers in designing effective communication. Therefore, marketers will be able to explore different communication strategies that would be suitable in positioning environmentally friendly products and motivating green purchase intentions.

Malaysia, like many Asian cities, is suffering complex environmental issues that resulted environmental degradation such as air pollution, traffic noise, worsening water quality, high levels of garbage disposal and rapidly diminishing landfill space. Malaysians' awareness of green living is at its infant stage as compared to people in the western countries. Result of this study will enhance new understanding on the profile of Malaysian consumers in purchasing green product. Since there are limited studies conducted within Malaysia context, the findings of this study will be beneficial to local retailers, especially those selling green products by understanding green consumers' buying patterns.

As mentioned by our Prime Minister, Dato' Sri Mohd Najib Abdul Razak, in Malaysia Green Forum 2010, green issues have become a world concern. Unfortunately, most of the Malaysians are still lack of awareness about the impact of their irresponsible activities to the environment. Major initiatives need to be carried out to convince people to be responsible on their actions and behaviours. Based on aforementioned, relevant government agencies will find this study useful by knowing what factors influence Malaysians to consume green products so that more campaign should be organised to raise the awareness of consumers to save the planet as what other developed countries do.

5.1. Limitations and Suggestions for Future Studies

The findings of this study should be generalized with cautions since it only focuses on respondents from two cities in peninsular Malaysia. In addition, consumers' purchase intention on green product may vary according to different types of goods. In this study we did not specific the type of product. To accommodate these limitations, future studies may include respondents from different regions. i.e: different countries, different market orientations, different underlying theory, etc. In addition, future studies can also narrow the study scope to examine consumers' intention to purchase specific type of green product. Perhaps electronic products would be appropriate since it involves environmental issues. Further studies can also be carried out by including the two insignificant variables to see their findings.

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