E-WOM Review Adoption: Consumers’ Demographic Profile Influence on Green Purchase Intention

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Abstract. Nowadays, green products are getting popular in their acceptance by the Malaysian consumers. Due to the advancement of the Internet technologies and the wide spread of electronic word of mouth (E-WOM), consumers seem to be more influenced in purchasing the green products. In this study, consumers’ demographic profiles, such as age, gender, income, education background, and occupation are being explored to investigate their influences on consumers’ green product purchase intention. The purpose of this paper is to showcase the results of the differences between several demographic profile groups on green product purchase intention using descriptive analysis, ANOVA and independent sample T-Test. T-test results showed that there is a statistically significant difference between gender on consumers’ green product purchase intention. Meanwhile, the results generated by ANOVA indicated that there are no significant differences between age, income, education background and occupation on consumers’ green product purchase intention. These results shed light on the potential market segment that should be targeted by marketers and producers of green products in Malaysia.

1. Introduction

Electronic Word of Mouth (E-WOM) has been regarded as an important resource for consumers to seek information about products or services in the marketplace. Personal blogs, discussion forums, online communities, personal e-mail, chat rooms, instant messaging, social media sites (e.g. Twitter, Facebook, Instagram) and online customer review are used to communicate and disseminate E-WOM. By using E-WOM, a consumer can share his or her opinions and experiences related to a product with complete strangers who are socially and geographically dispersed. E-WOM has become an important factor for consumers in purchasing intention.

Currently, environmental issues receive a high attention not only from the governments, but also from firms and companies, whereby they begin to incorporate green values into their marketing strategies. Green products are known to have less environmental impact or are less detrimental to human health than traditional products. “Green” can be defined as low polluting, recyclable and resource saving [1]. The purchase intention of the green products and attitudes toward environmental friendly products are also affected by the socio economic characteristics such as gender, age,
education, income and occupation. For instance, seniors or the older generation tend to have higher buying decision for green products because they tend to spend more time on reading and engage in recycling than young people [2]. This is an example how a person’s environmental belief and behaviour can be explained by his age [3]. This study aims to investigate the influences of consumers’ demographics profile, such as gender, age, education, income and occupation on the consumers’ green purchase intention.

2. Demographic Profile and Green Purchase Intention

It is known that demographics are based on factors such as age, race, gender, education, income, education and occupation of a population. Demographic variables such as age, gender, race, income, education and occupation have a strong relationship towards a consumers’ purchase intention [4].

2.1. Gender and green purchase intention

In purchasing a product, females and males have their own tastes and preferences. Females are more likely to intend to purchase green products because they are more concerned about environmental attitudes and environmental concerns compared to male consumers [5]. A research by [4] indicated that female consumers have a higher purchase intention for an environmentally friendly food product than male consumers. It is shown in their research that gender has a strong relationship with purchase intention.

2.2. Age and green purchase intention

Based on the previous research in [6], age has an impact on buying products which show that younger people make simpler product purchasing decisions compared to older people whose purchasing decisions are more complex because they are more cautious in choosing a product. Young consumers are willing to accept new and innovative ideas, which most of the supporters of green products are [5].

2.3. Education level and green purchase intention

In deciding on the green purchasing, education level signifies an important decision to the consumer. High level of education is an important background factor that facilitates green purchase intentions [2]. Previous study shows that consumers with higher education are more knowledgeable about green products and know the benefits of green products. Education level is one of the important factors for consumers to be more concerned with environmental issues [7]. Educational are important for building attitudes, activity levels, and knowledge about nature and the environment to consumers. With this knowledge, consumers intend to purchase green products are high [8].

2.4. Income level and green purchase intention

Income level has a positive relationship with environment sensitivity in that consumers with high incomes are more willing to buy green products compared to consumers with low income [9]. Green products are known as being a bit expensive compared to non-green products. Most low income consumers do not intend to buy green products and will normally buy the cheapest product. Hence, it is predicted that the low income consumers will not prefer to purchase the green products.

3. Methodology

This research adopted a conclusive research design. Specifically, this research used the descriptive research method. The major objective of descriptive research is to describe the data, usually to describe market characteristics or functions [10]. In this research, demographic profile (gender, age, occupation, education and income) were investigated whether there are differences between the groups on consumers’ green purchase intention. Cross-sectional design was used as this research involved one-time collection of information from the Malaysian population. Non-probability sampling technique which is convenient sampling was used in this research. To get the right sample size from the Malaysian population, the calculation is made according to [11]. Based on the calculation, the
minimum number of respondents needed was 175. However, a sample size of 200 respondents was recommended to be sufficient for data analysis [10]. Data was collected online using Google forms and the link to the survey was shared in social media such as Facebook and Twitter. Data was then analyzed by using the Statistical Package for Social Science software version 22.0.

4. Research result

A total of 209 respondents were received and used in subsequent analysis. In this study, the age range was from 21 to 60 years old above. The research model was tested using the SPSS 22.0 for descriptive, reliability, ANOVA and independent t-test analysis.

4.1 Instrument reliability

Cronbach’s Alpha Coefficient was used to test the reliability of the variables. Table 1 shows the summary of item reliability.

| Variables           | Final Items in Questionnaire | Cronbach’s Alpha Coefficient Value |
|---------------------|------------------------------|-----------------------------------|
| **Independent Variables** |                              |                                   |
| Sender Expertise    | 8                            | 0.944                             |
| Receiver Search Extent | 5                            | 0.917                             |
| Message Trustworthiness | 7                            | 0.923                             |
| **Dependent Variable** |                              |                                   |
| Green Purchase Intention | 5                            | 0.897                             |
| **Mediator Variable** |                              |                                   |
| E-WOM Review Adoption | 4                            | 0.909                             |

Based on Table 1, Cronbach’s Alpha for the variables ranged from the lowest of 0.897 (Green Purchase Intention) to 0.944 (Sender Expertise). In general, if the value of Cronbach’s Alpha is less than 0.60, the scale is considered to be poor while scores that exceed 0.60 to 0.70 are acceptable [11]. In conclusion, the result showed that the scores of the Cronbach’s Alpha for all the variables used in this research exceeded the preferable scores of 0.70 and they indicated that the measurements scales of the variables were reliable for this research.

4.2 Descriptive result

Descriptive result shows the characteristic of the respondents for this research. The respondents’ profile is presented in Table 2. Gender ratio of the respondents was 68.4% female and 31.6% male. The results showed that 77.1% of respondents attained high education level. 74.2% of the respondents were 21-30 years old, and 20.1% of the respondents were between 31-40 years old. Around 38.8% of the respondents had an average monthly income of below RM 2,000 and most of the respondents are employed by 64.6%. Figure 1 until Figure 5 show the graph of each demographic of respondents.

| Demography     | Number of Respondents | Percentages (%) |
|----------------|-----------------------|-----------------|
| **Gender**     |                       |                 |
| Male           | 66                    | 31.6            |
| Female         | 143                   | 68.4            |
| **Age**        |                       |                 |
| 21-30 years old| 155                   | 74.2            |
| 31-40 years old| 42                    | 20.1            |
| 41-50 years old| 9                     | 4.3             |
| 51-60 years old| 3                     | 1.4             |
Based on Figure 1 below, the male respondents represented 31.6% (66 male respondents) of the total respondents while the female respondents represented 68.4% (143 female respondents) of the total respondents.

![Gender of Respondents](image1)

**Figure 1 Gender of Respondents**

Figure 2 shows the age of the respondents whereby 21-30 years old (74.2%) was the highest respondent’s age group, followed by 31-40 years old (20.1%); 41-50 years old (4.3%) and over 51 years old (1.4%).

![Age of Respondents](image2)

**Figure 2 Age of Respondents**

Figure 3 illustrates the graph of the education level of the respondents. The highest amount of respondents were degree holders with 117 respondents (56%), followed by Master/PHD holders with 44 respondents (21.1%), Diploma holder with 33 respondents (15.8%), secondary holders with 8 respondents (3.8%) and the least respondents are certificate holders with only 7 respondents (3.3%).
Lastly, Figure 4 and Figure 5 show the monthly income and occupation of respondents that participated in this research. 81 respondents (38.8%) earn less than RM2,000 per month. 67 respondents (32.1%) between RM2,000 until RM2,999 per month, 32 respondents (15.3%) earn between RM3,000 until RM3,999 per month, 23 respondents (11%) earn between RM4,000 until RM4,999 per month and more than RM5,000 per month with 6 respondents. In this study, mostly of the respondents are employed with 64.6% and follow by student by 28.2%. Then, 3.8% respondents work as self-employed and 3.3% are non-employed.

4.3 Inferential result
Independent t-test and ANOVA were used to analyze the differences between demographic profiles such gender, age, education, income and occupation. The results were concluded as follows:

| Hypotheses                                | Statistical Test | Significant Value | Result       |
|-------------------------------------------|------------------|-------------------|--------------|
| H1: There is a difference between gender groups on green purchase intention | Independent sample t-test | 0.014 | Significant |
| H2: There is a difference between age groups on green purchase intention | ANOVA           | 0.557             | Not significant |
| H3: There is a difference between education groups on green purchase intention | ANOVA           | 0.088             | Not significant |
| H4: There is a difference between income groups on green purchase intention | ANOVA           | 0.565             | Not significant |
H5: There is a difference between occupation groups on green purchase intention

| ANOVA | 0.563 | Not significant |

Based on Table 3, an independent sample t-test was conducted to compare the independent variable gender and dependent variable green purchase intention. As the value of $p$ is less than 0.05, there is statistically significant difference between gender groups on the green purchase intention. Meanwhile, the result test by ANOVA shows that there is no significant difference between age, education, income occupation and green purchase intention because the level of significance is above than 0.05 as stated in Table 3 above.

5. Discussion and Conclusion

In this study, SPSS version 22.0 was utilised to run the descriptive, reliability, ANOVA and independent t-test analysis. The differences between the demographic profiles (gender, age, education, income level and occupation) and green purchase intention have been investigated. In conclusion, this study concludes that there is a different between male and female consumers on their purchase intention of green products. This is probably due to the fact that female consumers possess higher environmental concerns compared to male consumers as in [5]. Meanwhile, consumers with different age, education, income and occupation groups do not have any significant difference with regards to green purchase intentions. The results are contradicting to the literature, hence it can be concluded that green products are being accepted by Malaysian consumers in these recent years regardless of their personal backgrounds due to the popularity and increase in marketing campaigns for such products. As green products are discussed in abundant online and in social media, E-WOM plays a role in influencing consumers from all walk of life to purchase green products.

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