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Consumer Attitude and Online Purchase Intention: A Segmentation Analysis in Malaysian Halal Cosmetic Industry

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Abstract

The purpose of this paper is to segment Malaysian experienced online shoppers into distinct groups based on their demographic characteristics, consumer attitude and online purchase intention of halal cosmetic products. A total of 400 questionnaires were distributed to experienced online shoppers across different age groups, using purposive and convenient sampling technique. Subsequently, the cluster analysis was conducted with the purpose of subdividing the sample into homogeneous segments. The finding provides an important implication for developing robust marketing strategies in relations to improving the acceptance of online shopping of halal cosmetic products in Malaysia. By realizing the differences between experienced shoppers, online retailers should segment these groups more effectively and should implement a different marketing strategy to target the right segment and provide the right shoppers with the right marketing tactic.

Keywords: Consumer Attitude, Online Purchase Intention, Segmentation, Cosmetic Products, Halal Industry.

Introduction

Most customers decide to buy goods in online stores by depending on information through a computer screen. Customers' buying preferences is strongly affected by the information and services that the online store provides. Online stores need to understand the preferences of customers to develop and maintain customer relationships. According to

president of Mofaz Company, Fauzy (2019) the halal industry is slowing down due to less information about customer segmentation. Therefore, online stores need to evaluate customer value and choose customer segmentation methods to prepare and establish various strategies to maximize customer value (Chen et al., 2007). Besides, online seller must know with whom they are dealing with and who is their exact target market (Wahid, 2020). This is supported by Kaur et al (2018) who mentioned that understanding the segment of Malaysian consumer in the Halal industry is important.

Customers have varying preferences; customer segmentation can help online stores to serve their customers according to their preferences. However, very little knowledge exists about who environmentally friendly product consumers are (Uddin and Khan, 2018). Such segmentation follows research studies that have considered variables such as gender (Barber et al. 2009; Mitchell and Walsh, 2004), geographic origin (Guagnano and Markee, 1995), age (Dietz et al., 2002), knowledge (Barber and Odean, 2008), and attitudes (Frick et al., 2004). Based on the preceding discussion, this study attempts to ascertain whether differences in demographic characteristics (gender, age, income, employment, and education level) would affect consumer attitude and willingness and subsequently influence their online purchase intention. Therefore, the objective of this study is to segment customer into distinct groups based on their demographic characteristics, consumer attitude, and online purchase intention of halal cosmetic products.

Literature Review

Customer segmentation is a research area that intrigues researchers in data mining because the vast data is suitable for data mining and patterns or rules identified as a result of data mining could play a vital role in marketing. Data mining has been applied for segmenting customers by demographic and transaction data and are available just by searching databases with regard to sales between stores and customers (Chen et al., 2007; Hung and Tsai, 2008; Shin and Sohn, 2004). However, data that is selected from databases does not include information related to customers' beliefs that may also strongly affect customers' intention to purchase. Thus, further research is required in order to discover the factors that affect the behaviour of customers in the decision to purchase.

Most studies related to consumer behaviour presented their research model using the factors and tested it statistically with data that is gathered from survey (Everard and Galletta, 2006; Gefen et al., 2003; Verhagen and Dolen, 2009). Although a lot of studies have contributed to explaining consumer behaviour, they have not sought to utilize customers' psychographics for segmenting customers using data mining. The reason for this omission is that the psychographic data that is needed for data mining is stored in customers' minds, and not in a well-formed database.

Research has shown that consumer behaviour in the context of online shopping can differ depending on socio-demographic characteristics (Khare and Singh, 2012; Sánchez-Torres et al., 2017; Wolin and Korgaonkar, 2003; Wu and Chang, 2016). Therefore, it is assumed, that these variables might also impact the consumers' attitudes towards the shopping experience with augmented reality. However, as socio-demographic variables are not the main focus of this study, gender, age, employment and education level were used as the variables in this segmentation.

Research states that the social character of traditional shopping is appreciated more by women (Sim and Koi, 2002) and that men are the ones that are more likely to have positive feelings towards online shopping (Wolin and Korgaonkar, 2003). Therefore, consumer

behaviour may differ in the context of online shopping, depending on the gender. Former studies have indicated that compared to women, men are more affected by interactivity (Lin et al., 2019) as well as innovativeness and usefulness (Law and Ng, 2016) during the process of online shopping. Women on the other hand, perceive risks when buying online stronger than men (Lin et al., 2019). Also, the fact that women feel more affected by vividness when shopping online (Lin et al., 2019), could be another reason for women to enjoy online shopping. However, other previous studies have not shown any significant differences between online purchasing behaviour in relation to gender (Alreck and Settle, 2002; Bhatnagar et al., 2000; Hernández et al., 2011). In this present time, men and women both work and are therefore similarly familiar with technology and innovations. This might explain why online purchase behaviour does not have to significantly differ between genders (Law and Ng, 2016).

Previous studies have also shown that gender influences consumer decision making (Hansen and Jensen, 2009; Yoshida and Gordon, 2012). Cyr and Bonanni (2005) argued that women did not trust e-commerce to the same extent as men did. Moreover, women are more sensitive toward the physical environment than men (Chiu et al., 2005), and this impacts how they evaluate service quality. Meanwhile, the perceived quality of presentation, as reflected through the layout and functionality of a website, influences women more strongly than men (Zhang et al., 2009). Women also perceive more financial risks than men in the online shopping process (Dai et al., 2014). On the other hand, women tend to be more confident and have a more positive attitude toward websites than men.

The age was investigated due to the broad age range of the millennial generation, currently ranging from 17 to 36 years (Reis and Braga, 2016). Thus, it is expected that individuals of the millennial generation are within different stages of their lives (De Vaney, 2015), which can have an impact on their online purchasing intention. It is documented that age has been explained by some researchers as an influence on the purchase intention (Hsu et al., 2016; Khare and Singh, 2012), while others have not found any difference between age groups in regard to the purchase intention (Arun and Xavier, 2013) and online shopping behaviour in general (Hernández et al., 2011).

However, as for the level of education, studies showed different results. Some researchers concluded that there are no significant relationships between the level of education and online purchase intention (Rippé et al., 2016), while others argue that there is a relationship (Sánchez-Torres et al., 2017). In line with Ha and Nguyen (2019), the occupation of the individuals was investigated as a control variable, to find possible differences within employment groups and life-stages of the population. However, some researchers have not found any significant relationships between certain employment and the online purchase intention (Malik and Guptha, 2013). Due to the inconclusive situation above, gender, age, employment, and education level was tested as a segmentation bases in this study.

Methodology

The measurement of constructs consists of nine (9) questions related to the attitude of consumers whereas four (4) questions were related to the consumers' online purchase intention. The questionnaire was taken from Butt et al. (2016); Chiu et al. (2005). This study employed the non-probability sampling, which did not use the chance selection procedures. The respondents were consumers who had purchased products via online shopping, previously. Based on the stated criteria, a total of 400 people were purposely selected and

employed as a sample for the current study using a convenient sampling technique. They were assumed to have first-hand knowledge of the subject matter.

To understand the homogeneous groupings of consumer based on their demographic characteristics, a cluster analysis was conducted. An overall score for each construct was calculated by adding the scores for each item of that construct and dividing this by the number of items in the construct. This way, the respondents can be segmented based on their factor scores. Because all the components are on the same scale (seven-point Likert scale), no further standardisation was needed. In this study, an initial hierarchical cluster analysis followed by K-means the cluster analysis was performed. Hierarchical clustering procedure with Ward's linkage was used to explore the number of clusters based on the average factor score of five constructs. Squared Euclidean distances were used as the dissimilarity measure. Hierarchical cluster analyses are not suitable for large samples (typically $N > 300$) and are used when the sample size is moderate (under 300). Ward's method offers a good criterion for the number of possible clusters.

However, the main limitation is that the allocation of subjects is final, they can never be separated, and it can only be combined with other clusters. In the next step, therefore, the non-hierarchical cluster analysis K-means method was used to improve the results of Ward's method. For the K-means method centroids from the Ward's method were used as the Initial point. Cluster solutions ranging from two to six clusters were tested. In K-means cluster analysis the five-cluster solution was found with the greatest distinctiveness among the clusters. Additionally, the analysis of variance (ANOVA) test showed a statistical difference at the $p = 0.01$ level between the clusters for all two constructs such as consumer attitude and online purchase intention.

Results

A cluster analysis was conducted with the purpose of subdividing the sample into homogeneous segments. The Steps involved a non-hierarchical K-means analysis on the four-cluster solution discovered in the hierarchical clustering procedure. Table 1 presents the summary statistics of the four cluster that were derived from the K-means analysis.

Table 1: Segment Demographic and Profiling

Construct	Cluster A (n=112, 28%)	Cluster B (n=6, 1.5%)	Cluster C (n=196, 49%)	Cluster D (n=86, 21.5%)	F	Sig
Gender	Female	Female	Female	Female	8.795	.000
Age	31-40 years	21-30 years	Below 20 years	31-40 years	151.041	.000
Education level	Diploma	Diploma	Diploma	Diploma	10.347	.000
Employment	Private	Unemployed	Unemployed	Private	467.234	.000
Consumer Attitude	5.61	2.24	5.47	4.51	78.140	.000
Online Purchase Intention	5.28	1.71	4.97	3.53	57.936	.000

To describe the segments using the initial constructs, a one-way ANOVA was performed to test for significant differences between the groups. The univariate F-tests indicated that the respondents' values for these constructs differed significantly across the four groups at the $P < 0.05$ level. Table 1 shows that, the four cluster (cluster A, B, C and D) have significant difference based on gender, age, education level, employment, consumer attitude, and online purchase intention.

Discussion

This study found four clusters based on their demographic (such as gender, age, employment, and education level), consumer attitude, online purchase intention. There are two clusters namely cluster A and C has a high intention to purchase halal cosmetic using online websites. This is because this cluster has a high trust in buying online. This cluster age ranges below 20 years and 31 to 40 years old. Researchers such as Hsu et al. (2014); Hidayanto et al. (2012) indicated that most of the sample chosen are young consumers since most of them frequently goes shopping on the internet compared to the older users. A study by Hsu et al. (2014) concludes that the internet users aged between 25 to 35 years had accounted for 97 percent compared to only 3 percent for internet users aged 36 above. As mentioned by study by Jin et al. (2015), young consumers spend most of their time online in comparison to the working adults due to their great potential of buying power as well finding that online shopping is more convenient.

Besides, there are two clusters which are opposites with the cluster above. These clusters have no trust and no intention to purchase through online, namely cluster B and D. They are not satisfied with the web design of the online store and makes them feel that it is not secure and lacks in privacy. According to Rahi and Abd Ghani (2018), there is no doubt that online purchasing has a lot of advantages, however the number of Internet users still do not trust it. Trust is always measured as the most critical factor, which encourages to purchase over the internet, as it has been positively known to influence online consumers' intentions to purchase. Trust is crucial to all economic transactions, whether conducted in a physical outlet or through the internet. It is because trust is an important aspect for the acceptance of consumer in business world and intentions to shop online.

Conclusion

The four clusters namely cluster A, B, C and D were identified. The results will be very beneficial to marketing experts who acts as marketing or salespersons of the organization. This research would help in segmenting the market effectively in terms of the socio-demographic profile of the consumer attitude and online purchase intention. The study also provides evidence for decision-makers to gain better understanding on personal belief factors and how they influence consumers' attitude toward online purchase intention in Malaysia. Identification of the significant personal belief factors that influence attitude toward online purchase intention helps decision-makers to focus on better marketing strategies. Developing and enhancing interactivity features and entertainment value of the website helps to generate positive attitude toward online advertising which leads to online purchase intention.

Likewise, this study aims to provide insights to policymakers in designing the development programs to promote halal cosmetic products in international business. The policymakers such as Ministry of International Trade and Industry (MITI), SME Corporation, Ministry of Science, Technology and Innovation (MOSTI), and other related government agencies which are directly involved in developing the industry will be able to effectively plan

and organize government assistance programs to help strategize and increase the sales of local halal cosmetic industry.

In the cosmetics industry, the result will be beneficial in designing marketing strategies. The four clusters of individual investor segments and their associated profiles identified in this study are set to provide advisors, financial analysts, organisations to target their investors with right product. Further, it would help segment the market with regard to the demographic profile of the halal cosmetic products and thus be able to target and position the correct marketing strategies in potential consumers.

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