

# OnlineMarket Segmentation and Profiling as Competitive Advantage Tool: The Malaysian Passenger Car Market

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**Abstract**— The growth of internet technology has led to changes in customer lifestyles which affected their buying lifestyles as well. The phenomena invited the firms including automobile firms in Malaysia to have clear understanding towards the online customer market in further remain their competitive advantage. Hence, the implementation of customer segmentation and profiling as important online strategy is undeniable as well in order to sustain firm's competitive advantage. Particularly, this research article proposed for two main objectives. Firstly, the objective is to develop automobile online car customer database based on psychographic segmentation that covers their value and lifestyles. And, secondly, to develop online customer profile database of automobile passenger car customers. This two strategy can be used to assist managers in deciding the quality marketing strategy and actions needed to attract each segment, and ultimately to increase customer buying decision-making. In response to first objective, the result has demonstrated that there are four online passenger car segmentations in Malaysia. For the second objective, the finding presented the profile for each segment that based on demographic elements.

**Keywords**- Online Market segmentation; Competitive Advantage; Automobile Online Segmentation; Profiling

## I. INTRODUCTION

The internet is creating new online buying phenomena in the world. This new buying strategy becoming importance buying platform in Western parts in further enhanced the competitive advantage of firms. People all over world are not only able to communicate each other through internet. But, they're also can buy varieties of products through internet. Hence, growing of online shopping has proved the acceptance of customers towards this internet technology. As revealed in Ah, Yingchan, and Ghose (2003), more than 600 million people have accessed the internet globally by the end of 2002 and spent more than US1 trillion buying goods and services online.

The ASEAN countries, such as Malaysia facing internet technology are not exempted as well. Particularly, in

TABLE 1: SALES GROWTH OF TOTAL INDUSTRY VOLUME (TIV) BY MANUFACTURER/BRAND NAME

Year	2014		2013	
	Unit	Growth	Unit	Growth
Perodua	195,579	-0.25	196,071	3.7
Proton	115,783	-16.6	138,753	-1.7
Honda	77,495	50.3	51,544	47.5
Toyota	73,693	20.0	61,409	-17.2
Nissan	39,932	-12.8	45,780	61.7
Others	85,859	3.32	83,100	-1.6
TOTAL	588,341	2.0	576,657	4.4
Year	2012		2011	
	Unit	Growth	Unit	Growth
Perodua	189,137	5.1	179,989	-4.6
Proton	141,120	-11.0	158,601	1.0
Honda	34,950	7.6	32,480	-27.0
Toyota	74,171	16.8	63,493	-10.7
Nissan	28,318	11.0	25,504	-3.1
Others	84,493	12.6	75,046	33.7
TOTAL	552,189	3.2	535,113	-1.6

Source: Malaysian Automotive Association (2015; 2014; 2013; 2012)

automobile industry where the pressure of competition compelling the automobile firms to explore new technologies and processes to remain competitive in their chosen segment. Especially, by looking at Malaysia National Automobile, the PROTON, low in their growth rate explained the low demand by customers (Table 1). The analysis appeared to support the statement by Proton's chairman Tan Sri MohdKhamilJamil postulated that Malaysians are not supporting Proton. The marketing strategy need to properly plan to shift the poor customer's perception toward Proton, both locally and internationally. Because having the best product in the world means nothing if no one knows and appreciate it (Sow, 2014).

On the other hand, under the Malaysia Economic Transformation Programme (ETP) (2011),Malaysia

government aims to increase the importance of retail as a driver of domestic consumption by targeting to more than double its Gross National Income (GNI) contributions by 2020. The ETP is a comprehensive effort that will transform Malaysia into a high-income nation by 2020. The retail National Key Economic Areas (NKEA) is expected to raise GNI contribution by RM108 billion to reach a total contribution of RM165 billion per annum by 2020.

Hence, in order to expand and grow the revenue, there are five main areas introduced by NKEA that led the government to focus several strategies which have to be developed. One of them is online marketing strategy. The government will encourage the expansion of online retail by developing a local platform. This would help local retailers to distribute their products online and match them with consumer searches. Therefore, better comprehend consumer behaviour, especially in terms of their value and lifestyle is crucially important for a firm. Thus, implementing online market segmentation and profiling is necessary.

Indeed, market segmentation and profiling has become widely regarded as one of the core principles in marketing plan, which bring quality in strategy development (Kotler and Armstrong, 2007). Only firms that concern on segmentation and profiling strategy will be able to fully understand the way of target customers perceived of their product. Moreover, in today's highly competitive climate the segmentation and profiling strategy becomes more important as this strategy forms the cornerstone of scientific marketing practices and frequently deliver outstanding and sometimes even surprising results (Matrix Solution, 2015).

However, very few studies have examined this 'internet' customer behaviour or online market segmentation and profiling in Asia (Ah, Yingchan, and Ghose, 2003). This limitation covers in Malaysian automobile perspective as well. With the increasing importance of online sales and the growing number of shoppers patronizing online stores, it is imperative for firms to develop a better understanding of the internet surfers and shoppers.

Hence, the purpose of this research is to develop an automobile online car customer database based on psychographic segmentation that covers their value and lifestyles. This segmentation and profiling can be used to assist managers in deciding the appropriate marketing approach and actions needed to attract each segment, and ultimately to increase customer buying decision-making.

## II. LITERATURE REVIEW

Market segmentation can be defined as dividing a market into smaller groups of buyers with distinct needs, characteristics, or behaviors who might require separate products or marketing mixes (Rusnah, T.C. Melewar, and Sharifah Faridah, 2015 & Charles et al. 2003).

There are lots of segmentation variables used as a basis in segmenting the market. But, the more conventional segmentation is based on demographic and geographic factors (Kucukemiroglu, 1999; Walsh and Mitchell, 2005; Bojanic, 2007). However, both of conventional segmentation variables are still insufficient in giving a complete picture about the customer market. Besides, both of conventional segmentation variables failed to determine the complete descriptions of sub-markets due to customers in the same demographic and geographic groups will have very dissimilar psychographic attributes (Rohaizat et al., 2011). Hence, Kotler et al. (2013) proposed that psychographic element is among of importance segmentation variable as well.

In psychographic segmentation, customers are segmented into several groups on the basis of lifestyle and personal value (In Chin-Feng, 2002; Yankelovich, 1964; Sukhdial et al., 1995; Kucukemiroglu, 1999; Gates, 1989; Lin, 2002). Even though the segmentation-based-psychographic is very useful and important but segmentations based on psychographics remain little used, understood, or appreciated (SRI Consulting, 1997). In fact, the psychographics information represented critical data for customer profiling.

Customer profiling is describing customers by their attributes, such as age, gender, income, values and lifestyles. A simple customer profile is a file that contains at least age and gender. Combining together, profiling and segmentation can frequently generate a better understanding of why certain areas of business may be performing poorly (Matrix Solution, 2015).

## III. RESEARCH METHODOLOGY

### A. Sampling Procedure

This study focused on online automobile context. It represents online customers of automobile passenger car as the study respondents. For the purpose of data collection, a survey method is used. A survey was conducted through self-administered questionnaires, which were distributed among the online users of automobile passenger car in Northern area of Peninsular Malaysia. Hence, in order to ensure random sampling of the respondents, the average number of walk-in consumers for two weeks was obtained from three main retailers to determine the population. The questionnaire is distributed based on systematic random sampling (Malhotra, 2012). For each retailer every 10<sup>th</sup> were selected to be a respondent from the population lists. There are 700 questionnaires were distributed. However, 582 questionnaires are usable and valid while 18 had to be rejected. Thus, this represented a response rate of 83%. This sample size is adequate for further analysis. According to Hair et al. (1998), a minimum sample size of 30 respondents is appropriate for the execution of simple regression analysis although a sample size of 100 respondents or more is preferable for factor analysis.

### B. Research Construct

In this study, the online automobile passenger car customer is refers to the automobile car passenger customers who experience with online activities or at least surf the Net. In order to measure the "Buying Online Experience", there are 24 items involved, which covers the customers' lifestyles and personal values. The measurement is developed and adapted from the study by Ah, Yingchan, and Ghose (2003). By following Ah, Yingchan, and Ghose (2003), the variable of "Buying Online Experience" is defined as, "the respondents' information-seeking patterns when buying online regarding issues such as branding, sales promotion, preference for retail versus online store and so on". All items are used with minor modification of the wording for the appropriateness of study context. The scale measures used a one- to seven-point Likert scale.

#### IV. FINDINGS

Overall, the sample characteristics showed that majority of online users (respondents) are Chinese (53.8%) and Malay (41.9%) with the range of age is between 18 to 25 years old (48.6%). In term of occupation, majority of them are executive levels (19.9%) and administrative staffs (10.3%) with level of education majority are STPM (43.3%) and Bachelors (34.4%). Their income level majority is between RM1000-RM3000 (52.1%). The users also is male (52.2%) and majority are single status (64.8%).

On the other hand, all respondents experienced with online activities or at least surf the Net. The result showed that 14.9% at least surf the Net and 85.1% involved with internet shopping. Even, 18.2% have experience in buying any automobile products (including accessories and parts) through the Net. For examples: Car magazine; Car accessories; Bumper; Air filter; Car oil; Car seat; Car speaker; Car wash product; Cushion; Data cable and Car charger; Engine oil; Front light; Honda City car; Protector steering; Proton car; Rim car; Seat cover; Side mirror; Spare part; Spark plug; Sport rim; Steering cover; Suspension; Tyre.

By following Kutkut (2012) and Ah, Yingchan and Ghose (2003), a factor analysis is performed to determine the criteria for formally selected the market segment on significant factors. A principal component factor analysis with a VARIMAX rotation is used to determine the factor loadings and communalities for the planned market segment selection criteria. Factor loadings below 0.4 were excluded and all communalities exceeded 0.5 (Hair et al, 2006).

From the output, the value of KMO is 0.92, which is acceptable, and Bartlett's test of sphericity is highly significant ( $p=0.00$ ), supporting the factorability of the correlation matrix as well as the appropriateness of factor analysis (Hair et al., 1998). Principal components analysis reveals that the 4 extract factors contribute 59.5% to the total variance explained in which the first factor contributes 22.6% to the total variance. The factor loadings of the items in the 4 factors are between 0.53 and 0.82. These loadings are greater than 0.50, which is the required level for a sample size of more than 100 (Hair et al., 1998).

The factors are labelled as follows: Segment (1): Automobile Online Shopping Preferences, Segment (2): Automobile Online Brand Comparison, Segment (3): Automobile Online Information Seeking, and Segment (4): Automobile Offline Shopping Preferences. Reliability testing with regard to the consistency of the entire scale for Segment (1), Segment (2), Segment (3), and Segment (4) shows Cronbach's alphas ( $\alpha$ ) of 0.87, 0.84, 0.71, and 0.77, respectively. This demonstrates excellent validity with the ( $\alpha$ ) value above 0.70, fulfilling the cut-off level suggested by Hair et al. (1998) and Nunnally (1978).

All of four segments above represented it characteristics as following:

#### **Segment (1): Automobile Online Shopping Preferences**

This segment would most prefer to buy from an online store including automobile accessories and parts such as fuse, hand phone charger, and sticker. They also like to participate in automobile online auction; react more to online automobile sales promotion compared to that in a traditional retail environment; and, prefer to buy automobile well-known brands in online shopping. Interestingly, they are more price sensitive in online compared to that in a traditional retail environment and also pay more attention to online ads compared to TV ads. Hence, they would more prefer to buy from an online store rather than switch to another store which offers short-term promotional campaign. Besides, they only consider the single most important feature when selecting the automobile brand online.

#### **Segment (2): Automobile Online Brand Comparison**

This segment is a brand oriented people. They will comprehensively do the brand comparison evaluation before deciding to buy the automobile brands. In particular, they prefer to look at a larger variety of automobile brands in online shopping. They like to do a comparison between product features among brands and tend to trade off the strengths and weaknesses of automobile brand before deciding to buy the brand. They're also involved with the price comparison. Interestingly, their automobile price comparisons are more active in online shopping as compared to traditional retail environment.

#### **Segment (3): Automobile Online Information Seeking**

This segment is more involved with information seeking mechanism. When information seeking activities, they are most preferred to use the same search engine such as google, mozilla fox, yahoo. They're frequently used the bookmarks in accessing their favourite website. Also, they're preferred to look at photos/images comparison instead of text-based messages. When visiting the site, they're loved to click a banner as well.

#### **Segment (4): Automobile Offline Shopping Preferences**

This segment interesting to browse a brand of automobile using online but the actual purchase will be made at a traditional store. For any related information of automobile including the automobile accessories and parts

they are much preferred to go online but the actual purchase will be made at a traditional store.

Subsequently, the following finding further explained the profile for the online automobile passenger car customer which is based on demographic elements (Table 2). Indeed, the finding is proposed in order to response to the second objectives of the study.

Particularly, Table 2 summarizes the main comparison of demographic elements against the segmentation found above. From the Table 2, it shows that the majority of male automobile customers are in Segment (2). For age element, the younger customers are in Segment (3) and Segment (4). Meanwhile, for Segment (1) and Segment (2) the age range is between 18 to 35 years. Others element such as education, the highest education level for all segments is bachelor level. Lastly, for race, the Chinese customers group patronized all the four segments.

TABLE 2 ONLINE CUSTOMER PROFILE OF MALAYSIAN PASSENGER CARS MARKET

Demographic Factors	Segment 1	Segment 2
Gender:		
- Male	53.4%	58.1%
- Female	46.6%	41.9%
Age	18-25, 26-35	18-25, 26-35
Education	Spm/Stpm (43.1%), Bachelor (36.2%)	Spm/Stpm(46%), Bachelor (32%)
Race	Malay (34.5%) Chinese (58.6%)	Malay (41.2%) Chinese(55.3%)
Demographic Factors	Segment 3	Segment 4
Gender:		
- Male	56.4%	51.9%
- Female	43.6%	48.1%
Age	18-25	18-25
Education	Spm/Stpm(40.6%), Bachelor (36.8%)	Spm/Stpm(40.7%), Bachelor (38.2%)
Race	Malay(41.4%) Chinese (53.4%)	Malay (39.0%) Chinese (57.7%)

## V. DISCUSSION AND CONCLUSION

According to Bojonc (2007), market segmentation is used to obtain competitive advantage. Market segmentation is referred to process of divided total market into homogeneous segments. However, in compliment the segmentation process the customer profile will be used to enhance the understanding of each segment introduced. By capturing each customer's individual profile values (Profiling) and then grouping customers into homogeneous groups (Segmentation) based on these values, the understanding of profiling versus the resultant segments becomes clearer (Rusnah, T.C.Melewar, and

SyarifahFaridah, 2015). Hence, between segmentation and profiling, both of them are mutually exclusive.

This study findings has showed that the market segmentation and customer profile development are mutually exclusive. Particularly, this study successfully proposed four main segments of online automobile purchases: Segment (1)- Automobile Online Shopping Preferences, Segment (2)- Automobile Online Brand Comparison, Segment (3)- Automobile Online Information Seeking, and Segment (4)- Automobile Offline Shopping Preferences. The combination of customer profiling elements has increased understanding for each segment generated.

Importantly, the result of this study proposed the guideline in order for a company's marketing strategy to work properly. In particular, the result is able to increase the automobile company's understanding toward their online shoppers especially for passenger car context. Hence, this online customer segment will able to generate several benefits for company's future plan (Goyat, 2011; Weinstein, 2004; Hansotia and Wang, 1997). This includes such as, **increase clarity about the online customers, develops online customer insights, improves online customer engagement and brand loyalty, grows niches marketing capabilities, and helps firms to deal with their customers with current information. Indeed, the used of market segmentation is able to optimizes cost-efficiency and resource management** due to market segmentation is an important tool for developing business intelligence and maintaining competitive advantage. Hence, online market segmentation will able to gives a deeper insight into the market and helps business firms to identify the segments of customers with greater profits and allows them to carry out more targeted micromarketing.

Finally, while not addressed in this study, it is certainly significant to consider the effects of environmental variables (e.g., geopolitical, legal, and economic) on online purchasing behaviour. Future research should consider how consumers' shopping thoughts and practices have been or are affected by substantive and sudden changes in these variables. Due to consumer purchasing thoughts and practices are dynamic and will continue to evolve, hence, this continuous evolution combined with rapidly changing technology will continue to present significant challenges and opportunities for researchers.

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