

Investigating the Factors Affecting Purchasing Intention of Smartphone among Consumers

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Abstract— Consumers changing preferences towards cell phone have affected the mobile industry as a whole. Manufacturers are intensively producing and marketing affordable and low price smartphone to meet the growing demand in the market. Currently, consumers are less likely to consider the price factor when purchasing smartphone hence this study aim to investigate the other factors affecting purchasing intention of smartphone among consumers particularly university students. Primary data were collected from 367 respondents by using five point Likert scale questionnaires. A reliability test, descriptive and regression analysis were used to analyze the data collected. The results of this study indicated that product features and social influence affect purchase intention of smartphone among consumers. The product features is the variable that has the greatest influence on purchase intention of smartphone. However, the study failed to find a significant link between brand name and product sacrifice and purchase intention of smartphone.

Keywords—Brand name, Product features, Product sacrifice, Purchasing intention, Social influence.

I. INTRODUCTION

THE rapid growth in mobile subscriber and extensive competition among consumers' changing needs and preferences consequently affected the mobile sector worldwide. [1] regards the cell phone as the most enthusiastic gadget ever invented compared to any contemporary mobile communication technologies. Initially, a cell phone as defined by [2] referring to a social medium which advanced into a

multimedia digital platform with the ability to provide, gather, and disseminate personal and social information.

Cell phones are by far the most fashionable mobile technology among young adults, with 81 percent of them having their own cell phone [3]. A survey done by Malaysian Communication and Multimedia Commission (2012), detailed that 19.6 percent of hand phone users earned less than RM1,000 per month while 36.5 percent of users recorded personal income between RM 1,000 to RM 3,000. Full time students among them accounted for 15.7 percent in terms of cell phone ownership.

Currently, smart phones becoming a must-have item especially for business people since smart phones offer more advanced computing power, fast and convenience medium of communication via internet (e.g; facebook, whats app, istagram) and connectivity than a regular mobile phone. The smartphone technologies and devices have become an increasingly common force in determining the lifestyles of consumers [4].

II. PROBLEM STATEMENT

Despite the commonness of smartphone penetration in the market, there were lack of surveys that have been carried out in Malaysia. The understandings of the consumers' preferences and the behaviors on the smartphone usage especially for young adults on smartphone are still scarce [5]. A survey done by Malaysian [6] revealed that close to 60 percent of smartphone user are from income group of RM 5000 and

above, while 42.2 percent from group RM 3,000 to RM 5,000 and surprisingly, among users who are full time students, 32.5 percent are on smartphone. Furthermore, [7] revealed that 70 percent of youth age ranging from 16-24 years old and 60 percent of adult age above 24 years old owns smartphone and use smartphone for internet browsing, social networking, email, instant messaging and 50 to 69 percent use it for emails and viewing video clips.

III. RESEARCH OBJECTIVES

The growth in smartphone usage among consumers including students has made it unlimited consumer demands. Hence, this research extended a model which was developed by [8] to examine structural relationships of product features, brand name, social influence and product sacrifice with demand for smartphone among Malaysian students. The first objective of the study is to examine the significant impact of product features, brand name, social influence and product sacrifice on the demand for smartphone among Malaysian students. Second objective is to investigate which factors have the highest impact on the demand for smartphone among Malaysian students.

IV. RESEARCH QUESTIONS AND HYPOTHESES

Is there any significant impact of product features, brand name, social influence and product sacrifice on the demand for smartphone?

- H₁: There is a significant impact between product features and purchasing intention of smartphone
- H₂: There is a significant impact between brand name and purchasing intention of smartphone
- H₃: There is a significant impact between social influence and purchasing intention of smartphone
- H₄: There is a significant impact between product sacrifice and purchasing intention of smartphone

V. LITERATURE REVIEW

A. Purchasing Intention

Purchasing intention refers to the tendency of consumers that having planned to buy a product with their preferred brand in the future [9]. The consumers might purchase the smartphone according to their needs and wants. The consumers might face decision making process before purchase a smartphone. consumers will follow the decision making process which start from by recognizing their needs, followed by information search, then evaluating the alternatives and lastly make purchase decision and post-purchase experience [10]-[12].

Based on previous research conducted by [11], purchase intention is the situation whereby a consumer attempting to buy certain product or services. Therefore, smartphone marketers have to find effective strategies in order to attract the potential consumers to buy their smartphone. According to [13], forecasting behavior of consumers will be the hard thing

to do because this involve to identify various factors that lead the purchasing intention among consumers.

B. Product Features

Product features can be defined as the characteristics of the product to meet with the customers' needs and wants in order to achieve their satisfaction through possessing, using and utilizing the product Smartphones nowadays have many different type of operating software systems in the market. Symbian, RIM Blackberry, Apple iPhone, Windows mobile, Google Android and Linux are among the most well-known and famous for smart phone operating and software system [15]. By using these operating systems, users can download many software and applications in their smart phones such as games, free communication application such as whatsapp messenger, viber, LINE and WeChat, browsing the internet for information, searching wallpaper and videos and so on. This can attract more young consumers especially among university students to purchase and use smart phone.

Besides, different people will prefer to use different operating system. For those that want more easily accessible for many applications, they will choose to use operating system Google Android compare for those that choose to use Apple iPhone that is more exclusive and only can be accessible and share the applications among iPhone users only. Therefore, every operating system has its own special personalities and background [16].

C. Brand Name

Brand name can be defined as an exclusive product indication which differentiate itself to the market. Besides according to the American Marketing Association, they defined the brand as "name, term, symbol, or design, or a combination of them intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of competition" [17]. [18] has proposed three definitions: "trademark" is a logo with related visual elements, "brand" is a trademark with associated intellectual property rights, and "branded business" include the organization as a whole.

Brand name is major factor in making decision among consumers. According to [19] the consumers will use their past experiences of using the smartphone particularly in term of performance, quality and aesthetic appeal. Therefore, consumers will start to get information, identify and evaluate different product brand name and finally they will decide to purchase their preferable brand of smartphone.

D. Social Influence

According to previous research, there is positive significant relationship between social influence and purchasing intention of smart phones among students [20]. They will seek advice from family members and friends that have experiences with certain brand of smartphone. This indicates that they are mostly influenced by people around them.

Other than that, future intention to buy the smartphone is depends on their past experiences with the smartphone. This

can be supported by previous research stated that consumers depend heavily to their past experiences with the smartphone [21]. If they have a good experience with previous smart phone, they would buy the similar brand. However, if the smartphone is not functioning as intended, they would change to the other brand. According to [22], many previous researchers have found that social influence is the main factor that lead consumers decide to purchase.

E. Product Sacrifice

According to [10], sacrifice consist not only monetary costs but also non-monetary costs. Monetary costs can be in term of costs such as prices meanwhile non-monetary costs can be in term of effort, risks such as failure or poor performance and uncertainties to purchase a product. Consumers also looking on value that be as a trade-off between overall benefits gained and sacrifices made by the customer [23]- [24].

In addition, consumers also looking in term of quality that can be in term extrinsic and intrinsic. Therefore, they will measure the sacrifice according to the costs they have paid [25]. This can be said that when the consumers have high perception of quality, their perceived sacrifice will be lower

VI. THEORETICAL FRAMEWORK

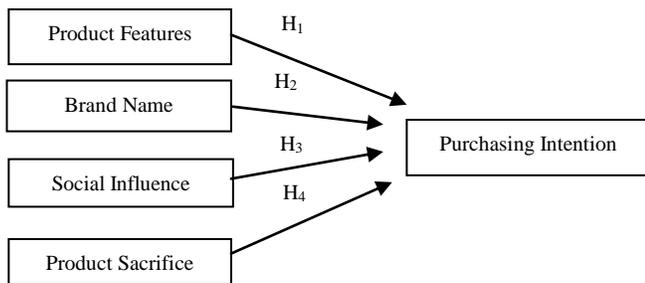


Fig. 1 The relationship between product features, brand name, social influence, product sacrifice with purchasing intention

VII. RESEARCH METHODOLOGY

Primary data were collected using survey questionnaires. In this research, 367 sets of questionnaires were distributed to diploma students who study in Universiti Teknologi MARA, Kedah Branch. The secondary data were collected through Emerald website, Jstor website and others. The references were gathered generally from books, online sources, UiTM online library journals, printed journal, and the World Wide Web.

Diploma students from Universiti Teknologi MARA, Kedah were selected as the target populations which accounted for approximately 6,993 students from 7 faculties. The sample size for this study was 200 respondents. The sample size larger than 30 and less than 500 are appropriate for most research according to rules of thumb mentioned by [26]. For this particular study, the researcher managed to gather 367 male and female respondents to answer the questionnaires which represent 5 percent of the 6,993 populations.

F. Questionnaire

The structured questionnaire consists of three (3) sections which are *Section A, B, and C*. *Section A* aimed at defining the demographic profile of the respondents. This section consists of seven questions that were designed to secure data about the respondents' demographic profile using nominal scale. It is including the information of gender, age, marital status, source of fund and others.

Interval scale was used in *Section B* and *Section C* to measure respondent's opinion. *Section B* is intended to investigate the factors that influence the respondents in purchasing smartphone. There were four sub-categories in *Section B* which included product features, brand name, social influence and products sacrifice. Meanwhile, *Section C* intended to examine the purchasing intention among diploma student of Universiti Teknologi MARA, Kedah Branch. Likert scale that range from 1 (strongly disagree) to 5 (strongly agree) was used to measure the relationship between the independent variables and purchasing intention of smartphones.

VIII. DATA ANALYSIS

Descriptive analysis was used to describe information to determine the characteristics of demographic data in general. The results are then analyzed.

G. Findings

TABLE 1
DEMOGRAPHIC CHARACTERISTICS

Items	n	%
Gender		
Male	74	20.2
Female	293	79.8
Age (years)		
18 – 19	200	54.5
20 – 21	156	42.5
Above 21	11	3.0
Budget range		
Below RM 300	56	15.3
RM 301 – RM 600	128	34.9
RM 601 – RM 900	98	26.7
RM 901 – RM 1,200	41	11.2
Above RM 1,200	44	12.0
Number of hand phone		
1 hand phone	211	57.5
2 hand phones	140	38.1
More than 2 hand phones	16	4.4

The demographic characteristics of respondents were illustrated in Table 1. Based on gender background, 20.2% of the respondents are male, whereas the percentage of female respondents is 79.8%. The majority of the respondents fall in the age group from 18-19 years old which was recorded at 54.5% and only 3% of respondents with the age above 21. Meanwhile, for the price or budget range to purchase a smartphone among students, 15.3% of respondents is below RM 300, 34.9% for budget between RM 301 – RM 600, and 26.7% of respondents are willing to spend RM 601 – RM 900 for purchasing a smartphone. On the other hand, for the high

budget category of smartphone, there is only 11.2% of respondents are allocating expenditure between RM 901 to RM 1,200 and only 12.0% of students are willing to spend more than RM 1,200 for purchasing a smartphone. Next, survey on number of hand phone owned by respondents showed that most of the students, 57.5% have 1 hand phone. Only 38.1% of respondents are reported to use 2 hand phones while 4.4% of respondents have more than 2 hand phones.

TABLE 2
RELIABILITY ANALYSIS TEST FOR DEPENDENT AND INDEPENDENT VARIABLES

Variables	No of Items	Alpha
ALL	18	0.778
Purchasing Intention	4	0.760
Product Features	4	0.699
Brand Name	3	0.611
Social Influence	3	0.612
Product Sacrifice	4	0.729

All 18 items used in this study scores greater than 0.6 for the Cronbach’s alpha value. This indicates that all questions for the independent and dependent variables are reliable according to the rules of thumb for cronbach’s alpha coefficient [27]. The cronbach’s alpha of 4 items measuring purchasing intention is 0.760 which is highest as compared to other variables used in the study. The second highest value of cronbach’s alpha is 0.729 which used to measure product sacrifice with 4 items. Next, the 4 items measuring product features recorded at 0.699 for cronbach’s alpha. Meanwhile, the cronbach’s alpha value for the social influence is 0.612. The lowest value of cronbach’s alpha is 0.611 which obtained by brand name with total 3 items. In this study, there were no disturbance in the data and the statistical inferences made about the data were all reliable thus multicollinearity problem does not exist.

H. Regression Analysis

The regression model is used to examine the effect of product features, brand name, social influence and product sacrifice on purchasing intentions of smartphone among university students. The results of this analysis is important to identify and determine the independent variables that able to influence the students’ purchasing intention to buy a new smartphone in the future.

TABLE 3
REGRESSION ANALYSIS ON PURCHASING INTENTION

Model	(%)	Beta	Significance (%)
Constant		-	0.001
Product features		0.253	0.000
Brand Name		0.089	0.115
Social Influence		0.212	0.000
Product Sacrifice		0.035	0.471
R square	18.3		
Adjusted R square	17.4		
F value	20.282		
Significance	0.000		

Based on Table 3, only product features and social influence variables have influenced purchasing intention of smartphone,

as evidenced by the Beta score with 0.253 and 0.212 respectively. The value of R square for this model is 18.3% which shows that 18.3% changes in the purchasing intention variable are explained by the four independent variables used in this study.

IX. DISCUSSION AND CONCLUSION

The aim of this study was to investigate the factors influencing purchase intention of smartphone among university students. Besides, this study also examines which factors have the highest impact on the purchase intention. Four hypotheses were developed to test the relationship between the independent variables; product features, brand name, social influence and product sacrifice and purchase intention of smartphone.

Hypothesis 1 posits that there is a significant impact of product features towards purchasing intention of smartphone. This study confirmed that product features was significantly and positively related to purchase intention of smartphone. The finding is in line with those of previous studies. For instance, [28]- [29] have found that innovative design features influence user’s attitudes toward smartphone adoption. [28] have suggested that managers or designers should develop diverse features and intuitive design features on smartphone for attracting user’s attention.

The study found that brand name did not influence purchase intention of smartphone, as hypothesized. This finding is inconsistent with the findings in previous studies [30]- [31] The lack of significant relationship between brand name and purchase intention of smartphone may be explained by the sample used in this study. Respondents in this study were university students who may not have enough funds to purchase branded smartphone. The results show that for the high budget category of smartphone, there is only 11.2% of respondents are allocating expenditure between RM 901 to RM 1,200 and only 12.0% of students are willing to spend more than RM 1,200 for purchasing a smartphone. Thus, it could be possible that brand name is not an important factor on smartphone purchase intention.

This study also found that there is a significant impact of social influences towards purchasing intention of smartphone. Hence, the third hypothesis is supported. A study conducted by [32] Lee (2014) found a positive and significant effect of peer influence and familial influence on a college students’ to have a smartphone. In addition, [33] found that social influences have a significant relationship with purchase intention of smartphone among adolescents in Perlis. [30] and [34] also found that future purchase behaviour of university students’ on smartphone is influenced by social influences. Thus, marketers should view that social influence has an important role in influencing purchase intention of smartphone among young people. In order to influence the buyer, [33] have suggested that smartphone companies can deliver the message to the target market’s social networks such as friends and family.

Hypothesis 4 posits that there is no significant impact of product sacrifice towards purchase intention of smartphone

just like expected. This similarity in findings could be attributed to the respondents who are willing to sacrifice the product price and efforts required to obtain a smartphone.

In conclusion, the results of this study indicated that product features and social influence affect purchase intention of smartphone among university students. The product features variable is the variable that has the greatest influence on purchase intention of smartphone. However, the study failed to find a significant link between brand name and product sacrifice and purchase intention of smartphone. Since more and more university students are using the smartphone, manufacturers of smartphone should attempt to continuously improve the product features and marketing strategies in reaching this segment.

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