

WHAT FACTOR PERSUADE MALAYSIANS CONSUMER TO PURCHASE SMARTPHONE?

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ABSTRACT

Mobile revolution was converting both developed and developing countries from using ordinary mobile phone to smartphone. This study seeks to identify what factors were persuading Malaysian consumer to purchase smartphone. This study gathered evidence to support research objective through quantitative method. Total 427 respondents were participated in this study. The finding of this study reveals that multipurpose function of the smartphone such as multipurpose applications, high speed processors was highly influences Malaysian consumer to purchase this device. However the researcher found that the advertisement also one of the driver that influence Malaysian consumer's intention to choose specific smartphone.

Keywords: *Smartphone ownership, malaysia consumer, purchase intention*

INTRODUCTION

Nowadays, smartphone adoption among Malaysian was increasing. From the statistical report of Malaysian Communication and Multimedia Commission (MCMC) showing that there were total 44,929,000 3G subscribers in year 2014 compared to 44,418,000 subscribers in 2015 (MCMC Statistic, 2015). In supporting that International Data Corporation (IDC) analysis report indicate that the growth for smartphone demand among Malaysian Consumer was due to availability of affordable smartphone price in market (Bernama, 2012). However when refer to the percentage of Malaysian smartphone user in terms of gender it can be seen that male user are higher than female which was total male smartphone user in 2014 was 56.9% and female user is only 43.1% (MCMC Statistic, 2015, Q1). These growing demand was remind statement of scholars who postulated that if user has positive experience by using smartphone, it will lead to an increase in the adoption rate of smartphones (Putzer & Park 2012). In adding that Balakrishnan & Yeow (2007) state that young people show higher satisfaction level regarding smartphone functions than older people. In addition there were some studies were stated the advantage of smartphone technology in terms of usage, technology, features and application.

Kirilov, Shmorgun and Lamas, (2011) state that smartphone technology appears to be the next stage of the ICT (Information and Communication Technology) revolution, especially in the areas of benefits that are derivable from mobility and wireless technology. Reilly and Duane (2010) also noted that smartphones could become valuable and a critical business tool for the effective and efficient delivery of extended list of information processing and other attendant functionalities. Moreover they state that majority of smartphone users purposely use their device to managing personal time schedule, accessing internet contents, social networking, utilizing location-awareness function, and many other exciting applications which are meant to enhance the user's needs, thus eliciting phone-use satisfaction. According to Sproles and Kendall (1986, p. 267), identification of decision-making styles among consumers "helps to profile an individual consumer style, educate consumers about their specific decision-making characteristics, and counsel families on financial management." Thus this study aim to investigate what factor influence Malaysian consumer to purchase smartphone in technological perspective. Subsequently, this study analyzes the determinant factors influencing the Malaysian purchase intention of smartphones and conducts an empirical investigation was conducted among current and potential users of smartphones. This study also aims to show the factor behind growing importance to this device in Malaysian market. These because there is not much known about Malaysian purchase decision-making styles and by identifying the unique characteristic of purchase decision-making help the market maker to identify the unique characteristic of target consumer.

PROBLEM STATEMENT

The reason why this study was undertaken is because there were only few studies has conducted to analyze purchase factor for smartphone among Malaysians consumers. In addition Hamka & Bouwman (2012) conveyed that understanding customer characteristic and behavior in market is not a simple task because sometimes, the deepest motivation of customer themselves will influence their decision making in purchasing a product or service. On other hand Vallerand (1997) state that consumer intrinsic and extrinsic motivation could drive their intention to purchase specific goods or product. Furthermore there were some studies were argues that consumers are not satisfied with current smartphone model and they complained about the disadvantage of smartphone features such as small keypad, small screen and lower resolution (Park & Yang, 2006; Siau & Shen, 2003). In adding, Karlson *et al.*, (2010) also stated that multi usage of mobile device such as communication and entertaining tools make them feel frustrated because all task cannot be easily carried out on mobile device due to lack of support and it drives user to complete their task on desktop. According to Hu & Allison (2010) the use and ownership of mobile devices have not achieved the tipping point of mass adoption. Mokhlis, (2009) found that the consumption pattern of Malaysian Young-adult was influenced by social culture, others purchase decision making and Variety-Seeking habit thus he asserted that it is necessary to examine carefully the Malaysian decision making factor. Apart from that Morgan (2010) claimed that if smartphone users are not active in social networking, the level of smartphone usage for social needs will drop dramatically. Thus this gaps reflecting that there is need to conduct a study to identify the which factor was influencing on the owners of smartphone among Malaysian.

LITERATURE REVIEW

Smartphone functions are comparable to the computer, in a way that it is powerful enough to deliver extended list of information such as accessing the internet and managing personal time schedule (Osman, Sabudin, Azlan, and Tan, 2011). Today, there exist a huge number and great variety of smartphone application that make user easily alter the purpose of their devices by adding new functionalities, that support users in different activities, e.g. banking, navigating, playing games, taking notes, or sightseeing that makes smartphone users easily make use of their phone as camera, musical instrument, sketchbook, dictionary, or bus schedule (Böhmer & Krüger, 2013). Carayannis, Clark, & Valvi, (2012) state basically, smartphone device is equipped with various software and applications which allows the smartphone users to interact with others without geographical limitation. Dilanchian (2009) asserted that, in the near future smartphone technology will serve education, emergency services, defence, health, banking, retailing, and other sectors benefiting from informatin services.

Porter (2010) postulated that there are a many smartphone has built on a mobile computing platform that equipped with a more advanced computing ability and connectivity while other modern smartphone that available in market equipped with digital camera high speed data access via Wi-Fi and GPS navigation these advantage has brought greater civilization to modern society. In support this, Daud et al., (Daud., Awal., Bakar., & Osman., 2011) noted that the smartphone and tablets devices which are currently in vogue are equipped with larger screen with high definition of graphic and high processing speed that equate to the performance of personal computers. In adding Katz & Sugiyama (2005) stated that smartphones changes people's way of life in many ways. For example, smartphone users can access information online at anytime and anywhere. In view of the above, it can be conclusively noted that, as a result of drastic development in smartphone technology, there has been a rising influence of diffusion of variety in the operational system which increased the demands of smartphone among consumers.

Lane & Manner (2012) postulated that every person choose the smartphone applications that are matched with their personality and individual differences. However Mak, Nickerson & Isaac (2009) postulated that user's education level is one of the factors that influenced the acceptance towards mobile phone usage. Moreover Magrath & McCormic (2013) also stated that there are some factors that may influence the person such as time and software limitation and diverse motivation that encourage smartphone users to maximize the usage of smartphone devices.

Liang & Yuan (2003) try to identify what the main factor influences purchase intention of China consumer to use smartphone, at the end of the research they revealed that the smartphone features such as quick internet access, large screen and fastest operating system contributed the China consumers to have positive attitude on smartphone. Apart from that Hamka & Bouwman (2012) stated that mobile phone technology and its functions become more integrated with the mobile user's social lifewhich also influences their consumption behavior.

Ha, Yoon & Choi (2007) have done a research to predict what factor influence users to users' adopt on smartphoneat findings they concluded that perceived enjoyment

influenced and individual attitude influence on adoption of these device. Moreover Rohm, Gao, Sultan & Pagani (2012) did found that consumer innovativeness, usefulness of the device and personnel attachment was play major role on mobile phone adaptation. Meanwhile Meharia (2012) also found that several factor of smartphone such as security, confidentiality, privacy and processing integrity of smartphone play an important part in smartphone adaptation. In supporting that Liang & Yuan (2012) state that the smartphone features such as quick internet access, large screen and fastest operating system contributed the China consumers to have positive attitude on smartphone. Thus it clearly indicates that smartphone ownership was influences by verity factors which lead to continuous adoption by the Malaysians.

Table 1
Selected Literature of factors that influencing Smartphone Ownership

Author & year	Factors that influencing Smartphone ownership
Puad, Yusof, & Sahak (2016)	Functionality of the smartphone acts as the most important criterion to the respondents in making their purchase.
O'bannon, B. W., & Thomas, K. (2014)	Useful features of smartphone help to accomplish task in class
Chittaranjan, Blom & Gatica-Pere (2013)	Rich smartphone data personalizing services on smartphones derived Consumer behavioural characteristics
Hsiao, (2013)	The design of smartphone was not affect the usage of smartphone but high speed mobile internet was influence the user to use these devices.
Hwang, (2012)	A proper smartphone application was one of the factor that influencing smartphone usage
Lin, & Ye (2009)	Multifunction features of smartphone operating system drives consumers purchase intentions.

METHODOLOGY

This study using five point likert-scales to find answer for the research objective. The scope of this research is Malaysian smartphone users. The population of this study is Malaysian smartphone users from all age group. The sample size is 500 which selectd based on krecjie and Morgan sample size diagram. There were 500 questionnaires was distributed to collect data for this study. However during data analysis only 427 usable questionnaires were identified. Thus the total respond are become 427 smartphone users.

The research questionnaire was carefully designed to extract information about: “What factors influencing smartphone ownership among Malaysians” “Popular Smartphone brands” “Purpose of smartphone device was used for” From the total

respondent's female participants were higher than male participants. The total female participant was 287 and 140 male participants were participated in this study. The researcher was simplifying the data analysis according to the result that make easy to understand by the readers. The finding of the study was explained on following section.

DISCUSSION

From the result of data analysis the researcher found that all respondents were looking for smartphone device which can operate multiple functions that enable them to accomplish their work easily. This was supported by Hahn, (2010) were the dual purpose of smartphone that includes personal computer and contemporary mobile phone functions makes demand for smartphone increase drastically and shows growing number of smartphone users. Overall the data analysis indicates that, respondent will own the smartphone devices if it has high processing speed, large data storage, attractive design and attractive promotions. This statement was supported by Jin & von Zedtwitz (2008) were the commercialization of smartphone which had begun with the multitask features available in the smartphone was made to adopted by academicians, professionals, commercial entities, and media to accomplish their task. However Mothar (2013) stated that most people in Malaysia used smartphone purposely in indicating their personal identity and to reflect their financial status to others. This argument also supported by Karim *et al.*, (2013) where youth are more likely to consider mobile phones for attractive physical look and use these device purposely to highlight their social status. It can be seen that smartphones is the important facilitator of consumers in fulfilling their social needs by engaging with smartphones technology (Wei & Lo, 2006). In view of the above, it can be conclusively noted that, as a result of drastic development in smartphone technology, there has been a rising influence of diffusion of variety in the operational system which increased the ownership of smartphone among Malaysian consumers.

Table 2
Selected Studies Regarding factor that influencing Smartphone Ownership

Author & Year	Factor that Influencing smartphone ownership					
	High-speed Processing/ operating system	Design	Application & Software	Price/ Value	Convenience	Brand
Puad, Yusof & Sahak (2016)		✓		✓		✓
Hsiao, (2013)	✓			✓	✓	
Karim <i>et al.</i> , (2013)		✓				
Hwang (2012)		✓	✓		✓	✓

Rohm, Gao, Sultan &Pagani (2012)			✓
Lin,& Ye (2009)	✓	✓	✓
Liang & Yuan (2003)	✓		

Selected Studies Regarding factors that influencing Smartphone Usage

High Speed Processing/ Operating System

The study did by Do (2011) reveals that multiple purpose of the smartphone contribute to the extensive understanding of applications and context, bringing out design implications for interfaces on smartphones. The smartphone operating system such as pre-defined key, key sequence, or by use of a switch, the computing system allow the smartphone user to accomplish their task without computer assist (Shankar, Kalbarga and Maity, 2010).

Design

Jae Yeol et al., (2011) state that Multi-display of smartphone which make the user to communicate with each other more adaptively which provide non-immersive environments through multimedia interaction. Choi (2012) asserted that simplified interface design of the high performance of smartphone help smartphone user to accomplish their task moreover the information hierarchy, and visual display attributes contributes to positive satisfaction evaluations when users interact with their smartphone as they engage in communication, information search, and entertainment activities. Dahlgaard et al., (2008) did investigation on how aesthetic design of smartphones effect on users' emotional reactions. At final outcome they state that male smartphone user are prefer black colour to own their smartphone and moreover they asserted that men are see smartphone as a fashion accessory. Apart from that Page (2013) state that ergonomic design of smartphone enhance the usability of the smartphone these because these features become an alternative input such as swipe and swift Key compare with common typing speeds found on computer keyboards.

Application / Brand / Convenience

The User Interface (UI) design of smartphone was increase the user awareness of smartphone application and improving their knowledge on the topic and developing their skill (Page, 2014). Rahmati et al., (2012) found different socio-economic status (SES) has different intention to adopt smartphone technology and moreover they state that lower (SES) group spend more money on application installation compare other group. In addition Charani (2013) found that clinicians rapidly adopted the mobile application to optimize care decision support. Liu and Liang, (2014) found that people are willing to spend more money to buy their favorite brand of smartphone moreover

they added that most participant agreed they only focused on the smartphone brand rather than on the product specifications and price. In adding that brand trust drive smartphone consumer to purchase smartphone (Dastan and Gecti (2014). Moreover MohdSuki (2013) state that brand name and social influence have an effect on the increasing demand for Smartphones among Malaysian students. Ting et al., (2011) state that the smartphone dependency among students was influenced by convenience future of the smartphone. The positive experience that been trough by the smartphone user was contribute to the continuous adoption toward to these devices (Maghnati, Ling, & Nasermodeli, 2012).

Popular Smartphone Brands

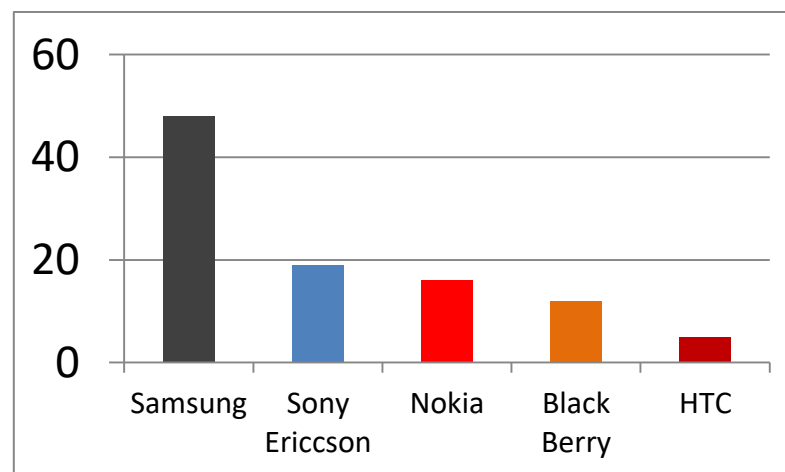


Figure 1
Popular Smartphone brands

From the result of data analysis it can be found that there were five smartphone brands was identified which received high response rate it was Samsung, Sony Ericson, Nokia, Black Berry and HTC. The reason why brand was so undertake in this study is because Chu and Keh, (2006) stated that brand positively influenced behavioural outcomes, including purchase intention. From the result it can be see that Samsung brands was received high response rate it was 40 percent (170 smartphone users) these indicate that the respondent was so obsess with band which make Samsung brand was so popular among respondents because of advertisements. The second brand was Sony Ericson it was 19 percent (81 smartphone users) from total response rate. Third popular brand was Nokia and Black Berry both brand shows response rate of 16 and 12 percent. Finally HTC smartphone receive lowest response rate it was 5 percent (21 smartphone users). The gadgets brands are significantly influenced by individual's learning and buying behaviour (Kulviwat, Bruner, & Al-Shuridah, 2009). Moreover Ting *et al.*, (2011) found that there is a positive relationship between brand loyalty and social influence that contributes to smartphone future purchase behavior.

Smartphone Usage Purpose

To identify what purpose makes Malaysian overly depend on smartphone devices several applications was list down to identify their usage behavior on this device. There were four applications were receive high responds rate it was; Facebook,

Download, E-mail and YouTube. The reason why the researcher gathered details of application usage is to identify the behavior pattern of the Malaysian smartphone user that will contribute to the objective of this study “what factor persuade Malaysians to own a smartphone”. In addition Putzer & Park (2012) postulated that if user has positive experience by using smartphone, it will lead to an increase in the adoption rate of smartphones. In addition Kang, Cho & Lee, (2011) also found that the different characteristics of smartphone features that are available in market nowadays create multiple choices and intentions among smartphone users in adopting various types of available smartphones. Below the result of data analysis was showed to the reader on the top five applications routinely used by Malaysian.

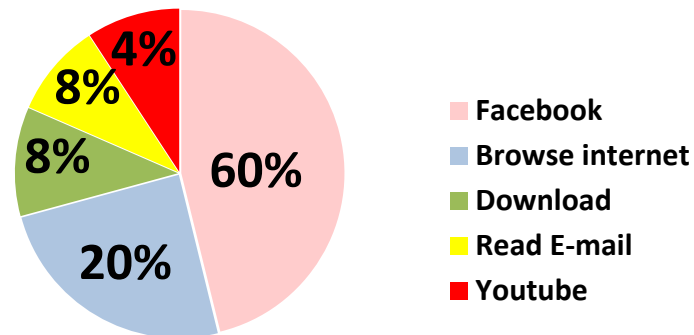


Figure 2
Purpose of smartphone is used for

From the figure above it can be seen that Malaysians used smartphones mainly for social networking. This is because 60 percent (256 smartphone users) of the respondents state that they used smartphones for access Facebook. In addition Morgan (2010) has found that with life changing from smartphone to social networking such as MySpace, Facebook and Twitter encourage smartphone users to stay connected with groups of friends. This statement is also supported by Lippincott, (2010) where social need is one of the determinants of consumers' dependency on smartphones, this is because smartphones lead to the maintaining of relationships between and among individuals. Meanwhile 20 percent (85 smartphone users) of the respondents agreed that they use smartphones to browse internet (multi-purpose); these are the reasons behind why most smartphone users seek the smartphone device with the feature of; large screen, high internet speed and long battery power. Moreover the download music and read email was shown same percentage it was 8 percent (34 smartphone users). Finally 4 percent of respondents state that they use smartphones to watch YouTube. Based on the foregoing, it can be implied that advanced application in smartphone device make the user feel the comfort in using it and they totally rely on smartphones device.

The main goal of this research is to identify what factors persuade the smartphone ownership among Malaysians. According to Maslow theory “let the product suits to the need of consumers”. Therefore the smartphone must constantly need to change to meet the need of different level needs. The point is if smartphone manufacturers was producing featured looking smartphone it will encourage smartphone penetration among Malaysians. The data analysis has suggested that there is three potential factor affecting smartphone ownership among Malaysians. Overall the researcher found that the high price of the Smartphone, still the demand is increasing. It is true that hi-tech technology has played a vital role in attracting the Malaysian people towards

own Smartphone devices. Surprisingly when refer to the popular brand of smartphone it can be assumed that Malaysian consumer obsess with advertisement thus this study declare that advertisement also become one of the factor that influencing smartphone purchase decision among Malaysians. Based on research finding this study discovers that the smartphone ownership among Malaysians was influenced by their perception towards smartphone device and how its features and application was integrated in to development of their personal task. It can be found that the majority of smartphone users was using smartphone as entertaining tool and to maintain their social relationship. This is because Malaysian smartphone users believe that by using smartphone device will improve their job performance, keep maintain their social relation and also the multi-task features available in the smartphone influence them to adopt these device in their everyday life. Thus, the findings of this study confirmed that Malaysians consumer have the confidence on smartphone functions and usability of the device. It clearly implies that the practical experience and functional features of smartphone technology also leads to user's adoption toward this device.

CONCLUSION

Based on that, the data results conveyed that most of the smartphone users agreed that usefulness of these device play important roles for general use in their everyday life. Moreover, Malaysian smartphone users feel this device turns complex jobs into an easier way which serve as stimulator for several task. The Malaysians consumer decision making to purchase smartphone was influence by conscious of high quality with multi-task and also advertisement factors which optimize Malaysian consumer decision to purchase smartphone. Thus this research declares that the dominance of the smartphone with its capabilities is not doubted and is believed to provide Malaysians with best experience. Thus, this study concluded that the significant increase in Smartphone demand among Malaysians consumer is because of smartphones has multi-purpose features and application that are making their life easier. The above concerns are good for more in-depth study of future on smartphone preferred functions.

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