

# The Determinants of Mobile Marketing Services Acceptance among Gen-Y Consumers

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**Abstract:** This research aims to examine the acceptance of mobile marketing services by computing the consumers' intention towards actual use for mobile marketing services. This research's conceptual framework is developed based on the Theory of Planned Behaviour by examining the attitude, subjective norms, perceived behavioural control, intention, and actual use. This research also strives to identify the effects of risk perception on purpose, which still an inadequacy of explanation in mobile marketing usage among Gen Y. A total of 650 questionnaires was distributed to the full-time university students of four Universities in the East Coast Region in Malaysia. The main statistical technique used in this research was SmartPLS and SPSS software. This research indicated that attitude, subjective norms, perceived behavioural control, and perceived risk tend to influence intention to use. The behavioural intention was also found to influence the actual use of mobile marketing services among generation Y. Based on the findings, the theoretical and practical implications of the study, limitation, and future studies suggestions were discussed in this research.

**Keywords:** Mobile marketing services, Subjective Norm, Perceived Behavioural Control, Perceived risk.

## 1. INTRODUCTION

The dominance of mobile phone technologies is becoming indisputable in our daily lives. This is no doubt that the mobile phone has become a necessary tool for Malaysians. Mobile phone users cannot be separated from their mobile phones. As reported by Multimedia Communications and Commission Malaysia (MCMC) in 2017, three-quarters of mobile phone users (71.4%) were constantly checking their mobile phone, although the phone does not ring. This indication has impulse services providers to force on the positive indication of mobile phone usage. Significantly, this led to strengthening the trend of mobile marketing services among mobile phone users. Since the mobile platform has become a vibrant and steady approach of communication, marketers must utilise the mobile marketing services opportunity to inflict their product and services information to the target market.

Taking in the view of the definition by Varshney and Joy (2015), this research defined mobile marketing services as any marketing forms, advertising, or sales promotion activities targeted towards the consumers that conducted on a mobile channel, which refers to all types of services that can be used by users by mobile phone. Furthermore, mobile-based brand advertising and promotions that mainly targeted young consumers

become favourable due to acceptance of mobile phones since young consumers, specifically generation Y, clench the technology applications in surfing for products and services which consequences they abandon the traditional consumers buying action (Ismail, Razak, Zainol, & Sallehudin, 2019; Luqman, Razak, Ismail & Alwi, 2019). In short, marketers should focus their target towards Gen Y by understanding their culture, behaviour, and usage intention of mobile phones compared to other age groups because Gen Y is the highest mobile phone user in Malaysia. The marketers can utilise this channel by targeting young consumers at any time since young mobile phone users have an "intimate relationship" with their mobile phone (Ismail *et al.*, 2016). In reality, marketers incessantly adjust their tactics and strategies proficiently with their consumers' evolving behaviour. Therefore, it is crucial to explain Generation Y's behavior theoretically and practically to retain consumers in the new digital revolution. Although there is much evidence concerning the essential growth of the wireless market and its immature role as a marketing communication platform, there is still a lack of study on the factors influencing mobile marketing acceptance among young consumers. Since the researchers and practitioners have an interest in understanding the reason for individuals' acceptance of information technology, it is deemed necessary to create, access, and predict the consumers' response to new technology.

Additionally, there is limited research to elucidate consumer acceptance for mobile marketing and their

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usage behaviour, even though mobile marketing has been identified as the renowned platform (Ismail *et al.*, 2016). Several past studies are focusing on consumers' acceptance towards mobile marketing services and mostly in western countries (Pan, Chew, Cheah, Wong, & Tan, 2015). Even though mobile marketing has been recognised as the renowned platform, there is still very scant research fields investigate the consumers' perception and acceptance particularly. Furthermore, there are also limited mobile marketing services studies especially in Malaysia context (Saeed & Bekhet, 2018). Hence, this research intended to bridging the gap by identifying factors influence acceptance of mobile marketing services among generation Y in Malaysia.

## **2. LITERATURE REVIEW**

### **2.1. Theory of Planned Behaviour (TPB)**

TPB theory has given a great explanation about individuals' intention to establish their behaviour, and this theory is an extended version from the Theory of Reasoned Action (TRA) (Ajzen, 1991). Three determinants, namely attitude, subjective norms, and perceived behavioural control, influence behavioural Intention based on this theory (Ajzen, 1991). Furthermore, this theory been proved by past studies, and the model provides significant explanation towards determinants for individuals' behaviour (Dahiya & Gayatri, 2017). Since TPB is a general model and subject to criticism, it is still exposed to integrating any variable that can explain intention and behaviour. Moreover, perceived risk has notably influenced consumer's intention and behaviour, incorporating this variable into the model of mobile marketing acceptance is rationally justified.

### **2.2. Behavioural Intention**

Behavioural intention elucidated as "the strength of individuals' intention to perform a specific behaviour" (Fishbein & Ajzen, 1975). Besides, behavioural intention can be explained as a expression of individuals' interest to accomplish a certain behaviour (Alam, Omar, Mohd Ariffin & Nik Hashim, 2018). Moreover, intention can be clarified as the adjacent predictors for behaviour (Alam *et al.*, 2018). Ajzen and Fishbein (1975) originated behavioural intention in the TRA theory that explains the expected intention that motivated by several factors which develop behaviour, and it can estimate the level of willingness for an individual to perform a certain behaviour. Indeed, TPB theory originated by Ajzen (1991) is a descriptive

model been adopted in various studies towards behavioural intention. One of the studies from Alam *et al.* (2018) is distinguished behavioural intention to adopt mobile banking among Generation Y. The study provides future intuition towards component that spearhead consumers, specifically the student population for using mobile banking services.

### **2.3. Actual Use**

Even many prior studies are identifying the acceptance for mobile marketing; however, research related to behavioural intention towards mobile marketing services still limited, which indicated it remains restricted to provide the understanding and descriptive explanation towards mobile marketing acceptance. Several studies validate the effect between Intention and actual usage. However, it still very scant studies focusing on actual behaviour or actual use for a specific technology (Barnett, Pearson, Pearson, & Kellermanns, 2015). Many past studies compress intention as great determinants towards certain behaviour (Taherdoost, 2018). Importantly actual usage had been identified in various field of study including information technology (Shen, Ho, Ly, & Kuo, 2019), internet banking (Alalwan, Dwivedi, Rana & Algharabat, 2018), internet usage (Kang, Mun & Johnson, 2015), e-commerce (Wang, Wang & Liu, 2016) as well as instant messaging (Oghuma, Libaque-Saenz, Wong & Chang, 2017). There are various studies identified to mobile services, however, not on actual usage.

### **2.4. Attitude**

Attitude regards individuals' assessment positive or negative towards a certain behaviour (Ajzen, 1991). In terms of innovation adoption, individuals' attitude triggered by their beliefs based on the consequence of innovation adoption. A positive or negative feeling towards accomplishes the aimed behaviour can be defined as an attitude towards certain behavioural Intention (Varshney & Joy, 2015). Attitude towards using of technology is signified to the degree in which using technology is regarded positively or negatively by an individual . Therefore, attitude is attained by the strength of the person's belief that adopting the innovation will lead to certain consequences. The study by (Mian & Rizwan, 2013) proved that attitude has the highest contribution in developing intention to use mobile banking. The result of their study has demonstrated that attitude significantly influence on intention to use mobile banking.

## 2.5. Subjective Norm

Subjective norms elucidate as the perception from an individual based on thirds parties' opinion whether he or she should conduct a particular behaviour (Ajzen, 1991). However, subjective norms also elucidate as the discerned pressure from the third parties that consumers concern towards them. Venkatesh, Morris, Davis and Davis (2003) argued that subjective norm defined as the level for an individual to perceive that important from other people to believe that they use an innovation. This can be proven by the study from Sun and Chi (2018) found that there is positive related towards subjective norm and determinants for mobile commerce. Moreover, TPB has also proposed that subjective norm is become one of the influential factors of behavioural intention, which in turn will affect one to adopt a certain behaviour. This signify that subjective norm is the individual's belief, which is influenced by society and the surroundings. Also, the subjective norm is a predecessor for consumer behavioural intentions as well as a predictor for consumer behaviour (Ismail *et al.*, 2016).

## 2.6. Perceived Behavioural Control

Perceived behavioural control defined as the willingness for an individual control personal factors or external factors that might favourable or restrain to conduct behaviour (Ajzen, 1991). Furthermore, perceived behavioural control also recognised as individuals' perception constructed by internal and external restrictions which included resources and technology facilitating conditions (Ajzen, 1991). Therefore, perceived behavioural control classify as an impression for a mobile user based on their internal and external restrictions towards intention and usage of a specific technology. The internal factor refers to individuals' confidences, knowledge, and self-efficacy capable of influencing individuals' control. Carter and Yeo (2016) appended individuals' belief usually ascendancy their behavioural intention due to the constraints that might abet or barrier the act for specific behaviour. The study from Al-Gahtani (2016) explained that perceived behavioural control positively related to intention for e-learning. However, Ismail *et al.* (2016) argued that perceived behavioural control does not significant towards intention or adoption behaviour. Therefore, further investigation needs to be explored since inconclusive evidence the effect of perceived behavioural control on behavioural intention.

## 2.7. Perceived Risk

The concept risk becomes key determinants as problems or issues to various field such as economy, management, and public services (Hong, Nawi, Zulkifli, Mukhtar & Fahmie, 2019). Specifically in the mobile service context, risk plays an crucial role in affecting consumer's behaviour on their purchases since mobile marketing services involve technologies, online transactions, Internet, downloading activities, and many more, which may comprise some important potential risks. Perceived risks are declared as a key constituent for buyers and seller relationships, either online or offline (Hong, Zulkifli & Hamsani, 2016). In Malaysia, Generation Y concerned about risks which influence directly their online Intention (Muda, Mohd & Hassan, 2016). Perceived risk is the most important determinant for consumer's adoption of mobile services in the mobile context (Ismail, Razak, Zainol & Sallehudin, 2019). Therefore, risk can be potential determinants towards Generation Y for using mobile marketing services.

## 2.8. Research Hypotheses

The research framework in this research integrates the variables of attitude, subjective norm, perceived behavioural control, perceived risk, and behavioural intention. Furthermore, the following construct and hypotheses proposed were supported by past studies from the literature review. Therefore, the following hypotheses are proposed.

H1: Attitude positively effect on intention to use mobile marketing services.

H2: Subjective norm positively effect on intention to use mobile marketing services.

H3: Perceived behavioural control positively effect on intention to use mobile marketing services.

H4: Perceived risk will have negatively effect on intention to use mobile marketing services.

H5: Behavioural Intention positively effect on actual usage of mobile marketing services

## 3. METHODOLOGY

The target respondents in this study were full-time students from four public universities who are mobile users either use prepaid or post-paid services from any telecommunications' operators in East Coast of

Peninsular Malaysia. Furthermore, a multistage probability, proportionate stratified sampling as a method to selected suitable target respondents as a subject for this study. A total of 650 self-administered questionnaires (booklet form) were distributed towards students of the public university in the East Coast region in Malaysia. There are six constructs, namely perceived risk, attitude, subjective norm, perceived behavioural control, and behavioural intention measured in this study. The measurement items were adapted from different sources to suit the study context. Each item corresponding to the constructs was measured using a seven-point Likert scale, with answer choices ranging from “strongly disagree” (1) to “strongly agree” (7), and most of these items were adapted from the extant literature. The scale items for perceived risk were adapted from Chen (2008), whereas perceived behavioural control from Shih and Fang (2004). Meanwhile, items for actual use were adapted from Davis (1989) and Venkatesh *et al.* (2003). Instead, the measurement items for attitude, subjective norm, and the behavioural intention was from Nor and Pearson (2008) and Taylor and Todd (1995). The data set was coded and analysed using the Statistical Package for Social Science (SPSS) and SmartPLS 3.0.

#### 4. RESULTS AND DISCUSSION

There were 650 questionnaires distributed to the full-time university students for four Universities located at East Coast region in Malaysia. However, 536 was identified as usable for the data analysis process, and 294 responses were discarded due to incomplete. In this research, females dominated in terms of gender distributions. In terms of age, the majority of the respondents were 20 years old, representing 22.6% following by 19 years old initiated 21.1%. The majorities are of Malay ethnicity with 488 respondents (91.0%), followed by Chinese with 23 (4.3%), Indian with 18 (3.4%) and others with seven respondents (1.3%). The highest completed education was 436 (81.3%) respondents at Bachelor's Degree, followed by 80 (14.9%) at Diploma level, 16 (3.0%) at Master's Degree and 4 (0.7%) at Doctorate Degree. In terms of mobile service providers that respondents subscribe for the services, 46.6% were using Celcom services, 26.5% of them were using services provided by Maxis, 19.4% were using services from DiGi, and 3.5% used U mobile services. Furthermore, respondents were requested to respond to the type of mobile marketing services used. In particular, respondents mainly used mobile entertainment with 166 (21.3%), mobile

information with 114 (21.3%), mobile coupon with 26 (4.9%), mobile contest with 21 (3.9%), mobile banking with 121 (22.6%), mobile payment with 54(10.1%), mobile Internet with 278 (51.9%) and other mobile marketing services with 6 (1.1%).

#### 4.1. Analysis of the Measurement Model

As illustrated in Table 1, the composite reliability was assessed to evaluate the internal validity of the measurement model. In this study, the composite reliability of the constructs range from 0.89 to 0.97. These were all greater than the benchmark of 0.70 as recommended by Hair *et al.*, (2016). Moreover, Cronbach's alpha was used to reconfirm the convergent validity of the model. As well as the composite reliability, Cronbach's alpha also uses the benchmark of 0.70 as its threshold. In all the constructs, the Cronbach's alpha exceeded the recommended value. These results warrant a appropriate ground for further analysis. There is another test on the convergent validity which is the average variance extracted (AVE). The average variance extracted of all the constructs in the model ranging from 0.60 to 0.84, indicate a good convergent validity of the model.

This study assessing discriminant validity by examining whether the AVE for the item is greater than its shared variance. This tests whether the square root of the AVE for a given construct is greater than the absolute value of the standardized correlation of the given construct with any other construct in the analysis. This process is shown in the Table 2, which explains that the discriminant validity of the model is established. Suggested stronger test of discriminant validity: the square root of the AVE for each construct should exceed the value of the standardized correlation with any other construct. As showed in the table below, the square root of AVE is greater than the correlation with any other variables. Therefore, the test of discriminant validity was also met.

#### 4.2. Hypothesis Testing

Table 3 indicated the path coefficient analysis results in this study. Based on Hair *et al.* (2016) the criteria for the accepted directional hypothesis was p-value must less than 0.05, and t-value must more than 1.645. Accordingly, the criteria that suggested by Hair *et al.* (2016) indicated five hypotheses (H1 to H5) in this study were accepted.

**Table 1: The Measurement Model Analysis Result**

Constructs	Item	Loading	CR	AVE	VALIDITY
Attitude	ATT01	0.866	0.957	0.816	YES
	ATT02	0.890			
	ATT03	0.927			
	ATT04	0.929			
	ATT05	0.903			
Subjective Norm	SN01	0.810	0.932	0.775	YES
	SN02	0.898			
	SN04	0.910			
	SN05	0.900			
Perceived Behavioral Control	PBC01	0.856	0.935	0.782	YES
	PBC02	0.900			
	PBC03	0.897			
	PBC04	0.885			
Perceived Risk	PR01	0.745	0.902	0.607	YES
	PR02	0.785			
	PR03	0.774			
	PR04	0.793			
	PR05	0.833			
	PR07	0.735			
	Behavioural Intention	BI01			
BI02		0.918			
BI03		0.925			
BI04		0.922			
BI05		0.912			
Actual Usage	ACTUSE01	0.883	0.897	0.813	YES
	ACTUSE03	0.920			

**Table 2: The Discriminant Validity**

	ACTUSE	ATT	BI	PBC	PR	SN
ACTUSE	0.902					
ATT	0.152	0.904				
BI	0.142	0.638	0.918			
PBC	0.208	0.555	0.620	0.884		
PR	-0.059	-0.157	-0.154	-0.015	0.779	
SN	0.128	0.531	0.566	0.519	0.006	0.880

Note: ACTUSE: Actual Use; ATT: Attitude; BI: Behavioural Intention; PBC: Perceived Behavioural Control; PR: Perceived Risk; SN: Subjective Norm.

**Table 3: The Path Coefficient Result**

Relationship	Hypothesis	Direct effect ( $\beta$ )	T-statistic	P-value	Significant
ATT > BI	H <sub>1</sub>	0.320	6.607	0.000	Significant
SN > BI	H <sub>2</sub>	0.232	5.362	0.000	Significant
PBC > BI	H <sub>3</sub>	0.320	6.160	0.000	Significant
PR > BI	H <sub>4</sub>	-0.104	2.971	0.003	Significant
BI > ACTUSE	H <sub>5</sub>	0.144	3.006	0.003	Significant

Note: ACTUSE: Actual Use; ATT: Attitude; BI: Behavioural Intention; PBC: Perceived Behavioural Control; PR: Perceived Risk; SN: Subjective Norm

## 5. CONCLUSION

This research has established the robustness of the Theory of Planned Behaviour for research particularly in the area of mobile marketing services usage among Gen Y. All findings initiated that positive effect between attitude, subjective norm, and perceived behavioural control towards intention however only perceived risk give negative relationship towards intention for mobile marketing services. The structural equation modeling technique was used to evaluate the variables to examine the reliability and validity of the measurement variables. The result of this paper provides necessary reference to promote mobile marketing services in practice. Based on the result of this study, mobile marketing services could impact usage among the Gen Y.

Moreover, the frequently mentioned needs pertaining to mobile marketing demonstrate several benefits that continue to be empirically endorsed with this study. Past studies have found that the TPB has been applied in explaining behavioural intention.

There are numerous plausible focuses, which can be enhanced regarding mobile marketing, but what we are looking for is to provide more and more complete services and fulfill their prerequisites. It is imperative to focus on the Gen Y when using an online shopping environment in which there are a large number of different performers.

Despite of this paper has attained some accomplishments, it also faces a few challenges with some limitations. Firstly, due to limitation of time, we only achieved a small amount of questionnaires. Thus, there is an inadequacy in the sample amount comprising only of East Coast Region University students, more samples in other region should be considered in the future study. Secondly, this paper researched mobile marketing services, and as such, it should be reasonable and focus on applying the research results to specific mobile services. Thirdly, since this paper considered into adaptable constructs, it should be sensible and centered to employ the actual evaluation outcomes to a specific other mobile services context. In the upcoming research, we can enhance the models for further research.

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