Mobile Marketing Services: What’s Influence Gen Y Consumers To Accept It?

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Abstract
This study is examined the acceptance of mobile marketing services by measuring the consumers’ intention and actual usage of mobile marketing services. Grounded upon extended Theory of Planned Behaviour, this study develops the conceptual framework by examining the attitude, subjective norm, perceived behavioural control, intention and their actual usage. This study also attempts to identify the effects of risk perception on actual usage, which still scarcity of explanation in mobile marketing usage among Gen Y. A total of 800 questionnaires were distributed to the full-time university students of four universities in the Northern Region of Malaysia. Structural Equation Modelling (SEM) with AMOS is the main statistical technique used in this study. The study has revealed that attitude, subjective norm, perceived behavioural control, perceived risk and behavioural intention tend to influence generation Y usage of mobile marketing services. Based on the findings, the theoretical and practical implications of the study as well as limitations and suggestions for future studies are also discussed.

Keywords: Mobile marketing services, Acceptance, Attitude, Subjective Norm, Perceived Behavioural Control, Perceived risk, Actual use.

1.0 Introduction
The influence of mobile phone technologies has now become undeniable in our daily lives. The mobile phone has become a necessary tool for Malaysians. The association between mobile phone use and their mobile phone has been described in a report by Multimedia Communications and Commission Malaysia (MCMC) in 2017, which found that three-quarters of mobile phone users (71.4%) were constantly checking on their mobile phones even when it does not ring. Additionally, this kind of behaviour is normal to be seen as it is regarded as a current practice with the application of WhatsApp, Facebook, Instagram and other social media. Additionally, the report also showed that young users of mobile phones have a strong attachment to their phones. This sign has urged service providers to force on the positive indication of mobile phones usage. This incredible phenomenon has led to the increasing trend of mobile marketing services among mobile phone users. The mobile platform has become a fast powerful approach to communication. Marketers consequently utilize the mobile marketing opportunity to deliver information about their products and services to their target market. Taking consideration the definition by Shankar and Balasubramanian (2009), this study defined mobile marketing...
services as any form of marketing, advertising or sales promotion activities targeted at the consumers and are conducted over a mobile channel. Similarly, it also refers to all kind of services that can be used by users via mobile phone. Moreover, the acceptance of mobile phones has resulted in mobile-based brand advertising and promotions that mainly targeted to young consumers. This particular group or specifically the generation Y users grasp the technology applications in surfing for products and services. They abandon traditional consumers buying action (Ismail et al., 2016). Therefore, marketers should aim their target towards understanding Gen Y consumers’ culture, behaviour, and usage behaviour of mobile phone more than other age groups. This is because this age group is the highest users of mobile phone in Malaysia.

Younger users of mobile phone endorse an “intimate relationship” with their mobile phones. Due to the users have such a relationship; mobile marketers can reach young consumers at any time (Okazaki, 2009). Marketing experts constantly adjust their approach and strategies to competently fit with their consumers’ evolving behaviour. Hence, a better understanding of generation Y behaviour is important both theoretically and practically as it is crucial in acquiring and retaining consumers in the new digital revolution. As young consumers are challenging to be reached using the conventional medium of communication (Bauer, Reichardt, Barnes, & Neumann, 2005), mobile marketing seems to be more appealing when aiming at the young consumer target group. Despite widespread evidence concerning the vital growth of the wireless market and its embryonic role as a marketing communication medium, there is very scant research on what has influenced mobile marketing acceptance among young consumers across global markets. The researchers and practitioners have an excessive interest in understanding the motives on why people accept information technology for them to create, access and predict how users will respond to new technology (Dillon & Morris, 1996). Even though mobile marketing has been recognized as the renowned platform, there is still a lot of researchable fields to be investigated particularly the consumers’ perception and acceptance.

There is still very inadequate research to explain the consumer acceptance of mobile marketing and the understanding of their usage behaviour (Balasubraman, Peterson, & Jarvenpaa, 2002; Rohm & Sultan, 2006; Varnali & Toker, 2010). Moreover, most of the previous studies that focused on consumers' acceptance of mobile marketing services were mostly done in western countries (Roach, 2009; Rohm & Sultan, 2006). There are very limited studies exist in the context of Malaysia (Tsu Wei et al., 2009). Hence, this study helps to bridge the gap by empirically test a conceptual model that illustrates factors influence acceptance of mobile marketing services among generation Y in Malaysia.

2.0 Literature review

2.1 Theory of Planned Behaviour (TPB)

TPB introduced by Ajzen is an extension of the Theory of Reasoned Action (Ajzen, 1991). According to TPB, an individual's behaviour can be explained by his or her behavioural intention, which is jointly influenced by attitude, subjective norms, and perceived behavioural control. Additionally, past empirical studies have proven the suitability of this model for understanding user determinants of behaviour (Eagly & Chaiken, 1993; Ghyas & Kondo, 2015; Syukriah Ali, et al., 2014). Therefore, the
theoretical description of the role of additional variables within the TPB is required for the theoretically comprehensible model to provide a better explanation acceptance of the technology. The theoretical description should indicate the process of how the new variable influences intentions and behaviour, its relationship to existing components of the TPB. As TPB is a basic model and subject to criticism, it is still open to inclusion of any variable that can increase the understanding of intention and behaviour.

2.2 Behavioural Intention

Generally, the behavioural intention has been defined as “the strength of one's intention to perform a specified behaviour” (Fishbein & Ajzen, 1975, p. 288). Behavioural intention can be classified as an indication of individuals’ willingness to perform a given behaviour (Niaura, 2013). The intention has been claimed as the closest predictors of the behaviour (Ajzen, 2005). First behavioural intention idea has been formulated by Fishbein and Ajzen (1975) in Theory of Reasoned Action (TRA) which describes that intentions are expected to capture motivational factors that influence behaviour and can also be measured by how much effort someone is willing to employ when performing a behaviour. The Theory of Planned Behaviour established by Ajzen (1991) is an explanatory model that has been widely employed in various studies on behavioural intention. The use of behavioural intention in predicting the actual behaviour is well-organised in previous studies (Gitau & Nzuki, 2014; Karjaluoto & Alatalo, 2007; Sek et al., 2010). The study by Tan and Leby Lau, 2016, examined behavioural intention to adopt mobile banking among the millennial generation (Gen-Y). Their study attempted to provide further insight into the factors that lead consumers, particularly the student population to express an intention to use m-banking services.

2.3 Actual Use

Even though several studies are examining the acceptance of mobile marketing, the studies are limited to behavioural intention and specific context only. Those studies are still limited in providing the understanding and explanatory power of mobile marketing acceptance. Numerous studies have verified the relationship between intention and actual usage, prior studies also recognized that were very limited studies that focused on actual behaviour or actual usage of the technology (Jayasingh & Eze, 2009; Lu et al., 2009). Many studies only explain intentions and generally assume that they are good predictors of behaviour (De Cannière et al., 2009). Based on literature, previous empirical studies of actual usage had been conducted in the areas such as information technology (Venkatesh & Davis, 2000), internet banking (AL-Majali & Mat, 2010), internet usage (Van der Heijden, 2004), e-commerce (Mohd Suki et al., 2008), and instant messaging (Lu et al., 2009). Considering the lack of research to explain the acceptance of mobile marketing and understanding the usage behaviour (Balasubraman et al., 2002; Sultan et al., 2009; Varnali & Toker, 2010), the use of actual usage behaviour as the final outcome variable in this study is reasonably appropriate in determining the consumer's acceptance of mobile marketing services.
2.4  Attitude

Attitude refers to an individual's positive or negative evaluation of performing a particular behaviour (Ajzen, 1991). Attitude towards adopting innovation is generated by the individual's significant belief about the consequences of adopting the innovation (behavioural belief) and evaluation of these consequences. In general, attitude towards certain behavioural intention can be explained as individuals’ positive or negative feelings about performing the aimed behaviour (Bagozzi, 2011; Fishbein & Ajzen, 1975; Taylor & Todd, 1995). In this study, attitude towards using mobile marketing services is defined as the consumer's positive or negative evaluation towards the intention to use mobile marketing services. The individuals will have more intention to perform certain behaviour if they have a more positive evaluation of that behaviour. It can be said that if the individual has a positive evaluation of certain behaviour, the greater the individual's intention to perform a specific behaviour. In this scenario, if the consumers have positive evaluation towards using mobile marketing services, the greater the consumers' intention to perform mobile marketing services. Research by Varshney and Joy (2015) explored factors influencing the intention to adopt mobile banking services in the Malaysian context. Another prior study by Dincheva and Nikolovska (2016) focused on Generation Y's attitudes, perceptions, and responses and their impact on purchase intentions based on the Theory of Planned Behaviour. It had been supported by Constantine (2010) who claimed Gen Y is known as technology savvy and become the first generation to develop entirely online. The assumption is that Gen-Y encountered the mobile ads of the products.

2.5  Subjective Norm

Subjective norm refers to an individual's perceptions of other people's opinions on whether he or she should perform or not a particular behaviour (Ajzen, 1991). Subjective norm also refers to the perceived pressure from the people who consumers think are important to them. According to Venkatesh et al. (2003), subjective norm refers to the degree in which individuals perceive that important or significant others' believe that they should use an innovation. As proven in a study conducted by Fong and Wong (2015), subjective norm and attitude towards mobile banking usage had a positive relationship on the determinants of mobile commerce. It is significantly influential in predicting behaviour intention and has been supported by Yu (2012) who found that there is a positive relationship between subjective norm and attitude towards mobile banking usage on determinants of mobile commerce services. Subjective norm is also considered as an antecedent of consumer behavioural intentions and predictor of consumers' behaviour (Ranjbarian et al., 2014).

2.6  Perceived Behavioural Control

Perceived behavioural control refers to the extent to which the person believes that he/she has control over personal or external factors that may facilitate or constrain the behavioural performance (Ajzen, 1991). Perceived behavioural control can be understood as a person's perceptions based on internal and external constraints, including resources and technology facilitating conditions (Ajzen, 1991;
Taylor & Todd, 1995). In a mobile marketing context, perceived behavioural control describes the mobile user's perception of internal and external constraints towards their intention and usage of the technology. The internal factor that influences individuals' control is their confidence, knowledge and self-efficacy. Consumers' behavioural intention is usually directed by their beliefs due to the existence of constraints, which may assist or hinder the act of a particular behaviour (He & Li, 2010). The prior study by Lee (2010) verifies that perceived behavioural control is positively related to the intention to use e-learning. However, a prior study by Al-Ghaith (2015) revealed contradicting finding that perceived behavioural control has no significant effect on participation intention or behaviour of adopters. This inconclusive evidence warrants for further investigation on this relationship.

2.7 Perceived Risk

The concept of risk is crucial to many problems or issues including economy, management and public services fields (Yang & Zhang, 2009). Particularly in a mobile service context, risk also plays an important role in influencing consumers' behaviour since mobile marketing services involved technologies, online transactions, Internet, downloading activities, and many more which may comprise some important potential risks. Perceived risk has been claimed as a key element of buyer-seller relationships (Dowling & Staelin, 1994; Torkzadeh & Dhillon, 2002). Also, Dowling and Staelin (1994) define perceived risk as an assessment of uncertainties or lack of knowledge about the distribution of potential outcomes. In a mobile service context, risk also plays an important role in affecting consumers' behaviour since mobile marketing services involved technologies, online transactions, Internet, downloading activities, and many more which may comprise some important potential risks. Generally, consumers expect a positive outcome, which may surpass their prospect from their purchase experience. In Malaysia, connecting online intention influenced by perceived risk among generation Y (Tanadi et al., 2015). Gen-Y is concerned to purchase goods online because the items might be fake, they were not delivered after the payment, their personal information will be leaked out to other companies that can affect their privacy and the product isn't delivered as what they assumed. Risk also has a significant effect on generation Y in using mobile marketing services.

2.8 Research Hypotheses

The research model integrates the variables of attitude, subjective norm, perceived behavioural control, perceived risk, behaviour intention, and actual use. The proposed construct and hypotheses are supported by prior studies from the literature review. The following hypotheses are proposed;

2.8.1 Relationship Between Attitude and Intention To Use

Prior studies have proven that the effect of attitude on behavioural intention which in turn will affect behaviour. Particularly, related to mobile service field, several studies have been conducted and have verified the relationship between attitude and behavioural intention to use (e.g. Bauer et al., 2005; Tan & Leby Lau, 2016). The study in mobile service-related also verifies that attitude has positively influenced
behavioural intention to use (e.g. Hung et al., 2013; Rohm & Sultan, 2006). Taking into consideration the previous studies that have proved the positive effect of attitude on behavioural intention which in turn will affect actual behaviour, therefore, this study hypothesizes that:

H1: Attitude will have a positive effect on the intention to use mobile marketing services.

2.8.2 Relationship between Subjective Norm and Intention to Use

The effect of subjective norm on behavioural intention has been validated in numerous studies of IT and mobile services context. A study by Karahanna et al., (1999) on the intention to adopt and continue to use Microsoft Windows 3.1 among PC’s users has shown that subjective norm has a significant influence on behavioural intention. Another study by Bhattacherjee (2000) on acceptance of electronic brokerage (e-brokerage) has also confirmed the relationship; subjective norm has a significant effect on intention. Other studies have also proved that subjective norm had a significant influence on behavioural intention (Nor & Pearson, 2008; Ramayah et al., 2009). Subjective norm has also been recognized to play a significant role in determining the adoption of mobile technology (Varshney & Joy, 2015; Yu, 2012). Particularly, studies in mobile service context have also verified that subjective norm has significantly influenced behavioural intention (Bauer et al., 2005; Karjaluoto & Alatalo, 2007). Therefore, the third hypothesis for this study can be inferred as:

H2: Subjective norm will have a positive effect on the intention to use mobile marketing services.

2.8.3 Relationship Between Perceived Behavioural Control (PBC) and Intention To Use

Particularly, several empirical studies have found a relationship between PBC and intention (Chau & Hu, 2001; Shih & Fang, 2004). Other studies have also proved that perceived behavioural control is positively related to behavioural intention (Ma’ruf et al., 2005; Nor & Pearson, 2008). Specifically, in the mobile services context, the studies have also verified that perceived behavioural control positively influence behavioural intention (Lee, 2010; Tsuen-Ho et al., 2006). Since previous studies have proposed that perceived behavioural control positively influences behavioural intention, the present study comes up with the third hypothesis:

H3: Perceived behavioural control will have a positive effect on the intention to use mobile marketing services.

2.8.4 Relationship Between Perceived Risk (PR) and Intention To Use

According to Mitchell (1999), perceived risk theory has great potential when explaining how a perceived risk directly influences purchase intention, which is usually referred to as a successful indicator for forecasting the actual purchasing
decision. Im et al., (2008) declare that perceived risk or uncertainty affects people's confidence in their decisions. In previous studies on consumer research, perceived risk is defined as the perceived uncertainty in a purchase situation. Following Stone and Grønhaug's (1993) conceptualization, this study defines perceived risk as to the subjective expectation of a loss. Various studies verify the effect of perceived risk on intention related to consumer behaviour in various fields such as electronic commerce (Belkhamza, 2009; Kim et al., 2008), e-filling system (Azmi & Bee, 2010), purchasing tickets on-line (Kim et al., 2005), purchasing via mail order (Simpson & Lakner, 1993), and Internet banking (Arora & Kaur, 2018). Particularly in a mobile service context, a study by Kleijnen, et al., (2004) on the adoption of mobile game verifies that perceived risk is the most significant factor in the adoption of mobile game. A substantial number of studies have disclosed the significant and negative effects of perceived risk on intention (Marriott & Williams, 2018). As mentioned above, risk perception is believed to influence consumers' willingness to adopt mobile marketing as an innovation. The causal relationship between risk perception and behavioural intention to use mobile marketing has been validated as a negative relationship. The present study therefore hypothesizes:

H4: Perceived risk will hurt the intention to use mobile marketing services.

2.8.5 Relationship Between Intention to Use and Actual Use

Intention to use the service is defined as the strength of one's intention to perform a specified behaviour (Fishbein & Ajzen, 1975). In this study, following Sultan et al. (2009) behavioural intention or intention to use is referred to respondents' receptiveness and intention to engage in activities such as receiving product or service information related to marketing communications, promotional offers, purchasing or using the product or services (e.g. mobile music, downloaded ring tone, wallpaper), involved in mobile banking transaction, etc. on their mobile phones. The use of behavioural intention (BI) in predicting the actual behaviour is well recognized in previous studies (Karjaluoto & Alatalo, 2007; Koivisto, 2009). Shih and Fang (2004) in their study of intention to use Internet banking have found that intention to use is a significant indicator of actual user behaviour. In a study by Karjaluoto and Alatalo (2007) on consumers' intention to participate in mobile marketing concludes that intention is a strong indicator of behaviour. The study by Lu et al. (2009) in determining Chinese users' acceptance of instant messaging services also discloses that behavioural intention to use is positively related to the actual usage. Furthermore, the study by Khan et al. (2017) and Shin et al. (2009) on understanding the users' acceptance of multimedia messaging services (MMS) discovers that behavioural intention has significant relationships with MMS usage behaviour. In a study by Shin (2009) on understanding consumers' acceptance of mobile wallet confirms that individual's intention to use will have a positive effect on that individual's usage behaviour. In another study by Sek et al. (2010) in determining the users' acceptance and adoption of smartphone for learning, reveals that actual use is significantly influenced by student's intention to use the technology. Taking into consideration of the previous studies that have proved the effect and positive relationship between intention to use and actual usage (Hung et al., 2013; Karjaluoto & Alatalo, 2007; Pedersen, 2005; Sek et al., 2010; Shin, 2013; Shin et al.,
2009), this points to the fifth hypothesis:

H5: Behavioural intention will have a positive effect on the actual usage of mobile marketing services.

3.0 Methodology

Subjects of this research consist of mobile phone users who use prepaid or post-paid services regardless of any telecommunication's operators in the Northern Region of Peninsular Malaysia. Full-time students from four public universities in the Northern Region area were selected as subjects for this study. This study employed a multi-stage probability sampling, by dividing the samples into smaller groups (clusters) based on the four public universities in the Northern regions. The data has been collected using self-administered questionnaires (in the form of a booklet) from the university students of a public university in the Northern Region of Malaysia. The respondents have been selected by using proportionate stratified sampling. A total of 800 questionnaires were distributed for the study. Six constructs were measured in this research: perceived risk, attitude, subjective norm, perceived behavioural control, behavioural intention, and actual use. 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). On the other hand, the source of 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 analyzed using Statistical Package for Social Science (SPSS) and Structural Equation Modelling (SEM) using Amos 16.

4.0 Data Analysis and Results

A total of 800 questionnaires were distributed to the full-time university students of four Universities in the Northern Region of Malaysia. Out of 800 questionnaires, 581 questionnaires were returned. Of this, 247 responses were found to be non-useable. Specifically, 42 questionnaires were incomplete; another 138 responses were excluded because the respondents are non-users of mobile marketing services since the focus of the study is on actual usage of mobile marketing services. Having dropped 67 cases for outliers, a total of 334 responses were usable for subsequent analysis that gives a valid response rate of 57.49%. In this study, gender distribution was higher for females. In terms of age, the majority of the respondents are between 21 to 23 years old representing 60%, about 32% 20 years and below, and 8% above 23. A majority of the respondents were doing Bachelor's Degree programme representing 83% of the total sample. The remaining respondents were doing Diploma programme 14% and another 3% were doing a Master or PhD programme. In terms of their ethnicity, about 68% were Malays, 25% were Chinese, 7% were Indians, and about 1% was another ethnic group. Majority of the students were using prepaid services representing 90%, whilst the remaining
8% were using postpaid and another 2% were using both services. In terms of mobile service providers that respondents subscribe for the services, about 41% were using Celcom services, 32% of them were using services provided by Maxis, 16% were using services from DiGi, 4% used Celcom and DiGi, 3% used DiGi and Maxis, 2% used Celcom and Maxis and about 2% of the respondents were using services provided by all mobile telecommunication operators. Respondents were also asked to answer questions about the type of mobile marketing services used. Most of the respondents used entertainment services (music, ring-tone, video, etc) representing about 84%. About 25% were using information services (news, weather news, sport news information, etc.), 15% of respondents were using mobile coupons, 7% used mobile contest, 3% were using mobile banking, 5% of them were using mobile payment, 40% were using mobile internet and about only 2% were using other services.

4.1 Analysis of the Measurement Model

Convergent validity was assessed based on the criteria that the indicator’s estimated coefficient was significant on construct factor. This study evaluates the measurement scales using three criteria suggested by Fornell and Lacker (1981). The Cronbach’s Alpha, shows in Table 1, indicated that the construct exhibited strong internal reliability, which all standard factor loading value (λ) in confirmatory factor analysis of the measurement model exceeded 0.5 and were significant at p=0.001. Besides, the composite reliabilities of construct ranged from 0.81 to 0.95, and the AVE, ranging from 0.61 to 0.82, was greater than the variance due to the measurement error. Discriminant validity assesses the extent to which a concept and its indicators differ from another concept and its indicators. According to Fornell and Lacker (1981), the correlations between items in two constructs should be lower than the square root of the average variance shared by items within a construct. As shown in Table 2, the square root of the variance shared between the construct and its items was greater than the correlations between the construct and any other construct in the model, thus fulfil the criteria for discriminant validity defined by Fornell and Lacker (1981). All diagonal values exceeded the inter-construct correlations, and thus the results confirmed that the instrument had satisfactory construct validity.

Table 1: Measures of the items and constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Loadings</th>
<th>AVE</th>
<th>CA</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>ATT01</td>
<td>0.82</td>
<td>0.77</td>
<td>0.94</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>ATT02</td>
<td>0.87</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>ATT03</td>
<td>0.91</td>
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<tr>
<td></td>
<td>ATT04</td>
<td>0.92</td>
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<td></td>
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<tr>
<td></td>
<td>ATT05</td>
<td>0.88</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Subjective</td>
<td>SN01</td>
<td>0.83</td>
<td>0.80</td>
<td>0.95</td>
<td>0.95</td>
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<tr>
<td>Norm</td>
<td>SN02</td>
<td>0.93</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>SN03</td>
<td>0.91</td>
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<tr>
<td></td>
<td>SN04</td>
<td>0.90</td>
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<td></td>
<td>SN05</td>
<td>0.88</td>
<td></td>
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<td></td>
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<tr>
<td>Perceived</td>
<td>PBC01</td>
<td>0.80</td>
<td>0.71</td>
<td>0.91</td>
<td>0.87</td>
</tr>
</tbody>
</table>
Table 2: Discriminant validity of the construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Loadings</th>
<th>AVE</th>
<th>CA</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Control</td>
<td>PBC02</td>
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<tr>
<td></td>
<td>PBC03</td>
<td>0.86</td>
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<tr>
<td></td>
<td>PBC04</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>PR02</td>
<td>0.83</td>
<td>0.78</td>
<td>0.93</td>
<td>0.93</td>
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<td></td>
<td>PR03</td>
<td>0.90</td>
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<td></td>
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<tr>
<td></td>
<td>PR04</td>
<td>0.95</td>
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<td></td>
<td>PR05</td>
<td>0.93</td>
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<td></td>
<td>PR06</td>
<td>0.66</td>
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<tr>
<td></td>
<td>PR07</td>
<td>0.81</td>
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<tr>
<td>Behavioural Intention</td>
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<td>0.96</td>
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<tr>
<td></td>
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<td>0.91</td>
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<tr>
<td></td>
<td>BI03</td>
<td>0.92</td>
<td></td>
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<tr>
<td></td>
<td>BI04</td>
<td>0.91</td>
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<tr>
<td></td>
<td>BI05</td>
<td>0.87</td>
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<td></td>
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<tr>
<td>Actual Usage</td>
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<td>0.77</td>
<td>0.61</td>
<td>0.75</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>ACT03</td>
<td>0.89</td>
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</table>

*Square root of AVE on diagonal

4.2 Hypothesis Testing

The result of hypothesis testing for intention and behaviour model of mobile marketing acceptance was demonstrated in Table 3. The result shows that there is a significant and positive relationship between behavioural intention and actual use or behaviour which is \( \beta = 0.391; CR = 7.294; p < 0.001 \). Therefore, H1 is supported. In supporting H2, this study discovers a significant and positive relationship between the attitude towards using mobile marketing services and the intention to use mobile marketing services \( \beta = 0.552; CR = 8.755; p < 0.001 \). For the relationship between subjective norm and behavioural intention, the structural link from the subjective norm to the intention to use mobile marketing services is positive and significant \( \beta = 0.142; CR = 2.472; p < 0.001 \), supporting H3. Furthermore, the relationship proposed in H4 is confirmed, that is perceived behavioural control predicted the intention to use mobile marketing services \( \beta = 0.302; CR = 5.229; p < 0.001 \). The results also provide any evidence for the effects of perceived risk on the intention to use mobile marketing services \( \beta = -0.215; CR = -4.380; p < 0.001 \). Therefore, H5 is supported.
Generally, the findings in this study support the predictive determinants of six factors which are attitude, subjective norm, perceived behavioural control, perceived risk, behavioural intention and actual usage. This designates that these variables are vital in mobile marketing services usage among young Malaysians. Attitude is found to positively affect user acceptance of mobile marketing services. This is consistent with prior research findings (Dincheva & Nikolovska, 2016; Varshney & Joy, 2015). Based on the result, this study has established that subjective norm positively influences the use of mobile marketing services among Gen Y. This result is constant with the findings from past research (Fong & Wong, 2015; Ranjbarian et al., 2014). The findings also signify that Gen Y was influenced by society and the environment surrounding. Perceived behavioural control was based on the assumption that individuals’ confidence in the ability to use a system would influence the adoption of a particular system or technology. Consequently, this study refers to Gen Y’s perception regarding access and opportunity needed towards using mobile marketing services. Finding in this study is aligned with the findings by Lee (2010). Furthermore, the perceived risk in this study is found to harm the usage of mobile marketing services among Gen Y. The result is coherent to the previous study by Tanadi et al. (2015) who discovered that in a mobile service context, the perceived risk becomes a significant factor in influencing consumers' behaviour. Then, this study has also revealed that behavioural intention had significant relationships with mobile marketing services usage. This suggests that the Gen Y who intent to perform a specific behaviour, their intention become a predictor of mobile service usage (Gitau & Nzuki, 2014; Tan & Leby Lau, 2016). Based on overwhelming support in previous studies, strong support by theories and significant result in this study, it can be declared that the Gen Y’s adoption and mobile marketing services usage can be predicted adequately from their intention to use mobile marketing services. Since actual usage dominantly explained by intention to use, mobile service providers should concentrate on increasing the consumers’ intention, which is directly influenced by attitude, subjective norm, perceived behavioural control and perceived risk. Increasing the users’ positive attitude, subjective norm, perceived behavioural

### Table 3: Results of Hypothesis Testing for Acceptance of Mobile Marketing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship between exogenous and endogenous variables</th>
<th>Standardized coefficient (β)</th>
<th>Critical Ratio (CR)</th>
<th>P Value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>ACT ←→ BI</td>
<td>0.391</td>
<td>7.294</td>
<td>0.000***</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>BI ←→ ATT</td>
<td>0.552</td>
<td>8.755</td>
<td>0.000***</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>BI ←→ SN</td>
<td>0.142</td>
<td>2.472</td>
<td>0.013***</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>BI ←→ PBC</td>
<td>0.302</td>
<td>5.229</td>
<td>0.000***</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>BI ←→ PR</td>
<td>-0.215</td>
<td>-4.380</td>
<td>0.000***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: ACT = actual, BI = Behavioural intention, ATT = Attitude, SN = Subjective norm, PBC = Perceived behavioural control and PR = Perceived risk, *p<0.1, **p<0.05, ***p<0.001.
control and reduce perceived risk will stimulate their intention towards using and finally contribute to usage behaviour.

6.0 Conclusion

This study has established the robustness of the Theory of Planned Behaviour for research particularly in the area of mobile marketing services usage among Gen Y. The investigation data postulates confirmation of a positive relationship between the constructs of attitude, subjective norm, perceived behavioural control and perceived risk on the intention to use mobile marketing services. Previous studies have found that the TPB has been applied in explaining behavioural intention. The findings denote that all variables significantly affect Gen Y mobile marketing services usage. The outcomes strongly propose that the six variables have a higher capability to predict and enlighten the determinant factors to use mobile marketing services among Gen Y. The result of this study provides an essential reference to promote mobile marketing services in practice. It is also proven that mobile marketing services could impact usage among Gen Y. There are numerous plausible attentions, which can be enhanced regarding mobile marketing services, but what mobile marketing practitioner's looking for is to provide more complete services and fulfil their prerequisites. It is crucial to focus on Gen Y when using the mobile platform in which there are a large number of different users. Although this paper has achieved certain accomplishments, it additionally encounters several limitations. One of the limitations of this study is that the respondents were only from the Northern Region and may not present the entire Gen Y in Malaysia such as Southern, West, and East Coast. The other part of Malaysia respondents might be influenced by different adoption factors. Hence, this research should extend and consider the responses from Gen Y in another part of Malaysia such as Southern, West, and East Coast as well. Secondly, this paper focused on mobile marketing services and as such, it should be reasonable to focus on applying the research into specific mobile businesses.

References


