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## Exploring drivers influencing consumers' attitude towards mobile marketing

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### ABSTRACT

*In the technology era, mobile marketing, i.e. smartphone, seems to be an effective tool for companies in delivering promotion message to their customers. Besides, business entities are faced with challenges of deciding efficient mobile marketing channels in order to attract more potential customers by demonstrating a positive attitude towards this type of modern-day marketing. Therefore, the purpose of this article is to examine the drivers that influence customers' attitude towards mobile marketing via various forms such as short message service, multimedia message service, quick response codes, social networks, games, shopping applications in the case of Can Tho city. By employing the methodologies of exploratory factors analysis and regression analysis, the results pointed out that perceived usefulness and perceived enjoyment affect positively customers' attitude while irritation influences negatively on customers' attitude. However, the study showed that there is no relationship between demographic factors and attitude towards mobile marketing. Some suggestions for further study in term of investigating a specific group of customers and a particular type of mobile marketing form are also addressed.*

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## 1 INTRODUCTION

Nowadays, the world is witnessing an immense advance on technology devices that facilitate people to communicate with others and/or to serve entertainment purpose in the technology era. In conventional way of marketing, customers often receive advertising information throughout on television or newspapers; the smartphone, however, has recently been a useful and popular tool for transferring marketing messages because of its progressive function associated with internet development. Therefore, the foundation of mobile marketing could assist products and service providers in improving new modern selling channel. In fact, mobile marketing refers sending promotion purpose by using the mobile phone via methods consisting of short message service (SMS), multi-

media message service (MMS), quick response (QR) codes, social networks, games, shopping apps that are offered by networking companies and others. Evidently, valuable outcomes are increased for both customers and retailers from mobile marketing tools implementation (Ström and Vendel, 2014). Mobile marketing has been applied via SMS since 2004 in the United States, whereas it has been firstly employed in Vietnam since 2006. It has a strong motivation for sending advertisement message to customers from business entities by other forms based on the development of mobile applications and services from professional companies in order to increase efficiency and effectiveness for their on-going businesses. The Vietnamese E-commerce and Information Technology Agency reports a high percentage of people using mobile devices to look up goods and services before buy-

ing and to obtain information on goods at least once a day in a survey at Ha Noi and Ho Chi Minh city in the year 2015. On the other hand, mobile marketing tools sometimes make mobile phone users feel annoyed and doubtful recently. Particularly, it is definitely reported that respondents are worried about the likelihood of being stolen their personal information and difficulty in checking product quality that accounts for 42% and 78%, respectively (Tuoi Tre News, 2015). Although opportunity for mobile marketing development will take a large percentage in the future, it faces network companies and business units with challenges to attract more customers by demonstrating a positive attitude towards modern-day marketing. In the academic field, there are various studies investigating customers' attitude towards mobile marketing types including of communication service, commercial service and entertainment separately in one specific research. However, most of these carried studies are oriented to young consumers in foreign countries because they engaged a large percentage of early adopters of mobile services (Grinter *et al.*, 2006; Batat, 2009; Yousif, 2012; Parreño *et al.*, 2013).

In Vietnamese context, however, study on mobile marketing is limited. For instance, Le and Ho (2014) investigated mobile advertisement - a kind of mobile marketing - by focusing on examining some popular channels including SMS, web banner and poster, in-app, pop-up, pop-under ads. Obviously, authors have not recognized this research point although mobile marketing apparently has offered interesting opportunities for marketers nowadays. Therefore, this article is aimed to examine key attributes affecting customers' attitude in the direction of mobile marketing via smartphones in a sample of Can Tho city which is one of the largest cities in Vietnam and there is no study on mobile marketing in this market. There are two main research questions are addressed from the purpose of this study:

- What do customers perceive currently about mobile marketing?
- What factors affect attitudes of customers towards mobile marketing?

## 2 THEORETICAL BACKGROUND AND HYPOTHESES

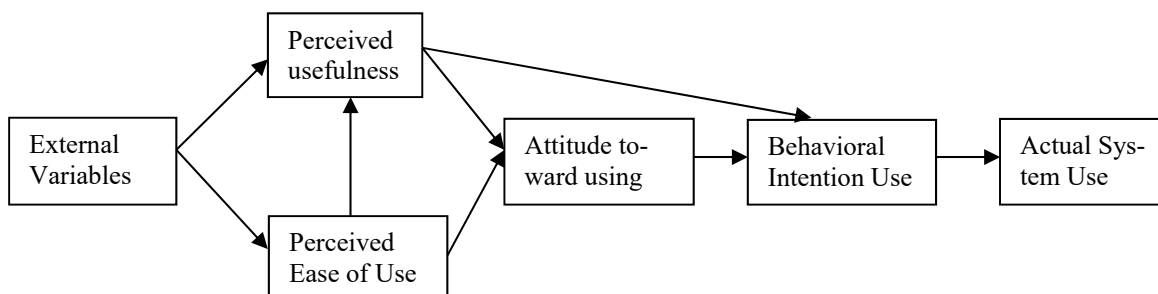
### 2.1 Types of mobile marketing

Mobile marketing refers to using a mobile phone to send promotion information of companies to consumers. Specifically, they deliver advertisement's images and messages to existent and potential cus-

tomers via mobile channel. A few of previous studies have introduced expansive concepts of mobile marketing. However, the basic definition is that mobile marketing is characterized as offering information of goods, services, and idea to customers for promoting them by using mobile phones (e.g. Roach, 2009; Varshney and Joy, 2015). Nowadays, the development of technology makes people easily utilize functions of smartphone, then the various types of mobile marketing tools developed consisting of mobile banking, mobile payment, mobile internet that are increasingly used. Moreover, people are increasingly downloading and accessing mobile applications directly by using their phone such as social network applications, games, etc. This is an easy routine for advertisers to send their marketing information to customers. Besides, there are 58% of the Vietnamese population regularly use social network by using their smartphone and 95% of smartphone users look up product and/or service information (VTMGroup, 2015). For these reasons, this study is focused on service types of mobile internet communication including social networking, games and shopping apps associated with the basic function of smart phone as SMS to examine interaction with customers and personalization of the advertisement content.

### 2.2 Theoretical background and a conceptual model

This part will briefly outline a foundation theory of technology acceptance model (TAM) which deals with person's performance of a specified behavior and personal acceptance in term of technology. Introduced by Davis (1986, cited in Davis *et al.*, 1989) TAM is developed from theory of reasoned action (TRA) in the particular field of information technology systems. The key target of TAM provides a basis for depicting the influence of external variables on personal internal beliefs, attitudes, and intentions (Figure 1). The theory explores two variables of beliefs, perceived usefulness and perceived ease of use, being principal resources for technology acceptance. TAM proposes a framework for person's behavioral intention concept tailored to use technology, but the behavioral intention to use things of technology is mutually determined by the personal attitude to use and perceived usefulness (Davis, 1986; cited in Davis *et al.*, 1989). Because the useful theory has been widely adopted in many types of research to explore the key drivers of personal behavior attitude toward things of technology, this study also adopts the primary content of the theory and relies on the research of Brackett and Carr (2001) and Waldt *et al.* (2009) for formulating the conceptual model.



**Fig. 1: Technology acceptance Model**

Source: Davis et al. (1989)

This study will concentrate on determining consumers’ attitude towards mobile marketing. Consumers’ attitude consists of cognition, effect, and conation (Du Plessis *et al.*, 2007). Based on the TAM theory, consumers’ attitude is implied as the cognition to the extent in this study. According to Fishbein’s Attitude Theory (cited in Andersson and Nilsson, 2000), a stimulus relates to the context of mobile marketing impacts on consumers’ belief. Then that belief leads consumers to a specific attitude related to the brand conducted by the mobile marketing activity. Particularly, customer’s attitude is significantly affected by perceived usefulness and perceived enjoyment (Ismail and Razak, 2011; Wani and Malik, 2013; Gao and Bai, 2014). Besides, some studies examine the strong relationship between risk acceptance or credibility and irritation to attitude towards mobile marketing (Xu, 2007; Saadeghvaziri and Hosseini, 2011; Parreño *et al.*, 2013).

The model in Figure 2 has been used to test consumers attitude towards SMS advertising in the past (Tsang *et al.*, 2004) with the constructs are known as entertainment, informativeness, irritation, and credibility. There is a remarkable difference between TAM model and the conceptual model because this study concentrates on customer’s attitude and the factors impacted on it. However, the model is also modified basing on the literature. They find that there is no considerable influence of age on the perception of users toward the perceived value of mobile marketing in some studies (Brackett and Carr, 2001; Haghirian *et al.*, 2005) because most of the researchers focus on young consumers like students to test the factors affected by attitude. Leppäniemi and Karjaluoto (2008) indicates that although all the age groups older than 20 years were less likely to accept mobile phone services than the youngest ones with a classifying rating of 64% and 38%, respectively; however, respondents with employment status affect downloading mobile services. Moreover, the research also indicates that consumers in the age group of 36-45 are most like-

ly to be active in sending an SMS to a TV show or advertisement and spending their time participating in SMS lotteries and other contests (Leppäniemi and Karjaluoto, 2008). Besides, middle-aged people are identified as being important target customer for some types of mobile marketing tools (Suleyman, 2016). For instance, Suleyman (2016) explores mobile phone users who are aged 20 years old and above and have permanent employment status are the most outstanding objective customers for mobile entertainment services, location-based mobile service, mobile internet, and mobile banking, respectively. Moreover, there is a shortage of studies investigating attitude of elder customers who are in 50-60 years old group towards mobile marketing whereas using smartphone of people in that age range is more popular because they have more leisure time, stable and high income in comparison with the younger group. Therefore, this research will focus on the larger range target responders’ age, including young target group who are from higher than 16 years old and expand the target responders who are up to under 60 years of age to fill the research gap between previous studies and this study. As a result, the demographic variable as age of customer will be tested and play as a controlled variable role in this model.

Besides, a study of Ayawardhena *et al.* (2009) exposes that there are notable variations across gender in the permission-based mobile marketing. Another study by Varshney and Joy (2015) indicates that men have more acceptance than women do in mobile marketing. Furthermore, a study on viral marketing communication reveals that gender significantly affects to consumer attitude (Sharda and Bharti, 2015). The difference in gender’s attitude is proved by a previous study of Akturan (2009). He demonstrates that males and females are different about expectation, want, need, and lifestyle, etc. Therefore, gender plays an important role in consumer behavior. These past papers suggest that it is necessary to test the relationship between gender and attitude in this study. As age variable, gender

also intimates a controlled variable which belongs to demographic factors.

**2.3 Research hypotheses**

**2.3.1 Perceived usefulness**

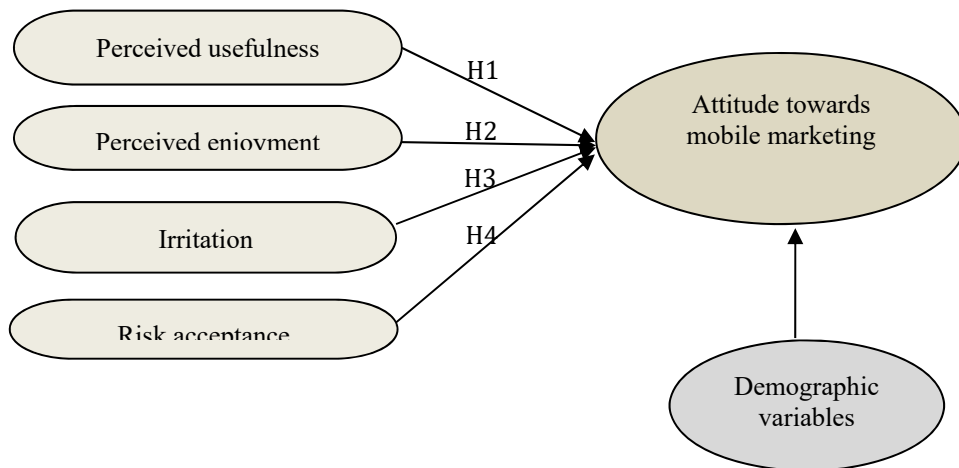
As mentioned in the TAM theory, perceived usefulness is one of the cognitive beliefs affecting users’ attitude towards things related to information technology. Based on the TAM, some studies have confirmed the direct and affirmative influence of perceived usefulness on consumer attitude regarding mobile marketing (Bauer *et al.*, 2005; Ismail and Razak, 2011; Srisawatsakul and Papisatorn, 2013; Gao and Bai, 2014; Goh and Sun, 2014). These researchers have asserted that perceived usefulness affirmatively affects user’s attitude to accept marketing information in the variety of contexts of mobile service, consisting of mobile broadband service, mobile banking. An interaction between customers and companies in a marketing purpose conveying is scrutinized via types of mobile communications consisting of text message, social networks, utility apps, and games this research. Consequently, the following hypothesis is suggested:

Hypothesis 1: Perceived usefulness has a positive influence on customers’ attitude towards mobile marketing

**2.3.2 Perceived enjoyment**

Perceived enjoyment refers to the extent that customers use things and/or services because of fun and leisure, then it can lead to action of sharing information with their friends and family. The previous studies have revealed that perceived entertainment has a positive effect on consumers’ intention to use internet of things technology (Gao and Bai, 2014). Similarities in proposing the influence of perceived enjoyment on users’ intention are also stated, for example, Ryu and Murdock’s study (2013) relates to use mobile marketing communication of QR code, Liu *et al.*’ s study (2009) observes mobile entertainment. These findings lead to form a research hypothesis below in advocating that consumers may have a positive attitude towards mobile marketing when they receive marketing information via mobile text messaging, mobile gaming, shopping apps or even engaging in social networking by using smartphone:

Hypothesis 2: Perceived enjoyment has a positive influence on the customers’ attitude toward mobile marketing



**Fig. 2: The research conceptual model**

**2.3.3 Irritation**

Parreño *et al.* (2013) investigate that irritation is the main drivers of attitude towards mobile marketing. Particularly, the greater level of irritation customer has the lower level of acceptance to adopt. The same findings also are found in Boateng *et al.* (2016), and Nwagwu and Famiyesin (2016). Therefore, the following hypothesis is formulated:

Hypothesis 3: Irritation has a negative impact on the attitude of mobile marketing

**2.3.4 Risk Acceptance**

One of personal characteristics to motivate users’ acceptance for using technological things is trust with technology device and the likelihood of risk acceptance when accessing the internet. Besides, Ashraf and Kamal (2010) find that customers’ attitude towards mobile marketing is also influenced by an allowance to interact. Hence, risk acceptance in the model refers to the extent that consumers are in an agreement to provide their personal information to websites and/or online companies (Gao

et al., 2010; Du, 2012). This study specifies an antecedent factor of risk acceptance as a predisposition of individuals being ready to provide their personal information to get marketing information promotions when they registered beforehand, even they accept for any virus and non-related websites arising when receive mobile phone marketing information. Therefore, this study establishes a hypothesis below:

Hypothesis 4: Risk acceptance has a positive impact on the attitude toward mobile marketing

### 3 DATA DESCRIPTION AND METHODOLOGY

#### 3.1 Data description

**Table 1: Demographic profile of respondents**

Variable	Category	Frequency	Percent
Employment status	Student/Pupil	103	29.4
	Small Business	95	27.0
	Official	80	22.8
	Unskilled worker	28	8.0
	Highly qualified worker	17	4.8
	Housewife	10	2.8
	Other	18	5.1
Gender	Male	189	53.8
	Female	162	46.2
Age Mean:29 Mode: 21 Std.:10.22 Min: 16 Max: 60 N: 351 Missing: 3			

Source: Survey by authors, 2016

According to Hair *et al.* (2010), the observation should be larger at least 4-5 times than the number of variables in order to be consistent with the exploratory factor analysis (EFA) method. Therefore, the necessary sample requires around 100 to be satisfied with 19 items of measurement (Table 2). However, because this study used convenient sampling and expended the age group, increasing the observation to improve the reliability of study is essential. A total of 351 questionnaires were collected. The outcome of employing descriptive statistics of 351 respondents is presented in Table 1. In fact, data was obtained through an accessible non-probability sampling approach that answerers were willing to join. Besides, respondents also have to use smartphone as a stipulation of collecting data. Therefore, in order to increase the reliability of collected data, the way of face-to-face

interview was conducted at respondents' home and at a suitable time as well. Table 1 presents information on the job status of respondents at the time of interviewing.

#### 3.2 Methodology

The participants are from around 10 towns in Can Tho city reported their experiences and opinions of receiving marketing information via smartphone in the survey. The questionnaire consists 19 items related to the constructs of the research model (Table 2). Participants were asked to indicate their viewpoints on a five-point Likert scale basis (with 1 as strongly disagree; 2 as disagree; 3 as undecided; 4 as agree and 5 as strongly agree) for each item.

This article is to test the addressed hypotheses mainly by applying correlation test and multiple linear regression. However, it was necessary to apply a reliability test and factor analysis to group of 19 items into these constructed variables of the research model. All these analyses were carried out by SPSS packages. In the reliability tests, Cronbach's alpha is used for determining the level of support for each item's inclusion in the analysis. The factor analysis transforms a list of items into new variables as groups in which these items have the same meaning. Particularly, the study conducted EFA with varimax rotation method. The varimax rotation method is used as a common way to generate components. Furthermore, according to Hair *et al.* (2010), the varimax rotation is more likely to give a clearer separation of factors. As a result, the number of components and items beyond the components will be established. Hair *et al.* (2010) suggests that further analysis will continue after rejecting factors with an eigenvalue of less than 1.0 and obviously retaining factors with an eigenvalue of more than 1.0. The loading of 0.5 was used as a minimum cutoff point in the EFA. That was not the final research's objectives. With regards to determining predictable factors of attitudes towards mobile marketing, linear regression analysis was adopted. This technique allows predicting dependent variables, which are attitudes towards mobile marketing relied on independent variables resulting from the factor analysis. Furthermore, how much each independent variable affects attitude was also determined.



**Table 2: Measures used in the model**

Indicators	Measurement items	Sources
Perceived usefulness	[PUSE1] Mobile marketing would provide products, services information for further purchase	Ismail and Razak, 2011
	[PUSE2] You can benefit from mobile marketing schemes	Bauer <i>et al.</i> , 2005; Ismail and Razak, 2011; Parreño <i>et al.</i> , 2013
	[PUSE3] Mobile marketing save help you save time in looking for product and service information to decide purchase	Ismail and Razak, 2011 ; Parreño <i>et al.</i> , 2013
Perceived enjoyment	[PENJ1] Information from mobile marketing is entertaining	Liu <i>et al.</i> , 2009; Ismail & Razak, 2011; Zampou <i>et al.</i> , 2012; Parreño <i>et al.</i> , 2013
	[PENJ2] Information from mobile marketing is fun	Bauer <i>et al.</i> , 2005; Ismail and Razak, 2011; Zampou <i>et al.</i> , 2012 ; Parreño <i>et al.</i> , 2013
	[PENJ3] You share information from mobile marketing that you like to your friends and your family	Bauer <i>et al.</i> , 2005; Zampou <i>et al.</i> , 2012 ; Varshney and Joy, 2015
Risk acceptance	[RACC1] You would provide a website with personal information to receive information	Bauer <i>et al.</i> , 2005; Sultan <i>et al.</i> , 2009 ; Gao <i>et al.</i> , 2010
	[RACC2] You would accept the risks (virus, non-related web) when you link with others	Self- created
	[RACC3] You don't control the amount of information from mobile marketing	Self - created
	[RACC4] You only would receive information from mobile marketing when you registered beforehand	Self – created
Irritation	[IRRI1] You don't feel well-receiving information from mobile marketing	Xu, 2007; Waldt <i>et al.</i> , 2009; Parreño <i>et al.</i> , 2013
	[IRRI2] The content of mobile marketing makes you feel annoyed	Self- created
	[IRRI3] Receiving information from mobile marketing while you are working and taking a rest makes you feel annoyed	Self- created
Attitude	[ATTI1] You appreciate receiving information from mobile marketing	Bauer <i>et al.</i> , 2005 ; Liu <i>et al.</i> , 2009; Gao <i>et al.</i> , 2010
	[ATTI2] It is a good idea if using apps on mobile	Self created
	[ATTI3] You like to receive information from mobile marketing	Bauer <i>et al.</i> , 2005; Gao <i>et al.</i> , 2010
	[ATTI4] You satisfy with content and form of mobile marketing	Noh and Lee, 2015
	[ATTI5] You find mobile marketing is beneficial and advantageous than others	Self- created
	[ATTI6] You realize mobile marketing should be used widely	Self- created

**4 EMPIRICAL RESULTS AND DISCUSSIONS**

**4.1 Analysis and results**

*4.1.1 Receiving mobile marketing*

The outputs (Table 3, 4, 5) reveal descriptive statistics related to mobile marketing in the research

zone. The study focuses only on the respondents who have received activities from mobile marketing in a recent month before the survey in order to make sure that what they described to be accuracy.

**Table 3: Receiving mobile marketing**

Variable	Category	Frequency	Percent
Receiving mobile marketing	Yes	284	80.9
	No	67	19.1
	Total	351	100
How to receive mobile marketing	Ignore	181	63.7
	Notice because the content	43	15.1
	Delete	21	7.4
	Notice because color or music	17	6.0
	Link	12	4.2
	Others	10	3.5
	Total	284	100
Time spent for mobile activities	Valid: 280 Missing: 71 Mean: 214.7 minutes Mode: 120 minutes Std. Deviation: 191.126		

**Table 4: Forms of mobile marketing**

Variable	Receiving mobile marketing form		The most frequent form		The most favorite form	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
SMS	271	95.4	155	54.6	28	9.9
Social media	242	85.2	73	25.7	32	11.3
Mobile Apps	139	48.9	21	7.4	4	1.4
E-news	139	48.9	12	4.2	6	2.1
Games	128	45.1	14	4.9	3	1.1
Email	52	18.3	8	2.8	3	1.1
MMS	20	7.0	0	0.0	0	0.0
QR Code	12	4.2	0	0.0	0	0.0
Others	0	0.0	1	0.4	208	73.3
Total	1003	353.2	284	100	284	100

**Table 5: General perception towards mobile marketing**

Variable	Category	Frequency	Percent of Cases
Mobile marketing Fields	Games	190	68.3
	Fashion	164	59.0
	Entertainment	157	56.5
	Beauty	149	53.6
	Electronic Products	146	52.5
	Food and beverage	120	43.2
	Travel	116	41.7
	Houseware	105	37.8
	Supplement Dietary	102	36.7
	Real Estate	78	28.1
	Others	1	0.4
	Total		1328
General Perception	Annoyance	216	62.1
	Popularity	152	43.7
	Non-credibility	132	37.9
	Utility	127	36.5
	Unnecessary	101	29.0
	Cheat	76	21.8
	Entertainment	70	20.1
	Reliability	47	13.5
Total		921	264.7

Table 3 shows that there is a high percentage of respondents who had received information of mobile marketing in a recent month at around 80%. Most of them spent around 120 minutes every day on mobile activities. However, the average time in total is nearly double which is at about 214 minutes. It is worth mentioning, there is over 60% of respondents would ignore the mobile marketing activities. That fact suggests that marketers should have enough remarkable point when conducting mobile marketing. In addition, Table 4 discloses information on the reason why consumers ignored the activities of marketing via mobile. Besides, the result indicates that the most popular form of mobile marketing that respondents received in the recent period is SMS message. That portrays a situation of non-creative and plentiful mobile marketing activities. The uninteresting SMS technique seems to be a cause of ignoring.

Table 5 presents information on the sections dominated in mobile marketing fields which consist of

**Table 6: The reliability of scale**

Item	Variable	Cronbach's Alpha
Perceived usefulness	PUSE1, PUSE2, PUSE3	0.729
Perceived enjoyment	PENJ1, PENJ2, PENJ3	0.639
Risk acceptance	<b>RACC1, RACC2, RACC3, RACC4</b>	<b>0.439</b>
Irritation	IRRI1, IRRI2, IRRI3	0.852
Attitude	ATTI1, ATTI2, ATTI3, ATTI4, ATTI5, ATTI6	0.828

The results of exploratory factor analyses by adopting principal components with the Varimax rotation method are shown in table 7. All of these items excluding risk acceptance variables were correctly grouped with the previous expectation which was decided by the factor loading > 0.5 (Hair *et al.*, 2010).

The result of the correlation analysis is shown in Appendix. The correlation values prove the relationship among variables. As can be seen that, PUSE and PENJ are observed to be positively and significantly associated with the attitude towards mobile marketing (0.443, 0.000; 0.440, 0.000 respectively). This elucidates that the more perceived usefulness and enjoyment customers have, the more favorable attitude they will have towards mobile marketing. On the contrary, IRRI correlation value reveals the negative relationship between IRRI and ATTT significantly (-0.336, 0.000). Consumers are likely to generate negative attitude towards any mobile marketing form if they feel bother to them. Besides, there is no interconnection between age, gender, and ATTT in the analysis.

Games, Fashion, Entertainment, and Beauty. There are some reasons to explain this fact from respondent perspective such as cost saving, accessibility, and target segment. Table 5 also indicates that the majority of customers generally would feel annoying when perceive mobile marketing activities while there is 36.5% of observations who suppose mobile marketing because of utility.

*4.1.2 Factors affecting attitudes of customers towards mobile marketing*

Table 6 presents value of Cronbach coefficients ( $\alpha$ ) of all scales that were implied to conduct the research model. According to Nunnally and Bernstein (1994), a stricter minimum requirement for the scale reliability is 0.70 but a liberal minimum requirement of 0.60 is accepted as well (Churchill, 1979; Peter, 1979). A corrected item-total correlation is required higher than 0.3 (Hair *et al.*, 2010). So, risk acceptance variables are eliminated because they do not perform well.

**Table 7: Factor loading of EFA**

Variable	Factor loading	Variable	Factor loading
IRRI1	0.886	ATTI4	0.794
IRRI 2	0.876	ATTI3	0.787
IRRI 3	0.831	ATTI1	0.765
PUSE2	0.845	ATTI6	0.757
PUSE1	0.768	ATTI5	0.698
PUSE3	0.707	ATTI2	0.586
PENJ2	0.808	<i>KMO: 0.826 Sig.:0.000</i>	
PENJ1	0.747	<i>% of Variance:53.969</i>	
PENJ3	0.671		
<i>KMO: 0.775</i>		<i>Sig.: 0.000</i>	
<i>% of Variance: 67.761</i>			



**Table 8: Regression Analysis**

Model	Unstandardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
(Constant)	-0.141	0.119	-1.189	0.235	-	-
IRRI	-0.299**	0.038	-7.864	0.000	0.990	1.010
PUSE	0.472**	0.038	12.508	0.000	0.996	1.004
PENJ	0.457**	0.038	12.064	0.000	0.990	1.010
AGE	0.003	0.004	0.798	0.425	0.993	1.008
GENDER*	0.097	0.077	1.268	0.206	0.975	1.025

*Dependent: Attitude (ATTI)*

R: 0.717; R Square: 0.515

Durbin-Watson: 1.857

F: 72.570, P value: 0.000

\*: Dummy variable, \*\*: significant at p value = 0.01

Table 8 shows the result of regression analysis which is used to differentiate the contribution of the individual independent variables in forming attitude towards mobile marketing. The value of correlation coefficient (R) indicates a measure of prediction quality. The higher of R is, the better the independent variables will affect the dependent variable. The value of R accounts for 0.717 reveals that there are some independent variables may not effectively predict for the dependent variable or some variables that were not put into the model yet although the index is good. This model explains 51.5 percent variance of the attitude towards mobile marketing. That is good enough to imply this model for predicting the effects on attitude in case of mobile marketing.

The variables such as PUSE and PENJ are the major factors affecting the attitude as they have significant value of Sig. at 0.000 and the values of beta is 0.472 and 0.457, respectively. The values show that perceived usefulness and perceived enjoyment have a significant impact on the dependent variable of attitude towards mobile marketing. It can be known that when consumers perceive more utility and entertainment from a mobile marketing campaign, they will increase their attitude positively. Whereas IRRI variable presents a minus index in the relationship with ATTI (-0.299) with the significance value is 0.000. Therefore, it indicates that the more irritation customers perceive, the more negative attitude customers express towards mobile marketing. These analyses prove that the hypotheses 1, 2, and 3 are supported. However, as can be seen from the results, the control variables including age and gender possess a non-significant relationship with attitude variable. It means that this paper does not verify yet the impact of demographic variables on the attitude of customers towards mobile marketing.

**4.2 Discussions**

The primary purpose of this study is to investigate the underlined factors influencing the attitude of customers towards mobile marketing in Can Tho city under various marketing forms via the smartphone. The findings consequently validate the key factors of perceived usefulness, perceived enjoyment, and irritation that share the same results with the outcome of study by Parreño *et al.* (2013), and that can give some managerial implications further. Firstly, the results confirm hypothesis 1 and hypothesis 2 in the confirmation of perceived usefulness and perceived enjoyment influence strongly on attitude towards mobile marketing. The study’s outcome supports the TAM model in which validate the influence of perceived usefulness on the positive attitudes of customers. The results are in accordance with the studies by Bauer *et al.* (2005), Ismail and Razak (2011), Ryu and Murdock (2013), Srisawatsakul and Papisatrorn (2013), Gao and Bai (2014), Goh and Sun (2014), and Le and Ho (2014). This actually implies that, in the case of receiving a positive attitude of consumers, it will depend on useful and enjoyable features occurring from a mobile marketing agenda. Obviously, smartphone users in this sample can take benefits in the distinctive promotion and other useful related information transferred to assist purchase purpose and signify indispensable replacement of a conventional marketing. Besides, in the case consumers make no decision to buy products and services immediately after receiving advertisement information; however, they feel pleasurable with marketing messages in which impression on a company’s brand may facilitate for further purchasing. Therefore, it encourages products and service providers to generate suitable marketing campaigns that not only focus on promotion aims, but also on recreational purpose. For instance, marketers can produce funny and colorful advertisement to attract more customers through adver-

tisement through MMS, social media, shopping apps, games which smartphone users are easy to access (Barwise and Strong, 2002, cited in Waldt *et al.* 2009).

Secondly, this study identifies irritation as a negative feature on attitude's customer in absorbing marketing messages through mobile. This involves that customers feel to be bothered with transferred information delivering at unsuitable time via SMS, and/or counterproductive content of the advertisement. In other words, irritation can be an obstacle for customers' access to mobile marketing as the result of hypothesis 3 is supported. Although some studies show irritation is not the main driver of customers' attitude affecting mobile advertising (Xu, 2007; Faria and Sohail, 2011; Le and Ho, 2014), it is consistent with the recognition of irritation affecting attitude of customers negatively (Waldt *et al.*, 2009; Parreño *et al.*, 2013; Boateng *et al.*, 2016; Nwagwu and Famiyesin, 2016). It can be explained that respondents in the sample accounting for about 68% have ordinary jobs, and about 95% of frequent mobile marketing form that they receive via SMS; therefore, they will be unhappy when many advertisement messages are passively received regularly. For that reason, business entities need to avoid causing irritation by choosing a suitable time to send advertisement information via SMS and improving in bringing education and human civilization advertising associated with an appropriate length and content of the advertisement. It suggests that customers' attitudes of mobile marketing would be positive when the marketing messages are relevant and are sent to the recipients at a suitable time (Waldt *et al.*, 2009; Varshney and Joy, 2015). For instance, an SMS advertisement should not be delivered to customers at noon or at rest time. The figure of 62% of answerers in this study reported to be annoyed by mobile marketing; therefore, a lower level of irritation mobile marketing causes, a higher level of positive attitude customers obtain.

Lastly, the outcome did not find the impact of age and gender on customers' attitude. It appears that the study's outcome is not in accordance with the evidence of gender difference in affecting mobile marketing (Leppäniemi and Karjaluoto, 2008; Akturan, 2009; Ayawardhena *et al.*, 2009). This is explained that respondents in the sample range from 16 to 60 years of age combined with various kinds of occupation dragging different perspectives whereas other studies focus on a certain target group. This is consistent with the finding showing that there is no change in attitude towards mobile marketing in perspective of the occupation (Varsh-

ney and Joy, 2015). Besides, this finding is also in line with an exploration that there is no significant difference between gender and attitude in surveying mobile marketing form (Varshney and Joy, 2015; Suleyman, 2016).

## 5 CONCLUSION AND LIMITATIONS

Briefly, this practical study explores some drivers influencing attitude of customers towards various forms of mobile marketing in Can Tho city. Particularly, the study highlights the positive relationship between enjoyment, utility, and attitude, whereas the negative relationship is explored between irritation and favorable attitude. Respondents obviously pay attention to the enjoyment and usefulness; therefore, marketers should develop and design a fit mobile marketing scheme based on consumers' interest to stimulate them to engage in purchasing. Besides, mobile marketing service providers should offer their value-added products or services based on these two aspects. In addition, irritation leads to unenthusiastic manner from recipients; therefore, marketers can send advertisement information to customers at the proper time associated with well-constructed content to audiences. Moreover, demographic factors have not proved the influence of mobile marketing' attitude in this study due to the recipients' characteristics of this sample. Although this study validates the importance of the TAM and generates consideration outcome, the limitations need to be mentioned for further research. Moreover, the finding also gives valuable opportunity for marketers in developing and designing the appropriate mobile marketing campaigns. The study further suggests researching in target respondent group of age and a specific type of mobile marketing form and enlarging research regions to examine the change of impacts on mobile marketing.

There are some limitations need to be addressed. First of all, this study did not find the influence of demographic factors on attitude of respondents in the sample because the sample did not focus on any specific group. In addition, the linear regression analysis has some limitations, for example, that did not help distinguish demographic groups as well as the complexities of the TAM model. Therefore, further research should be careful when choosing this method. Although participants in this sample may represent a diverse viewpoint of the various segments in Can Tho city; they have some obstacles to respond this survey which can affect the reliability of constructs. Consequently, further studies could be suggested enlarging the sample size and dividing in one target group of customers. Secondly, the survey is conducted by adopting

convenient sampling approach, most respondents have employment and mature feature of age, so they may have well-control behavior. Future research should consider undertaking the method of quota sampling for collecting data. Thirdly, this study limits to address the overall attitude of mobile marketing as this research deliberately did not choose to examine a single type of mobile marketing form such as SMS, mobile apps, QR code, etc. Thus, future research may give attention to the certain type of mobile marketing form. Finally, another limitation concerns the research range location where the study only examines in Can Tho city. Hence, further investigation is proposed for examining mobile marketing field in other regions in Vietnam to make comparisons of the regions.

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