AN EMPIRICAL ANALYSIS OF DETERMINANTS DRIVING M-COMMERCE ADOPTION IN THAILAND

Ploywee Yingcharoen
Assumption University,
Bangkok, Thailand

Email: ploywee.yingcharoen@iae-toulouse.fr

Abstract: *This empirical analysis evaluates the impact and correlation among various determinants including social influence, trust, cost, perceived enjoyment, personal innovativeness, perceived usefulness, perceived ease of use, attitude towards m-commerce, and intention to adopt m-commerce in Thailand. The survey method was applied by using 400 of online questionnaires to obtain the primary data from participants. The target population is people who are living in Thailand and have the experience in using m-commerce at least one time. It was found that most participants use mobile banking the most and the mobile stock trading is the least. For the statistical treatments of the data, Multiple Regression and Pearson Correlation Coefficient were employed to test all of 400 validated questionnaires through Statistical Software. All hypotheses were supported.*

Keywords*: m-commerce, intention to use, social influence, trust, cost, perceived enjoyment, personal innovativeness, perceived usefulness, perceived ease of use, attitude, TAM*

1. INTRODUCTION

1.1 Significance of the study

In the fast moving business atmosphere, every company has to develop and improve in many perspectives to compete with the rivals and stay in the business. One of the main purposes of any businesses is to maximize profit, hence, the companies have to create more attractive products or services to meet the demand of consumers, which means that it is important to satisfy the current clients and attract the potential future clients so as to gain the higher market share. In this business situation, Wei et al. (2009) pointed that m-commerce, which is a medium platform between companies and customers to interact or to interchange the products and services, is an essential thing that caught the attentions of countless companies. To be more understandable, m-commerce has been described in several contexts; for instance, Abu Bakar and Osman (2005) mentioned that m-commerce is the activities of exchange products or services through mobile phones or other wireless handset devices. Besides, Moshin et al. (2003) gave the explanation that m-commerce is like e-commerce but it operates the business through wireless devices instead. Also, Feng et al. (2006) described that m-commerce has its distinctive features to make it different such as the wide reachability and mobility, which is different from e-commerce in terms of value chain and the usage procedure.

1.2 Statement of problems

Even though, the m-commerce is widely used in Thailand, but comparing to other countries, Thai people are still have hesitation to use m-commerce. Also, Schwiderski-Grosche and Knospe (2002) mentioned that mobile devices are convenient to access and carry out anywhere, which means that m-commerce has higher competitive advantage than e-commerce. Therefore, the researcher realized that it is important for companies, marketers, or other people who interested in this field.

1.3 Purpose of the study

This research aims to investigate the extension of Technology Acceptance Model of m-commerce adoption in Thailand, which can fulfill the lack of empirical analysis. The research objectives focus on the

impact among social influence, trust, cost, perceived enjoyment, personal innovativeness in information technology, and perceived ease of use perceived usefulness towards the m-commerce adoption of users in Thailand. Moreover, it aims to explore the correlation between perceived usefulness, perceived ease of use, attitudes, and intention to use m-commerce in Thailand.

2. LITERATURE REVIEW

2.1 Technology Acceptance Model (TAM) is a well-known theory. This model was investigated by several researches that it is related to perceptions of individuals towards a new technology (Lu et al., 2003). TAM shows the correlation of perceived usefulness and perceived ease of use, which impact the intention of people (Venkatech et al., 2003).

2.2 Social influence is the same as subjective norms, which is about the belief of a person about what others think that a person should participate to a particular activity (Lu et al., 2003). Khalifa and Cheng (2002) found that social influence has a positive relationship with intention to use m-commerce.

2.3 Trust is one of the important factors that affect directly to the decision making of consumers towards an activity. Holsapple and Sasidharan (2005) stated in his study that trust affects the technologies adoption. Several researchers claimed that trust is a main key for m-commerce adoption because of its uncertainty and asymmetric information (Lu et al., 2003, and Cho et al., 2007).

2.4 Cost is a factor that makes people think and slow down their purchase such as subscription fee and price f device (Luarn and Lin, 2005).

2.5 Perceived enjoyment is one of the intrinsic personal factors. Wei et al. (2009) claimed that an individual who thinks using technologies is enjoyable would apt to use the technologies more.

2.6 Personal Innovativeness of Information Technology (PIIT) is stated by Agarwal and Prasad (1998) that individuals who have higher level of personal innovativeness are likely to accept the technologies faster than people who do not have the cognitive in innovation.

2.7 Perceived usefulness is the belief of an individual that technology can help to generate a better job performance and useful for their life (Davis, 1989). A previous study of Wong and Hiew (2005) confirmed that the perceived usefulness has a strongly impact towards m-commerce usage.

2.8 Perceived ease of use, in this study, as stated by Davis (1989) it is a belief of consumer that using m-commerce is free from efforts such as physical and mental. Many scholars studied about this factor about technology acceptance, for example, the m-commerce studies of Luarn and Lin (2005), Lin and Wang (2005), Kurnia et al. (2006), and Wang and Barnes (2007).

3. METHODOLOGY

This empirical analysis includes 9 antecedents in total. The dependent variable is intention to use m-commerce. The independent variables are social influence, trust, cost, perceived enjoyment, personal innovativeness, perceived usefulness, perceived ease of use, and attitude towards m-commerce. However, the stated factors in this model have been confirmed from previous researches including the studies of Davis (1989), Moore and Benbasat (1991), Venkatesh et al. (2003), Lu et al. (2005), Agarwal and Prasad (1998), and Lee et al. (2007). The researcher modified the 5-point Likert scale questionnaire to use as a research instrument to gather the primary data of respondents. The questionnaires were distributed through online sites i.e. Facebook, Twitter, and LinkedIn and the respondents are people from the researcher's online network and from other people who share the questionnaires. Moreover, six kinds of m-commerce including mobile ordering, paid mobile downloading, mobile shopping, mobile banking, mobile stock trading, and mobile booking or ticketing (Choi et al., 2011, and Sharma and Gutiérrez, 2010) were put into the survey to gather the consumers activities. Thus, Statistical Software will be utilized to test 400 validated questionnaires. Therefore, Multiple Regression and Pearson Correlation Coefficient were employed to analyze the raw data.

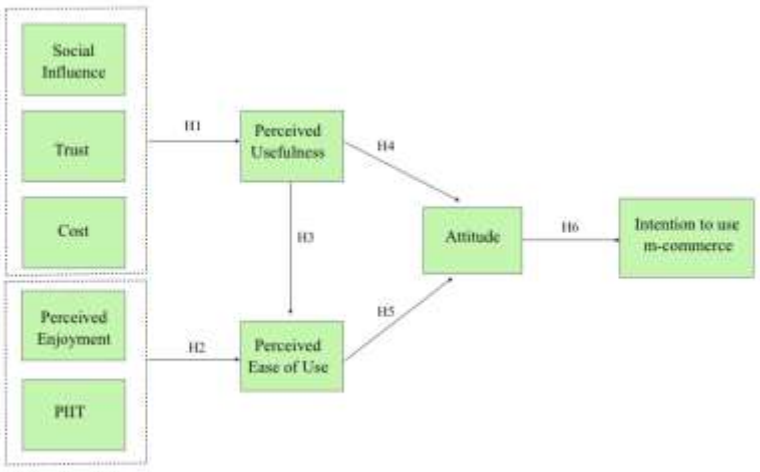

Figure 1: Conceptual framework of the study

Figure 1 given above shows the conceptual framework of this research, which has six research hypotheses in total. Multiple Regression was used to test H1 and H2 and the rest were tested by Pearson Correlation Coefficient. The details of hypotheses are as follows:

H1: Social influence, trust, and cost are significantly influential on perceived usefulness.
H2: Perceived enjoyment and personal innovativeness are significantly influential on perceived ease of use.
H3: Perceived usefulness has a significant relationship with perceived ease of use.
H4: Perceived usefulness has a significant relationship with attitude.
H5: Perceived ease of use has a significant relationship with attitude.
H6: Attitude has a significant relationship with intention to use m-commerce.

4. Results and Discussion

After finish statistical treatment of data, the finding shows that all six hypotheses were supported at significant level of .000 except hypothesis 5, which has a significant level at 0.005. For hypothesis 1, when considering in each factor, it was found that social influence and cost yielded the significant level at .000 and cost was found to be the important factor influencing on perceived usefulness at beta coefficient of .212. For hypothesis 2, it was found that only personal innovativeness was mattered and influenced perceived ease of use at .638 of beta coefficient. For the rest hypotheses, according to the result from Pearson Correlation analysis, it was found that there is a statistical significant among each variable. The coefficient values of H3 to H6 are .491, .304, .141, and .718, respectively. To be more specific, H3 is denoted as a moderate positive relationship, which infers that if the customers think that m-commerce is useful and can help to make their life more effective and easier, they tend to adapt themselves to m-commerce and found it is easy for them to use it. For H4, it is denoted as a weak positive relationship. Which infers that if the customers think m-commerce is useful, they tend to have a positive attitude towards m-commerce adoption. For H5, it is denoted as a very weak positive relationship, which infers that if the customers think m-commerce is easy to cope with, they tend to have a positive attitude towards m-commerce adoption. Lastly, H6 is denoted as a strong positive relationship, which infers that if the customers have a good attitude about using m-commerce, the intention to use m-commerce will be high.

Table 1: Summary of Hypothesis Testing

Hypothesis	Statistical Test	Significant Value	Beta Coefficient	Testing Result

H1: Social influence, trust, and cost are significantly influential on perceived usefulness.	Multiple Regression	.000		Supported
- Social Influence		.000	.194	Supported
- Trust		.420	.033	Not Supported
- Cost		.000	.212	Supported
H2: Perceived enjoyment and personal innovativeness are significantly influential on perceived ease of use.	Multiple Regression	.000		Supported
- Perceived Enjoyment		.197	-.058	Not supported
- Personal Innovativeness		.000	.628	Supported
H3: Perceived usefulness has a significant relationship with perceived ease of use.	Pearson Correlation	.000	.491	Supported
H4: Perceived usefulness has a significant relationship with attitude.	Pearson Correlation	.000	.304	Supported
H5: Perceived ease of use has a significant relationship with attitude.	Pearson Correlation	.005	.141	Supported
H6: Attitude has a significant relationship with intention to use m-commerce.	Pearson Correlation	.000	.755	Supported

Table 2: Summary of the highest frequency and percentage of demographic information

Factors	Frequency (*f*)	Percentage (%)
Gender		
- Female	254	63.5
Age		
- 21 to 30	167	41.8
Salary		
- 10,000-19,999 THB	189	47.3

Additionally, based on Table 2, it shows that most participants use mobile banking the most and the mobile stock trading is the least. The majority of participants are female or 254 people (63.5%) out of 400 people. Next, 167 respondents (41.8%) are in age between 21 to 30 years old. There are 189 respondents (47.3%) who have salary in the range between 10,000 and 19,999 Thai baht.

5. CONCLUSION

This study can provide the insights about determinants driving the m-commerce adoption in Thailand, which the company can use to improve the service to attract more customers and gain more competitive advantages. Due to the limitations of time and cost, some limitations and future studies will be discussed as follows: First, this study focused to study only the m-commerce adoption for people who live in Thailand. If the companies want to maximize profits or gain more market share using m-commerce as a

part of selling, the companies should aware of cost that will increase from the customer side, which can slow down the action to use m-commerce. Besides, the companies should make customers feel like it is easy to use and it is useful because if the customers have good attitudes towards m-commerce, they are likely to use that products or services. The marketing campaign should be launched to encourage people to have more information about products or services as well. Future studies could be conducted in other developing countries or study cross-culture contexts. Furthermore, this research only examined on users of m-commerce, it would be better to take a look on a comparison study between users and non-users of m-commerce. Second, the profiles of the respondents are quite young. Hence, it would be interesting to conduct the study with the higher age group to explore the difficulty factor in adopting m-commerce of older people. Third, this research emphasized to study nine determinants related to the m-commerce adoption. As m-commerce is defined as a fast-paced technology, thus it would be better to evaluate about the risk of m-commerce adoption especially in the developing countries.

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