Factors Influencing the Adoption of M-commerce: A Literature Review

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Abstract

Mobile Commerce also known as M-commerce is thought to be the next big phase in technologically dependent society after following E-commerce era. Mobile commerce has been a huge success in terms of individuals' adoption in some markets like Japan, while, surprisingly, not as flourishing in others. Many studies have been conducted using traditional adoption models and theories (such as TAM) that mainly focus on technology aspects. A more complete understanding of the issue requires the need to integrate. This study aims to identify some factors from the current literature that impact the adoption of M-commerce. Based on the literature this study develops M-commerce adoption framework. The contribution of this research is a framework for representing the factors that influence mobile commerce adoption.

Key Words: Mobile commerce, Adoption Factors, TAM, TPB.

Introduction

Considerable advances have been made in the telecommunications and related industries to deliver content, applications and services to consumers using mobile telephones and other wireless devices. M-commerce refers to Mobile Commerce which is defined as the use of a wireless terminal, such as a cellular telephone, smart phone or Personal Digital Assistant (PDA), and a network to access information and conduct transactions that result in the transfer of value in exchange for information, services or goods, is likely to test the regulatory structures that are in place to deal with traditional transactions. United Nations Conference on Trade and Development (UNCTAD) defined M-Commerce as buying and selling of goods and services using wireless hand-held devices.

Mobile commerce (M-commerce) is a natural extension of electronic commerce (e-commerce) that allows users to interact with other users or businesses in a wireless mode, anytime/anywhere (Coursaris and Hassanein, 2003). The recent trend of e-commerce involves expanding its services and reaching its customer through new powerful affordable computing such as two-ways pager, Portable Digital Assistants (PDAs) and cellular phones. As a result, new name has been identified as M-commerce. M-commerce acts as another channel through which value can be added to e-commerce processes. It is obvious that M-commerce is thought to be the next big phase in technology involvement following the E-commerce era. However, its adoption and level of use is low in Malaysia compared to others nations such as Japan and Sweden.

Mobile commerce is expected to be the next big wave of business. A number of mobile commerce applications have been developed and are already in use, covering a wide range of business functions from advertising to banking (Khalifa and Cheng, 2002). The high penetration rate of mobile phones facilitates the exposure to mobile technology which is leading to rapid growth of m-commerce.

Research Motivation

The use of mobile device has become wide spread and continues to grow significantly each year. With the explosion and development of the wireless networks and technology such as 3G (Third Generation) M-commerce is becoming a new issue in Information System (IS) research agenda.

The financial estimate of the value of M-commerce industry is also growing positively. According to Wireless week (2004), there are currently 94.9 million mobile commerce users in 2003 worldwide and the segment is expected to grow 1.67 billion by 2008. Global revenues from M-commerce are expected to reach \$555 billion in 2008 (Wireless Week, 2004). With such a high financial profile, however, there is little understanding held regarding the M-commerce customer by today's business. With the popularity of mobile device continues to grow, different groups of user start to emerge. It is critical for the business to have a clear understanding of their customers in order to identify the different group of customers further more, the consumption patterns and needs specific to the particular user group.

The Problem

Mobile Commerce is experiencing rapid growth in terms of capabilities of mobile devices, services, applications, standards and network implementation (Sugianto et al., 2007). However, this rapid development of mobile technology and the emergence of M-commerce models are reflected comparatively low in M-commerce adoption rate. Therefore, the adoption of mobile commerce and services has been slower than expected. In the meanwhile, Mobile commerce has been a huge success in terms of individuals' adoption in some markets like Japan, while, surprisingly, it is not as flourishing in others (Yousuf, Sherah and Robert, 2002). Therefore this study focuses on the factors that are influencing the adoption of M-commerce.

Importance of the Study

The increasingly high penetration rate of mobile phones and the consequent exposure of subscribers to mobile technology present high hopes for the adoption of mobile commerce (Khalifa and Cheng (2002). M-commerce is a new trend and is expected to be the next big wave of our technology dependent society. A number of mobile devices, services, and applications have been developed and are already in use such as county like Japan, covering a wide range of individual functions, from voice message transmission to access to the Internet. In this regard, it is very important to understand factors that affect individuals' use and the adoption of M-commerce as users of M-commerce are projected to be increased in the near future.

There is no doubt that Mobile commerce is an emerging discipline that involves mobile device, wireless networks and Internet technologies. Through the use of M-Commerce technology, business can be conducted electronically from anywhere at anytime. Following the E-Commerce era, mobile commerce is thought to be the next big trend in technological evolvement due to the changing needs of consumers. Consumers today lead an increasingly fast-paced life and demand smaller, better, faster, and more reliable wireless technology to keep up with their lifestyles. M-Commerce is the solution to this demand because it makes traditional E-Commerce tasks available to be performed wirelessly through a cell phone or PDA.

Review of the Literature

Mobile commerce (M-Commerce) is a natural extension of E-Commerce that allows users to interact with other users or businesses in a wireless mode- anytime & anywhere.

Anthony Chew (2006) conducted an empirical study on the adoption of M-commerce in the United States of America. This study seeks to identify some factors that impact the adoption of M-Commerce technology in the United States. The study presents and tests an intention to adopt M-Commerce technology framework based on traditional Model. The critical antecedent factors include level of E-Commerce use, subjective norm, perceived trust or privacy, innovativeness, perceived usefulness, and perceived ease of use.

Bill Anckar and Christer Carlsson (2003) have argued that Although the TAM is widely accepted as a pertinent model – on a general level – to explain the acceptance of information technology and

information systems whether the model is applicable to consumers' choice of commercial channels, which makes its use questionable to explain the adoption of mobile and ecommerce. This proposal was tested with the material derived from a 1000 consumer survey in Finland and found other drivers/inhibitors than perceived usefulness, perceived ease of use and perceived enjoyment. Arguing that TAM constructs such as perceived usefulness and perceived ease of use are multidimensional constructs that are too general to have significant explanatory power.

Charles Ayo (2007) conducted a study on M-commerce in banking sector in Nigeria. This paper presents the level of adoption of ICT in the banking sector and the prospects of m-Commerce in Nigeria based on strengths, weaknesses, opportunities and threats (SWOT) analysis. The study findings revealed that all banks in Nigeria offer e-Banking services and about 52% of them offer some forms of m-Banking services. The banks and the telecoms operators have enormous potentials and opportunities for M-Commerce but the level of patronage, quality of cell phones, lack of basic infrastructure and security issues pose a major threat to its wide scale implementation.

Coursaris and Khaled (2003) examined M-Commerce in the Canadian landscape, focusing on wireless privacy issues. An overview is presented of the Canadian landscape for both E-Commerce and M-Commerce, followed by a discussion of the needs and concerns of the mobile consumer (M-Consumer). The study examines privacy issues associated with E-Commerce and identify additional privacy concerns that arise due to the wireless nature of the M-Commerce environment. Consequently, a new wireless privacy interaction framework is introduced which reflects the nature of interactions taking place between parties within a wireless environment. The responsibilities of the interaction parties towards enhancing the privacy of the M-Consumer are outlined.

Khalifa M. and Kathy N. (2006) examine specific factors pertaining to the adoption of mobile commerce in Hong Kong within a comprehensive framework integrating well established theories of technology adoption, i.e., the technology acceptance model (TAM) and the theory of planned behavior (TPB). More specifically, the study re-conceptualizes perceived usefulness to enhance the specificity of these theories to mobile commerce. The resulting model is empirically tested with mobile device users who have not adopted mobile commerce yet. The empirical results provide strong support for the integrative approach, shedding light on the significance and relative importance of specific technological characteristics. The theoretical and empirical implications of these results are discussed in this paper.

Also, in an empirical assessment of customer acceptance of M-Commerce carried out in Germany. In this study, Tiwari and Buse (2007) found that the highest mobile users are top management, followed by self employed, salaried class, students and others. Government employees were found not to patronize mobile banking. The most favoured reason for carrying out mobile banking is ubiquity, next is overview of bank account, followed by immediacy. The highest fear of customers about mobile banking is that of insecurity, next is cost, and uncomfortability.

Léger P., Cassivi L., and Fosso W. (2004) investigate organizations implementing mobile commerce initiatives. Mobile commerce (m-commerce) is defined as the wireless B2B and B2C exchange of operational and financial data within a supply chain. Based on a survey conducted with 159 Canadian and Scandinavian executive managers, this paper tests several theoretical determinants of customer-oriented m-commerce initiatives. Results indicate that i) the adoption of electronic commerce is a strong determinant for the adoption of m-commerce initiatives, ii) software firms are more inclined to adopt m-commerce initiatives, iii) firm size does not influence the adoption of mobile commerce, and iv) contrary to expectations, firms focusing on B2C are not more incline to adopt m-commerce. On a more theoretical point of view, the results suggest that M-commerce comes as a second step to e-commerce.

The increasingly high penetration rate of mobile phones and the consequent exposure of subscribers to mobile technology present high hopes for the adoption of mobile commerce. Are such hopes

justified? Khalifa M. Sammi, K. N. (2002) tried to address this question. More specifically, the research developed and empirically tested a model for explaining the role of exposure to mobile technology in the adoption of mobile commerce. The proposed model extends well-established behavioral theories with new constructs representing various forms of exposure, i.e., trial, communication and observation. The empirical results show significant both indirect (mediated by other constructs) and moderating effects of exposure on the intention of adopting mobile commerce.

Tariq Bhatti (2007) conducted study on Exploring Factors Influencing the Adoption of Mobile Commerce, This study presents an extended technology acceptance model that integrates innovation diffusion theory to investigate what determine user mobile commerce acceptance. This paper models the factors relationships such as perceived usefulness, perceived ease of use, personal innovativeness, subjective norms, behavioral control and intention to adopt mobile commerce. The proposed model was empirically tested using data collected from a survey of mobile commerce consumers. Empirical data from regression analysis reflects users ease of use influence behavioral intention to adopt mobile commerce. The majority of positive relationships between perceived ease of use, subjective norms, behavioral control and intention to adopt are supported by empirical data. Results also revealed that behavioral control and subjective norms influence perceived ease of use which affects then their adoption intention

Lee K.S, et. Al, (2007), identified factors influencing the adoption of mobile banking service. The study specifically focused on perceived risk, perceived usefulness, and trust in mobile banking adoption. This study modified the concept of a technology acceptance model (TAM) within the context of mobile banking. It introduced "perceived risk" and "trust" in a proposed model to reflect consumers' needs to use mobile banking. It concluded that perceived risk indirectly influences adoption behavior but only when it was via trust. Using the mobile banking service context, it obtained strong empirical evidence for measuring perceived risks' dimensions. Evidence for a composite perceived risk variable was identified. The study found the strong inhibiting effect of perceived risk on trust. This result encouraged the decomposition of the perceived risk variable into its theorized dimensions. The financial-performance risk dimension proved to be the most salient concern for this sample and its context. Trust also had stronger influence on the adoption behavior of mobile banking than perceived usefulness, which was used as an important variable in the traditional TAM variables.

Enrique B. et al., (2007) conducted a study on the Key Drivers of Mobile Commerce Adoption: An Exploratory Study of Spanish Mobile Users. This paper analyses the background of M-commerce and key drivers of future M-commerce decision among Spanish mobile users. The study determined the influence of relations with the Mobile (frequency of Mobile use, length of Mobile use and Mobile affinity), demographics, non-store shopping previous experience (mail, catalogue, Television and Internet) and attitude to M-commerce and its influence on the M-commerce decision and identify key drivers of future M-commerce intention. It examined data from 606 personal interviews given to Spanish mobile users (270 Mobile shoppers and 336 non Mobile-shoppers) over 14 years old. Data analysis shows that age, attitude towards M-commerce, Internet shopping previous experience and relations with the Mobile (frequency, length of Mobile use and Mobile affinity) are the main predictors of M-commerce and previous M-commerce experience are the most relevant factors influencing future M-commerce intention. Based on these empirical results this research enables companies to know the key drivers influencing M-commerce adoption and, therefore, what aspects to highlight in their marketing strategies.

Author	Model /Framework	Factors-	Results/ Comments
	Studied	Variables/Constructs	
Y. Li, Z.T. FU and H.Li (2007)	Technology Acceptance Model (TAM)	Perceived Usefulness, Perceived Ease of Use, Personal Innovativeness, Compatibility, Perceived Reliability, Cost	All six variables are significantly affected user attitude to adopt of M-commerce and Key factors for influencing uptake and to offer more effective, relevant and successful M-commerce products.
Tariq Bhatti (2007)	Technology Acceptance Model (TAM) & Theory of Planned Behavior (TPB) Innovation diffusion Theory(IDT)	Subjective Norm, Perceived Usefulness, Perceived Ease of Use, Personal Innovativeness, Perceived Behavioral Control	In this studies, Subjective Norm, Perceived Usefulness, Perceived Ease of Use and Behavioral control are strong determinants of intention to adopt M-commerce.
Paul A. Trig L. & Angelika D. (2007)	Theory of Planned Behavior (TPB)	Attitude towards use Subjective Norms, Perceived Behavioral Control. Intention to use	This study views M-commerce adoption as a process consisting of three distinct, yet interrelated behaviors: Getting information, Giving Information, and purchasing product and services using mobile devices. These three behaviors are integrated using the theory of planned behavior, ease behavioral intention is predicted through its attitude, subjective norm, and perceived behavioral control
Lee K.S. Lee HS, and Kim S.Y. (2007)	Technology Acceptance Model (TAM)	Perceived Risk, Trust (Online), Perceived Usefulness,	In this research found that both perceived usefulness and trust had important effects on the adoption behavior of mobile banking. Consumer's trust in and the perceived usefulness of the mobile banking service had direct effects on their adoption behavior. Perceived risk had an indirect effect on adoption behavior even though it had an insignificant direct relationship with adoption behavior.
Khalifa M. & Shen K.N (2006)	Technology Acceptance Model (TAM) & Theory of Planned Behavior (TPB)	Subjective Norm, Perceived Usefulness, Ease of Use, and Self – efficacy	The empirical results indicated an important role of perceived usefulness and self- efficacy in influencing intentions to adopt m-commerce, both subjective norms and self –efficacy is confirmed as important additions to TAM.
Per E. Pedersen (2002)	Technology Acceptance Model (TAM) & Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA)	User friendliness, Usefulness, Attitude towards use, Interpersonal influence, Self-control, Subjective Norm, Self-efficacy, Facilitating Conditions, Behavioral Control, Actual Use, Intention to use.	The traditional models of ICT adoption may be applied improving our understanding of the adoption of these services. However, studies of the use and adoption of mobile services indicate that traditional adoption models need to be extended and modified when applied to mobile services.
Chew A.A. (2006)	Theory of Reasoned Action (TRA) & Technology Acceptance Model	Perceived Usefulness, Perceived Ease of Use, Perceived Trust /Privacy Innovativeness,	The findings presented in this study were the additional paths linking perceived usefulness, perceived ease of use, perceived trust and privacy, and innovativeness to

Table1: Factors influencing the adoption of M-commerce in the current Literature

	(TAM)	Subjective Norm	subjective norm. The influence of those four antecedent constructs on the subjective norm make the subjective norm construct an even greater determinate in the behavioral intention to adopt M-Commerce.
Mohamed	Theory of Planned	Subjective Norms,	Trial, communication and observation
Khalifa &	Behavior (TPB)	Perceived Behavioral	explained 67% of the variance in exposure.
Sammi		Control, Trail,	The effect of trail and communication on
K.N. (2002)		Communication,	exposure was found to be significant.
		Observation, Exposure	

Factors influencing the adoption of M-commerce in the literature

Subjective norms

A person's subjective norm is determined by his or her perception that salient social referents think he/she should or should not perform a particular behavior (Ajzen and Fishbein, 1980). That person is motivated to comply with the referents even if he/she does not favor the behavior. The referents may be superiors (e.g., parents or teachers) or peers (e.g., friends or classmates) (Taylor and Todd, 1995). In theory reasoned action (Ajzen and Fishbein, 1980) and theory planned behavior (Ajzen, 1991) social influence is modeled as subjective norms on behavioral intention. Though the effect of subjective norms (SN) on intention is inconclusive, from prior research there is a significant body of theoretical and empirical evidence regarding the importance of the role of subjective norm on technology use, directly or indirectly, (Taylor and Todd, 1995; Venkatesh and Davis, 2000). The importance of subjective norms on intention to adopt mobile commerce is revealed in studies that are based on the information systems perspective. The relative influence of subjective norm on intentions is expected to be stronger for potential users with no prior experience since they are more likely to rely on the reactions of others in forming their intentions (Hartwick and Barki, 1994). TAM proposes that subjective norm can influence the cognitive belief of perceived usefulness. Lewis (2003) sought to explain for perceived usefulness from social aspects and found the expected relationship. Subjective norm may also help to shape an ease of use before any direct experience can not be exempted from social influence. If mobile services are believed hard to learn and hard to use, unavoidably it will more or less affect a member's intention toward adopting. The purpose is to predict whether social influence is an important consideration in people's intention to use Mcommerce.



Figure 1: A Framework for adoption of M-commerce

Perceived Usefulness

The perceived usefulness of a system is defined as the extent to which individuals believe that using the new technology will enhance their task performance. There is extensive research in the IS that provides evidence of the significant effect of perceived usefulness on usage intention (Davis et al, 1989, Venkatesh & Morris, 2000). An individual evaluates the consequences of their behavior in terms of perceived usefulness and base their choice of behavior on the desirability of the perceived usefulness. Therefore, perceived usefulness will influence their intention to accept and adopt M-commerce, either directly or indirectly. Numerous empirical studies have provided support for the proposition that perceived usefulness is the primary predictor of information technology usage (Davis, 1989; Davis et al., 1992; Igbaria et al., 1997; Gefen and Straub, 1997, 2000; Venkatesh, 2000; Venkatesh and Davis, 2000; Gefen, 2003; Hsu and Lu, 2004). O'cass and Fenench (2003) argue that TAM is appropriate for research areas in electronic commerce applications since electronic commerce is based on computer technology. As scholars indicate that M-commerce is an extension of e-commerce, it is thus justifiable to extend TAM to examine consumer intention to adopt behavior. Based on the literature following hypothesizes are developed.

Perceived Ease of Use

Perceived ease of use is an individual's assessment of the extent to which interaction with a specific information system or technology is free of mental effort (Davis, 1989). The perceived ease of use for a system is defined as the degree to which an individual believes that using a particular technology will be free of effort. The results of many of the prior empirical studies have demonstrated that perceived ease of use has a positive correlation with behavioral intention, both directly (Davis, 1989; Gefen and Straub, 1997, 2000; Venkatesh, 2000; Venkatesh and Davis, 2000; Gefen, 2003). This construct is posited to influence intentions to use through two casual pathways: a direct effect as well as an indirect effect through perceived usefulness. A few empirical studies tested ease of use as a predominant determinant tested ease of use as predominant determinant of intention to adopt (Agarwal and Karahanna, 2000). Some found that this construct exerting a mediation effect. It is one of the major behavioral beliefs influencing user intention to technology acceptance in both original and the revised TAM models and it gas been included in this study to determine this influence the mobile commerce intent as well.

Personal Innovativeness

Personal Innovativeness is defined as the willingness of an individual to try out any new information systems. Leung and Wei (1998) reported that consumer innovativeness is positively related to their adoption decision of various technologies. Innovative individuals have been also found to be dynamic, communicative, curious, venturesome, and stimulation-seeking. Other diffusion studies also confirmed that innovativeness is related to consumer adoption behavior. This construct was included in this study because it was expected to influence consumers' intention to adopt mobile commerce. It has been recognized that highly innovative individuals are active information seekers about new ideas. Drawing upon Rogers' theory of the diffusion of innovations, Agarwal and Prasad (1998) described personal innovativeness as s symbolizing the risk taking propensity that exists in certain individuals and not in others. They are able to cope with high levels of uncertainty and develop more positive intensions toward acceptance (Rogers, 1983; 1995). In the intention to adopt, most people do not have any or much knowledge on various mobile services or form clear perception beliefs. It is expected that personal innovativeness generating a strong impact on perceived usefulness and perceived ease of use, which in turn influence user intention to adopt M-commerce. Citrin et al (2000) study founds that personal innovativeness predict consumer adoption of internet shopping. Given the relative infancy of the mobile services it is appropriate to test innovativeness as an influencing variable under new circumstances. This study developed and

validated the measures for personal innovativeness and, thus, made it practical to explain and predict how personal innovativeness influences mobile commerce intention to adopt.

Perceived Behavioral Control

According to the theory of planned behavior, perceived behavioral control is defined as individual perceptions of how easy or difficult it is to perform a specific behavior. Behavioral control has been shown to have an effect on key dependent variables such as intention and behavior in a variety of domains (Ajzen, 1991). A significant body of research in information systems and psychology has highlighted the importance of computer anxiety by demonstrating its influence on key dependent variables for example, intention (Elasmar & Cartar, 1996), suggested that knowledge gained from past behavior would help to shape intention. In IS research, Mathieson (1991) found that control was a significant determinant of intention to adopt technology. In general, perceived control is composed of elements of individual constraints that are related to the individual user's economy, experience, and skill in using a service.

Taylor and Todd (1995) found a similar pattern of results. However, the effect of control on intention over and above what is explained by the TAM constructs of perceived ease of use and perceived usefulness is not known. As mentioned earlier, the final model of TAM excludes the attitude construct and helps understand the explanatory power of perceived ease of use and perceived usefulness on intention. Another point related to control is worthy of note-in IS research, perceived ease of use has been seen to be a determinant of attitude consistent with TPB (Davis et al. 1989, Taylor and Todd 1995), while internal and external control have been related to perceived behavioral control in TPB. The current work relates control to perceived ease of use, thus departing from the basic framework of TPB. However, such "crossover effects" have been observed in prior research (Venkatesh and Davis 1996).

Compatibility

Many studies indicate that information technology adoption problems can be explored using theories of innovation diffusions. Personal innovativeness is identified as a personality construct and has been used to study adoption behavior of new services (Barnes 2002). Normally, it refers to novelty-seeking, optimal stimulation, variety-seeking and exploratory tendencies (Wood & Swait 2002). Recent study shows that personal innovativeness can predict the adoption of M-commerce (Barnes 2002; Hung et al. 2003). Initiated by Roger, the innovation diffusion theory (IDT) has been recognized as the most important and widely used theory in research on the diffusion of new technologies. IDT is defined as the "the process by which innovation is communicated through certain channels over time among the members of a social system" (Roger 1995). Roger (1995) stated that compatibility is "the degree to which an innovation is perceived as consistent with the existing values, past experience, and needs of potential adopters". People are more likely to adopt information technologies that are compatible with other technologies they already use.

Perceived Reliability and Cost

As M-commerce is still in the stage of rapid growth, a major concern, especially in China, is its reliability within existing social facilities. In other words, users consider not only the product and service quality but also the security of their information and financial transactions. Hung (2003) found that connection speed was the main risk factor affecting user attitude. Eastin (2002) and Wu & Wang (2005) indicated that perceived reliability had a dominant effect on user attitude to adoption of both E-commerce and M-commerce. Total cost is regarded as equipment cost, access cost and transaction cost. They are the essentials in the setting up and delivery of M-commerce. Compared with traditional business, users must be able to meet these new expenses. If they cannot make up the new expense from increased profits to obtain a net financial benefit, they will not be

potential and loyal users. Researchers recommend M-commerce providers should consider reducing the cost which has a negative effect on the M-commerce adoption (Constantinides 2002; Eastin 2002).

Perceived Risk and Privacy

Recent research results indicated that people are concerned about unwanted disclosure of private information or simply its misuse of their information by the company collecting it (Kesh et al.2002, Sathye 1999). This dimension of risk included undisclosed capture of information such as consumers' shopping habits. Thus, privacy risk was particularly salient for e-payments. Perceived privacy risk is defined as the possibility that online businesses might use personal information inappropriately hence invading a consumer's privacy (Nyshadham 2000). Since privacy risk appears as a common concern that inhibits adoption, we incorporated privacy risk as a part of perceived risk in our model.

If businesses want to reduce consumers' perceived risk, they need to identify the effects of different types of risk. We reviewed previous studies and found that researchers identified nine dimension of perceived risk: financial, performance, social, physical, psychological, time-loss, personal, privacy, and source. Kim and Prabhakar (2002) grasped the effect of perceived risk on accepting technology such as Internet banking by demonstrating that the more perceived risk one has, the less likely he will accept new technology. So in this study, we partially adopted their method of examining the perceived risk in Internet banking (Kim and Prabhakar 2002, Kim 2001).

Conclusion

This paper explored the factors which influencing the adoption of Mobile commerce; the study has tried to review the literature in the field, objectively. Therefore this study focuses on the factors that are influencing the adoption of M-commerce. This conceptual examination of various M-commerce adoption studies will help review future researchers to observe the trends and design studies on mobile commerce adoption appropriately and therefore significant contribution can be made to both theory and practice. The framework which is mentioned in this research can be further study by empirically testing the factors which are influencing the adoption of M-commerce in a particular environment or location.

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