

# Chapter XI

## Mobile–Commerce Intention to Use via SMS: The Case of Kuwait

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### ABSTRACT

*With the widespread use of mobile phones in the Arab world, companies, including banks, are offering different communication channels for their customers to access their services. Among these channels, this study investigates the level of intention to use SMS for banking transactions. To reach this objective the study compares the explanatory power of six technology adoption models to predict SMS intention to use. These models are: the theory of reasoned action, the theory of planned behavior, the technology acceptance model, the decomposed theory of planned behavior, Nyvseen's et al., (2005) model, and a new model proposed by the authors. A convenient sample of 171 users in Kuwait was used to compare these models using regression analysis. Results show that the decomposed theory of planned behavior has the largest explanatory power, followed by the new proposed model. Results also reveal that the technology acceptance model and the theory of reasoned action have the least explanatory power. These results provide researchers and practitioners with some insights on the adoption of SMS. For researchers, such insights would be useful in understanding the adoption phenomenon, while for practitioners, such insights would provide some basis for adopting certain policies to promote adoption.*

## INTRODUCTION

With the widespread use of new ICT around the world, studies dedicated to mobile services adoption have increased. Advancements in mobile technologies hold the promise to reshape the way professionals and individual work. With the help of these technologies, both employees and individuals can break free from the bounds of spatial and temporal constraints, being able to use the technology to work, to socialize and perform transactions anywhere and anytime. A number of past studies focused on different services offered by mobile devices such as mobile payment (Rouibah 2007), camera mobile payment (Rouibah and Abbas 2006) and SMS (Turel et al., 2007; Rau et al., 2008; Hsu et al., 2007; Peevers et al., 2008; Okazaki and Taylor 2008; Rau et al., 2008). SMS is short for Short Message Service which is a communications protocol allowing the interchange of short messages between mobile telephony devices. While several studies focused on SMS adoption, no study focused on this technology to conduct banking transactions. One key advantage of SMS is that it can capitalize on the “always on” trend, in which people have access to the Internet virtually the entire day. SMS also allows for more interactivity with the consumer than traditional media (Okazaki and Taylor 2008).

SMS technology is an enabler of mobile commerce, which is a part of mobile commerce. E-commerce refers to buying and selling goods, services, and information via computer networks (mostly Internet). Mobile commerce (noted henceforth as m-commerce) refers to the use of the Internet for purchasing goods and services and transmitting messages using wireless mobile. Over the past few years, m-commerce, has emerged as an efficient alternative to conduct transactions via mobile devices. Even though m-commerce represents a small fraction of e-commerce, that percentage has been steadily

growing over the last five years. From less than \$2 billions in 2000, it has reached \$ 69 billions in 2005 and will reach 88 billions by 2009 (Juniper Research 2007). The growth is facilitated by the cost reduction of used communication channels. According to Kamel and Assem (2003), the cost of banking transactions handled by different communication channels are as follow: \$2.5 for transactions in physical bank’s branch, \$1 by telephone, \$0.4 by ATM, \$0.24 by SMS, and \$0.1 by Internet.

In order to shed light on factors that may affect m-commerce, this study only focuses on the intention to use SMS in the banking sector. Four main reasons lead to focus on this subject. *First*, the growing influence of SMS has attracted significant attention. As a convenient and low-cost mobile communication technology, SMS is experiencing rapid growth (see Figure 1). This figure shows that the number of SMS sent between 2001 and 2007 has grown exponentially. Growth of SMS use is also observed in China where Chinese send 750 million SMS daily (SMS Research and Statistics 2005). *Second*, SMS has several benefits. It can be used to conduct bank transactions and mobile payment such as M-net. This is a mobile payment technology that is recently introduced in Kuwait, which enables users to conduct transactions based on their mobile devices. *Third*, although millions of dollars have been spent on building mobile banking systems (including usage of SMS), reports on mobile banking show that potential users may not be using the systems, despite their availability. *Fourth*, searching the academic literature through *ScienceDirect* reveals few SMS adoption articles and none of these were dedicated to the use of SMS for banking transactions (Karlsen et al., 2001; Kasesniemi and Rautiainen, 2002; Reid and Reid 2004; Nysveen et al. 2005; Yan et al., 2006; Baron et al., 2006; Turel et al., 2007; Rau et al., 2008; Hsu et al., 2007; **Peevers** et al., 2008; Okazaki and Taylor 2008; Rau et al., 2008).

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