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Research Note

Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust

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ABSTRACT

Banks seem to be one of the most business that are really interested in such systems to provide their customers better services as well as to enhance their effectiveness and efficiency. However, the successful implementation of Mobile banking largely depends on the extent of how much customers are fully motivated to adopt it. In fact, over the Jordanian context, the adoption rate of mobile banking is very low and quite few studies that have examined the related issues of mobile banking. Thus, the purpose of this study is to investigate the factors influencing behavioural intention and adoption of Mobile banking by customers of Jordanian banks. The proposed model has assimilated factors from the extended Unified Theory of Acceptance and Use of Technology (UTAUT2) along with trust. Data was collected by conducting a field survey questionnaire completed by 343 participants. The results mainly showed that behavioural intention is significantly and positively influenced by performance expectancy, effort expectancy, hedonic motivation, price value and trust. This study also looking forward to providing the Jordanian banks with applicable guidelines for effectively implementing and designing Mobile banking. Furthermore, research limitations and future directions will be discussed further in the last section.

1. Introduction

As one of the most innovative and novel technologies, Mobile banking represents a good example of a mobile technology breakthrough in the banking sector, enabling customers to independently produce financial transactions (i.e. balance enquiries, fund transfers, payment of bills) through mobile devices, smartphones, or Personal Digital Assistants (PDA) at the time and place that customers choose (Alalwan, Dwivedi, Rana, & Williams, 2016, Alalwan, Dwivedi, Rana, & Simintiras, 2016; Cruz, Neto, Munoz-Gallego, & Laukkanen, 2010; Laukkanen, 2007a,b; Laukkanen and Cruz, 2009; Lee, Harindranath, Oh, & Kim, 2015; Lin, 2011, 2013; Luarn and Lin, 2005; Püschel, Mazzon, & Hernandez, 2010).

Increasingly, banks seem to be more motivated to integrate the Mobile banking channels in their logistical systems and a lot of financial and technical resources that have been devoted in this regard (Lin, 2013). Such of that more than $115 billion has been invested by banks worldwide to implement the Mobile banking technology in their systems by the end of 2013 (Compete Pulse, 2013). This acceleration in Mobile banking could be initially attributed to a technological breakthrough in mobile and telecommunication technology. Indeed, this revolution provides solutions enabling banks to efficiently serve their customers with best quality and within large regions, particularly where there are restrictions in the term of Internet networks or establishing traditional branches (Cruz et al., 2010; Laukkanen and Cruz, 2009; Wessels and Drennan, 2010). Moreover, by increasing the number of mobile subscribers worldwide, the potential market of Mobile banking services is more likely to expand and attract more customers, thus serving the aspirations of both customers and banks in this respect as well (Alalwan, Dwivedi, Rana, & Simintiras, 2016; Gu, Lee, & Suh, 2009; Lee et al., 2015; Lin, 2013; Wessels and Drennan, 2010). For example, the number of Mobile banking users is expected to reach 1 billion by 2017 as reported by Compete Pulse (2013).

With regards to the implementation of Mobile banking channels in the Jordanian banking context, it is important initially to consider that Jordan has one of the fastest growing mobile and telecommunication technology sectors of the countries in the Middle East (The Gulf Today, 2012). For instance, there are four mobile service providers working within the Jordanian mobile market (The Jordan Times, 2013). This is also accompanied by the increasing penetra-

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tion rate of mobile services. For instance, the number of Mobile phone subscribers in Jordan has exceeded 10 million by the end of 2014 (BuddeComm, 2014). Accordingly, as a competitive necessity as well as to improve customer satisfaction and loyalty, out of the 26 banks in Jordan, 15 banks have introduced Mobile banking services (Migdadi, 2012).

However, the adoption rates of the Mobile banking services do not reach the expected level especially in the developing countries and customer express less interest toward such services (Alalwan, Dwivedi, Rana, & Williams, 2016; Hanafizadeh, Behboudi, Koshksaray, & Tabar, 2014; Hossain and Dwivedi, 2014; Lin, 2011, 2013; Purwanegara, Apriningsih, & Andika, 2014; Püschel et al., 2010; Zhou, 2011, 2012; Weerakkody, El-Haddadeh, Al-Sobhi, Shareef, & Dwivedi, 2013). For example, based on KPMG International, 2009 cited by Cruz et al., 2010) survey, which polled nearly 4000 subscribers of mobile services in 19 countries around the world, the number of users of Mobile banking was 19% of the users of mobile phones. Likewise, Jordanian banking customers express less interest and motivation toward online banking channels in general and Mobile banking as more new banking technology in particular (Alalwan, Rana, Dwivedi, Lal, & Williams, 2015; Alalwan, Dwivedi, & Williams, 2016b; Alalwan, Dwivedi, & Williams, 2014; Awwad and Ghadi, 2010; Khraim, Shoubaki, & Khraim, 2011).

Accordingly, it could be argued that the biggest challenge for the success of this technology is in convincing the consumers to use it as a full alternative for traditional channels (Laukkanen, Sinkkonen, Kivijärvi, & Laukkanen, 2007). In fact, as Mobile banking is in the early stage of its implementation in Jordan, quite a few numbers of researchers (i.e. Alalwan, Dwivedi, Williams et al., 2016; Awwad and Ghadi, 2010; Khraim et al., 2011) have addressed the related issues of such technology. Even though these studies enriched the understanding the main predictors of the adoption of Mobile banking in Jordan, there are other relevant factors such as the roles of the external environment (e.g. facilitating conditions), service value (price value), and intrinsic motivation (hedonic motivation) call for further explanation in the Jordanian context. Thus, the gap relating to Mobile banking literature could be summarised in a necessity of proposing a parsimony conceptual model, which can accurately clarify the adoption of Mobile banking from the perspective of Jordanian customers. In addition, there is a need to apply sophisticated statistical approaches such as structural equation modelling (SEM) to empirically test the most important factors affecting intention and usage of Mobile banking in Jordan. Hence, in order to fill this gap, this study aims to empirically examine the most important factors that could shape the Jordanian customers' intention and adoption of Mobile banking.

2. Literature review

Examining and explaining customer intentions and the adoption of Mobile banking have been recently the focus for scholars and practitioners worldwide, and this issue has seen a dramatic growth in the relevant literature of online banking channels (Gu et al., 2009; Lin, 2011; Purwanegara et al., 2014; Püschel et al., 2010; Zhou, 2012). Indeed, by using different approaches and according to a variety of theoretical foundations, researchers progressively attempt to explain how customers formulate their perceptions, attitudes, intention and behaviour toward Mobile banking (Alalwan, Dwivedi, Rana, & Williams, 2016; Lee et al., 2015; Hanafizadeh et al., 2014; Lin, 2011, 2013; Purwanegara et al., 2014).

For instance, according to a qualitative study was conducted early by Lee, McGoldrick, Keeling, and Doherty (2003), innovation characteristics – relative advantage, compatibility, trialability and complexity – play a considerable role in forming customer attitudes to adopting Mobile banking. Likewise, Püschel et al. (2010) claimed that Brazilian customers' attitudes towards Mobile banking were significantly affected by relative advantage, followed by compatibility; ultimately enriching the customers' intention to adopt Mobile banking. In South Africa, Brown, Cajee, Davies, and Stroebel (2003) found that banking customers are more enthused to adopt Mobile banking by relative advantage, trialability, and consumer banking needs. Similarly, ease of use, customer trust (integrity and competence), relative advantage, and compatibility were found by Lin (2011) to be key drivers of customers' attitudes towards Mobile banking, and ultimately facilitated the customers' willingness to adopt Mobile banking.

Recently, Purwanegara et al. (2014) assured the important role of perceived benefits and governmental regulations in forming customer attitudes towards Mobile banking in Indonesia. Other studies conducted by Hanafizadeh et al. (2014) in Iran and Wessels and Drennan (2010) in Australia found that customers seem to be more motivated to use Mobile banking if they recognised Mobile banking as being useful in their daily life, compatible with their habits and other technologies, and less expensive. In Singapore, Riquelme and Rios (2010) revealed that customer willingness to adopt Mobile banking was positively influenced by the role of perceived usefulness and social norms, and negatively predicted by increasing the level of perceived risk. Zhou (2012) empirically supported the considerable role of a bank's reputation, information quality, self-efficacy, service quality, and system quality in shaping the customers' initial trust in Mobile banking. Nevertheless, Cruz et al. (2010) recognised that the issues of lack of information, lack of observability, and unsuitable devices received less attention from non-users of Mobile banking.

The customers' apprehensions regarding safety issues and initial costs pertaining to setting up the Internet connections were seen by Yang (2009) as key hindrances to the adoption of Mobile banking. According to Yu (2012) and Hanafizadeh et al. (2014), customers are less likely to accept Mobile banking if they perceive a higher monetary cost in comparison with other traditional channels. Further, Jeong and Yoon (2013) found that financial cost was the least important factor when predicting a customer's intention to adopt Mobile banking. Perceived risk has been commonly observed as a negative factor hindering the customers' tendency to adopt Mobile banking (Brown et al., 2003; Hanafizadeh et al., 2014; Jeong and Yoon, 2013; Lee et al., 2003, Lee, Lee, & Kim, 2007; Luo, Li, Zhang, & Shim, 2010; Purwanegara et al., 2014).

In conclusion, despite these studies providing a further understanding regarding the main factors predicting customer intention and usage of Mobile banking, there are still other important aspects that have to be explained.

Firstly, Mobile banking is considered as a novel and pioneer technology and therefore, as stated over the IS/IT literature (i.e. Brown and Venkatesh 2005; van der Heijden 2004; Venkatesh, Thong, & Xu, 2012), intrinsic motivation could play a crucial role in motivating customer intention to adopt. However, the role of intrinsic motivation has still not been fully addressed in the relevant studies into Mobile banking.

Secondly, according to Venkatesh et al. (2012), in the customer context, price issues were found to be critical and received particular interest from customers when they were in the process of accepting or rejecting innovations. In addition, customers seem to be weighing up the utilities received and the financial cost of using a new technology (Dodds, Monroe, & Grewal, 1991; Venkatesh et al., 2012). Yet, the vast majority of prior studies into Mobile banking have concentrated on the functional and non-monetary value (e.g. mobility, usefulness, performance expectancy) (e.g. Zhou, 2012), or focused on the associated financial cost as a barrier to using Mobile banking (e.g. Hanafizadeh et al., 2014) while the price or monetary value of using Mobile banking has not been covered well. There-