Journal of Retailing and Consumer Services 40 (2018) 125–138

Contents lists available at ScienceDirect

Journal of Retailing and Consumer Services

journal homepage: www.elsevier.com/locate/jretconser

Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk

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ARTICLE INFO

Keywords:
Internet banking
Adoption
Jordan
Customer
UTAUT2
Risk

ABSTRACT

The key objective of this study is to propose and examine a conceptual model that best explains the key factors influencing Jordanian customers' intentions and adoption of Internet banking. The conceptual model proposed was based on the extended Unified Theory of Acceptance and Use of Technology (UTAUT2). This was further extended by adding perceived risk as an external factor. Structural equation modelling (SEM) was conducted to analyse the data collected from the field survey questionnaires administered to a convenience sample of Jordanian banking customers. The results show that behavioural intention is significantly influenced by performance expectancy, effort expectancy, hedonic motivation, price value and perceived risk; however, social influence does not have a significant impact on behavioural intention. This study offers Jordanian banks some guidelines for designing and marketing such channel in order to enhance their acceptance by their customers.

1. Introduction

Given the intensity of the competition, increasing the customers' sensitivity to issues related to cost, time and convenience, banks have begun to make use of technological applications in their endeavours to override the restrictions pertaining to human encounter (Al-Hawari et al., 2009; Baptista and Oliveira, 2015; Boateng et al., 2016; Ho and Ko, 2008; Lin and Hsieh, 2011;). Indeed, technological breakthroughs have dramatically contributed to the nature of the business environment by introducing new mechanisms that can enhance a bank's capability to provide customers with a high quality service and greater convenience (Al-Hawari et al., 2009; Yoon and Steege, 2013; Zhu et al., 2013). One of these breakthroughs is Internet banking (IB), which offers an innovative way of providing customers with a wide range of financial services, whilst replacing the role of a human encounter (Akhlaq and Ahmed, 2013; Curran and Meuter, 2005, 2007; Martins et al., 2014; Riffai et al., 2012). Shih and Fang (2004) defined IB as banking applications that allow customers to access and conduct their financial transactions (i.e. balance enquiries, fund transfers, paying bills, stock market) using the World Wide Web, Wi-Fi technologies and the Internet, at a time and place of the user's choosing.

By utilising Internet banking channels, banks also endeavour to minimise the labour and operational costs that pertain to traditional encounters (Bitner et al., 2002; Hung et al., 2012; Lin and Hsieh, 2011). For instance, the cost of a transaction conducted via Internet banking is about US $0.01, compared with US $1.07 for those conducted by traditional methods (Cuevas, 1998; DeYoung et al., 2007; Hall et al., 1999; Kolodinsky et al., 2004; Lee, 2009; Xue et al., 2011).

The successful implementation of IB requires a level of customer acceptance of such system that justifies the banks' investments in this respect (Akhlaq and Ahmed, 2013; Celik, 2008; Curran and Meuter, 2007). In fact, despite large amounts of effort and money being invested, the adoption of IB in Jordan is not in line with what was expected, and Jordanian banking customers are still slow in accepting these technologies (Al-Rfou, 2013). Along the same lines, based on a recent survey including 40 specialist bank staff involved in online transaction departments in Jordanian commercial banks, Al-Rfou (2013) provided statistics demonstrating a low usage rate of IB in Jordan. Al-Rfou (2013) illustrated that less than 19% of Jordanian banking customers have accessed online banking services, while less than 21% of customers are actually able to use IB in Jordan. A lack of awareness of the existence of IB was reported by 61% of the employees surveyed as the main barrier to using this technology in Jordan (Al-Rfou, 2013). Indeed, this problem has been noticed in different countries especially across the developing countries (Sharma et al., 2017). For instance, a recent report carried out by ComScore (2012) also indicated that out of four Internet users, there was only one who accessed Internet banking website worldwide. ComScore's (2012) report stated

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http://dx.doi.org/10.1016/j.jretconser.2017.08.026
Received 5 July 2017; Received in revised form 15 August 2017; Accepted 24 August 2017

that the number of individuals logging on to online banking websites in April 2012 was about 424.5 million (28.7%) of the total Internet users around the world. The same ComScore report (2012) also illustrated that the highest penetration rate of online banking websites was in North America (45%) followed by Europe (37.8%) and then Latin America (25.1%) whereas the lowest rate was found in the Middle East and Africa (8.8%).

The statistics provided above indicate the low usage rate of Internet banking services by Jordanian customers. Hence, Jordanian banks have begun to express concern regarding the low adoption rate of innovative channels, as well as questioning the feasibility of introducing these channels, especially given the large amount of resources being invested in it (Alalwan et al., 2015; AbuShanab et al., 2010; Al-Majali, 2011; Al-Rfou, 2013; Al-Smadi, 2012; Al Sukkar and Hasan, 2005). This, in turn, has led to the perception of Internet banking as a double-edged sword (Chiu et al., 2010; Hung et al., 2012; Meuter et al., 2005). Indeed, customer reluctance to use this technology means that it is pointless to invest in Internet banking channels, while banks find themselves having to continue to provide their services via human encounters, along with their associated operational and labour costs (Chiu et al., 2010; Hung et al., 2012; Lee and Allaway, 2002).

In the light of these facts, the main challenge for the success of Internet banking not only depends on providing these emerging applications but rather attracting customers to accept them as a full alternative instead of a human encounter. In this regard, Meuter et al. (2005, p.78) stressed that "*for many firms, often the challenge is not managing the technology but rather getting consumers to try the technology.*" In effect, persuading customers to switch their behaviour from traditional encounters to using Internet banking channels is not an easy process, especially as there is a lack of understanding of this phenomenon from the customers' perspective (Curran and Meuter, 2007). Thus, there is a need to understand and study the factors that hinder or contribute to the customers' intentions and behaviours toward such technology.

As motivating customers to switch their behaviour from traditional human encounters to using IB channels is not an easy process, there is always a need to identify and empirically examine the main predictors that could shape the customers' intention and adoption of IB in Jordan. Nevertheless, a few researchers (e.g. Alalwan et al., 2015; AbuShanab et al., 2010) have empirically examined the Jordanian customers' intention and adoption of IB. Thus, this study realises a need to examine the factors that hinder or contribute to the Jordanian customers' intentions and behaviours toward IB. Further, the results of current study could provide more clues about the perception and behaviours of customer over the Middle East and developing countries in general. So that the generalizability of the current study's results will not only be restricted by the Jordanian markets but also could be of interest to practitioners and academics in the Middle East and Arab countries. This is especially important due to the fact that most prior studies of Internet banking have examined the related issues from the perspectives of customers in developed countries.

Accordingly, this study attempts to address these main research questions:

1. What is the current state of Jordanian customers' intention and adoption of Internet banking?
2. What are the main factors that could hinder or contribute to the Jordanian customers' intention and adoption of Internet banking?
3. What Jordanian banks could do to enhance the customers' level of adoption of Internet banking?

2. Literature review

The body of IB literature is large where numerous factors have been examined and many theories were formulated (Hung et al., 2012; Martins et al., 2014; Orel and Kara, 2014; Tam and Oliveira, 2016; Zhu et al., 2013). Yet, examination of the acceptance of IB has received the most considerable interest over the past few years (e.g. Eriksson and Nilsson, 2007; Eriksson et al., 2005; Jaruwachirathanakul and Fink, 2005; Tan and Teo, 2000).

Several factors have been examined and verified as key determinants of customer intention and usage of Internet banking. For instance, based on data obtained from 249 banking customers in Portugal, Martins et al. (2014) found performance expectancy, effort expectancy, and social influence as significant factors influencing customers' intention to adopt Internet banking. Moreover, Shih and Fang (2004) reported that the actual usage of Internet banking was strongly associated with behavioural intention. In Oman, Riffai et al. (2012) revealed that performance expectancy, effort expectancy, playfulness, and website design were proved to be significant contributors to the customers' intention. Walker and Johnson (2006) articulated that a customer's predisposition to adopt three kinds of SST - Internet banking, telephone bill payment, and online shopping - was significantly predicted by the customer's beliefs regarding their ability and capacity to apply the technological interfaces effectively. These findings have been supported by Al-Somali et al. (2009) in Saudi Arabia, who asserted that perceived ease of use enjoys a considerable role in promoting both perceived usefulness and customer attitudes toward Internet banking.

Eriksson et al. (2005) maintained perceived usefulness as a key factor that fully mediated the impact of perceived ease of use and trust on customers' use of Internet banking by Estonian clients. Later, in context of Estonia, Eriksson and Nilsson (2007) supported the role of perceived usefulness in enhancing both customers' willingness to continue using Internet banking and multichannel customer satisfaction. Similarly, perceived ease of use and perceived usefulness have been approved by Chiou and Shen (2012) as key factors predicting customers' attitudes toward Internet banking usage, and ultimately, facilitating the customers' willingness to accept this technology to obtain banking transactions. In addition, customers who perceive Internet banking as easy are more likely to value this technology as a useful commodity in their daily life. This is supported by both Chiou and Shen (2012). In India, Kesharwani and Bisht (2012) predicted that perceived ease of use was recognised as a significant driver of perceived usefulness, and accordingly enhanced the customers' intention to adopt Internet banking.

In Germany, Berger (2009) verified a strong positive correlation between both perceived usefulness and ease of use with customer attitude toward self-service banking channels. Berger (2009) found attitude as a key determinant of the customers' willingness to adopt Internet banking. According to Curran and Meuter (2005), both perceived ease of use and perceived usefulness were able to explain a significant variance in the customers' attitude toward online banking, while customers' attitude was found as a key enabler of the customers' penchant to use online banking. In their efforts to examine the impact of customer perceived value and intention related to Internet banking, Ho and Ko (2008) strongly argued that perceived ease of use, perceived usefulness, cost savings, and self-control are crucial factors determining both customer readiness, customer value and ultimately customers' intention to continue to use Internet banking.

Akhlaq and Ahmed (2013) have applied SEM to analyse data collected from 109 banking customers in Pakistan in order to examine the impact of intrinsic and extrinsic motivations on both trust and usage of Internet banking. Their statistical results strongly support the impact of intrinsic motivation on customer trust which, in turn, positively enhances customer inclination to adopt Internet banking. However, based on measurement results, Akhlaq and Ahmed (2013) reported that extrinsic motivation was not valid and therefore the conceptual model was applicable only to intrinsic motivation. Likewise, Celik (2008) provided empirical evidence to show that intrinsic motivation (playfulness) plays a strong positive role in predicting both perceived usefulness and perceived ease of use. Celik (2008) further empirically demonstrated that perceived usefulness and attitude play critical role in