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Mobile-banking adoption by Iranian bank clients

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ABSTRACT

This study provides insights into factors affecting the adoption of mobile banking in Iran. Encouraging clients to use the cell-phone for banking affairs, and negative trends in the adoption of this technology makes it imperative to study the factors affecting the adoption of mobile banking. Accordingly, this study builds a comprehensive theoretical model explaining mobile banking adoption. By incorporating 361 bank clients in Iran, eight latent variables of perceived usefulness, perceived ease of use, need for interaction, perceived risk, perceived cost, compatibility with life style, perceived credibility and trust were examined. It was found that these constructs successfully explain adoption of mobile banking among Iranian clients. Adaptation with life style and trust were found to be the most significant antecedents explaining the adoption of mobile banking.

1. Introduction

The growth of electronic communication has significant effects on every-day activities of human. The experts of this area try to apply this technology for facilitating daily affairs so that the owners of industries, service organizations, and other centers becomes able to communicate with their clients in the earliest time with lowest expenses and free from time and place limitations. In this way, they can offer their products and services and even buy and sell them. One of the newest activities using electronic services is offering banking and financial services through internet and cell-phone.

The adoption and diffusion of information and communication technologies (ICTs) greatly influence nations' economic growth. Studies reveal that postponing technology usage negatively affects per capita income, skills development and productivity (Szajna, 1996; Jorgenson, 2001; Ramayah, 2005).

Mobile-banking is considered as one approach for providing financial services through ICT which facilitates selection of mobile services in even low-incomes countries (Anderson, 2010).

Since the number of cell-phones is more than PCs, mobile-banking has become more popular than e-banking among bankers. Also, mobile phones enhance the quality of services because clients can perform their financial jobs in every time and place. Therefore, it is clear that use of cell-phones for banking affairs is useful for both clients and the bank. This leads to establishment of a stronger relationship between the financial institutions and clients (Laukkanen, 2007).

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Forrester's studies report that only 4% of the nearly 25 million users of American banking services actively use mobile-banking (Khan et al., 2008). Another study on German consumers revealed that only 12% use their cell phones for banking or shopping (Tanner, 2008). Younger people (aged 25–34) are particularly interested in mobile-banking (Sraeel, 2006). Also, young people, in comparison to other users, are more predisposed to adopt and use mobile-banking service, for these services are usually low-cost and fit more with their lifestyle (Bigne et al., 2005).

However, in spite of the increasing desire of business-owners for offering banking services via cell-phone, the number of users is less the level expected by the experts of this industry (Kleijnen et al., 2004; Laukkanen and Cruz, 2009; Lee and Chung, 2009; Riivari, 2005; Suoranta and Mattila, 2004). In such as situation, technological advances and increase in the accessibility of electronic services will not lead users to the adoption and use of third-generation technologies (Baldi and Thuang, 2002; Constantiou et al., 2003; Wang et al., 2008). In order to identify the reasons of avoidance from this technology, many studies have been conducted in different ways to tests the factors predicting or explaining the concept of adoption and use of M-banking (Laforet and Li., 2005; Kim et al., 2007; Luarn and Lin, 2005).

Primary research on mobile-banking and other banking technologies has revealed different types of risks. Firstly, M-banking must consider privacy and security of its customers (Luarn and Lin, 2005); for instance, some customers of e-banking services are concerned about security risks posed upon their financial information through their PIN code (a code entered into the cell-phone software to use M-banking services) (Kuisma et al., 2007). Studies indicate that the trust of clients in providing personal and financial information is one of the key factors of the success of M-banking (Brown et al., 2003), especially among more experiences users (Laukkanen, 2007).

The second important issue is the concept of reliability. According to Lee et al. (2003) reliability refers to the "degree to which people believing in a new technology can perform their jobs consistently and accurately using that technology". It is an extremely important risk-related factor in technology-based financial services (Lee et al., 2003). Mobile phones, for example, may be limited in computational power, memory capacity and battery life, limiting the use of mobile services (Siau and Shen, 2003).

In mobile-banking, the data input and output mechanisms might prevent individuals from trusting in those services, as some users appear to be afraid that they may make mistakes when doing their bank affairs via a cell phone (Laukkanen, 2007; Laukkanen and Lauronen, 2005). Nevertheless, despite the obvious and understandable advantages of M-banking for both banks and the clients, this service is not adopted in many societies such as Iran.

According to the formal reports until 2010, "only 9 governmental banks and financial institutions of the country offer M-banking services" (Itshenas.com, 2012), even these banks suffice to sending the bill via SMS. However, in 2011 some pioneering governmental and private banks encouraged customers to do their daily banking affairs through M-banking. In general, very few people use M-banking at present. According to the report of telephone-banking and mobile-banking department of ICT Services Company, the number of people who used M-banking and did their banking jobs through SMS until previous year reached 500, and this number has been doubled during the past year (Sephabank.ir, 2012).

Most Iranian banking affairs are now done through SHETAB system. SHETAB or the "information exchange network among banks" is a comprehensive electronic network focusing on banking affairs in Iran, which has been launched and managed by the Central Bank of Islamic Republic of Iran (http://www.cbi.ir/simplelist/2546.aspx, accessed on 2010-10-24). It is launched to organize a national switch in order to link different banks' payment gate to each other. It serves a various range of functions such as exchange, payment, electronic buying, money transferring, bill affairs, and account checking. It is designed to help clients use banks services even after daily work hours and in a 24/7 way.

Moreover, Iran Central Bank's Report States (http://www.cbi.ir/simplelist/2546.aspx, accessed on 2010-10-24), the number of IB clients at the end of the first quarter of 2009 was near to 6 million people (i.e. 8.7% of the population) who receive these services from eleven governmental and 6 private banks. In comparison to England with a population of 61.5 million people and 48.75 million Internet users it would be interesting Internet Word State (UK) (http://www.Internetworldstats.com/eu/uk.htm, accessed on 2010-10-24), and according to the Association of Payment Clearing Services (Apacs) (http://www.ukpayments.org.uk/media_centre/press_releases/-/page/871/, accessed on 2010-10-24), the number of IB users in the first half of 2009 was over 22 million people (i.e. 35.8% of the population). Comparison of these two statistics clearly shows that Iran is lagging with respect to the application of IB. The problem of IB adoption by the customers in Iran is the key problem banks face in expanding these services (Hanafizadeh and Khedmatgozar, 2012).

According to Hanafizadeh and Khedmatgozar (2012(most people in Iran are using the precursor of M-banking like ATM, Bank branch and Telephone bank. This statistics shows that along with the adoption of new technologies the adoption of M-banking needs to discover the factors affecting its acceptance. Accordingly, this study is to find these factors in Iran. In this respect, providers of M-banking services need a true understanding of the factors affecting this new trend. The aim of the present study is to test the factors affecting M-banking adoption by the clients of Iranian banks.

2. Review of the literature

ICT has been used since 1970 at the same time as the expansive use of computers in business and managerial processes (Lesjak et al., 2011). Various studies have been conducted in the area of adoption of IT and ICT-based technologies. Table 1 presents some of recent studies in this area. Since the publication of these studies, the attention of many researchers has been directed to the adoption of modern technologies. While some studies have been conducted at international level on this area as mentioned below, there is no specific study in Iran.