Chapter 8
Determinants of Behavioral Intention to Mobile Banking in Arab Culture

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ABSTRACT

Nowadays, new tools and technologies are emerging rapidly. They are often used cross-culturally before being tested for suitability and validity. However, they would be validated to ensure that they work with all users, not just part of them. Mobile banking (as a new technology tool) has been introduced assuming that it performs well concerning authentication among all members of the society.

We aim to validate mobile banking intention to use, through Technology Acceptance Model (TAM), focused on security, in Arabic countries, namely Yemen. The results confirm the previous studies that have shown the importance of perceived ease of use and perceived usefulness.

INTRODUCTION

Rapid and continuously growth of wireless and mobile technologies made it possible to banking service customers’ to access use those services at any place at any time. For that reason most banks provide mobile access to their customers (Selvan, 2011).

Internet and its related technologies have been growing exponentially (Cho, 2007). Technologies make our lives easy but not so secure (Sukhai, 1998), especially for financial applications (Rashed, 2013). Service industry has been changed the way business is conducted (Selvan, 2011). Most organizations already provide services via the Internet and mobile appliances (Segev, 1998). Furthermore, during the last ten years, the improvement of mobile communication technologies has changed the banking industry, so users are able to conduct banking services anyplace anytime (Gu, 2009). Mobile Banking provides customers many services such as: requesting the

DOI: 10.4018/978-1-4666-4446-5.ch008
balance and the latest transactions; transferring funds between accounts; buying and selling orders, for the stock exchange; and receiving portfolio and price information (Barati, 2009). Concerning authentication, for individuals it is known to be difficult to remember their user names and PINs. For that reason, many users select easy to remember passwords (Coventry, 2003), which is considered a security trade-off. Security specialists are looking for more advanced techniques that would improve authentication performance (Rashed, 2010c).

Limited understanding of customer requirements, as well as lack of technology infrastructure, is considered a barrier towards innovation (Wu, 2005). In spite of the efforts of key players such as banks, mobile network operators and mobile service providers, it still lacks to study and promote customer acceptance (Eze, 2008).

Insufficient user acceptance has been an obstacle to the successful adoption of new technologies (Wu, 2005). It is important to understand user acceptance in order to identify the factors that affect user intention to use mobile banking. This would help developers in producing more acceptable systems or help them to discover why users avoid using mobile banking (Selvan, 2011). Numerous empirical tests and studies have shown that TAM is robust to be used in variety of IT-related studies (Rashed, 2010b).

Mobile banking is still in a development phase in most countries especially middle-east, where small markets with few users have been reported. Among other reasons there are lack of customer acceptance and poor time response services (Barati, 2009). Besides, mobile payments are mainly used with popular mobile services since there are few alternative payment solutions available (Mallat, 2004). In spite of being the latest and most innovative service offered by banks, it is not studied well regarding how customers perceive it (Safeena, 2011).

Sufficient user acceptance is a main obstacle to the successful adoption of new technologies (Cho, 2007). Key players in mobile commerce must understand how to make customers satisfied to ensure market growth (Cho, 2007).

Concerning the payment models, mobile payment is not widely accepted (Eze, 2008).

Mobile banking Transactions volume in India is very low (Selvan, 2011). However, it is expected that mobile commerce will gain greater importance in the near future (Cho, 2007).

Concerning authentication methods there are three types (Coventry, 2003):

1. **Something you know:** A PIN; used almost by everyone.
2. **Something you have:** A passport, key, ATM (Automated Teller Machine) card or cell-phone (Herzberg, 2009).
3. **Biometrics (something you are):** Fingerprints, signature, ear shape, keystroke, voice, finger geometry, iris, retina, DNA, hand geometry (Prashanth, 2009) and odour (Rashed, 2010a).

In this paper we investigate the user acceptance of different authentication technologies within mobile appliances, in Arabic countries.

The rest of the paper is organized as following: in Section 2; we overview the previous studies, as literature review; in section 3 we describe our methodology and discuss analysis results. We conclude and present future work in section 4.

**MOBILE BANKING**

The increasing importance of mobile payment accelerates e-commerce (Mallat, 2004). Many companies in the financial sector have implemented mobile services (Safeena, 2011). As an example of a successful story, Helsinki City Transport implemented mobile subway and metro...