Determinants of Mobile Service Acceptance in Saudi Arabia:
A Revised UTAUT Model

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ABSTRACT

This paper identifies factors that determine user acceptance of the mobile version of the stock exchange system in Saudi Arabia (Tadawul). It examines the conditions under which users use Mobile Tadawul (M-Tadawul), the findings will provide an in-depth understanding of the mobile financial services for developers, potential users and Information Technology (IT) managers. The study proposed a theoretical framework based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model. To meet the aims of this study, the model utilized the major UTAUT constructs, these were moderated by three factors: age, gender and education. M-Tadawul characteristics were included as a major determinant of acceptance and use. A questionnaire was devised (and sent to 442 Saudis) to measure M-Tadawul acceptance and use facilitators. The results suggest that behavioural intentions towards the use of M-Tadawul can be predicted by performance expectancy, effort expectancy, social influence and M-Tadawul characteristics. The findings also indicate that the effect of predicting variables is mediated by gender, age and education. Studying the moderating effect of education in developing countries as well as applying heuristics evaluation of mobile services in Saudi Arabia would therefore merit further investigation.

Keywords: Mobile Services, Saudi Arabia, Tadawul, Technology Acceptance, Unified Theory of Acceptance and Use of Technology (UTAUT)

INTRODUCTION

The amount of research on IT acceptance is vast; however, the highlighting of factors influencing emerging technologies, like mobile services, is of great interest to both researchers and practitioners. The proliferation of mobile services calls for tailored research models to include some of the key perceptions, particularly in developing countries. The context of use, the target audience, social aspects and technical requirements are among examples of factors to be considered. There is very little literature on mobile service acceptance, particularly in developing countries. From this perspective, this study attempted to investigate the acceptance and use of mobile services in Saudi Arabia. The application of the most representative and powerful technology acceptance model, like the UTAUT model, to Saudi Arabia aimed to provide an in-depth understanding of Saudi consumer behaviours in relation to mobile services.

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Saudi Arabia is one of the largest IT markets in the Middle East, as it accounts for over 40% of the regional IT spending (BMI, 2008). Tadawul is an IT-focused organization that operates the stock exchange market in Saudi Arabia. It manages massive amounts of historical and current stock information data with massive daily hits. The services provided by Tadawul allow users of mobile devices to access stock market information in Saudi Arabia through Mobile Tadawul (M-Tadawul). It is argued that user acceptance is a critical challenge to Tadawul, due to the variety of its users (Al-Mudimigh & Shahzad, 2010). Scholarly research should consider investigating the underlying motivators leading to the acceptance and use of M-Tadawul. The current study investigated the factors influencing the adoption of M-Tadawul by individuals in Saudi Arabia, through the proposition of a tailored UTAUT model. M-Tadawul was selected to represent a case study of mobile services offered by Saudi semi-governmental organizations. Relevant M-Tadawul characteristics as well as mobile users’ attitudes and perceptions were investigated. This study aimed to provide insight into the conditions under which Saudi consumers accept and use the specified mobile service; the findings will influence the future strategy, design and development of mobile services provided by Tadawul.

This paper contributes to the consumer behaviour literature, particularly in relation to the acceptance of mobile services in developing countries. It highlights the social and cultural aspects as well as the perceptions of mobile service users in Saudi Arabia. This paper illustrates that social influence is still the most important concern influencing the behavioural intentions and use of M-Tadawul. Furthermore, insight will be identified into the differences across age, gender and education with regard to the acceptance and use of M-Tadawul. The reminder of this paper is organized as follows: the second section will provide a literature review in order to explore the field further and to form a theoretical foundation. The research model will be introduced in the third section and the following section will present the results and findings, including sample characteristics, validation of the research instrument and model testing results. The discussion and implications of this research will be provided in the fifth section and finally, the sixth section will provide a conclusion to recap of the main points of this study.

LITERATURE REVIEW

In the current literature on Information Systems (IS), attitude is seen as an important aspect as it represents the tendency or orientation of users. An attitude is defined by Fishbein (1967) as a state of mind regarding objects or ideas by which an individual’s behaviour is influenced (Fishbein, 1967). It can be said that attitudes represent an individual’s feelings, opinions, position and action tendencies towards objects or ideas. Scholarly research has focused on attitudes of IS users as an important subject which has resulted in a large body of literature focusing on user acceptance and the use of IS. For example, the Technology Acceptance Model (TAM), proposed by Davis (1989), describes determinants of users’ attitudes and intentions towards new technologies (Davis, 1989). The major constructs were: perceived ease of use, perceived usefulness, using intentions and actual use. Numerous studies have since examined the relationships between perceptions and attitudes, behavioural intentions and actual behaviours.

UTAUT Model

The Unified Theory of Acceptance and Use of Technology (UTAUT) model was proposed by Venkatesh et al. (2003) to tackle several issues that were raised in these previous models: TAM, Theory of Reasoned Action (TRA), Model of PC Utilization (MPCU), Theory of Planned Behaviour (TPB), Combined TAM and TPB Model (C-TAM-TPB), Motivational Model (MM), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT). Venkatesh et al. (Venkatesh et al., 2003) examined the vari-
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