

# Chapter 4.12

## E–Business Adoption by Jordanian Banks: An Exploratory Study of the Key Factors and Performance Indicators

**Ali Alawneh**

*Philadelphia University, Jordan*

**Hasan Al-Refai**

*Philadelphia University, Jordan*

**Khaldoun Batiha**

*Philadelphia University, Jordan*

### ABSTRACT

Grounded in the technology–organization–environment (TOE) framework, we have developed an extended model to examine factors, particularly technological, organizational and environmental factors, which influence e-business adoption in Jordanian banks. For the purposes of our research some constructs were added to (TOE) framework such as IT/Business strategy alignment, adequacy of IT professionals, and availability

of online revenues. Other factors were excluded such as the global scope since our research is at the national level in Jordanian banking sector. The independent variables are the (technology readiness or competence, bank size, financial resources commitment, IT/Business strategy alignment, adequacy of IT professionals, availability of online revenues, competition intensity or pressure, and regulatory support environment) while e-business adoption and usage constitutes the dependent variable. Survey data from (140) employees in seven pioneered banks in the Jor-

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danian banking sector were collected and used to test the theoretical model. Based on simple and multiple linear regressions, our empirical analysis demonstrates several key findings: (1) technology readiness is found to be the key determinant of e-business adoption among the banks. (2) Bank size, IT/Business strategy alignment, and availability of online revenues were found to have significant influence on the e-business adoption within banks, while financial resources commitment and adequacy of IT professionals do not contribute significantly to e-business adoption. (3) Both of the competition intensity and regulatory support environment contribute significantly to e-business adoption in banks. By providing insight into these important factors, this paper can help further understanding of their role in the adoption and usage of e-business and examines the impacts of e-business usage on banks' performance in terms of sales-services-marketing, internal operations and coordination & communication. The theoretical and practical implications of these results are discussed. By extension, this could enable greater e-business usage in banks, which could improve the Jordanian overall economy.

## 1. INTRODUCTION

The banking and other financial services sector is one of the most advanced in the usage and diffusion of technologies. Being essentially information business, they do not produce physical products and have been trading electronically for decades. For these reasons hardly any other sector is better suited for e-business which, in fact, is progressing very quickly. ICT impacts on all aspects of the activity and is undoubtedly one of the main driving forces in the sector.

Electronic business (e-business) is a major force in the global economy. Businesses and consumers alike increasingly engage in e-business. Despite the burst of the dot-com bubble, many firms continue to deploy e-business extensively

in their enterprise value chains. Indeed, firms face a series of obstacles in adopting and carrying out e-business, particularly their ability to transcend significant technical, managerial, and cultural issues (Sato et al., 2001).

The adoption and usage of electronic business (e-business) have emerged into an active research area in the information systems (IS) discipline (Straub et al., 2002). Drawing on the literature of (Barua et al., 2001), we define e-business as using the Internet to conduct or support business activities along the value chain. We focus on sales/services/ marketing, internal operations, and coordination & communication because we are studying banking services industry (Alawneh and Hattab, 2008).

The financial services industry differs in important ways from industries such as manufacturing or retailing, and its use of IT and e-business technologies reflect those differences (Olazabal, 2002). Financial institutions are linked to customers and each other in an extensive network of interrelationships that is more complex, reciprocal, and less linear than traditional manufacturing and retailing industries (Mulligan and Gordon, 2002). There is a primary market in which customers interact with financial institutions such as retail banks, insurance agencies, real estate agencies and stock brokers. There is also a larger secondary market in which those institutions interact with each other and with others such as mortgage brokers, commercial banks, insurance companies, and investment bankers (Hess and Kemerer, 1994). Financial services, which are both immaterial and relatively standardized, and have hence already been widely affected by information technology innovations (Buzzacchi, and Mariotti, 1995), would therefore be one of the first arenas where that "new information economy" would arise (Dewan, Freimer and Seidmann, 2000).

The nature of IT in this industry is complex and heterogeneous. On the front end, IT is used to execute and record customer transactions, whether they are handled in person, by phone, by

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