

*In the Name of God,  
The Compassionate, The Merciful*

104922

# MASTER'S THESIS

## Association between Strategic Values and E-banking Adoption in Iranian Banks

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*I wish to thank my parents and my Husband,*

*They supported me and gave me hope with smile and patiently.*

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## **Abstract**

Supported by an ever-increasing body of literature, it is clear that Top-managers perception of strategic value of e-commerce has a causal relationship with e-commerce adoption. While the impact of attitude on adoption has been approved in several industries by several studies, there is still much debate and speculation on such causal relationship in large industries.

As the majority of studies of causal relationship between perception and adoption have been examined in Small Medium Enterprises, there is a lack of focus in large companies and organization like Banks. Considering the fact that Banks play the most critical role in electronic revolution adoption, we need to know if Top managers and owners of banks' attitude towards e-banking adoption will support such causal relationship. Since in large organization there is no one person for making decision, so decision maker unit seems much more appropriate for our study.

Therefore, this study will examine the causal relationship among determinant factors of strategic value and adoption of electronic commerce as perceived by decision maker unit (DMU) in Iranian banking industry. It employs a cross sectional research design involving self-administered, delivery and collection, surveys to Iranian banks' decision maker unit.

Findings suggest that the perception of managers in banks cause e-banking adoption. It means that those banks who perceived e-commerce as adding strategic value to their organization have a positive attitude toward its adoption. A modified model for e-commerce adoption in banking industries that shows new arrangements of factors by managers' perception is also presented.

**Keywords: Perception, Adoption, Strategic value, Banking industry, DMU**

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# Chapter I Introduction

## 1. Introduction

*In this chapter an introduction of the thesis is provided. The chapter begins with a background concerning the research area which also shows the study's importance, followed by research problem which guides the reader to the research purpose and the research questions. Finally, an outline of the whole thesis will be brought up at the end of the chapter.*

### 1.1 Background

Among the myriad of computer- and telecommunication-based applications in the modern era, the advent of e-commerce is having the biggest impact on organizations. E-commerce is changing the way organizations perform their tasks, interact with customers and, in general, do their business.

E-commerce enables firms to reduce telecommunication costs, minimize warehousing expenses, and cut down the distribution chain. Firms also benefit by extended global

reach. To reach these objectives, many studies were done to find the problem of e-commerce adoption in different industries. In this regard, numbers of factors were developed among them for example (Grandon and Pearson, 2004) examined the determinant factors of strategic value and adoption of electronic commerce as perceived by top managers in small and medium sized enterprises (SME) in the Midwest region of the US. In this study a research model were developed that suggested three factors that have been found to be influential in the perception of strategic value of other information technologies: operational support, managerial productivity, and strategic decision aids. They also identified five factors that influence electronic commerce adoption: organizational readiness, external pressure, compatibility, perceived ease of use, and perceived usefulness. A causal link between the perceived strategic value of electronic commerce and electronic commerce adoption were hypothesized.

The study of (Ching and Ellis, 2004) identified other factors which affect the adoption of e-commerce among SMEs. These factors were described within 3 independent variables: 1- Decision maker characteristics (Age, Education, Cosmopolitanism) 2- Innovation characteristics (Relative advantage, Compatibility, Complexity, Cost- effectiveness) 3- Environmental characteristics (Supplier incentives, Customer pressure, Competitive intensity)

Regarding to e-commerce adoption issues, the study of (Quaddusa and Achjari, 2005) developed a framework for electronic commerce (e-commerce) success. Key factors impacting e-commerce were differentiated according to their contribution to the success of e-commerce and according to the locus of impact. The final model was then cast in a structural equation modeling framework comprising four exogenous variables (internal driver, internal impediment, external driver and external impediment) and one endogenous variable (e-commerce success) with 24 observed variables. The internal and external drivers were Cost leadership, Reputation, Market, Business entry and Product pricing, Time spent, Convenience, External relationship and the internal and external impediment were Financial, Risks, Expertise and Customer's expense, Delivery time, Transaction risk, Access relatively.

Furthermore in 2005, Hong and Zhu studied how firms can better position themselves when adopting e-commerce for revenue generation. A conceptual model was developed

upon technology diffusion theory, TOE framework, for assessing e-commerce adoption and migration, incorporating six factors in the technology-context (technology integration, web spending, and web functionalities, electronic data interchange (EDI) use, outsourcing partner usage, and perceived obstacles).

## **1.2 Research Problem**

Technological developments particularly in the area of information technology are revolutionizing many industries. Among them bank having the most important and attracts many attentions. This is because Banks are one of the main angles of a country's economy; they can make it either strong or weak. Banks play very important role in a business network. At least every business relationship end to a financial transaction that banks should support it. And many managers of different companies say that if banks can not support them, they can't go further in e-commerce. E-commerce adoption in a bank means using all electronic means of data transmission and financial transaction among different banks, among different customers and among customers and bank. It is not always the matter of monetary transaction sometimes banks grant a credit for someone or for some companies that is very valuable in a business network.

By adopting e-commerce, banks can work as facilitators and accelerators for different industries and firms in several scales, small and large, so the business world will be found a new definition and the global market will become realistic. In this regard many banks and financial institutions are actively developing new way of transaction for themselves and their customers throughout the world but still it is a very new market to enter and to work. By the adoption of e-commerce their traditional ways of doing business has change to a highly dynamic communication that not only is cost-effective but also is revenue generating. It has been also proved that e-commerce is the cheapest transaction channel for banking services so banks can get notable cost savings, reduce their branch networks and downsize the number of their service staff, all of which contribute in maximizing their profits.

In spite of the many potential advantages of e-commerce, its adoption by Iranian Banks remains limited or none. Does this mean that top managers/ owners of Banks do not realize the strategic value of e-commerce to their business? Or does this mean that they



encounter significant barriers for implementing it? What are the factors involved in e-commerce adoption in Iranian Banks?

### **1.3 Purpose and research questions**

The adoption of electronic commerce in banking industry is not yet common in Iran. This study would be one of the first studies that examine the Iranian managers' attitudes towards e-commerce adoption in Iranian banks.

The aim of this study is to examine the determinant factors of e-commerce adoption and find the causal link between perceived strategic value of e-commerce and e-banking adoption by decision making unit (DMU) of banks in Iran using Grandon and Pearson model. Furthermore a comparison between Private owned and state owned banks will be taken on adoption factors in order to understand the differences in their perception toward e-commerce adoption along with finding differences in their perception of e-banking as a strategic value for a bank. In this study e-commerce is defined "the process of buying and selling products or services using electronic data transmission via the Internet and the World Wide Web."

The following factors will be examined in this study:

Perceived Strategic value of IT:

- ▣ Organizational Support
- ▣ Managerial Productivity
- ▣ Strategic decision Aids

E-Commerce Adoption:

- ▣ Organizational readiness
- ▣ External Pressure
- ▣ Compatibility
- ▣ Perceived ease of use
- ▣ Perceived usefulness

The research questions can be stated as:

- *How do Iranian banks perceive adopting of e-banking?*
- *How do Iranian banks perceive strategic value of e-banking?*
- *How do the perceptions of strategic value, as viewed by top manager/DMU of banks, influence their decision to adopt e-banking?*

Since the model in this study was consisting of two different fields of study, adoption and perception, and the hypotheses were proposed in these two groups, besides no dissimilarity was assumed to form the hypotheses at the very first step:

Adoption Group of Hypotheses:

H1: Private owned Banks perceive "*Organizational Readiness*" as important as State owned Banks in adoption.

H2: Private owned Banks perceive "*Compatibility*" as important as State owned Banks in adoption.

H3: Private owned Banks perceive "*External Pressure*" as important as State owned Banks in adoption.

H4: Private owned Banks perceive "*Ease of Use*" as important as State owned Banks in adoption.

H5: Private owned Banks perceive "*Usefulness*" as important as State owned Banks in adoption.

Perception Group of Hypotheses:

H6: Private owned Banks perceive "*Organizational Support*" as important as State owned Banks in adoption.

H7: Private owned Banks perceive "*Managerial Productivity*" as important as State owned Banks in adoption.

H8: Private owned Banks perceive "*Decision Aids*" as important as State owned Banks in adoption.

In order to test the causal relationship between perception and adoption in banks another hypothesis was proposed:

*H9- There is a causal link between the perceived strategic value of e-commerce and electronic commerce adoption.*

## **1.4 Outline of the study**

This thesis consists of five chapters. Chapter 1 started with an introduction, and then moved on to discuss the background and importance of the problem. This problem ended in a statement of the purpose of the study. Three research questions were outlined in order to help the researcher fulfill this purpose. Finally delimitations of problem area were stated. Chapter 2 will provide the reader with an overview of previous studies and

theories relevant to the purpose of this thesis. How the research was conducted and which methodological choices were made, is described in chapter 3. Then, descriptions, tables, and finding of collected data and their analysis based on the research question were presented in chapter 4. Finally, chapter 5 consists of discussion as well as some implications for managers and suggestions on further research.

## Chapter II

# Literature Review

### **2. Literature Review**

*This chapter consists of two parts. Literature review focused on providing the reader with the information about the literature connected to our research problem. It provides theories that can be connected to, and cover our research problem. Then, in the theoretical frame of reference the research questions will be developed and discussed based on chapter one and the literature review.*

### **2.1 Introduction**

#### **2.1.1 E-commerce Definition**

The term “e-commerce” emerged only a few years ago when businesses started to realize the role of the Internet as a powerful medium for conducting business. Not only e-commerce, on the Internet, goes beyond simply buying and selling electronically and involves a wide variety of pre- and post-sales activities, such as advertising, maintaining business relationships, and enhancing business communication but also at the core of e-