UNIVERSITI PUTRA MALAYSIA

A CONCEPTUAL FRAMEWORK OF IRANIAN CONSUMER TRUST IN BUSINESS TO CUSTOMERS ELECTRONIC COMMERCE

FETEMEH MESKARAN
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A CONCEPTUAL FRAMEWORK OF IRANIAN CONSUMER TRUST IN BUSINESS TO CUSTOMERS ELECTRONIC COMMERCE

By

FETEMEH MESKARAN

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

June 2010

My Beloved My Father and Mother,
My Dear Amin, Mahnaz and Javad

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

A CONCEPTUAL FRAMEWORK OF IRANIAN CONSUMER TRUST IN BUSINESS TO CUSTOMER ELECTRONIC COMMERCE

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FETEMEH MESKARAN

June 2010

Chairman: Rusli Abdullah, PhD

Faculty: Computer Science and Information Technology

Developing countries such as Iran are facing difficulties to establish e-commerce as part of their economics activities. Previous studies have shown that trust is one of the most important factors affecting the growth of e-commerce. The primary aim of this study is to develop a conceptual framework for Iranian customer trust in Business-to-Customer (B2C) e-commerce by identifying the antecedents and consequences of trust. A survey was conducted on Tehran customers in Iran through a set of questionnaires. Collected survey data are analyzed by using SPSS software based on 11 hypotheses. The proposed conceptual framework called ITM (Iran Trust Model), which is founded on the accepted hypotheses.

In ITM model, two additional influencing factors are introduced and ineffective antecedents of trust are removed. The additional factors include the type of payment and reputation, which are two main antecedents of customer trust. The next factor is

recommendation of friends as a type of reputation. A prototype of an online shopping website is implemented to validate the framework. The deployment of ITM in the shopping website has increased the rate of visitors to the website. An increase in the rate of visitors signals an increase in customer's willingness to buy. This model concludes that improved trust affects on attitude and risk, and finally on willingness to buy.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

KONSEP RANGKA KERJA KEPERCAYAAN PENGGUNA IRAN DALAM PERNIAGAAN-KEPADA-PELANGGAN PERDAGANGAN ELEKTRONIK

Oleh

FETEMEH MESKARAN

June 2010

Pengerusi: Rusli Abdullah, PhD

Fakulti: Sains Komputer dan Teknologi Maklumat

Negara-negara membangun seperti Iran menghadapi masalah bagi membangunkan e-perdagangan sebagai sebahagian daripada aktiviti ekonomi mereka. Kajian terdahulu menunjukkan bahawa salah satu daripada faktor-faktor yang mempengaruhi pertumbuhan e-perdagangan adalah kepercayaan. Tujuan utama kajian ini adalah untuk membangunkan sebuah kerangka konsep untuk tahap kepercayaan pelanggan-pelanggan Iran di dalam Perniagaan-kepada-Pelanggan (B2C) melalui cara mengenal pasti kesan dan akibat kepercayaan. Satu tinjauan telah dibuat ke atas pelanggan-pelanggan Tehran di Iran melalui suatu set soalan kaji selidik. Data tinjauan yang diperolehi telah dianalisa dengan menggunakan perisian SPSS berdasarkan 11 hipotesis. Kerangka konsep yang dicadangkan telah dinamakan sebagai Iran Trust Model (ITM) berasaskan hipotesis yang telah diterima pakai.

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Di dalam model ITM, dua faktor baru mempengaruhi telah diperkenalkan dan kesan-kesan pengaruh yang tidak efektif telah dikeluarkan. Faktor-faktor tambahan tersebut termasuklah pembayaran dan reputasi, iaitu dua pengaruh utama dalam kepercayaan pelanggan. Faktor yang berikutnya adalah saranan rakan-rakan sebagai sebahagian daripada reputasi. Sebuah prototaip laman web pembelian atas talian telah dibangunkan bagi mengesahkan kerangka tersebut. Pelaksanaan ITM di dalam laman web pembelian telah meningkatkan kadar pengunjung di laman web tersebut. Peningkatan kadar pelanggan menandakan peningkatan kesediaan pelanggan untuk membuat pembelian. Model ini merumuskan bahasa pengingkatan tahap kepercayaan mempengaruhi sikap dan risiko, serta akhirnya kesediaan membeli.

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APPROVAL

I certify that an Examination Committee met on 14 June 2010 to conduct the final examination of Fetemah Meskaran on her Master of Science thesis entitled "Conceptual Framework of Iranian Consumer Trust in B2C Electronic Commerce" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree of Master Science.

Members of the Examination Committee are as follows:

Ali Mamat, PhD.
Associate Professor
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia
(Chairman)

Abdul Azim Abd Ghani, PhD.
Professor
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia
(Internal Examiner)

Rodziah Atan, PhD.
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia
(Internal Examiner)

Abdul Razak Hamdan, PhD.
Professor
Faculty of Information Science and Technology
Universiti Kebangsaan Malaysia
 (External Examiner)

BUJANG BIN KIM HUAT, Ph.D.
Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Rusli Abdullah, PhD
Senior Lecturer
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia
(Chairman)

Masitah Ghazali, PhD
Senior Lecturer
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia
(Member)

Masrah Azrifah Azmi Murad, PhD
Senior Lecturer
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia
(Member)

_____

HASANAH MOHD. GHAZALI, PhD
Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 6 September 2010

DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Putra Malaysia or other institutions.

FETEMEH MESKARAN
Date: 14 June 2010

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LIST OF ABBREVIATIONS

ATTD	Attitudes
B2B	Business to Business
B2C	Business to Customer
C2B	Customer to Business
C2C	Customer to Customer
CF	Component Flexibility
CT	Customer Trust
E-commerce	Electronic Commerce
EFT	Electronic Funds Transfer
EDI	Electronic data interchange
IF	Instance Flexibility
IT	Information Technology
ITM	Iran Trust Model
PR	Perceived of Reputation
PRISK	Perceived Risk
PS	Perceived Size
RS	Recommender System
RDBMS	Relational Database Management System
ROF	Recommendation of Friends
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action

TOP   Type of Payment

VIF   Variance Inflation Factor

WTB   Willingness to Buy

CHAPTER 1

INTRODUCTION

1.1   Background

The rapid rise of the Internet has made the potential of e-commerce more promising. In recent years, e-commerce has been rapidly developed. It is now widely stated that the Internet and e-commerce will transform traditional business and customer life. Nonetheless, developing countries have a small role in this development (Männistö, 1999). E-commerce will enable vendors in the developing countries to participate in the worldwide electronic market. In addition, e-commerce also allows these countries to perform purchase transactions buy goods and services from the developed world, which is impossible under the traditional commerce.

Based on the nature of electronic transaction, e-commerce includes transactions of Business-to-Business (B2B), Business-to-Customer (B2C), Customer-to-Business (C2B), and Customer-to-Customer (C2C). At present, B2C is the leading transaction of e-commerce and the business is growing rapidly (Lauden and Traver, 2006). The main objective of this study is to define a conceptual framework for improving customer's trust and their willingness to commit for purchase from Iranian online shopping websites. Aside from B2C, B2B is another type of e-commerce transaction that will generally lead to B2C (Naraine, 2003).

In general, there exist several limitations to e-commerce especially in B2C, both from technical aspect and non-technical aspects. Technical limitations involve barriers such as standards, communication protocols, or bandwidth, which are beyond the scope of this study. Meanwhile, non-technical limitations involve cost, security, privacy, and trust. In this research, we concern on limitation on trust, which has been identified as the most significant long-term barrier for realizing the potential of e-commerce to consumers (Kraeuter, 2002). Trust is the key differentiator that will determine the success or failure of many web-based companies (Urban et. al., 2000).

The main problem with trust in e-commerce is the lack of it. According to the theory of reasoned action (TRA), intention to perform behavior is determined by the individual attitudes toward the behavior. These attitudes are affected by beliefs or expectation directed to the attitudes (Ajzen and Fishbein, 1980). Based on TRA, Jarvenpaa et al. (1999) propose a positive relationship between trust and attitude. Their research also explores the negative relationship between trust and risk, which at the end, lead to improved willingness in customers to commit for online purchase. This means that increasing trust in an e-commerce vendor will cause an improved customers attitude and decreased the customer risk of that vendor. Consequently, an increased willingness to buy in customers will improve the rate of customers to visitors.

This study focuses on trust in Iran, with sample population of customers from three shopping centers used as source of data collection. The study is based on the framework

proposed by Jarvenpaa et al. (1999). The framework models trust level within customers in an Internet store, whether the trust affects the customer's willingness to patronize the store. Aside from that, the framework also proposes reputation and size of the physical store as additional factors that are able to evoke customer's trust.

Following Jarvenpaa et al. (1999), other improvement to the framework include the factor of word of mouth (Peszynski and Thanasankit, 2002) and reputation, size, system assurance, and customer's propensity (Thompson and Liu, 2007). Thompson and Liu (2007) examine the antecedents of customer trust in the context of e-commerce based on trustor and trustees. All the antecedents – reputation, size, system assurance, and customer's propensity have positive impact affect on customer trust.

In this study, antecedents and consequences of customer trust will be analyzed and compared. The existing factors in trust frameworks and extra factors related to trust are considered and tested for developing a framework of trust in B2C e-commerce in Iran. After framework formation, a prototype will be developed to illustrate the usage of this framework.

1.2   Problem Statement

E-commerce is undoubtedly part of future commerce and transactions. Nonetheless, in most of developing countries, the application of the Internet as a marketing tool in online business is still at its infancy. This is reflected by relatively low percentage of Internet

usage in such countries. Lower Internet usage results in a smaller group of online shoppers with very little awareness.

Trust is known as a critical factor in stimulating purchases over the Internet, especially at early stage of commercial development. Lack of trust is the most common reason in market surveys that shows why customers do not shop online (Lee and Turban, 2001). Unlike trust being a long-term issue in virtual world, transaction security is only a short-term technological problem (Quelch and Klein, 1996; Peterson et al., 1997). Findings by Mag and Yazdani (2008) and the National Report on E-commerce in Iran (2004) also reveal that trust is the determining factor for improving motivation for online shopping.

A conceptual framework of trust in B2C e-commerce in developing countries like Iran is very useful. The framework by Jarvenpaa et al. (1999) provides a strong theory and a practical application. According to this framework, reputation and size are two influencing factors that gauge customer trust and it highly influences the degree of willingness in customers to make an online purchase. Because the framework has been tested in Australia under specific individualism culture and the fact that customer choices are highly influenced by such culture, results may be different in other countries under different cultural setting. This research plans to develop and to test an extended trust tailored to the collective culture in Iran.

The research question in this study is: How can we improve Iranian customer's trust and willingness to commit to online purchase under the environment of B2C e-commerce?

Preliminary works began by discussion with the manager of Information society of Iran searching online resources (2008) and studying the histories of related issues from the ISI websites. Although there are researches about e-commerce (E-commerce development report, 2005) and the development requirements in Iran (Koohi, 2006), there is no exact study has been carried out to model B2C e-commerce trust within the context of Iranian culture (ISI[1], 2007).

1.3   Objectives of research

The main objective of this study is to propose an extended framework for Iranian customer's trust in B2C e-commerce. To achieve the objective, the following sub-objectives must be satisfied:

- To analyze the various antecedents and consequences of customer trust in Iran.
- To test the framework on a suitable prototype.

1.4   Scope of research

The scope of this research is confined by trust, in Business-to-Customer (B2C) e-commerce transactions in Iran. Iran is a developing country located in Middle East, which is still lacking on communication and e-commerce trust in its economic infrastructure.

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[1] The website for Information society in Iran available: http://www.isi.org.ir