Identification and Exploration of Customer Trust in E-Banking in Iran

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Abstract
Trust is regard eel as the heart of e-banking system and is important factor in introducing a new product/service in the sphere of information technology. Trust has a positive impact on customer loyalty in e- banking. Therefore, banks and financial institutions are striving to identify factors to create a feeling of trust in customers towards their services. The aim of this study is to identify variables related to customer trust in e- banking. The associated variables with customer trust in e-banking are examined in the study. This study considers a conceptual model that is determinant of customer trust in e-banking. To test the hypotheses, a questionnaire of 25 questions designed that is valued 0 to 100 and distributed among the population (Meli bank), the total 320 patients of the main branches of clients who have had experience using the online system. The method used in this research is descriptive survey. The path analysis method was used to test the hypotheses, and the AMOS soft ware is used for statistical analysis of data. The results of the study show the significant impact of variables on customer trust, however, the perceived risk and perceived security has had the greatest impact on loyalty among them.

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Key words: Perceived Risk, Perceived Security, Perceived ease of use, Communication, Information privacy, Assurance.

1. Introduction

Trust building is a process of long-term interactions between involved parties. This includes three phases: initiating, maintaining, and dissolving trust. At different stages, the determinants of trust are different (Yaobin et al., 2011).Trust refers to the depth and assurance of feelings to accept vulnerability based on inconclusive evidence. Previous research has investigated the factors that cultivate trust. Gefen (2000) explored the antecedents of trust and concluded that familiarity with the trading party and trading process helps to establish trust. McKnight, Cummings, and Chervany (1998) decomposed the antecedents of trust to personality-, institution-, and cognitive based trust (Shu et al., 2012). Online customers often measure the risk of online activity about information privacy misuse or reveal (Milne & Culnan, 2004). They must have feelings of trust toward the websites before revealing information. Many research studies propose that concerns over information privacy as well as trust currently stifle e-commerce (Kuang et al., 2012). If trust is indeed an important aspect of online auctions, then understanding the antecedents of trust should be a prime concern for the online auction sellers. Based on prior trust research streams, McKnight et al. (1998) identified a number of trust antecedents: personality-based trust (propensity or disposition to trust), cognition- based trust (trust derived through cognitive cues or first impressions), knowledge-based trust (familiarity with other parties), institution-based trust (specifically, structural assurance beliefs and situational normality beliefs), and calculative-based trust (Chao et al., 2010). Trust is basically seen as a common mechanism for the reduction of social complexity and the perceived risk of transactions, by increasing the expectation of a positive outcome and the perceived certainty of the expected behavior of trustee (Ing-Long, 2012). Security and privacy is dependent on the image of the company in the mind soft he customers and customers be life that organizational and technical arrangements have been made by the organization to ensure security and privacy of customer data. The importance of security and privacy for the acceptance of online banking has been noted in many banking studies. To be more precise, lack of privacy and security were found to be significant obstacles to the adoption of online banking. Roboff and Charles (1998) found that people have a weak understanding of online banking security risks although they are aware of the risks. Furthermore, they noted that although consumers' confidence in their bank was strong, yet their confidence in the technology was weak (Reeti et al., 2009). Trust refers to ''an individual belief that others will behave based on an individual's expectation and an expectation that others one chooses to trust will not behave opportunistically by taking advantage of the situation''. In online shopping, users feel fearful to transact with e-venders in that transaction are conducted through Internet. Hoffman, Novak, and Peralta (1999) indicated that the critical obstruction in e-commerce was the fear, including the lack of standards for secure payment, the lack of profitable business models, and consumers' fear of distributing their personal data. Trust helps decrease these fears and facilitate transaction in e-commerce by reducing fraud, uncertainties and potential risks (Ja-Chul et al., 2009). Trust can be defined as "a generalized expectancy… that the word, promise, oral or written statement of another individual, or group can be relied upon". Also trust can be defined as users' thoughts, feelings, emotions, or behaviors that occur when they feel that an agent can be relied upon to act in their best interest when they give up direct control. Many studies have proved the significant relationship between trust and electronic banking or any e-commerce adoption (Samsudin et al., 2009).

2. Conceptual framework and hypotheses

Research Objectives

Main Objectives

- Examining effective factors influencing Trust in Electronic banking.

Sub Objectives

1- Identifying factors influencing Trust in electronic banking.

2- Measuring any of the factors influencing Trust in electronic banking.

3- Rating any of the factors influencing Trust in electronic banking.

4- Extracting the conceptual model about the factors influencing Trust in electronic banking.

5-Developing and drawing inclusions from the extracted conceptual model about the factors influencing Trust in electronic banking.

3. Research hypotheses

H_1.Perceived risk has a significant relationship with customer trust.

H_2.Perceived security has a significant relationship with customer trust.
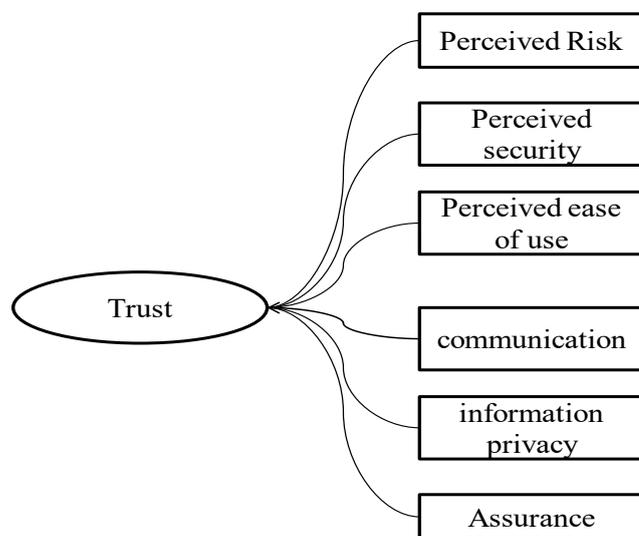
H_3.Perceived ease of use has a significant relationship with customer trust.

H_4.Communication has a significant relationship with customer trust.

H_5.Information privacy has a significant relationship with customer trust.

H_6.Assurance has a significant relationship with customer trust.

The   proposed   model

Garph 1: The Conceptual model of examining the effective factors (perceived Risk, perceived Security, perceived ease of use, communication, information privacy, assurance) influencing trust in e- banking(taken from: shu et al.,2012,Kun Chang et al.,2011, Kuo-Wei et al.,2011, David et al.,2009).

4. Theoretical framework for research

4.1 Research Method

Considering the subject of this research, the universe of this study is the clients of the main branches of Meli bank in kermanshah province-Iran. The sampling method and sample volume was determined by morgan table. The universe was 1900 people and sample volume was determined 320 persons. Samples were collected by the simple accidental sampling method. A closed questionnaire was used for collecting data and the questions were categorized into 6 sections with a value of 0-100.For analyzing data, path analysis was used.

4.2 Kolmogorov- Smirnov

To use path analysis and regression method, errors must have a normal distribution. To examine this, Kolmogorov-Smirnov test is being used.

Table 1:One-Sample Kolmogorov-Smirnov Test

|	Error
N	320
Kolmogorov-Smirnov	.249
Sig	.066

In the table above, since p-value = .066 and p > .05, the hypothesis of being normalized is accepted.

A primary sample of 320 people were examined to do this research and as for getting sure of its reliability, cronbachs Alpha was used. As its shown in the table below, α = .721, which proves the reliability of the questionnaire.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.721	25

In the table above, cronbachs alpha = .721 and α > .70, then it can be said that this questionnaire is reliable. In this model, the impact of independent variables such as perceived risk, perceived security, perceived ease of use, communication, information privacy and assurance on the dependent variable of trust is examined. Therefore, the model is illustrated as following:
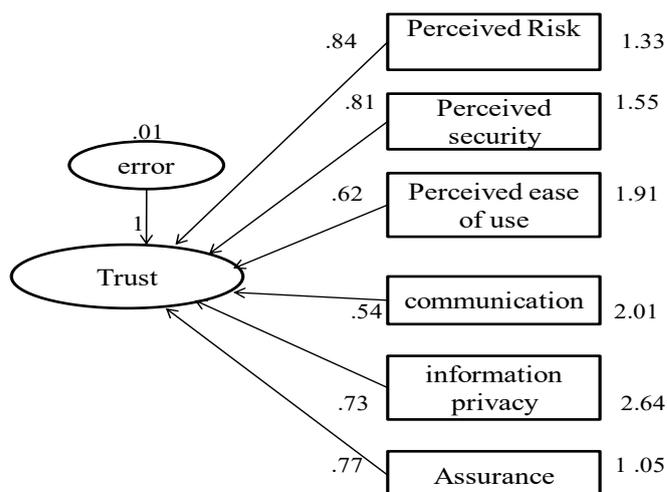
Graph 2: The regression coefficients of independent variables in Meli bank.
In the figure above, .84 demonstrates regression coefficient between trust and perceived risk variables, and 1.33 demonstrates the variance of reliability variable.

4.3 Regression coefficients of variables in meli bank
The table above shows the calculated regression coefficients of independent variables on dependent ones. According to this table, the regression coefficient of the variable perceived risk is .838.Also,the calculated regression coefficient of perceived security is .811, perceived ease of use =.620, communication =.538, information privacy = .792 and assurance = .771. Considering the last column of this table which shows p-value related to independent variables coefficients being significant hypothesis. Perceived risk .000, perceived security .000, perceived ease of use .001, communication .005, information privacy .006, assurance .000.because all of these p-values < .05, as a result, it can be concluded that all of these coefficients are significant. In the second column, this table shows standard error and the third column shows the critical value, which is attained through dividing the coefficient estimation by the standard error.

Table 3: Regression coefficient of independent variables in meli bank

		Estimate	S.E.	C.R.	P
Trust <---	Perceived Risk	.838	1.153	.317	.000
Trust <---	Perceived Security	.811	1.244	.772	.000
Trust <---	Perceived ease of use	.620	1.382	.244	.001
Trust <---	Communication	.538	1.417	.347	.005
Trust <---	Information privacy	.729	1.624	.382	.006
Trust <---	Assurance	.771	1.024	.578	.000

4.4 Structural equation

In this article, independent variables like perceived risk is shown by X_1, perceived security X_2, perceived ease of use X_3, communication X_4, information privacy X_5, assurance X_6, and the dependent variable of trust is shown by Y. According to the regression al model be fitted to data, is as follows:

y = 0.41 + .83 x_1 + .81 x_2 +.62 x_3 + .53 x_4 + .72 x_5 + .77 x_6.

4.5 Standardized Regression Weights

The standardized coefficients of independent variables have been shown in the graph below.

Table 4: the standardized coefficients of variables

		Estimate
Trust <---	Perceived Risk	.831
Trust <---	Perceived Security	.817
Trust <---	Perceived ease of use	.630
Trust <---	Communication	.515
Trust <---	Information privacy	.690
Trust <---	Assurance	.678

As h's obvious from the table above, the variable of Perceived Risk has the most impact and Communication has the least impact on the variable of Trust.

4.6 Comparing the independent model and the proposed model

In order to examine the suitability of the model, the following criteria are used. The nearer the values of these criteria to 1, the more suitable the model will be. The independent model is a kind of model in which there is no relationship among variables, being called a basic model.

Table 5: comparing the suggested and independent model in meli bank

RMSEA	AGFI	GFI	CFI	IFI	RFI	NFI	
.017	.767	0.864	.851	.855	.780	.830	proposed model
.000	.000	.000	.000	.000	.000	.000	independent model

The values of the table above prove the suitability of the model.

4.7 K_2 of the suggested models

The following table shows the K_2 value for the suggested model.

Table 6: K2 of the suggested model in meli bank

CMIN	DF	CMIN/DF	P
37.16	20	1.858	.028

For this model, $\chi^2 = 37.16$, degrees of freedom = 20 and sig = .028, and because sig <0.05, it is concluded that the regression al model being fitted among dependent and independent variables is significant and suitable.

5. Conclusion

H$_1$. Perceived risk has a significant relationship with customer trust.

According to the achieved results; there is a significant and positive relationship between perceived risk and Trust with a sig of .000 and a regression coefficient of .84.Therefore, it can be stated that there is a strong relationship between trust and perceived risk, and the regression coefficients between the two stated variables is direct (positive).As a result, it can be said that Perceived Risk influences Trust and in customers point of views; The more the perceived risk, the better. Trust, therefore, the hypothesis is accepted.

H$_2$.Perceived security has a significant relationship with customer trust.

According to the achieved results; there is a significant and positive relationship between perceived security and trust with a sig of .000 and a regression coefficient of .81.Therefore, it can be stated that there is a strong relationship between trust and perceived security, and the regression coefficients between the two stated variables is direct (positive).As a result, it can be said that perceived security influences trust and in customers point of views; The more perceived security, the better. Trust, therefore, the hypothesis is accepted.

H$_3$. Perceived ease of use has a significant relationship with customer trust.

According to the achieved results; there is a significant and positive relationship between perceived ease of use and trust with a sig of.001 and a regression coefficient of .62.Therefore,it can be stated that there is a strong relationship between trust and perceived ease of use, and the regression coefficients between the two stated variables is direct (positive).As a result, it can be said that perceived ease of use influences trust and in customers point of views; The more the perceived ease of use, the better. Trust, therefore, the hypothesis is accepted.

H$_4$. Communication has a significant relationship with customer trust.

According to the achieved results; there is a significant and positive relationship between communication and trust with a sig of.005 and a regression coefficient of .53.Therefore, it can be stated that there is a strong relationship between trust and communication, and the regression coefficients between the two stated variables is direct (positive).As a result, it can be said that communication influences trust and in customers point of views; The more the communication, the better. Trust, therefore, the hypothesis is accepted.

H$_5$. Information privacy has a significant relationship with customer trust.

According to the achieved results; there is a significant and positive relationship between information privacy and trust with a sig of .006 and a regression coefficient of .72.Therefore,it can be stated that there is a strong relationship between trust and information privacy, and the regression coefficients between the two stated variables is direct (positive).As a result, it can be said that information privacy influences trust and in customers point of views; The more the information privacy, the better the. Trust, therefore, the hypothesis is accepted.

H$_6$. Assurance has a significant relationship with customer trust.

According to the achieved results; there is a significant and positive relationship between assurance and trust with a sig of .000 and a regression coefficient of .77.Therefore,it can be stated that there is a strong relationship between trust and assurance, and the regression coefficients between the two stated variables is direct (positive).As a result, it can be said that assurance influences trust and in customers point of views; The more the assurance, the better. Trust, therefore, the hypothesis is accepted.

In this study, we have tried to attain the customer loyalty in e-banking by providing a model. According to the results achieved from hypo these, it has been determined that model is optimal and also the variables of perceived risk and safety have the most impact on customer loyalty in e-banking. Managers of banks and financial institutions could attract the trust of customers in e-banking by using this model. The results attained from analyzing data demonstrates that all effective factors influencing Trust have a strong and significant impact, but the factor of Customer Value has more impact on Trust in online banking and also Trust can impact Satisfaction through bringing about customer service quality. Now, several suggestions are presented as following to create trust and customer loyalty towards banks:

- Studying the relationship between banks popularity and creating a positive image of customers towards customer trust.

- Studying the relationship between service quality and creating a prior experience towards customer trust.

- Studying the relationship between customer habit and customer trust.

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