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Surveying the Factors Relating to Website and Customer in Creating Trust to Electronic Banking

(Case Study: Refah Bank Branches in the City of Rasht)

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Abstract: The objective of this research is to study the relation between individual factors and website characteristics with customers trust in electronic banking. This research is practical (applicable) from objective point of view, and descriptive-correlative from methodological point of view. Statistic population of this research is 27450 active customers of Refah bank in the city of Rasht that 429 people were selected randomly as research sample. Questionnaires with 33 questions were used to gain data. The hypothesis were considered using structural equations and the results showed that individual factors including view factors, skill factors and personality and also website characteristics have a meaningful(significant) effect on customers' trust in electronic banking.

Keywords: Trust, E-Banking, Web Site, Individual Factors.

I. INTRODUCTION

Electronic banking refers to banking using electronic platform has evolved following the development of e-commerce. With the development of electronic commerce, financial services need was felt. Therefore, electronic banking branches, and other financial services such as insurance, buying and selling stocks etc. were also provided in electronic form. Today e-commerce without electronic banking is unthinkable. Electronic banking is an integral part of electronic commerce.

II. THEORETICAL FRAMEWORK

In electronically connected and developing today's world, human life is in the hand of the packages that are moving with the speed of light. The resulting transmission of these packages are in forms of sending and receiving information, from audio and video files to books and messages, from control of the bank account to buying and selling. These transmissions that form our electronic life can be divided into different sections.

For example, banking electronically is called internet or electronic banking and the same as this, interchanging electronically is called e-commerce. In fact e-commerce is defined as buying and selling through the internet network [5]. Creating trust in buyers is of the important factors in the development of this technology and generally will cause sales increase. Particularly in B2C e-commerce, customer trust is one of the key factors and main elements of success. Urban and colleagues state that customers make decisions to purchase something through Internet on the basis of trust. Despite the importance of trust in e-commerce, the concept and its dimensions are somewhat shrouded in mystery [6].

There have been many definitions about trust .Webster's dictionary defines it as relying on individuals and objects, certain dependence on characteristics, abilities, power and integrity of those individuals and Kelly(2001), talks about trust that generally trust is defined in terms of expectation or belief. It is believed that others have characteristics such as benevolence, integrity, competence and predictability. Therefore, if only one of these beliefs is based, this relationship may be very unstable. Trust is a mixture of sense and rational thinking [4].

Variety of definitions shows that trust is a dynamic phenomenon that depends on the interaction and different factors that can be effective in building trust scheme [11]. Moreover, customers simply do not trust online vendors with whom

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they enter into a commercial transaction. Importance of creating and maintaining trust between buyer and seller as a facilitator of success of e-commerce which is known in academic circles, in real communities and the business world has also been acknowledged [9]. In addition, much empirical research has been done about the role of trust in e-commerce with regard to different aspects of the multidimensional construct of trust. Quelch & Klein (1996) state "trust is a critical factor in stimulating purchases over the Internet .Keen (1997) argues that lack of customer trust has been the most important clear obstacle to understanding of internet marketing between customers. Both a lack of trust in the honesty of the sellers and the lack of trust in their ability to fulfill customer orders. DiSabatino (2000) ascribes failure of many ".com" companies to the dealer's inability to establish a strong relationship of trust with their customers. Hoffman et al (1999) suggest that high consumer trust stimulates the desire to buy online and helps return online customer, while the lack of trust is, the main reason of the lack of online shopping.

The research that was conducted by Bankrate in April (2008) shows U.S. users are still concerned about identity theft and this has affected their online behavior. In this study 8 of 10 cases have expressed concern about their identity theft. From 77% of respondents that had access to the Internet, 36 percent avoid online shopping, and 48 percent avoid online banking because of the fear of identity theft [9]. Of what was said can be concluded that with the increase in buying and selling goods and services through the Internet and widespread deployment of electronic commerce, the issue of creating trust in e-commerce as one of the most critical elements has become very important.

According to the discussion, trust is known as one of the most important factors in the development, prosperity and success of e-commerce. According to the arguments made, and despite the increasing use of Internet in Iran, e-commerce and online shopping are less prevalent in the country and people are not willing to buy products and services online from companies and organizations that are providing facilities for these services. Perhaps the biggest barriers to the deployment of e-commerce are the public distrust and of unfamiliarity of the active institutions involved in the field with trust-building mechanism. However, the application of e-commerce, especially B2C model may have a lot of advantages for customers and organizations. Some of the benefits of e-commerce for customers are: Reducing the cost of goods and services, increasing customer choice, 24-hour fast access to information needed and purchasing facility.

Considering the development of e-commerce and the wants and needs of customers in the electronic world, banks also have tried to respond to these needs by using technological advancement. Therefore, they acquire a strategy trying to satisfy customers by offering better services and products at lower costs and in less time and so the idea of electronic banking is widely used [1]. Basically, electronic banking can be defined as provider of the facilities for customers without need to be physically present at the bank, and through the use of safe and reliable intermediates gain access to banking services. Meanwhile, despite the recent growth in electronic banking, customers are not willing to provide sensitive and personal information [2].

It expresses customer's feeling of mistrust towards the Internet and Internet-banking. However, in a world where the level of customer loyalty to services and products is lessen day by day, the only way to protect the competitive position, is having trust-based relationships with customers. Otherwise, the only remaining way for a seller would be competing on the basis of price. Therefore, considering special indigenous and cultural characteristics of country in this matter, it seems that by acknowledging meaning and dimensions of trust in e-banking, effective factors should be explored. In this regard, in the present study we would like to explore the effective factors in customer trust in e-banking of Refah bank branches in Rasht (which is considered a form of electronic commerce in the banking field). In this study we try to find the answer to this question: "Whether the customers of Refah bank branches in Rasht trust in electronic banking of this bank?"

III. CONCEPTUAL MODEL

In this study individual (demographic) variables are those variables related to a customer him/herself and affect their trust in e-commerce. These variables have been considered in various studies which have been conducted in this area and each of experts have focused and noticed some of these factors. For instance, Kim et al, based on the process model of trust creating multidimensional axis, have pointed to the consumer behavior, and noticed individual characteristics such as demographic, experience etc. that affect consumer trust behavior [8]. Corbitt et al in perceived trust in B2C business, mention about customer's perception of variables such as quality, website, the risk perceived by the customer, and user's experience as key factors associated with trust in the context of e-commerce[3].

Tan and Sutherland say that in psychology, trust is noted as a feature based on personality characteristics which has deep roots in individuals' beliefs and is formed due to individual experiences in life. They named this dimension of trust as "character trust" that deals with consumers' role and their mind interaction about trust and mistrust in an

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electronic seller [12]. Kyösti in his study pointed out individual characteristics including demographic, characteristics, personality and user experience [10].

In this study according to the mentioned researches and discussions, individual variables associated with customer trust in electronic commerce were noted in the forms of dependent personality, skill and view factors. Website related indices (indicators) in this study are Framework proposed by Wang and Amarin in four different dimensions that are provided as follow: 1- Graphic Design⁸: This dimension represents the graphic design of the website that the user deals with it at first. 2- Design Structure⁹: The following demonstrates how to achieve and the overall organization of the information on the website. 3- Content¹⁰: This dimension indicates the data elements that represent the text or graphics on the Web site. 4- Social Factors¹¹: Indicates the necessity of considering social factors in website, such as face to face interaction and the use of communication device for this action on website [7].

To measure customer trust based on the research of McKnight et al (2002), Bashiri et al (2013), Khodadad Hoseini et al (2010), McKnight et al(1998) and Guffen et al (1999) predictability, competence, honesty and sincerity, goodwill and benevolence will be used. Based on the above discussion, the model used in this study is as follows:

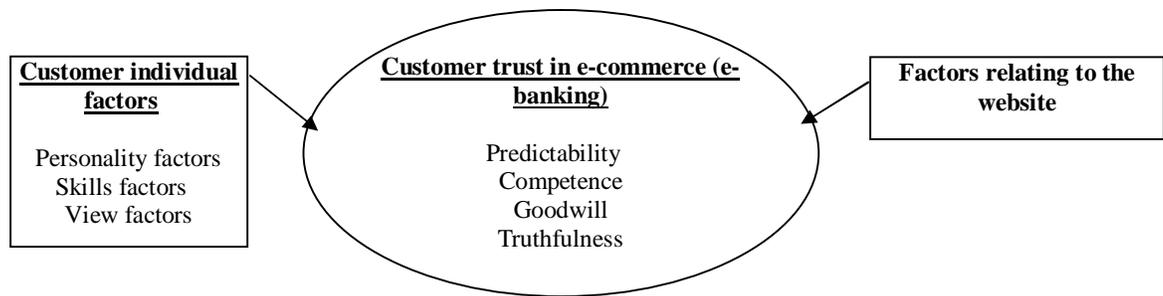


Fig 1. Research Conceptual framework

IV. RESEARCH HYPOTHESES

According to the conceptual model and the literature study, the following assumptions have been considered:

Hypothesis 1: There is a significant relationship between individual customers and customer trust in e-commerce

Hypothesis 1-1: There is a significant relationship between personality factors and customer trust in e-commerce

Hypothesis 1-2: There is a significant relationship between the skill factors and trust of customers in e-commerce

Hypothesis 1-3: There is a significant relationship between view factors and customer trust in e-commerce.

Hypothesis 2: There is a significant relationship among variables related to consumer trust and the website in e-commerce

V. RESEARCH METHOD

This research is applicable from objective point of view, and descriptive-correlative from methodological point. For basic formulation and theoretical pattern, library studies have been used. The study population consisted of active Refah bank customers in Rasht that their population is 27450. In this research, kerjsi and Morgan table for selecting the sample value and random sampling method were used. 378 people were selected randomly for the sample. For achieving more trustable results and reaching to the related sample values, 450 questionnaires were spread that 429 of them became the analysis base finally.

The questionnaires used for collecting needed data included 33 questions and responders were asked to announce their idea according to likert scale for every question. Allocating the questionnaire format to research variable is: the first 13 questions are related to the customers' individual factors, the next 9 questions related to website variable and 11 questions to trust in electronic banking variable. Demographics information was evaluated with 5 questions. The validity of this questionnaire was assessed by confirmatory factor analysis and AVE index. Its stability is explored by Cronbach's alpha method. For data analysis in this research, descriptive statistics and structural equation modeling by maximum likelihood using Lisrel software were used.

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Table 3-3: Cronbach’s alpha amount for each variable

Variable	Question numbers	Cronbach’s alpha
1- customers’ individual factors	11	0.942
1-1- personality factors	5	0.877
1-2- skill factors	3	0.818
1-3- view factors	3	0.861
2- website questions	7	0.881
3- trust in electronic banking	11	0.926
1-3- admiration	3	0.842
2-3- predictability	2	0.883
3-3- honesty and righteousness	3	0.821
4-3- goodwill	3	0.901
Total questions	29	0.877

VI. DATA ANALYSIS

Descriptive statistics

According to data analyzing it was found that 67.8% (291 people) of statistical sample were men and 32.2% (138) of the rest were women. It was found that most of the customer percentage (46.5%) were those with one to 5 years experience (199 people). Next to that were customers group with under 1 year experience (30%= 129 people). Then were customers with 5 to 10 years experience (15.6 % =67 people) and finally responders with managing experience more than 10 years (7.9%=34 people). The results of sample description for this research showed that the most job frequency was related to retirees with 31% (133 people), after that self employed people with 23.1 % (99 people), then clerks with 17.9% (77 people), on the next level housekeepers with 12.6% (54 people), then post secondary students with 11.2% (48 people) and finally students with 4.2% (18 people). The most customers age frequency was between 36 to 45 years with 33% (143 people) and then between 26 to 35 years old with 29.6% (127 people), then older than 45 years old with 20.5% (88 people), 15 to 25 years old 11.2% (48 people) and finally under 15 years old with 5.4% (23 people).

Research variables measuring models exploring

Before entering into hypothesis test, it is necessary to be sure about the correctness of exogenous variable measuring models (individual factors and website properties) and endogenous variable (trust in electronic banking). Therefore, in the next step measuring models will be explored by confirmation factor analysis. Exogenous variable factor analysis model fit indices that are in the table below, show that the model with data collected from research statistic samples, has very good fitness.

Table 4-6: exogenous variables fit indices

indices	AGFI	GFI	CFI	NNFI	NFI	X ² /df	RMSEA
Achieved amount	0.93	0.93	0.96	0.92	0.92	2.33	0.062
Allowable amount	>90	>90	>90	>90	>90	<3	<0.08

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The fit indices of Trust endogenous variable factor analysis model in e-banking that are shown in the table below, show that the model or collected data from statistic research samples, has very good fitness.

Table 4-7: Endogenous variables fit

index	AGFI	GFI	CFI	NNFI	NFI	X ² /df	RMSEA
achieved amount	0.90	0.90	0.91	0.90	0.90	2.90	0.079
allowable amount	>90	>90	>90	>90	>90	<3	<0.08

Exploring isotropic validity (convergent fitness) of structures

By the purpose of calculating the isotropic validity Fornel and larker suggested using the AVE criterion. In AVE of minimal equivalence of 0.5, indices have suitable isotropic validity (converging fitness). In fact this index explores that how much a hidden variable is able to explain its indices' variance (apparent variables) averagely.

This coefficient has been summarized for all of the research's variables in the table below (table 11-4). Among research variables, anticipating variable with 0.7594 isotropic validity (converging fitness) index is the maximum amount and goodwill variable with 0.5107 index is the minimum amount .Overall ,all of the factors possess suitable isotropic validity indices.

Table 4-11: the average of derived variance of research variables

Structures	Character	Skill	View	Website	Competence	Anticipation	Integrity	Goodwill
AVE	0.5434	0.5126	0.5295	0.5484	0.5860	0.7594	0.5526	0.5107

Exploring research hypotheses

To test research hypotheses, the relations between independent and dependent variables by structure equations modeling with maximum likelihood has been explored. All of hypothesizes have been accepted with 99% trust. In relation with the first main hypothesis that explores the relation of customers' individual factors and customer's trust in electronic banking, the results of the course analyzing confirm this hypothesis. The path coefficient of correlation is 0.61 and t-statistic is equal to 10.30 that with error level of 0.01, statistic is significant. Results show the existence of direct correlation between these two variables and therefore the first hypothesis is confirmed. The other sub hypothesizes were tested in the same way and the results are presented in the table below:[table 5-1]

Table 5-1: the summary of the research hypothesis test results

path	Path coefficient	t-statistic
individual factors to trust in e-banking	0.61	10.30
personality factors to trust in e-banking	0.27	5.36
skill factors to trust in e-banking	0.80	14.11
view factors to trust in e- banking	0.27	4.11
t website to rust in e-banking	0.56	10.27

VII. CONCLUSION AND SUGGESTIONS

The results of hypothesis analysis showed that individual factors have more relationship with customer's trust in electronic banking than websites properties. It means trust in e-banking is out of control of bank authorities to a large extent and depends on personality characteristics, customers or users ability level and their attitude to online and

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internet services. However, a part of this trust can be strengthened through technical infrastructures including website's characteristics and capabilities. Skill factors are most effective factors among individual effective factors on customers' trust in e-banking.

In fact, the control degree of customers upon virtual space and work with various online websites are more effective than individual and attitude factors on the degree of customer trust in e-banking. Considering that website properties have been confirmed as an effective factor on customer trust in e-banking, therefore, Refah bank authorities and specially bank's IT department can improve the properties that produce trust with paying more attention to the Refah bank's website. Moreover, by considering the importance coefficient or factors' agent of used indices to measure the website properties and also the achieved average for every index, some suggestions are presented as follows:

The result of achieved data analysis from customers, show that Refah bank should present more comprehensive, detailed and accurate information in easier and clearer way in its website to its customers. Having the right, comprehensive and accurate information in the website is one of the most important parameters for evaluating the site desirability among customers that doesn't achieve high average in this research and shows that more emphasis on this website property can have positive effect on improving the attitude and trust of the customers in using Refah bank internet banking services.

Moreover, it is suggested that since the website design type and the facility of reaching various pages are very important, informatics and IT department of Refah bank should pay more attention to this area, and although customers have partial satisfaction about Refah bank's website quality in facility of transferring between various worksheets, making more innovation in this index can increase the popularity of using the bank services by the internet.

The other factors that cause violation in using various companies services including banks via the internet are disconnections in using services that affect negatively on customer trust in bank website. Results show that Refah bank website has good quality in this case and the bank authorities while protecting this quality may improve the speed and decrease farther the disturbance of the website within their power possibility.

Moreover, it is recommended that the existing information in the site should be updated consistently and it should be assured to the customers that their information are confidential and provided information systems have enough safety and security for protecting customer information.

Analysis results showed that customers' ability factors or Refah bank internet services users can affect customers' trust in electronic banking much more than individual or view factors. Moreover, for the ideal using of Refah bank website services, there's no need to have complete knowledge of internet and techniques of using virtual sites. Having more experience in using bank services and exploring in the bank websites can strengthen the skill of using the websites by customers. The achieved averages show that customers in these cases don't have high skills. The customers' attitude factors analysis showed that most of them felt using the internet services were risky, however, preferred online shopping to buying goods directly in person.

Finally necessary techniques are recommended for improving the managers' creativity like mind storming, Teriz and methods such as. Managers should be able to say their various ideas without restricted considerations in organization meetings and decision making circles. Some of the creativity increasing techniques emphasize that individuals should say their ideas and thinking as much they can to extract the creative suggestions from those crude ideas.

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