
E-Bank Services: Analyzing the Effect of E-Bank Service on E-Trust with E-Security Approach

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Abstract:

This study examined the effect of E-bank service on E-Trust with E-Security approach. So this research discusses the issue based on Theoretical frame work of marketing and E-Banking.

Then a questionnaire was designed to evaluate the variables and finally with certainty of Reliability and Validity of evaluation device, was administered among 260 customers of Iran Melli Bank. Results of the research model show that E-bank service affects E-trust on the whole.

It was also revealed that each component of E-Banking affects E-trust; consequently the research hypotheses were confirmed. In the end, this research introduces ways for designing e-banking service from the point of view of security that can help banks with security and e-banking and consequently costumer orientation.

Keywords: *E-Bank Service, E-Trust, E-Security Approach, Iran.*

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1. Introduction

Evident efforts on studying marketing and service quality issues date back to mid-1960s. Actually attention to this subject matter brought about a considerable movement in the past two decades. This is not surprising since high quality service for customers lets the companies distinguish themselves in competitive markets (Yavas *et al.*, 2004). In banking, like other service industries, offering high quality service will lead to an increase in customer satisfaction and profit. It also facilitates establishing and maintaining long term relationships with customers (Ladhari *et al.*, 2011). This is of importance in service section due to the intangible essence of service, mainly financial and especially in competitive market of modern banking. Provisions removal, information technology and globalization, have constantly changed the view of competition in services, at least in banking, has intensified interbank competition; and banks have adapted themselves to this truth (Strandberg *et al.*, 2012). So offering high quality service to the customers must be considered to achieve success and permanence in competitive banking environment (Abdullah *et al.*, 2011). Undoubtedly, due to the belief that high quality service is a necessity for higher customer satisfaction and other desirable behavioral results, a scurry is seen in studying the mutual relationships among service quality and satisfaction and behavioral results in the recent years (Yavas *et al.*, 2004).

Researches show that customer orientation is positively related to companies' reputation and product quality and service may be used as marketing devices for those companies in favor of customer orientation to achieve the reputation (Chang *et al.*, 2011). Also, Kassim and Abdullah (2010) found in their researches that understanding the service quality has a notable effect on trust (Kassim *et al.*, 2010). Also, Cho and Hu found out in a research that the quality of the service presented by a loan giver in financial institutes had notable and positive effect on building trust in the customers toward the institutes from which they took the loan (Cho and Hu, 2009).

According to the above points, it is clearly evident that the customers' perceptions of bank service quality and the nature of service quality is crucial for local and international bank managers. They will be able to successfully develop operational, marketing, and human sources management strategies and create a permanent competitive profit through quality and enhancing relationship with customers (Petridou *et al.*, 2007).

2. Theoretical framework research

2.1 E-Bank service quality

In recent years, many researches have been done on the characteristics of banks employing E-bank service. Many have led to the overall conclusion that new and big banks in very crowded cities will most probably employ E-banking (Jenkins and

Hatice, 2007). One of the challenges the service managers face today is how to offer high quality services. Service quality is an important factor that must be taken into consideration in bank's evaluation (Soteriou *et al.*, 2000).

Perceived service quality points to customers' judgment about overall superiority of a service giver. This judgment is the result of what customers believe must be offered (expectations) and their understanding of the real service operation (Ladhari *et al.*, 2011).

Nevertheless, researchers declare that service quality is a dynamic and multi-dimensional concept, combined from past and present service experience. Yet it seems that there is a vast consensus about that the service quality is a view of overall judgment on service's superiority, even though the exact essence of this view is still vague (Abdullah *et al.*, 2011). Santos (2003) defines E-service quality as "customer's overall evaluation and judgment on sublimity and quality of E-services in virtual market" (Kim *et al.*, 2010). Also many criteria have been discussed by academic researchers. For example, Kassim and Ismail (2009) considered ease of use criteria, web site design, responsiveness, personalization or customization, assurance (Kassim *et al.*, 2009), and Beigi and Shirmohammadi (2011) tangibility, reliability, responsiveness, assurance and empathy as dimensions of E-services quality (Beigi *et al.*, 2011). Sheng and Liu (2010) considered efficiency, requirement fulfillment, accessibility and privacy (Sheng *et al.*, 2010). We consider criteria introduced by Sheng and Liu in this research.

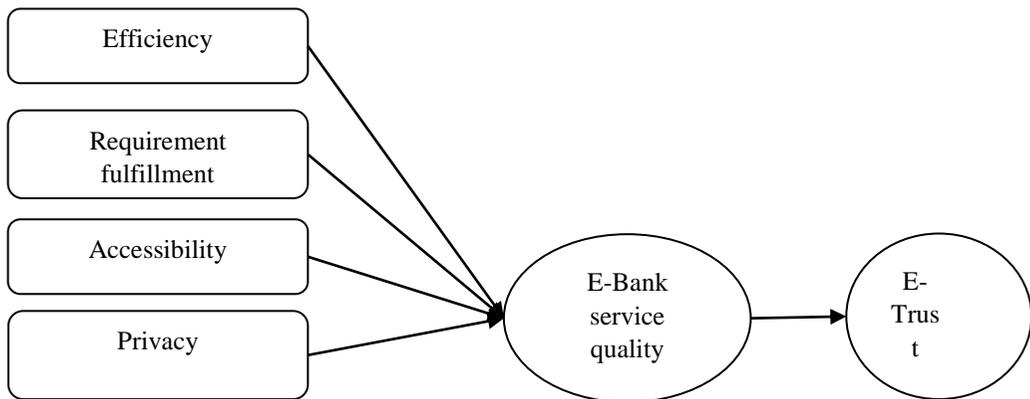
2.2 E-Trust

Trust is a variable of great importance especially in crisis time, when distrust increases remarkably, in financial organizations (Weitly Sébastien, 2012). Trust variable is defined in various ways and there exists no accepted definition of it. Usually trust is defined as belief in one's capability for a specific duty, or the expectation that one's promise can be reliable, or the tendency to rely on or attach to an exchange partner. In general trust as a three dimensional variable consists of competence, honesty and propitiousness (Dimitriadis *et al.*, 2011).

Studies show that the E-service quality has direct and indirect effect on satisfaction and trust. This means that services with higher quality result in customer's E-satisfaction and E-trust in E-banking services (Ghane *et al.*, 2011). Also, Cho and Hu (2009) found out in a research quality of services has remarkable and positive effects on consumers' building trust toward the institute from which they take the loan.

3. Research conceptual model

According to visionary bases the conceptual model of this research is as follows:

Figure 1. Conceptual model of research

4. Hypotheses

There exist one main and four side hypotheses in this research:

H₁: E-services quality effects on E-trust;

H_{1a}: Efficiency of E-services quality effects on E-trust;

H_{1b}: Requirement fulfillment in the context of E-services quality affects E-trust;

H_{1c}: Accessibility in the context of E-services quality effects on E-trust;

H_{1d}: Privacy in the context of E-services quality effects on E-trust.

5. Research methodology

This research, from the point of view of goal, is functional form the developmental branch, and from the method and nature point of view is categorized with the descriptive-survey. This research, first with the use of library sources, studied and skimmed literature of the subject. Then a two-part questionnaire consisting of demographic characteristics and main body was designed. This questionnaire was in three parts in Likert 5 scale from completely disagree to completely agree, to study the effect of the rate of effect of E-banking services quality on E-trust. The first part includes questions on E-banking services quality, the second part on E-trust and the third on demographic data, including responders' characteristics. Finally after administering and assembling the questionnaires data was analyzed using SPSS software 16.

5.1 Reliability and Validity

Content validity: Since all variables of the questionnaire used for evaluating the structure are based on previous study and the questionnaire was scrutinized and confirmed by some university professors, we can be sure of the validity.

Reliability: The most typical way of evaluating Reliability is Cronbach's Coefficient Alpha inner consistency. Cronbach Alpha is used for questions with multi scale categories. For evaluating research's perpetuity Cronbach Alpha is used, the total Cronbach Alpha being 0.790.

5.2 Population

The population of this research consists of the customers of Melli Bank of Isfahan city. The volume of the sample is 260 and the questionnaire was administered among them using the accessible sampling; and finally 248 questionnaires were assembled.

6. Data analysis

SPSS software was used to analyze the data in this research. Initially, the correlation test was used to study the relationship among variables (Table 3). Since the existence of relationship is the condition of effectiveness, first Spearman correlation test was used to detect the type of relationship among research variables. Results of Spearman correlation test demonstrate a meaningful relationship among research variables, at a Significance level (0.01 and 0.05) (Table 3).

Table 3. *Pearson correlation test to determine the relationship between variable*

variable	efficiency	requirement fulfillment	efficiency	efficiency	E-Bank service quality	E-Trust
efficiency	1					
requirement fulfillment	* 0.241	1				
accessibility	** 0.274	** 0.291	1			
privacy	* 0.230	* 0.237	* 0.186	1		
E-Bank service quality	** 0.656	** 0.646	** 0.671	** 0.655	1	
E-Trust	** 0.348	** 0.295	** 0.375	** 0.307	** 0.505	1

** Correlation coefficient at the 0.01 level of significance

* Correlation coefficient at the 0.05 level of significance.

6.1 Studying the hypotheses

H_{1a}: Efficiency of E-services quality effects on E-trust. Table 4 shows the outputs of SPSS16. According to the results, the Significance level (sig=0.001) is below 0.05. So we can say: the research hypothesis about effect of Efficiency of E-services quality on E-trust is confirmed. Beta coefficient shows that the rate of effect of Efficiency of E-services quality on E-trust is 20/7%, meaning that 20/7% of E-trust changes are related to Efficiency of E-services.

Table 4. Regression analysis on the performance of reliable electronic

	Standardized path coefficient Hypothesis	Statistics T	Standard Error	Standardized path coefficient	Level significance
H _{1a}	efficiency → E-Trust	3.507	0.064	0.207	0.001

H_{1b}: Requirement fulfillment in the context of E-services quality affects E-trust. Table 5 shows the outputs of regression, According to the results, the Significance level (sig=0.03) is below 0.05. So we can say: the research hypothesis about rate of effect of Requirement fulfillment in the context of E-services quality on E-trust is confirmed. Beta coefficient shows that the rate of effect of Requirement fulfillment on E-trust is 13%, meaning that 13% of E-trust changes are related to Requirement fulfillment.

Table 5. Regression analysis of effect of Requirement fulfillment on E-trust

	Standardized path coefficient Hypothesis	Statistic s T	Standard Error	Standardized path coefficient	Level significance
H _{1b}	requirement fulfillment → E-Trust	2.158	0.070	0.130	0.03

H_{1c}: Accessibility in the context of E-services quality affects E-trust. Table 6 shows the outputs of regression; According to the results, the Significance level (sig=0.000) is below 0.05. So we can say: the research hypothesis about rate of effect of Accessibility on E-trust is confirmed. Beta coefficient shows that the rate of effect of Accessibility on E-trust is 24.7%, meaning that 24.7% of E-trust changes are related to Accessibility.

Table 6. Regression analysis of effect of Accessibility on E-trust

	Standardized path coefficient Hypothesis	Statistics T	Standard Error	Standardized path coefficient	Level significance
H _{1c}	accessibility → E-Trust	4.152	0.061	0.247	0.000

H_{1d}: Privacy in the context of E-services quality affects E-trust. Table 7 shows the outputs of regression; According to the results, the Significance level (sig=0.002) is below 0.05. So we can say: the research hypothesis about rate of effect of privacy on E-trust is confirmed. Beta coefficient shows that the rate of effect of privacy on E-trust is 18.2%, meaning that 18.2% of E-trust changes are related to privacy.

Table 7. Regression analysis of effect on privacy on E-trust

	Standardized path coefficient Hypothesis	Statistic s T	Standard Error	Standardized path coefficient	Level significance
H _{1d}	privacy → E-Trust	3.137	0.056	0.182	0.002

H₁: E-services quality effects on E-trust. Table 8 shows the outputs of regression; According to the results, the Significance level (sig=0.003) is below 0.05. So we can say: the research main hypothesis about rate of effect of E-services quality on E-trust is confirmed. Beta coefficient shows that the rate of effect of E-services quality on E-trust is 50/5%, meaning that 50/5% of E-trust changes are related to E-services quality.

Table 8. Regression analysis of effect of E-services quality on E-trust

	Standardized path coefficient Hypothesis	Statistic s T	Standard Error	Standardized path coefficient	Level significance
H ₁	E-Bank quality → service E-Trust	9.170	0.089	0.505	0.000

7. Discussion and conclusion

This research studies the effect of E-banking service on E-trust. Four side and one main hypotheses were suggested therefore. Results from research model showed that E-banking service affects E-trust. It was also revealed that all dimensions of E-banking service have Significant relationship with E-trust so research hypotheses were confirmed. Further, the effect of having unique E-service for the company will be discussed vastly; and finally some suggestions will be given for enhancing the situation.

Development of E-banking as one of the functions of information and communication technologies in financial and monetary markets of developed countries has activated the country's banking system to use this technology. Today, due to several financial advantages of E-banking service in lowering expenses and heightening benefit, increasing the quality of service to customers, removing place and time limits, and expanding banking and marketing activities many banks are attracted to E-relationships and exchanges. Based on these advantages national banking system has made movements in recent years to step toward E-banking. So,

in this movement toward E-banking system basic problems are found in banks' high quality E-serving, resulting in banks' not achieving their desirable result in customers' views.

Therefore, according to the above-mentioned points and results of the research it can be said that various problems in organizational and customer behavioral results will be caused for banks in this tensely competitive environment unless required conditions and foundations be prepared for high quality service; and if the decision makers and policy makers in E-banking area pay attention to customers' needs, E-banking will face great success and as pointed out at the beginning of the research, these successes can emerge as assisting trust increase(Wälti and Sébastien,2012) and customer satisfaction (Kassim& et al,2010), bank reputation (Chang& et al,2011), etc.

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