Strategy of Banking Organizations in Providing Better e-Services and their Effect on Creating Clients' e-Trust (Case Study: e-Banking Services of Hekmat Iranian Bank)

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Abstract: The quality of e-Services is among the factors which can enhance attractiveness, lead to free and wider choice of clients and provide a basis for comparison of products. These conditions result in generation of a safe and secure setting for increase of clients' trust and their higher loyalty to an organization. The results of different studies show that one of the most significant reasons of reduction of internet shopping among customers is their lack of trust. But is evident now is the fact that online financial services have experience significant prevalence compared with other numerous aspects of electronic business. The objective of present study is to better present the effectiveness of strategy of e-Service quality on e-Trust of bank clients. To fulfill this objective, Hekmat Iranian Bank was studied. In the present study, descriptive and analytical comparison by using Cochran's formula was applied to analyze the viewpoints of 384 bank clients as the statistical sample.

Key words: Strategy of e-Services quality, e-Trust, e-Banking, efficiency, electronic business

INTRODUCTION

One of the most important factors which influences prevalence and success of e-Business is trust. In 1999, commerce net reported the most important problems of e-Buisiness which among the top 10 ones, trust had the third position (Pennanen *et al.*, 2007). Merrilees and Fery (2003) stated that: "It was expected that e-Business quickly becomes a part of daily lives of clients but in practice this did not completely happen. It is believed that one of the reasons of this failure is clients' distrust". Distrust is one of the reasons for not buying from internet retailers which is repeatedly mentioned by clients as a reason.

Online financial services have experienced significant prevalence compared with other aspects of e-Business (Ding *et al.*, 2011). Financial markets have a significant role to play in supplying liquidity of production, business and service units in addition to satisfaction of investors' benefits in regard to which brokerage firms act as intermediates between investors and companies. One of the issues which can play a significant role for a company is the quality of services provided electronically. In this regard, attention of financial companies to online services quality can play a significant role in generating trust among clients to use these services.

Along with development of online shopping, the role of competition strategy of geographical advantage has decreased so that quality of e-Services has become a significant factor for attracting and maintaining clients in online shopping. In addition, companies which have a successful background in e-Business understand this fact that key variables of success and failure of this business are not website and low price but quality of services.

Quality of e-Services not only increases the attraction, free choice, presentation of information and comparison of products but also helps in creation of a safe and secure setting to increase clients' trust and their loyalty and satisfaction. On one hand, satisfaction and loyalty of clients have direct effects on income and profitability of a company in e-Business domain. This maximizes competitive strategies of e-Business. Therefore, it is believed that one should pay attention to more than one criteria of e-Services quality. Despite of different

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studies of services quality and its effect on clients' trust in an organization, increasing progress of banking and inclination of national banks to use e-Business and their attention to it as an advantage to achieve competitive advantage and to increase deposits, it is necessary to develop a comprehensive model of banking which includes the effects of key e-Services quality on e-Trust. Loyal customers are essential for every company. It is usually believed that satisfied clients usually return. Satisfaction of clients' needs through provision of superior services is significant in online and offline modes. The effects of satisfaction with online services on loyalty of customers is more because searching for competitive companies has a low cost. On other hand, one should pay attention to the significant role of e-Trust on satisfaction and loyalty of clients. For Hekmat Iranian Bank as one of the banks which provides e-Banking services, it is better to maintain existing clients rather than to look for new clients because the costs of attracting new clients is more the cost of keeping the current client. This shows the necessity of enhancing e-Banking services. Therefore, the objective of present study is to investigate the aspects of quality of e-Services (as an independent variable) and to identify its effects on trust of clients in e-Services (as a dependent variable). At last, a comprehensive model to enhance the quality of e-Services to increase the trust of clients in aspects of e-Service quality is necessary.

Quality is a key factor to achieve success in business (Cox and Dale, 2001). Evaluation of services quality is the main subject of experimental and conceptual studies of marketing (Akinci *et al.*, 2010). Quality of e-Services is a concept which has been studies a lot. Despite of this fact, aspects of these services and items used to evaluate these aspects are variable (Tate *et al.*, 2007). Measurement of quality of electronic services is one of the techniques which helps us to be aware of quality of implementation of different IT applications such as e-Business, e-Government, e-Banking, etc. (Zahedi and Biniaz, 2009). Zeithaml *et al.* (2000) defined the quality of e-Services as the extent to which a shopping website is efficient and effective and it can facilitate delivery of products and services. Companies' managers should understand this fact that to provide superior services quality in web domain, comprehending the way clients evaluate online services is necessary (Parasuraman *et al.*, 2005). Increase of online services quality is accompanied by higher trust among clients and existence of e-Trust in electronic transactions not only satisfies high expectations of transactions but also eliminated lack of

trust, perceived risk (Pavlou, 2003) and mutual dependencies in most of internet transactions (Schurr and Ozanne, 1985).

In addition when the trust of consumers is higher their inclination to shop becomes more and maintaining them becomes easier for companies (Abzari *et al.*, 2012). Yung *et al.* (2004) introduced six key factors for evaluation of services quality of internet retailers which are reliability, accessibility and easiness of usage precision, security and trustworthiness. In addition, they suggested that if internet retailers want to achieve a high level of clients' perceived quality, one should focus on four aspects: reliability, precision, easiness of usage and accessibility (Yang *et al.*, 2004). Sahadev and Purani (2008) studies 350 users of research portals in India and found that efficiency, implementation, accessibility and privacy are the most significant elements of e-Service quality which are associated with trust of users Lee and Wu (2011) studies 360 international passengers of 30 websites of online travel services in Taiwan and found out that trust and profitability are the factors which positively modify the association among quality of e-Services, perceived value of services and satisfaction of services.

Now a days, one of the barriers of development of e-Business among consumers is lack of trust between companies and their customers in internet space. In fact, consumers don't sufficiently trust companies which provide their products and services online, so as to establish relationship with them and to share their private and financial information (Abzari *et al.*, 2012). Trust in setting with lack of high trust in e-Business is significant. As Router believed, trust means one's belief in the fact that sayings and promised of another person are trustworthy and he/she will keep his/her word. Kumar (1996) and lots of other researchers admit that trust, more than power can provide trustworthy resources for producers and retailers and lead to long-term commitment. Evidence shows that the main reason of disinclination of consumers to buy items through internet is associated with issues such as security, privacy, trustworthiness and website technology (Mard and Zadeh, 2010). In online financial markets in which exchange of information is done without physical presence of individuals, trust is one of the significant factors in success of companies in internet marketing. Different factors can influence the trust to shop in a website such as perceived risk, perceived fame of seller or organization and perceived quality of website (McKnight and Chervany, 2002).

Mukherjee and Nath (2003) studied the behavior of 510 users of online banking services in Indian and

used structural equations analysis to identify three pre-conditions of trust in online services which are common values, communications and opportunistic behavior. In this regard, common values are more significant. Yousafzai *et al.* (2003) also studies the clients of online banking industry and identified perceived security and perceived privacy as the two preconditions affecting online trust. Bart *et al.* (2005) studied 6381 clients of 25 sites and used structural equations analysis to examne influential factor on e-Trust. They concluded that among 8 factors of privacy, security, navigation and provision, brand strength, recommendation, order completion, forum characteristic and lack of error in websites of high involvement such as websites of financial services, brand strength has the highest effect on trust of e-Customers. Hoseini *et al.* (2009) studies the clients of electronic stores of virtual Iranian community which shop online and identified three factors which influence clients' trusts. These were infrastructure variables, corporate variables and individual variables.

In fact, one can say that e-Banking is one of the important achievements of e-Business and increasing volume of e-Business in the world as demands of business section to do banking operations in an easy, quick and precise manner to transfer financial resources, e-Banking has a fundamental role to play in e-Business. e-Banking basically means provision of access of clients to banking services by using secure intermediates and without physical presence (Kohzadi, 2002). E-Banking can be defined as using advanced technologies of networking and communication to transfer resources (money) in banking system. In fact, e-Banking means efficient integration of all activities of a bank through application of modern information technology based on banking procedures that match organizational structure of banks so as to provide all necessary services for clients (Chai and Pavlou, 2002). In general, banking industry experienced four periods: using coins, study payment systems such as check, systems of electronic payment such as cards and finally information and internet based. Now, most of the countries are in the third and fourth periods. This means that a major part of banking activities is done through internet and electronic systems. This might be due to increasing share of e-Business and application of information and communication technologies. Therefore, development of global e-Business makes financial and monetary institutes to widely used information technology to support and facilitate e-Business. As a result, in the past few decades, e-Payment systems are gradually substituting for traditional ones. In this regard, banks move towards

using e-Banking and provision of new financial services and play a significant role in increasing the share of e-Business.

Research on the concept of e-Trust initiated in 1990s. Some writers defined trust based on time and experience. As an example, Jarvenpaa *et al.* (2000) distinguished between trust in initial and mature stages of e-Business. They believe that e-Trust in initial stages of e-Business is probably dependent on technology performance while in later stages, it is related to the difference of technology implementation in different companies. In this regard, Marcella (1999) emphasized the dependence of e-Trust on time and discussed it from the stage of trust creation to its maintenance during time. Urban *et al.* (2000) regard quality, quantity and up-to-date information as influential upon increasing trust. One of the studies in which preconditions of trust were analyzed was that by Zaker (2007) which is based on non-personal procedure, principles and characteristics which usually don't depend on characteristics of people and past experience while process-dependent trust and characteristics-based trust are regarded as sources of personal trust. Generation of trust based on principles and concepts is closely associated significant social structures such as third-party guarantees, legal systems and expert forums. In regard to these ways of generating trust, McKnight *et al.* (2002) explicitly distinguished between structured guarantees and situational norms. Structured guarantees refer to the necessity of organizing an official environment (e.g., guarantees, regulations, legal resources and security guards) to succeed while situational norms are personal evaluations of probability of transaction success based on the fact that how environment is proper. Different studies (Gefen *et al.*, 2003; McKnight *et al.*, 2002) show that significant preconditions which are based on principles and concepts have a significant effect on trust of clients in online seller. Generation of process-oriented trust is associated with previous experiences and expected transactions. Previous experiences form the basis for trust. As Vanderstraeten (2000) suggest, "familiarity" reduces social lack of trust through increasing the understanding of what is happening. In e-Business, familiarity decreases complexity and provides the possibility of client's better understanding of the way to search for products and services of retailer's website and details of processes associated with such search. The result is reduction of complexity. Increase of familiarity refers to a knowledge obtained through previous usage of retailer's website or similar ones. Trust also can be made through a calculation-based processes. For example, one can refer to

costs and benefits analyses by the client which are used in situations in which deception or spoof is possible on one hand and cooperation on the other. Walczuch and Lundgren (2004) studies preconditions of trusts with psychological origins and classified them into five classes of personality factors, perception factors, attitude factors, experience factors and knowledge factors. In fact, they sought to understand this issue that what client is thinking about before the moment of decision to trust the e-Retailer. Two hypotheses were introduced by these two researchers regarding variables which are: positive evaluations based on previous experiences during time, satisfaction and communication, positively influences the clients trust in e-Retailer. Knowledge-based factors such as knowledge of information usages are also significant in this regard. Bart *et al.* (2005) and Pennanen *et al.* (2007) also believed that previous experiences of internet shopping among clients affect their level of trust. Bart *et al.* (2005) verified this claim experimentally and confirmed it. Pennanen *et al.* (2007) emphasized this fact in their descriptive research. In their study, they introduced a framework based on personal values as one of the factors of clients' experience of e-Trust. Bart *et al.* (2005) also confirmed this supposition that a factor called online understanding/skill influences clients' e-Trust. Their definition of this factor is similar to the one which is suggested for knowledge in present paper. In other words, they confirmed the fact that level of clients' knowledge and awareness regarding usage of information, internet, technology and security mechanisms influence their level of trust.

Conceptual model of present study: Aspects of independent variable of quality of e-Services include accountability, website design and ease of use, efficiency, security/privacy and fulfilling the conceived value of the website, reliability and quality/information content which influences the dependent variable of e-Trust. In the following, the effect of each aspect is analyzed (Fig. 1).

Research questions:
- Does strategy of e-Services quality influence the trust of e-Services users in a positively significant manner?
- Does strategy of e-services accountability influence the trust of e-Services users in a positively significant manner?
- Does strategy of e-Services completion influence the trust of e-Services users in a positively significant manner?
- Does strategy of e-Services security/privacy influence the trust of e-Services users in a positively significant manner?
- Does strategy of e-Services ease of use influence the trust of e-Services users in a positively significant manner?
- Does strategy of e-Services efficiency influence the trust of e-Services users in a positively significant manner?
- Does strategy of e-Services website design influence the trust of e-Services users in a positively significant manner?
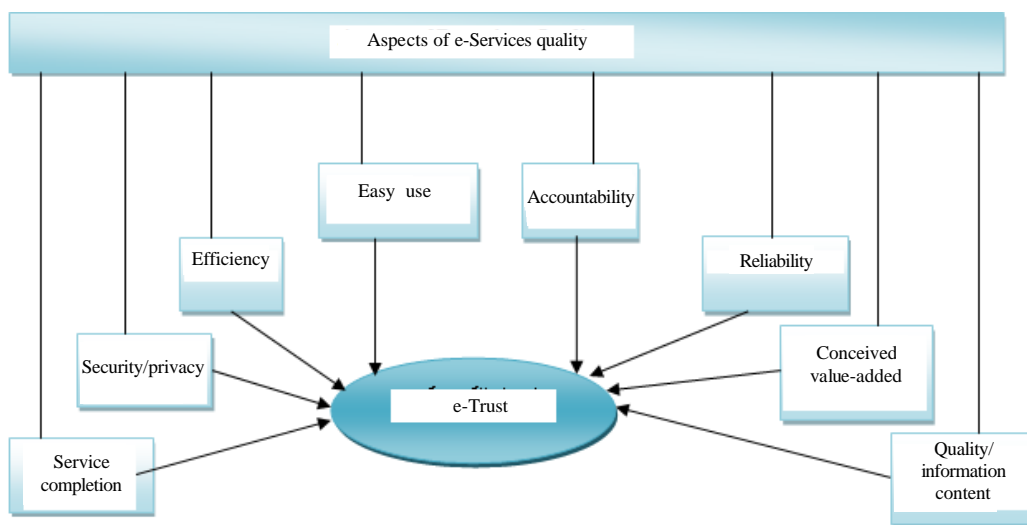

Fig. 1: Conceptual model of effects of different aspects of e-Service quality on e-Loyalty (Parasuraman *et al.*, 2005; Reichheld, 1996; Yung *et al.*, 2004)

MATERIALS AND METHODS

The present study is applied in objective and a descriptive survey in method of data collection. The present study uses a combination of different studies and models of e-Services such as Parasuraman *et al.* (2005), Reichheld (1996) and Yung (2004) as the most comprehensive studies of e-Services to obtain items of measurement. The present study aims to investigate the effects of e-Services quality on generation of e-Trust in Hekmat Iranian Banks (Tehran branches). The statistical population of present study consisted of all bank clients which in initial estimations amounted to 170 thousand individuals. Due to infiniteness of statistical population, the best method for selecting statistical population is Cochran's formula (defining sample size in an infinite space). Due to indefiniteness of population variance, one could state with 95% confidence that application of this method led to selection of 284 individuals as the population of present study.

Based on statistical population in present study, investigation level and lack of difference between members of statistical population, simple random sampling method was used. In this type of sampling, each member of the population has equal chance. Data collection was done through questionnaire (field part) and electronic sources, books, essays, studies and other written sources were used to complete the existing information (library part). Validity of the questionnaire was verified through standard tests and using expert viewpoints and reliability of the questionnaire was calculated as 0.895 by using Cronbach's alpha. The obtained data was analyzed through linear regression tool (SPSS Software).

RESULTS

Table 1 shows the association between two qualitative variables of e-Services and trust of clients in e-Services.

The level of significance is 0.000 which is <0.05. This means that there is a significant association between two variables. There is a high and direct association between quality of e-Services and clients' trust in e-Services. In general, level of significance equals 0.000 and <0.05. It can be concluded that there is a linear association between quality of e-Services and e-Trust which is equal with 1.039. The value of effect of e-Service quality on clients' e-Trust in electronic services is equal with 0.844.

Due to the fact that level of significance is 0.000 and <0.05 error level (absolute value of t>1.96), the first hypothesis is supported in 95% level of confidence so that one can say that variables of accountability, completion of services, security/privacy, ease of use efficiency, quality/information content, reliability and customer's conceived value-added have significant effects on trust of clients in e-Services. The values of effect are presented in Table 2 (β Standard Coefficient). In the following equation, Y_1 is e-Trust, X_1 is accountability, X_2 is completion of services, X_3 is security, X_4 is ease of use and X_5 is efficiency, X_6 is quality/info content, X_7 is reliability and X_8 is conceived value-added:

$$Y_1 = 0.129 + 0.087\,X_1 + 0.233\,X_2 + 0.363\,X_3 + 0.231\,X_4 + 0.110\,X_5 + 247\,X_6 + 301\,X_7 + 187\,X_8$$

To investigate the existing conditions for two primary items of e-Services and e-Trust (Fig. 2). Wilcoxon's test of single-sample population was done the results of which are presented in Table 3.

Due to the fact that level of significance for the two indexes of e-Trust and e-Services quality is <0.05, the first hypothesis is considered as true which means that both indexes of quality of electronic services and electronic trust are in relatively favorable status within the intended population.

Table 1: Association between two variables of e-Services and trust of clients in electronic services

Sig.	t-test	Non-standard B-coefficient	Standard B	R^2	R	Correlation coefficient	Dependent variable	Independent variable
0.000	30.745	1.029	0.844	0.712	0.844	0.749	e-Trust	e-Services quality

Table 2: Test of significance of regression coefficients

Level of significance	t	Standardized coefficient (β)	Non-standard (SE)	Coefficient (B)	Models
0.250	-1.151	-	0.113	0.129	Fixed value
0.001	2.197	0.077	0.035	0.087	Accountability
0.013	5.069	0.231	0.046	0.233	Completion of services
0.007	10.914	0.384	0.033	0.363	Security/privacy
0.042	4.960	0.230	0.046	0.231	Ease of use
0.000	2.399	0.111	0.046	0.110	Efficiency
0.005	2.987	0.284	0.028	0.247	Quality/info content
0.011	4.379	0457.000	0.019	0.301	Accessibility
0.009	2.101	0.205	0.036	0.187	Conceived value

X₁: accountability	0.087	
X₂: completion of services	0233	
X₃: security/privacy	0.363	
X₄: efficiency	0.231	
X₅: ease of use	0.110	e-Trust
X₆: quality/info content	0.247	
X₇: reliability	0.301	
X₈: conceived value-added	0.187	

Fig. 2: Additional test of spearman correlation coefficient to analyze the association between variables

Table 3: Single-sample wilcoxon test of two indexes of e-Trust and e-Services quality

Variables	Level of significance	Value of error	Support of hypothesis	Conclusion
Quality of e-Services	0.000	0.05	H1	Favorable
e-Trust	0.000	0.05	H1	Favorable

DISCUSSION

In general, the variable of quality of e-Services has a significant and positive effect on e-Trust and the variable of e-Services quality is in a relatively proper condition within the society. Among the above mentioned 8 factors for e-Trust, accountability has not got a proper condition. Security/privacy, reliability and completion of services have the top rank of suitability and efficiency, quality/information content, perceived value, ease of use and accountability follow them. e-Trust has a relatively proper condition in the society and it has the same position as quality of e-Services. Wolfinbarger and Gilly (2002) found out four variables of service quality through interview with distinctive groups. These factors were website design, trustworthiness and security/privacy as well as customer services/completion of services. They concluded that two factors, trustworthiness and completion of services are more significant than other factors and play a more significant role in customers' satisfaction. Zeithaml *et al.* (2000) did interview with sample groups and identified 6 aspects of e-Services quality which were efficiency, trustworthiness, completion of services, privacy, accountability, reconciliation and contact. They introduced four factors of efficiency, trustworthiness, completion of services and privacy as determining factors of e-Service quality which can be used to analyze customers' viewpoint of service quality. They also found out that three of these factors are significant when online clients face a question or a problem. These three aspects are: accountability, reconciliation and contact.

Due to competitive environment of Iran in e-Banking, rate of development and use of information in this field as well as reference to results of present study which showed the significance of e-Services quality in maintaining customers and obtaining their satisfaction of bank performance, some suggestions are provided in the following.

Creating ease of using internet services by training customers through brochures and catalogues or in online manner, access to hardware and software and awareness of development of e-Banking system are necessary to quickly respond to users' demands. Security system should guarantee the security of data which means that problems of data corruption should be solved. Datacenters of the banks should be equipped with newest security technologies and encryption systems to provide safe communication between clients and bank. Access to classified data should be restricted to authorized individuals and they should be encrypted, so as to prevent from access by clients and employees. Digital signature enables web servers to detect data integration and bank should classify clients based on their loyalty. Hakamt Iranian Bank also should analyze the quality of e-Services in a periodic and continuous manner as well as clients' awareness of e-Banking services.

CONCLUSION

The results showed that variables of easiness of usage, efficiency, comprehensive services, security and accountability have direct influence upon e-Trust and creation of trust among clients. At the end, some suggestions have been provided based on these findings.

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