Research Article

Investigate the Costumer Satisfaction from online Banking (E-Banking) and Attracting Deposits

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ABSTRACT

Customer satisfaction is a critical issue for modern organizations. Because customer satisfaction increases customer loyalty and loyal customers would spent more money on goods or services of the organization and encourage others to use them. Banks as one of the main service organizations, are responsible for the guidance and support many of the economic activity of society to be able to meet the expectations and demands of customers. Banks provide various benefits and services competitive and restructure their services towards the use of technology in order to meet the fast changing needs of customers. Internet banking in all countries around the world are rapidly expanding due to the convenience and ease of conducting transactions quickly. This study examines customer satisfaction from online banking and its impact on bank deposits. The study population is the users of online banking services Abadan's Bank Melli branch and the sampling is simple random. Sample size was based on a sample of 305 people; but because of limitations in collecting and completing, the questionnaire distributed and filled by 216 people.The data obtained were analyzed using spss software and lizrel. The results of the analysis showed that the ease of online services, web design, support, transaction speed, security, information content, have a direct impact on customer satisfaction and customer satisfaction has a direct impact on attracting deposits. Attracting deposits also has a direct effect on strength and enhance the credibility of bank lending.

KEYWORDS: online banking, ease of online services, web design, support, transaction speed, security, information content, customer satisfaction, attracting deposits

INTRODUCTION

Customer satisfaction is the main factor in the success of many organizations and in multiple studies been mentioned to relationship between customer and mouth communication, loyalty, repeat purchases and increase the profitability of organizations [1]. This is one of the main requirements for management systems in business enterprises and made great efforts to improve management tools by researchers, experts and managers of commercial organizations. This shows that customer satisfaction is one of the most important factors in determining the success of an organization in business and profitability. The creation and implementation of measuring and monitoring customer satisfaction as the most important indicator of the performance improvement, is amongst the essential needs of today's organizations.

At the same time, internet banking in all countries around the world are rapidly expanding due to the convenience and ease of conducting transactions quickly .Banks provide various benefits and services competitive and restructure their services towards the use of technology in order to meet the fast changing needs of customers. In a highly competitive and rapidly changing environment, banks are forced

to revise their attitudes towards customer satisfaction and optimize service quality[3].

By examining the estimation (anticipated results, 2005) have concluded that Satisfied online customers are nearly 39% more than dissatisfied online customers.They purchase additional products and services from their banks and ultimately, this would attract more bank deposits,the most important duty of banks in the economy include mobilize savings and intermediary, facilitating the flow of payments, allocation of funds and financial order. Even in economies with developed financial markets, banks are at the center of financial and economic activities and considered as a focal point for monetary policy. Therefore, evaluate the customer satisfaction with online banking and its impact on bank deposits is an important research topic and it will be discussed in this paper.

RESEARCH BACKGROUND

Electronic banking is a wave that gives customers peace of mind and savings and also create new challenges for financial guidance and control systems as well as design and implementation of new economic policies.Some of the challenges include security, lack of access in case of absence of internet networks, cost of maintenance and updating the databases [3].

Increasing competition, changes in the business environment and globalization are the major changes that have occurred in the financial services industry and banking. Demand for financial services is rapidly changing and customer behavior has changed compared to last decade.With the passage of customers from traditional banking to electronic banking process, new strategies are needed to attract new customers and retain current customers [4].

Use of information technology is growing by banks in order to improve the delivery of services throughout world. By using remote systems and information technology, a bank can offer better services to its customers and

provide ability to interactively perform banking transactions for clients .

According Data Monitor Research Institute, most important Benefits of electronic banking are: focus on new distribution channels, provide improved services to customers and the use of e-commerce strategies. However, the benefits of electronic banking can be examined from the perspective of short-term, medium-term and long-term. Identical competition, maintenance and customer acquisition are amongst the benefits of electronic banking in the short term (less than one year). In the medium term (less than 18 months), the benefits of banking are integrating various channels, information management, broad range of customers, lead customers to the appropriate channels with the desired characteristics and reducing costs [5].

Reduce the cost of processing transactions, providing services to target market's customers and generate revenue are amongst the long-term benefits of Electronic Banking. There are two basic reasons for the development of internet and electronic banking;first, internet banking would lead to savings; second, banks reduce number of their branches and a large number of personnel will be reduced by providing mechanized services[6].

Despite the difficulties and obstacles that exist in the development of electronic banking and electronic funds transfer in Iran, Considerable efforts have been made in this area, including bank cards, SWIFT, MAHTAB, SHETAB, VSAT that will be examined in this section.

1. Credit card in Iran: the use of credit card was common to a limited extent before the Islamic revolution. These cards were provided by international institutions such as Visa and MasterCard. In addition, before the Revolution, a very limited number of ATM machines were imported by some banks but not used in practice. So before 1990, any serious attempts to use the credit cards didn't take place in Iran. In this year, studies and surveys conducted by Tejarat Bank, especially on the implementation of existing laws and how to use the credit card. Finally, in 1991, this Bank issued the first

credit card in Iran. This card is essentially a debit card. To apply for the card, the applicant would have to open a deposit account in the bank and deposit amount credited to the account belonged to the card.

After Bank Tejarat, Bank Sepah has issued a credit card in 1992 with the installation of seven ATM machine and provided bank card services. Then, gradually, other banks were to work to provide their bank card. The cards that had been issued by domestic banks are a kind of debit card, because the applicant have to open an account to get the card and deposit enough amount of money in his account and secondly, these cards are mostly useful in ATM machines .

Perhaps most recent action in this regard has been made by Bank Melli and it is integrated system of Bank Melli (SIBA). This system is a combination of two systems: credit card (Melli card) and electronic checking account.In other words, in this system, the current account and the customer card account is a joint account in principle. The customer can also use checkbook and cards for banking operations

In Iran, effective barriers in the development of credit cards are cultural problems, card security, fraud, theft, methods of dealing with crimes and judicial process, because it creates an atmosphere of distrust among people.One of the important uses of cards is in international trade, but most of the cards issued in Iran are at the national level and have limited application; thereby, this limitation hindered widespread use of the card [7].

2. Banking information exchange system (SHETAB): it is one of measures of Iranian banking system to start creating electronic banking. Since the electronic exchange of funds do not limited to a bank and as the traditional exchange of cash, accounts and documents received by the banks is done through a clearing house for electronic exchange of funds between banks the same mechanism as electronic is required. For this purpose, a new electronic network of banks to act as clearing house for banks are needed. International banking and foreign exchange duty responsible

for of SWIFT's international network. But in the country and considering the relationship between domestic banks, SWIFT do not have necessary feature for this action. For this reason, SHETAB (bank information exchange network) is intended to fill this gap in the future. In 1998, informatics services company as the executive in the banking system automation project to design acceleration Center with the authorization of the Supreme Council. Conditions, rules, regulations and standards have been developed in this center. Groups of services are point of sales systems, ATM, PINPAD and e-commerce services [8]. Through the predicting carried out in the center of SHETAB, connecting point of sale devices is done through this center and ATM machines are still connected through the computer centers.

Coordination center of information exchange among banks (MAHTAB): MAHTAB network is relatively similar to SHETAB and aims to facilitate the exchange of electronic banking and other electronic banking and electronic funds transfer services in Iran.This project is followed by SADAD Company and be supported by some of the domestic banks, including Bank Melli and Bank Mellat. Although MAHTAB network along with SHETAB plan could increase competitiveness and improve the quality of the network, , but under current conditions, they would create inconsistencies and waste of resources due to the problems and obstacles in the way of electronic banking in Iran,[8].

4. SWIFT: Another action of Iran's banking system order to move toward electronic banking was to join SWIFT. In 1992, Iran became a member of SWIFT and the country connected to the SWIFT network in 1993. SWIFT can be considered as a starting point of electronic banking in Iran. Although Swift has substantial and broad benefits, but this was slowly welcomed by Iranian banks. Following the introduction of SWIFT, the concepts of electronic communications and the financial messaging through computer technology and telecommunications network found its place in

Iran's banking activities, so that the number of messages sent by Iran through SWIFT system is rapidly increasing in recent years [7].

All members of SWIFT has an account at one of the banks that is selected by SWIFT and the right to withdraw from the account given by members to the Institute of SWIFT. SWIFT Institute members can withdraw from these accounts annual fee, cost of equipment and leaflets which are sent to its members [7].

VSAT: Currently, the satellite communication of electronic banking in Iran is perfomed by the VSAT. This network, which is responsible for the establishment of ISC in Iran, carry out the entire volume of satellite communications to Exchange Database [9].

After the approval of banking automation project in the Supreme Council of the country's banking in 1992, extensive expert studies began to select and deploy appropriate communications platform for this great national project by taking into consideration the specific characteristics of telecommunications network of the bank. The results suggest creating a secure private network with wide geographical coverage in the VSAT satellite network. The network currently with more than thousand terminals and daily rapid development presented various services to banks and provided an appropriate infrastructure for banking automation [9].

VSAT network profile is as follows [9]:

1. VSAT is a digital communications environment that is designed for computer communication and data transfer and it is the best medium to transmit digital information, and in this network, even the phone and image signals which naturally are analog, will benefit from the advantages of digital transmission.

2. In VSAT Network, network components are within the protected scope of banks and others do not have access to them.

In other words, unauthorized access to information or injection of information to network is virtually impossible and information security of the network is highly good.

3. The safety factor of this network is higher than 95%, while the safety factor of public networks is approximately 85%.

4. To connect a new point to VSAT network, just a few hours is required and connection is established from a new point anywhere in the area covered by the satellite.

5. Other specifications of this network are flexibility, speed and good quality of communication, as well as providing video and data services and its geographical coverage.

According to properties mentioned, the degree of compliance with the requirements of banking telecommunications network is clearly visible and can be seen its application in banking network in two ways:

1. Continuous applications which includes connection to point of sale and ATM machines and affordable back point for integrated electronic banking, voice communication, Internet and intranet.

2. Discontinuous applications that are used for file transfer and software distribution at the time of low network traffic after office hours.

6. Banking integrated system: One of the most important actions of banks in the country was to create and operate banking integrated system. Bank Melli Iran was the first bank which launched its own banking integrated system (SIBA). This system is a combination of two systems of credit card (Melli card) and electronic current account. In other words, current account (checking accounts) and the customer account both shared in one account and customers can use the account to use both his checkbook and his credit card [7].

7. Telephone banking: Another new services in Iran's banking is telephone banking. Customer can contact his bank over the phone; after entering the account number and dedicated password, he can access some information about the account balance and the last three turnovers. Certainly, electronic banks can provide more services through telephone banking, but the service is limited in Iranian Banks.

In an article titled "Evaluation of perceived quality of e-banking services and commitment

and customer satisfaction of Bank Saderat in Tehran", Vahabzadeh and Kalaei investigated the effect of perceived quality of e-banking services on customers' satisfaction and commitment. The results of this research indicate that all three research hypotheses were confirmed. Perceived e-banking service quality has a positive effect on customer satisfaction. Satisfaction from perceived services of E-banking positively affect customer commitment and the perceived quality of e-banking services has a direct positive impact on customer commitment.

Clika and Emel (2002) examined the factors affecting customer satisfaction in electronic banking. The study was conducted in the method of AHP. Their research results showed that the preferences of customers in banking services include Web, Mobile and WAP services.

Saha (2005) examined the relationship between quality of online services and customer satisfaction in Sweden e-banking. His study showed that the quality of online services include efficiency, Achievability, confidentiality, reliability and responsiveness.

[3] review Internet banking in Finland and they concluded that perceived usefulness is more useful than the ease of use of Internet banking services.

[10] investigate the factors influencing the use of Internet banking in South Korea. They found the attitude of consumers and perceived behavioral control plays a key role in the behavioral attitude of customers toward internet banking.

RESEARCH METHODOLOGY

The purpose of this research is practical and in terms of data collection, it is descriptive (non-experimental).

Because this investigates the distribution of the characteristics of a statistical population, the questionnaire was used to collect data is the kind of survey research. The study population is the users of online banking services in Abadan's Bank Melli branches and the sampling method is also simple random sampling. Based on the Cochran formula, the sample size was calculated equal to 305.But due to the limitations, the questionnaire was distributed among 216 customers of different branches of Bank Melli in the city of Abadan.

Data analysis

Confirmatory factor analysis

Confirmatory factor analysis was used to determine the validity of the present study (questionnaires). Table 1 shows the factor loadings of questions, explained variance and their validity and reliability indices. Given the importance of each factor loadings presented in the table, the importance of each of the observed variables would be characterized as indicator of research variables.

**Table 1:** Measures of goodness of fit for the measurement of research variables

Characteristic	Estimation	Criterion
Proportion to the degree of freedom chi-square (X2 / df)	1/66	Less than 3
The square root of the variance estimation error of approximation (RMSEA)	0/05	Less than 0.08
Fit index (GFI)	0/94	More than 0.90
Adjusted fit index (AGFI)	0/83	More than 0.80
Index (CFI)	0/92	More than 0.90
Indicator (X2)	161/10	No specific criteria

As this table shows, data of this research has a good fit with the factor structure of the research and as a result, the questions are in line with the structure of the present study.

Theoretical model test study

In the model tested in Figure 1, the standardized path coefficient to test the conceptual model has been shown. It should be noted that each aspect of customer satisfaction is considered as exogenous variables of the model; and general structures of customer satisfaction, attract deposits and its dimensions is considered as exogenous variables.

Figure 1: A testing version of the study

Chi-Square=96.74, df=21, P-value=0.00000, RMSEA=0.04   *p<0.05, **p<0.01, ***p<0.001
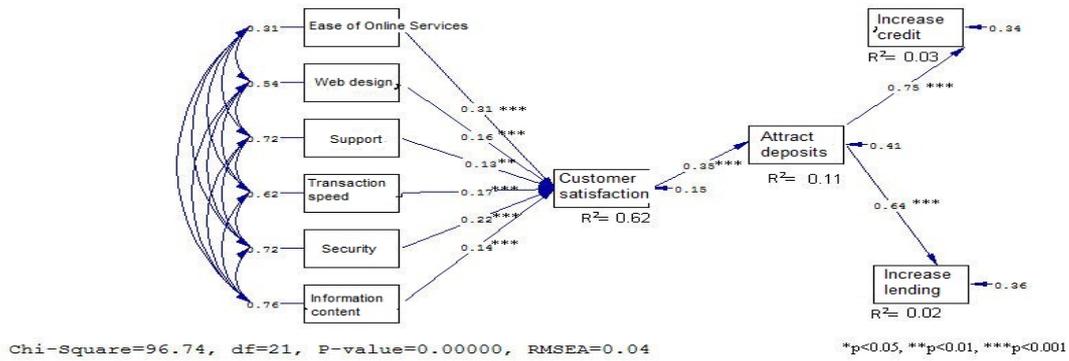
Test research hypotheses

Since each path in a causal model can be considered as a hypothesis, so there are 6 paths and 6 hypothesis in the research model, which have a direct relationship with each other and the direct effect occurs when a variable affects another variable, while there isn't third variable between them. That is, a variable can alone predict another variable or be the cause of it. Accordingly, direct effects of the tested paths together with t-test and significance level as well as the explained variance has been reported in Table 2.

Table 2: Estimation of path coefficients

Variables	Path coefficient	T-statistics	Significant level	R2
Customer satisfaction from	-	-	-	0/62
Ease of Online Services	0/31	5/10	0/001	
Web Design	0/16	3/06	0/001	
Support	0/13	2/71	0/01	
Transaction speed	0/17	3/40	0/001	
Security	0/22	4/71	0/001	
Information content	0/14	3/41	0/001	
Attracting deposits from	-	-		0/11
Customer satisfaction	0/35	5/02	0/001	
Increasing the lending power from	-	-	-	0/02
Attracting deposits	0/64	10/45	0/001	-
enhance the credibility from	-		-	0/03
Attracting deposits	0/75	12/66	0/001	

The above table shows that the ease of online services (0.31), Web Design (0.16), support (0.13), transaction speed (0.17), security (0.22) and information content (0.14) has a direct impact on customer satisfaction.These dimensions explain 62 percent of customer satisfaction, Customer Satisfaction (0.35/0) has a direct effect on attracting deposits, and customer satisfaction to be able to predict 11% of the Attracting deposits, Attracting deposits (0.64) have a direct effect on increasing the lending power and are able to predict 2% of increasing the lending power, and attracting deposits (0.75) have a direct effect on enhance the credibility and explain 3% of changes in enhance the credibility.

Hypothesis 1: ease of online services has a direct effect on customer satisfaction.

According to the path coefficients and t-statistics in Table 2, ease of online services with values (P= 0.001, B=0.31, T=5.10) has a significant positive effect on customer satisfaction, therefore it can be said that with the increasing the ease of online services, customer satisfaction will increase and vice versa. Therefore, hypothesis 2 be confirmed.

Hypothesis 2: web design has a direct effect on customer satisfaction.

According to the path coefficients and t-statistics in Table 2, web design with values (P= 0.001, B=0.16, T=3.06) has a significant positive effect on customer satisfaction, therefore it can be said that with the increasing the quality of web design, customer satisfaction will increase and vice versa. Therefore, hypothesis 2 be confirmed.

Hypothesis 3: support has a direct effect on customer satisfaction.

According to the path coefficients and t-statistics in Table 2, support with values (P= 0.01, B=0.13, T=2.71) has a significant positive effect on customer satisfaction, therefore it can be said that with the increasing in support, customer satisfaction will increase and vice versa. Therefore, hypothesis 3 be confirmed.

Hypothesis 4: transaction speed has a direct effect on customer satisfaction.

According to the path coefficients and t-statistics in Table 2, transaction speed with values (P= 0.001, B=0.17, T=3.40) has a significant positive effect on customer satisfaction, therefore it can be said that with the increasing the transaction speed, customer satisfaction will increase and vice versa. Therefore, hypothesis 4 be confirmed.

Hypothesis 5: security has a direct effect on customer satisfaction.

According to the path coefficients and t-statistics in Table 2, security with values (P= 0.001, B=0.22, T=4.71) has a significant positive effect on customer satisfaction, therefore it can be said that with the increasing the security, customer satisfaction will increase and vice versa. Therefore, hypothesis 5 be confirmed.

Hypothesis 6: information content has a direct effect on customer satisfaction.

According to the path coefficients and t-statistics in Table 2, information content with values (P= 0.001, B=0.14, T=3.41) has a significant positive effect on customer satisfaction, therefore it can be said that with the increasing the information content, customer satisfaction will increase and vice versa. Therefore, hypothesis 6 be confirmed.

Hypothesis 7: customer satisfaction has a direct effect on attracting deposit.

According to the path coefficients and t-statistics in Table 2, customer satisfaction with values (P= 0.001, B=0.35, T=5.02) has a significant positive effect on attracting deposit, therefore it can be said that with the increasing the customer satisfaction, attracting deposit will increase and vice versa. Therefore, hypothesis 7 be confirmed.

Hypothesis 8: attracting deposit has a direct effect on increase lending power.

According to the path coefficients and t-statistics in Table 2, attracting deposit with values (P= 0.001, B=0.64, T=10.45) has a significant positive effect on lending power, therefore it can be said that with the increasing the attracting deposit, lending power will increase and vice versa. Therefore, hypothesis 8 be confirmed.

Hypothesis 9: attracting deposits has a direct impact on enhance the credibility.

According to the path coefficients and t-statistics in Table 2, customer satisfaction with values (P= 0.001, B=0.75, T=12.66) has a significant positive effect on enhance the credibility, therefore it can be said that with the increasing the attractingdeposits, the credibility will increase and vice versa. Therefore, hypothesis 8 be confirmed.

Fitness test model

First of all, the compliance of the obtained data or in other words, the fitness of the experimental data with theoretical model or assumptions were tested. The result of this comparison is indicators or statistics which show that there is fitness or not.

Table 3: Indicators of overall fit of test model based on path analysis

Characteristic	Estimation
Chi-square proportion to the degree of freedom (X2 / df)	4/61
Estimate the square root of the variance of the error of approximation (RMSEA)	0/04
Goodness of fit index (GFI)	0/91
Adjusted goodness of fit index (AGFI)	0/91
Comparative fit index (CFI)	0/89

Indicators of fit model reported in Table 3, these measures include the following. The ratio of chi-square to the degree of freedom (X2 / d.f) and the amount of which is equal to 4.61. Comparative fit index (GFI) is equal to 0.91 and adjusted goodness of fit index (AGFI) is

equal to 0.91. Root mean square error of approximation (RMSEA) whose value is equal to 0.04. Also, the comparative fit index (CFI) is equal to 0.89 and with respect to criteria mentioned above, the model has a good fit with the data collected. Accordingly, it can be concluded that the theoretical model is a valid and reliable model in the population and sample used in this study.

Proposals

Based on the results obtained, the following suggestions are recommended to enhance customer satisfaction with online banking: given the importance of ease of use as one of the factors affecting customer satisfaction, it is recommended that inform and educate customers should be done in such a way that they can easily perform a variety of banking operations through electronic system and do not have any problem in learning these services.Given the importance of security, it is recommended that security in e-banking systems and the protection of customer information should be increased; So that customers feel that the risks of electronic banking are less than the traditional banking and since their personal and financial information remain confidential, they would show greater receptivity for this type of banking.

Given the importance of web design as one of the factors affecting customer satisfaction, it is recommended that web designers need to pay attention in the design, so that customers can easily find the information they need on the website home page. Login to the site and log out must also be done easily and at high speed for customers. Given the importance of transaction speed as one of the factors affecting customer satisfaction, it is recommended that bank authorities attempt to solve problems related to the infrastructure of electronic banking services to speed up the perfect services. With respect to the importance of information content, it is suggested that updated and new information about the rate of deposit interest, method of investment, granting facilities and the like be shared in the bank's website. With regard to the support, it is suggested that officials strive to resolve possible problems. In case of a problem, the appropriate information should be provided to customers to solve it. Given the importance of customer satisfaction which has a direct effect on attracting deposits and attracting deposit has a direct effect on increasing lending power and enhance the credibility, it is proposed that bank officials seek to promote the use of online banking services with inform and encourage clients.

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