Electronic Banking and Performance Enhancement
(A case study in Bank Keshavarzi in East Azerbaijan)

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Abstract

The striking development in information and telecommunication technologies and their role in monetary and financial markets has revolutionized the traditional banking methods with their facilities for customers. The significant increase in electronic commerce and the electronic exchange of money has raised the demand for banks. Today, the electronic banking is regarded as an integral component of the electronic commerce. This study examines the effects of establishment of the electronic banking system on the performance of Bank Keshavarzi in East Azerbaijan. One main hypothesis and four minor hypotheses have been tested with a questionnaire including 28 items. After measuring the reliability and consistency, the questionnaire was delivered to 240 participants. The subjects were selected through Kukran formula and by a one-step cluster random sampling method. After collecting the questionnaires, the data were summarized and classified. To analyze the data, descriptive and inferential statistical methods (correlate t test) were used. The results indicate that the establishment of the electronic system affects the performance of Bank Keshavarzi in East Azerbaijan. Compared with the traditional banking system, the new system increases the parameters of bank resources, expenses economizing and staff satisfaction as well.

Keywords: electronic banking, performance enhancement.
Introduction
The striking development of information transmission technology and employing information technology and information webs to speed up services are integral features of twenty first century. These advances have affected banking too and have initiated major changes as well.

Today, banking has experienced outstanding developments. In parallel, customers' expectations have increased as well. The customers seek high-level services, speedy banking transactions with more attention from the side of banking offices. Needless to say, in the globalized world, the survival of any organization depends on its customers' satisfaction, and therefore, banks have to increase their efficiency in order to raise their competitive power. The eye-catching development of information technology and its influence on monetary and financial markets has revolutionized the traditional banking. The remarkable growth of electronic transactions has shed light on the role of banks, and electronic banking has become an indispensable component of electronic commerce. Indeed, without electronic, electronic commerce would be impossible.

The very concept of electronic banking and its capabilities are unknown for many individuals and that is why there are insufficient investment for its development. The banking industry is a quite old industry with a significant position among other industries, as all other businesses are in some way related to this industry. The expansion of new technology in data processing involved a new demand for change in banking services. The number of customers and their demands to reach diverse services has increased. As far as the Iranian banking system is related, in spite of great steps taken by banks, many areas of electronic banking are still in infancy with many unanswered theoretical questions. An electronic bank is new form of bank that employs an electronic environment to supply services to its customers. In other words, in electronic banking, the supply of services is made by the internet (Ahmadi & Virjniari, 2006:76)

The traditional banks were safe places to keep money, gold and other invaluable goods. The appearance of bank checks in 1865 their function developed and included exchanges as well. In 1960, another type of services, i.e. credit cards became available. Although the process of checks and credit cards gradually became automatic, the paper documents played a major role. Therefore, some complex telecommunication technology was used to solve this problem. With the establishment of automatic exchange rooms that used the electronic system of resources' transmission, the structure of banking system saw another great advancement. It was followed by automatic payment methods and ATMs in 1990. The concept of money as a concrete entity changed to something abstract. Likewise, the concept of bank check also changed. In light of such changes, the electronic exchange of information replaced the process of paper documents (Sheykhan, 1999)

Nowadays, major financial organizations and banks are in the middle of a new, hard competition leading to significant changes in domestic as well as international banking. The development of electronic banking has led to the expansion of intelligent cards, internet banking, mobile banking, telebank, etc. The new services have changed the horizons of human beings. Now, the changes happen quickly and the economic institutions should adapt themselves with new situations so that they survive in the market. (Omouri Sarabi & Eskandarizadeh Yazdi, 2006:18). With the advent of electronic technology, great changes
have taken place in the relation between the customer and the method of transaction. Today, electronic banking goes ahead to promptly deliver information and data to develop the management of the national economy and banking system. In addition, the electronic banking provides reuse of information diverse services. In effect, electronic banking is a repeated engineering process enabled by novel technologies.

One important device to join the global economy is the development of foreign exchanges of the country which is possible by electronic tools compatible with electronic methods. The electronic business would be possible through having an electronic banking system and it would be available by developing the electronic equipment which are connected to the international banking system. Therefore, an electronic banking system would be a prerequisite for having electronic commerce. This system should be coordinated with international monetary, financial systems. The implementation of electronic commerce requires the existence of electronic banking. Due to such relationship, using electronic systems in international financial institutions is raising increasingly (Seyyed Javadin& Saghatchi, 2006).

There are a number of definitions for electronic banking. Let us review a few ones:

- Electronic banking means providing facilities for customers and enable them to do their intended banking job with high security, in any time of day without going to a bank. (Shams, 2006:54)
- A process in which a customer conducts its banking affairs in electronic form as there is no need to attend any real place is called electronic banking (Sloan, 2000:25).
- Electronic banking is the automatic supply of products and new and traditional banking services to customers by direct and electronic channels (Alagheband, 2006:11)

The electronic communication development has developed the efficiency of payment system. The electronic payment systems enable us to exchange monetary and financial resources electronically with no need to exchange anything in real world. The cost of payment of water, electricity and telephone bills has decreased and the time to control the balance of checks has been shorter. Nowadays, the payment of bills for transactions is made by computers. Most business jobs in financial firms are conducted and controlled through the electronic channels. In traditional banking system, customers had to wait in long lines to pay or receive money. But now, ATM machines have changed the scene; the same services by a different mode. Therefore, electronic money has replaced physical money. This electronic money is stored electronically on cards or computerized accounts. (Hubbard, 2001:23)

In an electronic banking system, users can connect their computer to the internet to conduct the banking jobs such as receive and pay their bills and many other financial services. (Anguelov, et al. 2004:2). The customers of electronic banks are able to use the banking services by their lap-tops. This service is possible by the computerized terminals in a bank or one of its branches. Many countries have provided proper facilities for their electronic banks. Furthermore, these countries have considered some measures to remove obstacles in banking services (Mishkin, 1989:197).
The electronic banks provide extensive services through the internet. These services include deposits, credit cards, loans, etc. The electronic banking has many advantages like speedy and easy functionality (Gutterman, et al. 2001:269).

The advantages of electronic banking can be explained from both sides of customers and financial institutions. The customers enjoy lower cost, less consumed time, and access to numerous channels for banking jobs. The financial institutions can focus on their popularity with innovation, keeping their customers different geographical locations, providing opportunities for new customers in target markets, the activity geographical areas and providing a situation for complete competition (Seyyed Javadn& Saghatchi, 2006:32)

As any system seeks some goals, it is much needed for any newly established system to evaluate its effectiveness. As such, the present study involves the effect of establishment of the electronic banking system on the performance of Bank Keshavarzi in East Azerbaijan province. To do so, after referring to many books, articles and interview with experts, the enhancement in four parameters is discussed: increasing the bank resources (including interest-free deposits and long-term investment deposits), raising the quality of banking services, staff satisfaction, and economizing the expenses.

Experts and scholars believe that performance is the main issue in any organizational analysis. Imagination of an organization with no analysis and evaluation of its performance would be difficult. They maintain that the organization performance initiates the organizational theory. They also think this issue is significant in the real world. The evaluation and measurement of the performance makes a system intelligent and motivates individuals for appropriate behavior. This issue constitutes the main component of any organizational design. As the enhancement of performance releases great power, its evaluation can shed light on the development and thereby, provides necessary motivation and opportunity to enhance the quality of organizations' performances.

Today, raising the utility of human power tends to be one of the most important problems of managers in state and private sectors. Supported by the staff, organizations should evaluate the performance of its performance to control processes in order to increase production or services, decrease of costs, raising the quality of products or services to satisfy customers (Sadeghpour and Akhavan, 2002:17)

Many definitions are presented for the term performance, but in a comprehensive definition it is said that performance implies both structures and results. Behaviors are the results of agent and they turn performance from an abstract concept to an action. Behaviors are not just devices for the results, but they are the very results. They can be judged independent from the results (Khalli Araghi et al.,2003:83). The importance of the concept of performance is that its definition is an introductory step to its evaluation or management. There are a number of ideas on the nature of performance. Performance can be regarded as the results' background. As far as an individual is concerned, performance is the record of a person's achievements (Armstrang, 2006). In a general definition, performance of a system is the degree of accessibility to one or more than one factor(s) that are selected as the parameters to reach the system's goals. (Komiteye Abyariva Zehkeshi Iran, 1996:24)
To measure performance, just the output of goods or services in a given time and considering some local, regional, national and international standards is taken into account. This measurement can be compared with that of other production or service-based organization in another area, region, country or in international level. The performance measurement, anyway, is a tool in process management, i.e. control. Such measurement is a process which expresses the degree of development to reach the goals. It can provide a foundation for evaluation of pre-determined goals and help an organization to identify its (dis)advantages (Sabeti, et al. 2006).

The performance measurement should be a device to enable an organization to follow its advancement towards strategic, long-term objectives, not just a tool for identifying poor performances and punishing them. While keeping some critical information secrete, the information related to the performance should be open to staff, customers, interested parties, distributors and providers. The performance information and the organization advancement towards its goals can be presented on the domestic and international networks on time and with accessibility to all levels of the management, teams and individuals. Likewise, organizations publish their reports, bulletins and advertisements periodically with an eye to the design of goals and accessibility to them (KhalliAraghi et al. 2003:87).

To achieve the best results, it would be necessary to have performance evaluation in line with the strategic planning of an organization. In such platform, standards and parameters of performance will be evaluated and the deviation of the existing situation with that of the ideal will be illustrated.

**Methodology**

The present study is a survey and follows an applied objective. The statistical population is the staff of Bank Keshavarzi in East Azerbaijan. To calculate the sample, Kukran formula is employed resulting in 240 subjects.

To select the statistical sample from the statistical population, one step, cluster random sampling is followed. First, considering the number of branches of Bank Keshavarzi in East Azerbaijan, all staff were classified in 83 clusters, and then 20 branches were chosen randomly. Next, the proportion of each selected branch in the statistical sample was calculated. Then from each selected branch, some subjects were randomly selected.

To collect data from the statistical population and to test research hypotheses, a questionnaire with 28 questions were designed considering research variables. The structures of questions is as follow:

Questions 1-8 are prepared to measure the growth of bank resources in four parameters; long-term deposits, current accounts, saving account, and selling partnership notes, Questions 9-14 are asked to measure the degree of enhancement of banking services in three parameters; increase of accuracy in banking operation, raising security in payments and receipts, and raising the speed of banking services,

Questions 15-22 to measure the degree of economizing in four parameters; the expenses of data collection to prepare statistical reports, the expenses of preparing summary of daily
financial sheets, the expenses of controlling financial services, and the expenses of sending statistical reports of branches to the provincial and national management.

Questions 23-28 are designed to measure the degree of staff satisfaction in three parameters; the staff confidence and comfort, the ease of various reports and the required ones for provincial and national management, the speed of doing tasks by the staff. The Likert continuum is used as the questionnaire scale with five choices (very little, little, moderate, much, very much). In this study, the formal reliability is employed to determine the reliability of the data collection. First, a primary questionnaire is designed and it is handed to ten administration management lecturers and experts to express their opinion about the designed questions and whether they are designed well or not. Finally, the opinions of the supervisor and advisor of the thesis were collected and implemented in the questionnaire.

To measure the consistency of the questionnaire, Cronbach's alpha method is used. The questionnaires were given to 30 staff of Bank Keshavarzii in east Azerbaijan. Once the data were collected, the test consistency was measured using the Cronbach's alpha method. Therefore, employing SPSS software, the test consistency was calculated as 0.763. This figure shows that firstly, the questions have high correlations together, and secondly, the questionnaire enjoys high consistency. To analyze the collected data, descriptive and inferential statistical methods were used. To classify, summarize and interpret the data the descriptive methods were used. The inferential statistics was also employed to test hypotheses and t test.

Data analysis and conclusion:

The research hypotheses are tested using t test with the results in tables 2 and 3.

<table>
<thead>
<tr>
<th>T test</th>
<th>p-value of t test</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.131</td>
<td>0.034</td>
<td>Hypothesis1</td>
</tr>
<tr>
<td>2.468</td>
<td>0.014</td>
<td>Hypothesis1-1</td>
</tr>
<tr>
<td>8.463</td>
<td>0.000</td>
<td>Hypothesis1-2</td>
</tr>
<tr>
<td>6.339</td>
<td>0.000</td>
<td>Hypothesis1-2</td>
</tr>
<tr>
<td>7.572</td>
<td>0.000</td>
<td>Hypothesis1-2</td>
</tr>
</tbody>
</table>

Table 3. Comparison of parameters in traditional and electronic systems

<table>
<thead>
<tr>
<th>Traditional banking system</th>
<th>Electronic banking system</th>
<th>parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.52</td>
<td>46.24</td>
<td>performance enhancement</td>
</tr>
<tr>
<td>12.26</td>
<td>12.69</td>
<td>Increase of bank resources</td>
</tr>
<tr>
<td>9.87</td>
<td>11.10</td>
<td>Raising quality of bank services</td>
</tr>
<tr>
<td>11.98</td>
<td>13.94</td>
<td>Economizing expenses</td>
</tr>
<tr>
<td>9.46</td>
<td>10.49</td>
<td>Staff satisfaction</td>
</tr>
</tbody>
</table>
As it is shown, the p-value of t test in all hypotheses are lower than 0.05. The amount of correlated t test in all hypotheses is calculated from 1.96 in confidence level of 0.95 and freedom level is higher than 239. Then, the hypothesis Ho is rejected and H1 is accepted. As the mean of all parameters in the electronic banking system is higher than that of traditional banking system, it could be stated the establishment of the electronic banking system increases the parameters of bank resources, the quality of banking services, economizing the expenses and staff satisfaction. Generally, the establishment of electronic banking system increases the performance of Bank Keshavarzi in east Azerbaijan.

The establishment of electronic banking system increases the speed and accuracy of banking operations, lowers the expenses and raises staff satisfaction. Such procedure provides a competition for banks and the situation attracts more customers towards electronic banks. Thereby, the development of electronic banking system is suggested. To do so, the following recommendations are outlined:

1. Staff training:
   To prepare the staff for working with novel technologies, it is suggested to run general training courses on working with computers and information technologies. Such courses can be run by the institutions equipped with the internet.

2. Building trust in customers:
   With diverse services and instruction to customers, banks can build trust among their customers so that they can perform various banking operations easily. Banks can run free briefing courses. Broadcasting TV commercials in the best time, running fairs, festivals and practical conferences and presenting scientific articles in simple format as well as other media such as newspapers make customers satisfied.

3. Raising security:
   Security is very important in electronic banking and it should be raised in electronic banking exchanges. It is recommended that banks and financial institutions employ the latest technologies to lower their customers’ anxiety concerning electronic banking operations. It would be proper to reward those who report existing problems of the systems.
References

Ahmadi, hosein&Virjniari, M(2006), electronic payment, Center of Industrial Research of Iran.


Omouri Sarabi. Majid & Eskandarizadeh Yazdi, Farzad,(2006), Implementation of comprehensive software and e-banking experience focused, Appendix Monthly Payam Mehr, Number 34, Pp. 17. 22


khaliliaraghi, Maryam&yaghinloo, Mehrangiz & Javaherdashti, faranak,(2003), Performance-based management, (Distance from theory to implementation),Part 2,Tadbir.Fourteenth year, Number 142, Pages 80 _87.


Sheykhani, Saeed,(1999), Electronic banking and its strategy in Iran, Tehran, Monetary and Banking Research Institute.


Komiteye AbyarivaZehkeshi Iran, (1996), Performance evaluation systems and to identify the factors affecting it, Komiteye Abyariva Zehkeshi Iran, First Edition.

Alagheband, Parisa, ,(2006), Adoption of Electronic Banking Services by Iranian Customers, MasterThesis of Industrial Engineering, Luela University of Technology &Tarbiat Modares University.


