Identifying and Ranking the Factors Effective on Improving the Quality of Electronic Banking Services Offered by Iran’s Saderat Bank

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Abstract

Keeping the pace with the expansion in electronic business turnover volume worldwide, monetary and financial institutions have taken measures to make extensive use of information technology for supporting and facilitating electronic business. Therefore, the present study aims at identifying and ranking the factors effective on improving the quality of electronic banking services delivered by Iran’s Saderat Bank and helping relevant decision making regarding the study area. The study population includes all of the experts and managers from Iran’s Saderat Bank from Zabol County the total number of whom reaches to 40 people and all of them have been selected as the study sample volume based on census method. Data collection tool used herein is a questionnaire which is considered as the most common instrument for gathering information in field studies. This researcher-made questionnaire has been designed based on information technology scales and subscales in banking industry. The information obtained in the present study has been analyzed by taking advantage of inferential statistics and the calculations have been carried out in SPSS software. The study findings indicate that financial and economical factors, technological factors, cultural and social factors, managerial and organizational factors and legal and law-related factors positively influence the improvement in electronic banking services quality and through ranking such factors it became clear that technological factors are of the greatest effect on the quality of the electronic services.

Keywords: electronic services, financial and economical factors, technological factors, cultural and social factors, managerial and organizational factors and law-related and legal factors, bank

Introduction

Of the present century features is the astonishing development in the information and communication technologies and utilizing them for augmenting speed and quality in offering services and this has caused the changes in this era to be increasingly more fundamental and faster than the changes and evolutions in the industrial revolution era, including the change in the way the extensive and rapid services are offered via the computer networks, decrease in the quantity of comings and goings, change in the knowledge transfer with the appearance of electronic instruction as well as whatsoever has been made feasible in various business areas assisted by information technology and its various aspects and dimensions (Reza’ee Manesh, 2014). In line with the expansion in the electronic business turnover volume worldwide, the monetary and financial institutions, as well, have turned to the extensive utilization of information technology for the purpose of supporting and facilitation of the electronic business. Hence, electronic payment systems have little by little taken the place of traditional payment systems during the recent decades. In the meantime, the banks have also played a considerable role in advancing the electronic business through initiating a move towards electronic banking and supplying the customers with new financial services. Demands for financial services are constantly changing and the clients’ behavior has also undergone a change in comparison to the past. Therefore, transition from traditional banking to electronic banking for attracting new customers and retaining the current customers is regarded as a necessity (Meghdadiyan et al, 2014). Electronic banking is a method of offering banking services where the clients can enjoy banking services round the clock and without being required to physically attend the bank divisions through taking advantage of safe electronic services delivered by the banks. Electronic banking
includes various banking services which are deliverable round the clock in a non-attending manner via various ports such as sales terminals, internet, ATM, regular phones and mobile phones, etc. Nowadays, many of the banks around the globe offer their services electronically. In Iran, as well, there is formed a growing body of the customers during the recent years who enjoy a high technological knowledge and prefer the ease and the speed with which the technology-based services are provided by the various systems in comparison to the service delivery in an attending manner and by the bank staff (Farhangi et al, 2016). Despite the great many of the advantages enumerated for the electronic banking, some of the practitioners believe that what is offered to the customers as electronic services in Iran’s banks is an imperfect version copied from the today’s world modern banking and it originates from various reasons such as the lack of the technical, legal and cultural infrastructures. The trivial awareness and information at the hands of the banking staff and operators regarding the electronic banking services is one of the serious challenges such banking is confronted with in the country. The customers cannot be expected to feel satisfied with the modern services they receive up to the point in time when the banking affairs operators could offer optimized services to their clients and guide them in a qualified manner for receiving better services. The results of the studies performed in Saderat Bank are indicative of the significant relationship between the perceived quality of the electronic banking and clients’ satisfaction and commitment. When the clients are provided with services beyond expectations featuring novel and innovative characteristics which transcend beyond the clients’ wants, it makes them amazed in the best possible manner or, in other words, they feel exaltation because one of their hidden needs is met in an innovative manner, thus, the clients reach to a high mood called satisfaction. It is worth mentioning that the clients’ comprehension and belief regarding the organization’s safe electronic services exerts prominent effects on the customers in terms of their utilization of the electronic banking services. Therefore, creating a sense of trust in the clients leads to their becoming committed and encourages them to make a frequent use of the organization’s services (Vahhabzadeh and Mannoud Kala’ee, 2015). The presence of the private banks in the country and the increase in the competition in offering banking services reveals the necessity to pay increasingly higher extent of attention to the topic of quality. According to the augmentation of the role played by service organizations in various economical areas and the importance of the quality of the services in competition arenas, the banks should look at the quality management through adopting strategic and dynamic approaches and gain a clear insight of the service quality status, clients’ expectations and the general quality specifications, especially the electronic banking services quality. In this respect, along with the quantitative development and diversification of the electronic banking services, security, quality and speed based on which these services are provided finds twice as much significance. Therefore, besides strengthening the information technology-based infrastructure, there are other numerous aspects which are required to be taken into consideration, including organizational, human, environmental factors and work processes and so forth. On the other hand, the daily increasing vastness and the diversity of the electronic banking services has added to the criticality of the issue. Corresponding to what has been mentioned up to this point the present study proposes that “what are the indicators, factors and indices influencing the improvement in the quality of electronic banking services in Iran’s Saderat Bank?” And, also, “how are these factors rated in terms of their relative importance for the purpose of enhancing the planning and decision-making processes regarding the electronic banking area?”

**Study Hypotheses:**
- Financial and economical factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.
- Technological factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.
- Cultural and social factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.
- Managerial and organizational factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.
- Law-related and legal factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.
Study Methodology
The present study makes use of a descriptive method which is carried out based on library research and also it can be said that the present study is an applied research in terms of the objectives it is in pursue of. In the present study, library research and the investigation of the study background and theoretical frameworks regarding the study subject matter are carried out aiming at extracting and identifying the factors and indicators effective on the improvement in the quality of the electronic banking services in Iran’s Saderat Bank. The study population includes all of the experts, managers and specialists from Saderat Bank in the city of Zabol. These experts are the managers and the experts having knowledge regarding the banking realm. According to the study population and also based on the fact that the study sample volume should be very small in pair-wise studies, 40 individuals were selected from the population of experts, managers and practitioners of Saderat Bank in the city of Zabol. Data collection tool applied in the current research paper is a standard questionnaire designed by Akisar et al (2015) which is the most common information gathering instrument used in field studies. The questionnaire has been designed based on the scales and subscales of information technology in banking industry. In the present study, the collected information was analyzed by taking advantage of inferential statistics. Finally, the data extracted were analyzed via making use of SPSS software.

Study Findings
H1: Financial and economical factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.
To test the hypothesis based on questionnaire results, the test values are as below:

\[
\begin{align*}
H_0 & : \mu \leq 3 \\
H_1 & : \mu > 3
\end{align*}
\]

The minimum and maximum mean scores obtained for three of the intermediate results are 1 and 5, respectively. The results have been scored based on Likert’s scale.

<table>
<thead>
<tr>
<th>Mean scores standard error</th>
<th>Standard deviation</th>
<th>Mean</th>
<th>Number of the samples</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.050</td>
<td>0.419</td>
<td>4.16</td>
<td>35</td>
<td>Financial and economical factors</td>
</tr>
</tbody>
</table>

Source: study findings

<table>
<thead>
<tr>
<th>95% confidence level difference from the discrepancy</th>
<th>Mean difference</th>
<th>Significance level</th>
<th>Degree of freedom</th>
<th>T</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper bound</td>
<td>1.26</td>
<td>0.000</td>
<td>34</td>
<td>23.20</td>
<td>Financial and economical factors</td>
</tr>
<tr>
<td>Lower bound</td>
<td>1.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: study findings

The test results are reflective of two outputs. The first output includes the variable’s descriptive indices incorporating the number of the respondents, mean and standard deviation. The second output, as well, indicates the mean test results. The first column on the right indicates the concept. Looked at from the right to left, the second column belongs to t-test, the third column indicates degree of freedom and the fourth column indicates the significance level (Sig). Because the significance level is found below 0.05, so the study hypothesis is confirmed. The above table indicates that the mean value obtained from t-test regarding the financial and economical factors and conditions is 4.16 and it is found to be larger than 3. So, it can be asserted that \(H_0\) hypothesis is rejected in 5% error level, to wit the financial and economical factors are effective on the quality of electronic banking services provided by Saderat Bank.
**H2: Technological factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.**

To test the hypothesis based on questionnaire results, the test values are as below:

\[
\begin{align*}
H_0: & \mu \leq 3 \\
H_1: & \mu > 3
\end{align*}
\]

The minimum and maximum mean scores obtained for three of the intermediate results are 1 and 5, respectively. The results have been scored based on Likert’s scale.

**Table 3: T-test results**

<table>
<thead>
<tr>
<th>Mean scores standard error</th>
<th>Standard deviation</th>
<th>Mean</th>
<th>Number of the samples</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.056</td>
<td>0.469</td>
<td>4.26</td>
<td>35</td>
<td>Technological factors</td>
</tr>
</tbody>
</table>

Source: study findings

**Table 4: One-sample t-test**

<table>
<thead>
<tr>
<th>95% confidence level difference from the discrepancy</th>
<th>Mean difference</th>
<th>Significance level</th>
<th>Degree of freedom</th>
<th>T</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper bound</td>
<td>1.38</td>
<td>1.15</td>
<td>1.26</td>
<td>34</td>
<td>22.59</td>
</tr>
<tr>
<td>Lower bound</td>
<td>1.15</td>
<td>1.26</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: study findings

The test results are reflective of two outputs. The first output includes the variable’s descriptive indices incorporating the number of the respondents, mean and standard deviation. The second output, as well, indicates the mean test results. The first column on the right indicates the concept. Looked at from the right to left, the second column belongs to t-test, the third column indicates degree of freedom and the fourth column indicates the significance level (Sig). Because the significance level is found below 0.05, so the study hypothesis is confirmed. The above table indicates that the mean value obtained from t-test regarding the Technological factors and conditions is 4.26 and it is found to be larger than 3. So, it can be asserted that H₀ hypothesis is rejected in 5% error level, to wit the Technological factors are effective on the quality of electronic banking services provided by Saderat Bank.

**H3: Cultural and social factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.**

To test the hypothesis based on questionnaire results, the test values are as below:

\[
\begin{align*}
H_0: & \mu \leq 3 \\
H_1: & \mu > 3
\end{align*}
\]

The minimum and maximum mean scores obtained for three of the intermediate results are 1 and 5, respectively. The results have been scored based on Likert’s scale.

**Table 5: T-test results**

<table>
<thead>
<tr>
<th>Mean scores standard error</th>
<th>Standard deviation</th>
<th>Mean</th>
<th>Number of the samples</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.058</td>
<td>0.469</td>
<td>4.26</td>
<td>35</td>
<td>Cultural and social</td>
</tr>
</tbody>
</table>

Source: study findings

**Table 6: One-sample t-test**

<table>
<thead>
<tr>
<th>95% confidence level difference from the discrepancy</th>
<th>Mean difference</th>
<th>Significance level</th>
<th>Degree of freedom</th>
<th>T</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper bound</td>
<td>1.21</td>
<td>0.979</td>
<td>1.09</td>
<td>34</td>
<td>18.84</td>
</tr>
<tr>
<td>Lower bound</td>
<td>0.979</td>
<td>1.09</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: study findings
The test results are reflective of two outputs. The first output includes the variable’s descriptive indices incorporating the number of the respondents, mean and standard deviation. The second output, as well, indicates the mean test results. The first column on the right indicates the concept. Looked at from the right to left, the second column belongs to t-test, the third column indicates degree of freedom and the fourth column indicates the significance level (Sig). Because the significance level is found below 0.05, so the study hypothesis is confirmed. The above table indicates that the mean value obtained from t-test regarding the Cultural and social factors and conditions is 4.26 and it is found to be larger than 3. So, it can be asserted that H₀ hypothesis is rejected in 5% error level, to wit the Cultural and social factors are effective on the quality of electronic banking services provided by Saderat Bank.

**H₄: Managerial and organizational factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.**

To test the hypothesis based on questionnaire results, the test values are as below:

\[
\begin{align*}
H₀: & \mu \leq 3 \\
H₁: & \mu > 3
\end{align*}
\]

The minimum and maximum mean scores obtained for three of the intermediate results are 1 and 5, respectively. The results have been scored based on Likert’s scale.

<table>
<thead>
<tr>
<th>Table 7: T-test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean scores standard error</td>
</tr>
<tr>
<td>0.059</td>
</tr>
</tbody>
</table>

Source: study findings

<table>
<thead>
<tr>
<th>Table 8: One-sample t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% confidence level difference from the discrepancy</td>
</tr>
<tr>
<td>Upper bound</td>
</tr>
</tbody>
</table>

Source: study findings

The test results are reflective of two outputs. The first output includes the variable’s descriptive indices incorporating the number of the respondents, mean and standard deviation. The second output, as well, indicates the mean test results. The first column on the right indicates the concept. Looked at from the right to left, the second column belongs to t-test, the third column indicates degree of freedom and the fourth column indicates the significance level (Sig). Because the significance level is found below 0.05, so the study hypothesis is confirmed. The above table indicates that the mean value obtained from t-test regarding the Managerial and organizational factors and conditions is 4.28 and it is found to be larger than 3. So, it can be asserted that H₀ hypothesis is rejected in 5% error level, to wit the Managerial and organizational factors are effective on the quality of electronic banking services provided by Saderat Bank.

**H₅: Law-related and legal factors are effective on the improvement in the quality of Saderat Bank’s electronic banking services.**

To test the hypothesis based on questionnaire results, the test values are as below:

\[
\begin{align*}
H₀: & \mu \leq 3 \\
H₁: & \mu > 3
\end{align*}
\]

The minimum and maximum mean scores obtained for three of the intermediate results are 1 and 5, respectively. The results have been scored based on Likert’s scale.
Table 9: T-test results

<table>
<thead>
<tr>
<th>Mean scores standard error</th>
<th>Standard deviation</th>
<th>Mean</th>
<th>Number of the samples</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.063</td>
<td>0.535</td>
<td>4.26</td>
<td>35</td>
<td>Law-related and legal</td>
</tr>
</tbody>
</table>

Source: study findings

Table 10: One-sample t-test

<table>
<thead>
<tr>
<th>95% confidence level difference from the discrepancy</th>
<th>Mean difference</th>
<th>Significance level</th>
<th>Degree of freedom</th>
<th>T</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper bound</td>
<td>Lower bound</td>
<td></td>
<td></td>
<td></td>
<td>Law-related and legal</td>
</tr>
<tr>
<td>1.39</td>
<td>1.13</td>
<td>1.26</td>
<td>0.000</td>
<td>34</td>
<td>19.77</td>
</tr>
</tbody>
</table>

Source: study findings

The test results are reflective of two outputs. The first output includes the variable’s descriptive indices incorporating the number of the respondents, mean and standard deviation. The second output, as well, indicates the mean test results. The first column on the right indicates the concept. Looked at from the right to left, the second column belongs to t-test, the third column indicates degree of freedom and the fourth column indicates the significance level (Sig). Because the significance level is found below 0.05, so the study hypothesis is confirmed. The above table indicates that the mean value obtained from t-test regarding the Law-related and legal factors and conditions is 4.16 and it is found to be larger than 3. So, it can be asserted that H0 hypothesis is rejected in 5% error level, to wit the Law-related and legal factors are effective on the quality of electronic banking services provided by Saderat Bank.

Conclusion

Nowadays, with the increasingly higher rate of development in electronic commerce, businesses try to make more interactions with their clients more than before through taking advantage of electronic business facilities and, consequently, attain competitive advantages. Therefore, competition between the online sellers has become gradually so intense and this reality has led to the clients’ increasing rate of awareness in terms of the optimum and more favorable prices when searching for commodities and services. Online electronic business is carried out through websites that have indicated signs of considerable growth during the several recent years. Electronic commerce is like an enormous market. Websites are the most significant channel of commodities and services distribution in electronic trading and industrial markets and structures have fundamentally revolutionized the products and services, markets’ segmentation, customers’ values and consumers’ behaviors. Designing a website plays an important role in attracting and retaining the customers. A high quality website not only influences the customers’ decision to buy but it also is one of the most important reasons posited by the customers that determines whether an online shopping should be performed or not. Low quality of the website results in customers’ turning to the other competitors as well as increase in the costs and reduction in the profits. Jessica (2003) believes that electronic services quality not only brings about attraction, loyalty and positive word-of-mouth advertisement, but it also maximizes the organization’s electronic business competitive advantages. The key point in electronic banking is that all of the sectors including the government, banks, private sectors and general public invest in the country’s electronic market and it is not clear who takes how much advantage of such expenditures? The answer to the question is that the one (real or legal) who has previously forecast the market needs and prepared oneself for offering distinct, extensive and planned services to such needs will surely benefit from such investments. Of course, leaving a good name behind in each of these areas guarantees long-term profitability of an organization. Being in an interaction with the electronic market factors in a bilateral manner along with the expansion and intensification of the electronic banking software influence by the government, market and banks paves the way for electronic banking services and the best technological instrument for electronic banking services marketing is electronic communications (wired or wireless). In the following part, suggestions regarding the augmentation of the quality aspects of electronic banking services are presented:
1. Website designers should concentrate on the ease of use and the ease of online shopping in lieu of websites’ visual looks.
2. It is necessary to prepare a list of FAQs frequently asked by the clients and insert it in the websites followed by their answers. The bank should constantly update the information and transfer this idea to the customers that they are using the latest information through placing the update date on top of the pages.

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