IDENTIFYING THE EFFECT OF SUCCESSFUL E-BANKING ON CUSTOMERS’ SATISFACTION, TRUST, COMMITMENT AND LOYALTY

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Abstract. Today, customer’s judgment in banking affairs is based on bank’s ability to aid solving problems and sustainable trade development. Transaction security and speed, consumer friendly, ease of use, trust and issues related to privacy are among the most important factors in selection of a bank by a customer. Hence, online banking acceptance in most of the countries of the world is increasing; in a way that the level of e-banking in advanced countries has surpassed 50% which indicates to the importance of identifying the effective factors in this field. The aim of the present study is to examine the effect of successful e-banking factors on customers’ satisfaction, trust, commitment and loyalty and for this purpose, 385 of the customers of Bank Sepah branches in North of Tehran were selected by simple random sampling method and completed the research questionnaire. Content validity of this questionnaire was confirmed by experts in this field and its reliability was also confirmed by Crobach’s alpha test. in the end, data collected from research questionnaires was analyzed by using Partial sum of squares test and results indicated that quality of e-banking website has a significant effect on customer satisfaction and trust; quality of e-banking services has a significant effect on customer’s trust; e-banking perceived security has a significant effect on customer’s satisfaction, trust and commitment; e-banking perceived privacy has a significant effect on customer’s commitment; customer’s trust in e-banking has a significant effect on his commitment and loyalty; customer’s satisfaction from e-banking has a significant effect on his loyalty. It was also indicated that perceived privacy of e-banking doesn’t have a significant effect n customer’s satisfaction and trust; quality of e-banking services doesn’t have a significant effect on customer’s satisfaction; customer’s satisfaction form e-banking doesn’t have a significant effect on his trust; and customer’s commitment to e-banking doesn’t have a significant effect on his loyalty.

Key words: E-banking, customers’ satisfaction, customers’ trust, customers’ commitment and customers’ loyalty

1. INTRODUCTION

Today, customer judgment in banking services is based on the bank’s ability level to aid solving problems and developing sustainable trade. Transaction’s security and speed, user friendly, ease of use, trust and issues related to privacy are among the most important factors in selection of bank by a customer (Akinci Serkan et al., 2004 & Sylvie Laforet et al., 2005). Hence, e-banking acceptance in most of the countries of the world is increasing; in a way that the level of e-banking connections in advanced countries has surpassed 50% (Tero Pikkarainen, 2004, p. 226).

In banking system, performing services quality and without wasting time is the most important component of success in competition between banks and customers as the main determining factor of this competition place a high level of importance for technology, speed and technical specialization of banks. In new banking, it is necessary to explain bank’s services and especially e-banking services and hence, banks for increasing their efficiency should obtain sufficient customer information, try to understand their preferences and needs and develop relationship with them.

Considering the above arguments, researcher in the present study seeks to identify the effect of successful e-banking factors on customers’ satisfaction, trust, commitment and loyalty. In this chapter, we present an overview of the research. First, research main problem is presented and next, research importance and necessity is explained. After that, research fundamental goals, problems and hypotheses, model, theoretical framework, conceptual and operating definitions of variables are presented and finally, research structure is presented. E-banking is a new emerging type of banking industry in which banking services are provided by using electronic environments (Yaghoobi et al., 2011). E-banking is presented as the Prerequisite of e-commerce and in turn, e-commerce grows more with proliferation of e-banking. By using e-payment system, we can transfer monetary and credit resources electronically, without the need to transfer them physically (Claessens et al., 2012). At present, the use of electronic system in Financial and credit institutions around the world is expanding rapidly and the number of users of e-banking services is increasing day by day. According to Forrester Research Institute, it has been forecasted that during 2002 to 2006, e-commerce volume would growth more than 58% yearly and would increase from 2,293 billion dollars in 2002 to 12,837 billion dollars in 2006 (Fard, 2005). Based on Data Monitor Institute research report, which is one of the most prominent centre for banking data analysis in Europe, the number of users of e-banking systems in 8 countries of France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and England has increased from 4.5 million individuals in 1999 to around 22 million individuals in 2004. In 2005, more than 75% of the firms active in developed countries, at least use one e-banking service (Reeti, 2009).

Banks play a very important role in encouraging people to save, to collect small capitals and investing them. One of the most important objectives of financial management in banks is to increase resources and this can be considered as one of the responsibilities of marketing management in banks. The first and one of the most important principles of marketing is to pay attention to customers’ demands. Being aware of the preferences of potential customers can be of great importance. Customers’ preferences are the result of the attitudes they have toward a product or service with a certain feature. In today’s complex societies, customers seek to reduce their costs, save their time and gain ease in performing their daily banking activities (Florian and Sajjan, 2009). Considering the above arguments, research problem can be formulated as how successful e-banking factors affect customers’ satisfaction, trust, commitment and loyalty/ e-banking is one of the achievements of e-commerce which refers to provision of banking services through accessible and public computer networks (internet or intranet) which have high levels of security (Fard, 2005: 11). E-banking refers to customers’ use of internet for organizing or making changes in their bank account (Seghtchi, 2006: 21). E-banking is the use of network and telecommunication technology for transferring money in banking system (Bonyadi, 2008: 71). E-banking refers to e-transfer of resources and the provision of e-money services (Bonyadi, 2007: Fard, 2005: 41). Customer is someone who presents his demands to a company. Our duty or responsibility is to satisfy his demands in a way to secure his interests as well as our own interests (Cutler, 2004). Datesh (1973) defines trust as being
confident that a person can obtain what he wants from another person. According to Mayer et al. (1995), trust indicates to the confidence that people in a transaction are not going to take advantage of another person’s vulnerability (Kassim & Abdulla, 2006). Commitment is defined as “the mental conditions a person posses which affects his decision regarding maintaining his relationship with the seller. Loyalty is defined as creating commitment in customers for making a deal with a certain company or to repeatedly purchase goods or services from that company”. Asaal (1992), defines loyalty as behavior toward a brand, which leads to repeated purchase of that brand. Jacoby & Chestnut (1978), presents the psychological definition of loyalty in an effort to distinguishing it from other definitions of behavior (repeated purchase).

Sadraee (2010) conducted a study with the title of “customer’s loyalty in banking industry”. Iran Zadeh et al. (2009) conducted a study with the title of “factors affecting customer’s commitment in e-banking: testing e-baking model of “Kassim” in Bank Tejarat braches in Mashhad”. Talaghani et al. (2013) have conducted a study with the title “effect of e-banking service quality on increased level of custommers’ satisfaction and loyalty”. In this study, they have found that banks, as economic institutions, always seek to realize their customers’ expectations and needs. Taghavifard et al. (2011), have conducted as study with the title of “factors affecting the use of e-banking by customers (case study: Bank Mellat)”. Statistical population of this study is consisted of all the customers of Bank Mellat in Iran using internet banking services of this bank. Favafan and colleagues in 2011 have conducted a study with the title of “studying the effect of e-chain supply management on quality and outcomes of the relationship between customer and bank in Thailand. In this study, the outcomes of implementation of electronic customer relationship management system in banking industry of Thailand from the perspective of customers was studied and measured.

2. RESEARCH MODEL

![Research Conceptual Model](image)

**Figure 1-1: Research conceptual model (adopted from Sosanetto et al., 2013)**

3. RESEARCH HYPOTHESES

Hypothesis 1: Quality of e-banking website has a significant effect on customer satisfaction.

Hypothesis 2: Quality of e-banking services has a significant effect on customer satisfaction.

Hypothesis 3: E-banking perceived security has a significant effect on customer satisfaction.

Hypothesis 4: E-banking perceived privacy has a significant effect on customer satisfaction.

Hypothesis 5: Quality of e-banking website has a significant effect on customer trust.

Hypothesis 6: Quality of e-banking services has a significant effect on customer trust.

Hypothesis 7: E-banking perceived security has a significant effect on customer’s trust.
Hypothesis 8: E-banking perceived privacy has a significant effect on customer trust.

Hypothesis 9: E-banking perceived security has a significant effect on customer commitment.

Hypothesis 10: E-banking perceived privacy has a significant effect on customer commitment.

Hypothesis 11: E-banking customer satisfaction has a significant effect on his trust.

Hypothesis 12: E-banking customer trust has a significant effect on his commitment.

Hypothesis 13: E-banking customer satisfaction has a significant effect on his loyalty.

Hypothesis 14: E-banking customer trust has a significant effect on his loyalty.

Hypothesis 15: E-banking customer commitment has a significant effect on his loyalty.

4. RESEARCH METHODOLOGY

In selecting research methodology type, we should make sure to consider those who are having a decision-making role with regards to the study; and that which group of individuals are going to use this study and what are the perspectives of this group of individuals, so that we will not be faced with the problem of inefficiency (Ali Ahmadi & Saeed Nahae, 2007). Research method of this study in terms of goal of study is an applied type of method; in terms of data collection method, it is a descriptive and non-experimental study and in terms of method of conduct, it is an exploratory – survey type of study.

4.1. Research population and sample

A research population refers to a group of individuals or units that have at least one common characteristic. A common characteristic is a characteristic which is common among all the elements of statistical population which distinguishes a certain statistical population from others (Azar & Momeni, 2008). Statistical population of the present study is consisted of all the customers of Bank Sepah branches in North of Tehran which is considered as unlimited in this study. Sample volume is taken equal to 385 individuals who are used as the basis for analysis. In this study, due to homogeneity of the units in statistical population, convenience random sampling method was used. In this method, all the members of statistical population have a certain and equal chance of being selected as participants.

Table 1: Respondents’ characteristics

<table>
<thead>
<tr>
<th>Respondents’ characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>263</td>
<td>68.3</td>
</tr>
<tr>
<td>Female</td>
<td>122</td>
<td>31.7</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 25 years old</td>
<td>12</td>
<td>3.1</td>
</tr>
<tr>
<td>25 to 30 years old</td>
<td>90</td>
<td>23.4</td>
</tr>
<tr>
<td>31 to 35 years old</td>
<td>102</td>
<td>26.5</td>
</tr>
<tr>
<td>36 to 40 years old</td>
<td>89</td>
<td>23.1</td>
</tr>
<tr>
<td>More than 40 years old</td>
<td>92</td>
<td>23.9</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>91</td>
<td>23.6</td>
</tr>
<tr>
<td>Married</td>
<td>294</td>
<td>76.4</td>
</tr>
<tr>
<td>Associate degree and lower</td>
<td>126</td>
<td>32.7</td>
</tr>
</tbody>
</table>
4.2. Data collection

Data collection method used in this study is a bibliographic and field method. One of the most important aspects of every study is appropriateness of its measurement instrument, because, the necessary information and data for analyzing final conclusion are obtained by measurement instrument. The measurement instrument should have the necessary validity and reliability, so that the researcher can collect the appropriate data for the study and can test research hypotheses by analyzing this data and to answer research questions. Standard measurement instrument usually have an appropriate level of validity and reliability (Hafeznia, 2004). Measurement instrument used in this study is a questionnaire. For measuring the appropriateness of this measurement instrument, validity and reliability of it are tested.

4.3. Measurement instrument, validity and reliability

In this study, considering the fact that the questionnaire used in this study is a standard one, therefore, its validity is confirmed implicitly. However, for gaining more confidence, face validity method was used. For this purpose, research questionnaire was made available to esteemed supervisor and his opinion was acquired regarding each question and regarding the evaluation of the targeted goal and with minor modification, research questionnaire was confirmed. Reliability refers to accuracy, stability or repeatability of test results. For measuring reliability of the measuring instrument used in this study, Cronbach’s alpha method is used which is one of the most important and common methods used for this purpose. Cronbach’s alpha value is equal to 0.7 which indicates that the research questionnaires have a high level of reliability.

4.4. Descriptive statistics of research variables

<table>
<thead>
<tr>
<th>variable</th>
<th>quantity</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>User’s loyalty</td>
<td>385</td>
<td>1.67</td>
<td>5.00</td>
<td>4.072</td>
<td>0.904</td>
<td>0.818</td>
</tr>
<tr>
<td>User’s satisfaction</td>
<td>385</td>
<td>1.50</td>
<td>5.00</td>
<td>3.996</td>
<td>0.789</td>
<td>0.623</td>
</tr>
<tr>
<td>User’s loyalty</td>
<td>385</td>
<td>1.50</td>
<td>5.00</td>
<td>3.714</td>
<td>0.803</td>
<td>0.644</td>
</tr>
<tr>
<td>User’s commitment</td>
<td>385</td>
<td>1.25</td>
<td>5.00</td>
<td>3.613</td>
<td>0.838</td>
<td>0.702</td>
</tr>
<tr>
<td>Website quality</td>
<td>385</td>
<td>1.50</td>
<td>5.00</td>
<td>3.612</td>
<td>0.853</td>
<td>0.727</td>
</tr>
<tr>
<td>Service quality</td>
<td>385</td>
<td>1.75</td>
<td>5.00</td>
<td>3.561</td>
<td>0.848</td>
<td>0.719</td>
</tr>
<tr>
<td>Perceived security</td>
<td>385</td>
<td>1.00</td>
<td>5.00</td>
<td>3.706</td>
<td>0.806</td>
<td>0.649</td>
</tr>
<tr>
<td>Perceived privacy</td>
<td>385</td>
<td>1.50</td>
<td>5.00</td>
<td>3.817</td>
<td>0.786</td>
<td>0.618</td>
</tr>
</tbody>
</table>
Considering the above results, it is revealed that among all the variables, the highest mean is related to the variable of user’s loyalty which is equal to 4.072 and the lowest mean is related to the variable of service value which is equal to 3.561.

5. RESEARCH FINDINGS

Standardized path coefficients related to each research hypothesis

5.1. Significance coefficients related to each of the research hypotheses

Since, through magnitude (large or small) of standard estimation of model’s coefficients, we cannot make any judgment about whether its coefficients are significant or not; therefore, for testing path coefficients’ significance, model’s t-value is used. If t-values are larger than absolute value of 1.96, it can be concluded that these relationships are significant at 95% confidence level. In figure (3-4), model of significance values of these path coefficients are presented.
Table 3: Hypotheses and results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path coefficient</th>
<th>Significance</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E-banking website quality has a significant effect on customer’s satisfaction.</td>
<td>0.656</td>
<td>10.774</td>
</tr>
<tr>
<td>2</td>
<td>E-banking services quality has a significant effect on customer’s satisfaction.</td>
<td>0.048</td>
<td>0.665</td>
</tr>
<tr>
<td>3</td>
<td>E-banking perceived security has a significant effect on customer’s satisfaction.</td>
<td>0.176</td>
<td>2.188</td>
</tr>
<tr>
<td>4</td>
<td>0.005</td>
<td>0.080</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
E-banking perceived privacy has a significant effect on customer’s satisfaction.

5. E-banking website quality has a significant effect on customer’s trust.

6. E-banking service quality has a significant effect on customer’s trust.

7. E-banking perceived security has a significant effect on customer’s trust.

8. E-banking perceived privacy has a significant effect on customer’s trust.

9. E-banking perceived security has a significant effect on customer’s commitment.

10. E-banking perceived privacy has a significant effect on customer’s commitment.

11. E-banking customer’s satisfaction has a significant effect on his trust.

12. E-banking customer’s trust has a significant effect on his commitment.

13. E-banking customer satisfaction has a significant effect on his loyalty.

14. E-banking customer’s trust has a significant effect on his loyalty.

15. E-banking customer’s commitment has a significant effect on his loyalty.

<table>
<thead>
<tr>
<th>6. CONCLUSION AND RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research hypothesis 1</strong> - Results indicated that e-banking website quality with impact factor of 9.565 and with T-value of 10.744 (P-Value=0.001) has a positive and significant effect on customer’s satisfaction. Therefore, 1st research hypothesis is confirmed with 99.9% confidence. It means that for each on unit of increase in the variable of e-banking website quality, we observe 0.565 of a unit of increase in customer satisfaction. Therefore, banks are recommended to provide the ability to customers to find their desired bank location in e-banking website and also try to make e-banking website content useful.</td>
</tr>
<tr>
<td><strong>Research hypothesis 2</strong> - Results indicated that e-banking service quality with an impact factor of 0.048 and with the value of T=0.665 doesn’t have a significant effect on customer satisfaction. Hence, 2nd research hypothesis is not confirmed.</td>
</tr>
<tr>
<td><strong>Research hypothesis 3</strong> - Results indicated that e-banking perceived security with an impact factor of 0.005 and with T=0.080 doesn’t have a significant effect on customer satisfaction. Therefore, 4th research hypothesis is not confirmed.</td>
</tr>
<tr>
<td><strong>Research hypothesis 4</strong> - Results indicated that e-banking perceived privacy with an impact factor of 0.176 and with a value of T=2.188 (P-Value=0.05) has a positive and significant effect on customer satisfaction. Hence, 3rd research hypothesis is confirmed with 95% confidence. It means, that for each one unit of increase in the variable of e-banking perceived security, we observe 0.176 of a unit of increase in customer satisfaction. Therefore, banks are recommended to implement the necessary security measures for protecting their e-banking users’ information and also try to create an e-banking website which has the ability to verify users’ identity with regards to security objectives.</td>
</tr>
</tbody>
</table>
Research hypothesis 5 – results indicated that e-banking website quality with an impact factor of 0.33 and with $T=4.946$ (P-Value=0.001) has a positive and significant effect on customer trust. Therefore, 5th research hypothesis is confirmed with 99.95% confidence. It means that for each unit of increase in the variable of e-banking website quality, we observe 0.33 unit of increase in customer trust. Results of the present study indicated that e-banking website quality has a significant effect on customer trust; therefore, banks are recommended to create ease of use in finding information on their website and also try to meet their commitment made on their e-banking website.

Research hypothesis 6 – Results indicated that e-banking service quality with an impact factor of 0.14 and $T= 2.486$ (P-Value = 0.05) has a positive and significant effect on customer value. Therefore, 6th research hypothesis is confirmed with 95% confidence. It means that for each unit of increase in the variable of e-banking service quality, we observe 0.14 unit of increase in customer trust. Therefore, it is recommended that e-banking system service would also be ready to respond to customers' needs and also, banks should try that e-banking system would pay special attention to all customers. Therefore, e-banking website should place a great level of importance of security of transaction and this sense of security should be transferred to customers and also, banks are recommended to inform customers about the measures taken on information security.

Research hypothesis 7 – Results indicated that e-banking perceived security with an impact factor of 0.529 and $T= 7.072$ (P-Value = 0.001) has a positive and significant effect on customer trust. Therefore, 7th research hypothesis is confirmed with 99.9% confidence. It means that for each unit of increase in the variable of e-banking perceived security, we observe 0.529 unit of increase in customer trust. Therefore, banks are recommended to place a great importance on transactions' security in their e-banking website and transfer this sense of security to their customers as well. They are also recommended to inform customers about the measures taken on information security.

Research hypothesis 8 – Results indicated that e-banking perceived privacy with an impact factor of 0.051 and with $T=0.743$ doesn’t have a significant effect on customer trust. Therefore, 8th research hypothesis is not confirmed.

Research hypothesis 9 – Results indicated that e-banking perceived security with an impact factor of 0.303 and $T= 4.282$ (P-Value = 0.001) has a positive and significant effect on customer commitment. Therefore, 9th research hypothesis is confirmed with 99.9% confidence. It means that for each unit of increase in the variable of e-banking perceived security, we witness 0.303 unit of increase in customer commitment. Therefore, customers are recommended to have a sense of security toward e-banking e-payment system and try to commit themselves to use e-banking services.

Research hypothesis 10 – Results indicated that e-banking perceived privacy with an impact factor of 0.235 and with $T=4.472$ (P-Value = 0.001) has a positive and significant effect on customer commitment. Therefore, 10th research hypothesis is confirmed with 99.9% confidence. It means that for each unit of increase in the variable of e-banking perceived privacy, we observe 0.235 unit of increase in customer commitment. Therefore, it is recommended that in e-banking, information exchange would be based on level of information importance and also with commitment toward customers’ information and also, banks’ should try to avoid disclosing customers’ personal information with others.

Research hypothesis 11 – Results indicated that e-banking customer satisfaction with an impact factor of 0.092 and $T = 1.301$ doesn’t have a significant effect on customer trust. Therefore, 11th research hypothesis is not confirmed.

Research hypothesis 12 – Results indicated that e-banking customer trust with an impact factor of 0.264 and $T= 4.180$ (P-Value = 0.001) has a positive and significant effect on customer commitment. Therefore, 12th research hypothesis is confirmed with 99.9% confidence. It means that for each unit of increase in the variable of e-banking customer trust, we observe 0.264 unit of increase in customer commitment. Therefore, it is recommended that e-banking website would create a sense of trustworthiness in customers and also try to make use of state of art technology and knowledge in implementing banking transactions.

Research hypothesis 13 – Results indicated that e-banking customer satisfaction with an impact factor of 0.645 and $T=13.311$ (P-Value = 0.001) has a positive and significant effect on customer loyalty. Therefore, 13th research hypothesis is confirmed with 99.9% confidence. It means that for each unit
of increase in the variables of e-banking customer satisfaction, we observe 0.645 unit of increase in customer loyalty. Therefore, banks are recommended to provide special services to loyal customers and also try to always seek customers’ feedback with regards to the quality of services in order to improve service quality and customers’ satisfaction and address these feedbacks properly.

**Research hypothesis 14** – Results indicated that e-banking customer trust with an impact factor of 0.178 and T=3.004 (P-Value=0.01) has a positive and significant effect on customer loyalty. Therefore, 14th research hypothesis is confirmed with 99% confidence. It means that for each unit of increase in the variable of e-banking customer trust, we observe 0.178 unit of increase in customer loyalty. Therefore, bank branches are recommended to try to appropriately address customers’ monetary and banking needs and also try to improve the quality of their services comparing to that of competitor banks.

**Research hypothesis 15** – Results indicated that e-banking customer commitment with an impact factor of 0.029 and T=0.533 doesn’t have a significant effect on customer loyalty. Therefore, 15th research hypothesis is not confirmed.

**REFERENCES**


