Designing the Evaluation Model of Customer E-Loyalty in the Banking Industry and Prioritization of Electronic Factors Affecting E-Loyalty of Bank Mellat Customer

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Abstract

Regarding the outlook for the banking industry and possibility of providing more e-banking services and associated benefits (lower cost, faster and more accessible, increasing profitability), customer e-loyalty and e-customer retention becomes more important. Since despite the benefits of e-banking, some of its disadvantages are considered (higher risk for customers, loss of trust, potential of abusing commercial websites, stealing credit codes, etc.) have also entered the online banking. Therefore, understanding the importance and urgency of this issue with regard to e-bank customers in one of the six areas of Tehran with one of the e-bank accounts, we tried to explain and investigate the factors affecting customer e-loyalty in Iranian society through designing a model. According to studies, the most important factors influencing e-loyalty include satisfaction and trust and factors affecting e-satisfaction are the quality of website service, trust, corporate image, perceived value, individual factors, product characteristics and perceived credibility. A questionnaire was designed for this purpose and using exploratory factor analysis and structural equation modeling analysis, we tried to explore the relationship between the variables mentioned with electronic loyalty. According to the output data, all research hypotheses were confirmed except for the impact on satisfaction and perceived value. So as to promote customer e-loyalty, it is suggested that each of the indicators identified factors influencing the research emphasis should be considered by the banks.

Introduction

Statement of the problem: The issue of creating and maintaining loyalty, marketing, and creating sustainable competitive advantage has always been considered as a central issue. The key elements of the traditional marketing became possible using the marketing mix (price, distribution channels, etc.).

But with the advent and growth of electronic commerce, because of the multiple choice and more convenient access to customers, selecting the appropriate option at the lowest possible time and lack of direct interaction between customer and business organizations and consequently the possible tendency of customers to other organizations and easier loss of customer has become more important.

Today, understanding and predicting customer needs for marketing decisions is critical competitive advantage for businesses. Customer is the key factor in enhancing agility of organization and orientation of all objectives, strategies and resources to attract and keep customers in line with the organization.

Having loyal customers is invaluable for business entities including large financial institutions such as banks. Despite intense market competition and more choice for consumers seeking variety set the conditions facing firms to constantly challenge for identifying and understanding the factors that affect their consumer behavior so that they developed a more effective marketing program to optimally allocate resources. Given the importance of customer loyalty considering the customer retention as the economic value for the bank, include:

Maintaining the existing customers reduces the need to search for a new customer and allows the bank to have a closer focus on customer needs.
Long-term and loyal customers make more purchases and may have verbal propaganda which is positive for the bank.

Companies are in desperate need of keeping customers loyal to them; loss of customers is costly not only because of lower sales, but also due to increased need to attract new customers, so that it is said to acquire a new customer costs on six to nine times more than to retain existing customers.

The importance of the above mentioned issues becomes more and more knowing that electronic transactions from customers' perspective is also associated with many risks. The customers do not have direct contact with the company through the sales staff or physical stores and to conduct transactions through the website, they should communicate with the bank.

Sensitive information like the credit card number are entered into the company's business website [11] and also the lack of interpersonal interaction indicates that access to electronic customer loyalty, relying exclusively on the traditional elements of loyalty would not be efficient.

So the main question that arises here is that cyberspace assess of customer electronic loyalty in should be based on which model and prioritizing the factors affecting customer loyalty in banking industry is in what order.

In this study, we particularly dealt with designing the assessing model of factors affecting customer e-loyalty and prioritizing the factors affecting e-loyalty of the Mellat bank customers.

**Conceptual model and definition of its variables**

- **Website quality**
- **Service quality**
- **Mental image of the company**
- **Perceived value**
- **Personal factors**
- **Product features**
- **Perceived credit**

**Fig. 1:** conceptual model of research.

E-loyalty: positive attitude of a customer toward an e-business that results in repeated purchase behavior [2].

Customer Service: Shopping is an activity or interest that one party offers to the other and mergers are also looking for something. Manufacturing service may or may not be related to physical goods.

Trust: it is confident reliance on the character, ability, strength, truthfulness or reliability of a person or anything or characteristics of a person or an object and its truth.

Security: Includes keeping away from unauthorized access and allow authorized persons to access valuable asset.

Quality: the ability to respond to customer demands (Edwards, 1968) or the amount of product compliance with a plan or specification [7].
Mental Image: reflects the topics that exist in the mind of the customer for the organization. These issues can be objective or subjective and emotional.

Satisfaction: a feeling or attitude of customers towards the product or service that is created in a person after consumption [8].

Perceived Value: The value provided indeed is the evaluation of the customer from the usefulness of transactions, based on what has been achieved against what it describes. In purchasing, a positive relationship is introduced between the values and tends to repurchase.

Customers remain loyal that feel the present time provider will have more benefits than other competitors.

Perceived Reputation: Reputation defined as believability of the objectives and the attitudes of an independent entity in a special time [6].

**Research Hypothesis:**
In the proposed framework, the assumptions will be defined as follows:

**Main hypotheses:**
1. Satisfaction affects the loyalty of Mellat Bank customers.
2. Trust affects the loyalty of Mellat Bank customers.

**Secondary Hypotheses:**
1. Website quality affects the trust of Mellat Bank customers.
2. Website quality affects the satisfaction of Mellat Bank customers.
3. Service quality affects the trust of Mellat Bank customers.
4. Service quality affects the satisfaction of Mellat Bank customers.
5. Perceived value affects the trust of Mellat Bank customers.
6. Perceived value affects the satisfaction of Mellat Bank customers.
7. Mental image affects the trust of Mellat Bank customers.
8. Mental image affects the satisfaction of Mellat Bank customers.
9. Personal characteristics affect the trust of Mellat Bank customers.
10. Personal characteristics affect the satisfaction of Mellat Bank customers.
11. Service features affect the trust of Mellat Bank customers.
12. Service features affect the satisfaction of Mellat Bank customers.
13. Perceived credit affects the trust of Mellat Bank customers.
14. Perceived credit affects the satisfaction of Mellat Bank customers.

**Research Methods and Procedures:**
This study considering the functional purpose and the intended nature of the data collection is considered to be among the descriptive survey researches. So, this study is a descriptive survey and data collection device is a questionnaire and research population includes all the customers that have used one form of the electronic accounts of Mellat banks in Tehran.

As the number of e-bank customers in the city of Tehran is approximately 6000000 customers, a sample size of 385 students were selected by cluster sampling method.

To analyze the data, the descriptive statistics were used which investigate the characteristics of the population and analyzing the data collected.

The Cronbach alpha was calculated to measure the reliability of the questionnaire and exploratory factor analysis was used to test the construct validity of the measurement model used to analyze the internal structure of the questionnaire.

Finally, the structural equation model using LISREL software was applied to find relationships between variables and the final model.

**Theoretical Base:**
Loyalty is defined as “a positive attitude of a customer toward an e-business which results in repurchases behavior” [2].

Customer loyalty is an important positive effect on the company's long-term profitability. High costs of attracting new customers to the extent possible in electronic companies benefit from having such a relationship to a three-year battle [11].

As a result, having loyal customers, as well as profitability is crucial for companies active in the field or online companies [12]. Loyalty means, electronic, traditional sense of loyalty to a particular brand that will expand into online consumer behavior.

Although the theoretical foundations of traditional loyalty are newly defined to a particular brand loyalty phenomenon but it has unique aspects in the field of internet marketing and buyer behavior.
Loyalty in cyberspace is described as a change from the traditional concept of marketing and distribution of consumer who are technologically equipped.

In addition, electronic loyalty has also common points with the concept of "loyalty to the store" such as revisiting the store to buy the products of established brands in the store.

Electronic loyalty includes the cases related to support quality, customer delivery time, deliver and displaying some interesting products, transport, control easy and affordable policies clear and confident communication with private property.

The Internet resource that has been proposed to increase customer loyalty is quality electronics. Quality has been defined as the ability to meet customer demands or the amount of product compliance with a plan or specification [7] while service quality electronic components are often directly caused electronic loyalty.

But most part of these studies devotes to these dimensions as the source of creating electronic satisfaction and satisfaction has been defined as the medium of the relationship between the quality and loyalty.

In addition, the relationship between quality of electronic services and electronic satisfaction is recognized through following components:

1. The relationship between efficiency and electronic satisfaction
   Deminc one of the pioneers in of total quality management (TQM) considers quality same as customer satisfaction by increasing the service quality, customer satisfaction increases, too and so the efficiency of organization increases.

2. Reliability and electronic satisfaction of the users
   If the service and information quality is higher, the long lasting relationship between the customer and company is created and so the electronic satisfaction is formed.

3. Providing the order and electronic satisfaction of the users
   Electronic banking gives the customer the possibility to have various and wider services. At the same time, the space and time dimension does not affect the service increase or decrease.
   Moreover, the customer can control his financial activities without physical presence in each branch from his own place that is possible through electronic bank and providing the telecommunication possibility. The banks can provide various services for their customers. If the customer receives his orders on time he would feel satisfied.

4. Keeping the personal secrets and electronic satisfaction of the users
   The customers who are worried about system security and privacy would be more satisfied by reducing the worry. Being sure about the security of the site has an important role in forming the customer trust to the seller and so his tendency will be more. As a result the private secrets of the customers are kept and the customer feels more secure. His satisfaction of the services will be more.

5. Answering the needs and electronic satisfaction of the users
   If the service providers have enough information at the time of problems they will have their trust.

6. Compensating the services and electronic satisfaction of the users
   In electronic services time limits are removed in providing the services to the customers. But what is important is that if the customers have problems in receiving the services, the service providers would help them and attract their satisfaction.

7. Contact and electronic satisfaction
   Despite the development of electronic services in banks and comprehensive services of this type, all the customers need having communication and live contact with service providers and if the communication is in the best way it brings customer satisfaction. They could receive their desired services as the response to their problems. This feeling of trust causes satisfaction.

Factors outside the Online Environment:

Most of the internet companies have to communicate with the customers out of the network. Even a business institute which is completely electronic such as Amazon has to provide the service out of internet, so these factors affect the decision of customers to stay or leave the site. Based on this analysis, at least two factors of reputation and quality out of the internet site have significant effect on customers’ satisfaction.

In the second step, the users who found that this company (owner or internet intermediate) provides high quality services in their branches, it is more probable that they use the internet services. In this condition, it can be found that the users continue using the internet services. So, it seems logical to conclude that the opposite is true. When the users find that the site has weak services, it is more probable that they quit using the internet services.

The results show that business politics which are over the electronic business, it can cause the use. It means that the electronic business section should be well prepared and if changes happen in company’s policies, there are evidences based on the fact that internet customers still consider internet factors as more vital than external factors.
**Data Analysis:**

**Exploratory factor analysis, independent variables of the Research:**

Considering that KMO index is more than 0.7 and the sig level of the test is less than 5 percent, it can be said that the data has been sufficient for factor analysis. In addition, covariance anti-image factors for each item indicated that all the items are able to make the factor. The shared table shows that the index is proper in the factor analysis process since the shared number of them has been higher than 0.5.

**Table 1:** Kaiser-mere and Oaklyn Bartlett test.

<table>
<thead>
<tr>
<th>Kaiser-mere sample</th>
<th>Bartlett test</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMS 0.936</td>
<td>Chi-square 4508.773</td>
</tr>
<tr>
<td>df 276</td>
<td>sig 0.000</td>
</tr>
</tbody>
</table>

**Data Analysis of Confirming the Independent Variables (Brounza) of the Research:**

**Table 2:** Fitting Index of factor analysis of confirming factors affecting the electronic loyalty.

<table>
<thead>
<tr>
<th>k-2 and its significance</th>
<th>4.02</th>
<th>K-2 and degree of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>0.080</td>
<td></td>
</tr>
<tr>
<td>NFI</td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td>NNFI</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>GFI</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>AGFI</td>
<td>0.79</td>
<td></td>
</tr>
</tbody>
</table>

K-2 statistic is the most important index of model fitness. In the measured model this ratio equals 4.02 which indicate the relative fitness of the model. Other indexes of RMSEA and GFI are at proper level and other indices indicate the high fitness of the data with the model. It means that the cases agree with the theoretical constructs. Following the figure of factor analysis for the first time including the factor loads and errors is provided.

**Structural model of Dependent variables:**

**Table 3:** Fitting parameters of structural analysis based on trust and satisfaction and loyalty.

<table>
<thead>
<tr>
<th>k-2 and significance</th>
<th>3.62</th>
<th>k-2 and degree of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMSEA</td>
<td>0.080</td>
<td></td>
</tr>
<tr>
<td>NFI</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>NNFI</td>
<td>0.98</td>
<td></td>
</tr>
<tr>
<td>GFI</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>AGFI</td>
<td>0.86</td>
<td></td>
</tr>
</tbody>
</table>

K-2 statistic in two present models equals 3.62 which indicate the relative fitness of the model. Other indexes are at proper level and indicate the high fitness of the data with the model. It means that the cases agree with the theoretical constructs. It can be defined as the convergent validity.

**The Model Designed for the Effect of Recognized Factors on Electronic Loyalty of the Customers:**

After recognizing the effective factors on electronic loyalty, three hypotheses were suggested including: A) the recognized factors have a positive and significant effect on Mellat bank customers trust. B) The recognized factors have a positive and significant effect on Mellat bank customers’ satisfaction. C) The recognized factors have a positive and significant effect on customers’ loyalty. So, 15 hypotheses can be listed in the table below considering the conceptual model.

According to the results presented in the table, it can be deduced that all 15 hypotheses except the relationship between perceived value and satisfaction were significant and at the 95 percent confidence level.

It should be explained in the table that the total amount of indirect effects for each of the model variables is reported with a significance test.

Impact on loyalty, trust and satisfaction measurements are reported to be same(Standardized coefficient 0.48) has been reported as a significant impact on satisfaction and trust and standard rate of 0.44. In addition to the reported rate coefficient, it can be inferred that 75% of the variance in this study could be explained by reliance on exogenous variables.
Table 4: Model Inputs.

<table>
<thead>
<tr>
<th>Hypotheses results</th>
<th>Total effect</th>
<th>Indirect effect</th>
<th>t</th>
<th>Path coefficient</th>
<th>The relationship between the factors (Research Hypotheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed</td>
<td>0.29</td>
<td>--</td>
<td>6/64</td>
<td>0.29</td>
<td>Website quality on Mellat Bank Customers’ trust</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.14</td>
<td>--</td>
<td>7/77</td>
<td>0.14</td>
<td>Website quality on Mellat Bank Customers’ satisfaction</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.13</td>
<td>0/13</td>
<td>--</td>
<td>--</td>
<td>Website quality on Mellat Bank Customers’ loyalty</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.24</td>
<td>--</td>
<td>5/53</td>
<td>0.24</td>
<td>Perceived service quality on Mellat Bank Customers’ trust</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.03*</td>
<td>10/04</td>
<td>--</td>
<td>--</td>
<td>Perceived service quality on Mellat Bank Customers’ satisfaction</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.46</td>
<td>0/46</td>
<td>--</td>
<td>--</td>
<td>Perceived service quality on Mellat Bank Customers’ loyalty</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.19</td>
<td>--</td>
<td>5/58</td>
<td>0.19</td>
<td>Product features on Mellat Bank Customers’ trust</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.16</td>
<td>--</td>
<td>17/3</td>
<td>0.16</td>
<td>Product features on Mellat Bank Customers’ satisfaction</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.21</td>
<td>0/21</td>
<td>--</td>
<td>--</td>
<td>Product features on Mellat Bank Customers’ loyalty</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.13</td>
<td>--</td>
<td>8/81</td>
<td>0.13</td>
<td>Personal features on Mellat Bank Customers’ trust</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.14</td>
<td>--</td>
<td>5/65</td>
<td>0.14</td>
<td>Personal features on Mellat Bank Customers’ satisfaction</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.02</td>
<td>0/02</td>
<td>--</td>
<td>--</td>
<td>Personal features on Mellat Bank Customers’ loyalty</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.16</td>
<td>--</td>
<td>61/4</td>
<td>0.16</td>
<td>Perceived value on Mellat Bank Customers’ trust</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.07</td>
<td>--</td>
<td>0/50</td>
<td>0.07</td>
<td>Perceived value on Mellat Bank Customers’ satisfaction</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.06</td>
<td>0/06</td>
<td>--</td>
<td>--</td>
<td>Perceived value on Mellat Bank Customers’ loyalty</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.44*</td>
<td>0/44</td>
<td>--</td>
<td>--</td>
<td>Trust on Mellat Bank Customers’ satisfaction</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.48*</td>
<td>11/94</td>
<td>0/48</td>
<td>0.48</td>
<td>Trust on Mellat Bank Customers’ loyalty</td>
</tr>
<tr>
<td>Confirmed</td>
<td>0.69*</td>
<td>0/21</td>
<td>11/81</td>
<td>0.48</td>
<td>Satisfaction on Mellat Bank Customers’ loyalty</td>
</tr>
</tbody>
</table>

Satisfactory explanation for the amount equals to 65 percent and finally the amount equal to 63 percent of the dependent variable explained by the model that is reported as a considerable amount of explanation. In other words, 65 percent of e-loyalty changes can be explained based on the variables considered in this study.

The main factors in terms of importance and influence of trust and satisfaction are classified as follows:

Table 5: prioritizing the factors affecting electronic loyalty.

<table>
<thead>
<tr>
<th>Rate</th>
<th>prioritizing the factors affecting electronic loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>trust</td>
</tr>
<tr>
<td>2</td>
<td>satisfaction</td>
</tr>
<tr>
<td>3</td>
<td>Website quality</td>
</tr>
<tr>
<td>4</td>
<td>Perceived service quality</td>
</tr>
<tr>
<td>5</td>
<td>Product features</td>
</tr>
<tr>
<td>6</td>
<td>Perceived value</td>
</tr>
<tr>
<td>7</td>
<td>Personal features</td>
</tr>
</tbody>
</table>

Conclusions:
Identify factors that affect e-loyalty of the customers at the initial factor extraction, 7 factors were extracted (using the conceptual model) in five general categories: 1 - Web Quality 2 - Perceived service quality 3 - Product features 4 - personal characteristics, 5 - perceived value on customer which may affect the bank’s electronic banking.

So that in total 61% of the extracted factors defines influencing factors on e-loyalty promotion. It also explains the electronic loyalty based on satisfaction and trust structures to account for almost 92%, suggesting the endogenous variable (e-loyalty) based on exogenous variables of satisfaction and trust.

According to the findings above, factors affecting e-customer loyalty are approved as follows:
Independent variables: the quality of the website, perceived service quality, product characteristics, demographic characteristics, perceived value and secondary variables: trust, satisfaction.

The results show that prioritization factors affecting electronic loyalty indicated that among the groups and mentioned factors, factors of trust and satisfaction in terms of having equal path coefficient.
As can be seen, trust has two side effects on satisfaction and electronic loyalty and has the higher priority.

REFERENCE

[4] assessment of someof the key antecedents of customer satisfaction in retail