The Relationship between Customer Satisfactions in Designing on the Formation of Registered Companies in Stock Exchange

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Abstract
Success in the competitive world belongs to companies that identify customer is the major capital of each institution. Todays, organizational portals have very important role in the customer satisfaction including service companies. Broker portals have key roles and meet all wishes of customer from broker. Portal of each broker is a profile of each broker and because confidence of customer to broker should be maximum to obtain the trust of customers, this shows the importance of portal. This research has used descriptive model, PLS model and t-student to determine the most important factor. Regarding the results of model coefficient, we can say that suitability has the highest importance and after it innovation, ease of use, type of access, portal ease, customization, completeness and content and dynamic have the least importance.

Key words: customer, customer satisfaction, brokerage

Introduction
In recent years, there is great attention to needs of customers in relation to service quality levels. High quality levels to customers is a tool for achieving competitive advantages. Parallel with increase in the awareness of customers from services presented by the financial institutions, their sensitivity toward quality of services has been increased. In order to preserve long-term relationship with customers, banks should know how they can offer services with high quality (Tavanazadeh & Aligholi, 2014). For decades, value of the company is measured by property, tangible assets, plants and equipment. However, it was concluded that real value of a company is in the place outside it i.e. in the mind of buyers (Heidarzadeh et.al, 2011). In the last decade of 21st century and in the beginning of third millennium, along with development of information technology, a new attitude of economy emerged as “digital economy” which transformed all aspects of life and social interactions such that all societies have to enter it. Modern era is the era of rapid and unpredictable revolutions and companies are face with the most difficult competitive conditions due to factors like uncertain boundaries among markets, segmentation of markets, shortening of life-cycle, changing purchase models of customers and awareness of customers (Rahnama et.al, 2012). Internet has created new conditions in which producers, suppliers, sellers and customers and all practitioners in an economic cycle could communicate in a common virtual space and exchange information, services, products and money. Todays, organizations increasingly use portals as a start point for their service oriented architecture and spend considerable amounts for horizontal portals. Portal is a web application which provides accessibility to data and services. Portal, through single entering and access management and individualization based on the role provides the unique user interface for integrated access by users to distributed resources. Portals can play significant role through linking end user with resources and hiding complexity of middleware in real-world applications.
Necessity of research
For efficacy and maintaining the success of organizations, managers should have certain characteristics, abilities, potentials and long experience and knowledge and social-relational skills and in order to create effective management, we should begin with goals and in implementation of programs, managers should rely on their resources, especially human resources (Rahnama et.al, 2011). Although using organizational portals leads to reduction in cost, organizing and constructing of information and less access time, but its competitive advantage is in filtering, purposing and classifying users only receive what they need (Kiran, 2005). In users' strategy, customer fidelity has strategic importance for every organization. Increase in the customer loyalty has transformed to a hot topic among managers and academic scholars (Haghighi et.al, 2014). In every production and service organizations, the most important factor for maintaining and survival of organizations such that if organization cannot succeed in satisfying and loyalty of customers, they did not provide their long term survival (Vazifedoust et.al, 2014). Customer satisfaction has numerous benefits for organizations and higher level of customer satisfaction leads to their loyalty. Keeping good customers in long term is more profitable. Satisfied customers are best advertiser for organizations (Janeays et.al, 2010). Higher customer satisfaction is an insurance against probable errors. Permanent customers waive the errors of an organization. Therefore, it is not surprising that attraction of customers is the most important duty of organizations. Because it has direct relation with maintaining the customer, market share and organization interests. Without doubt, identifying higher factors in customer satisfaction is a factor of success.

Purpose of the research
1. To study and determine effective factors and satisfaction of customers in designing brokerage portals;
2. Prioritizing and ranking effective factors on satisfaction of customers in designing brokerage portals;

Hypotheses
- There is significant relationship between portal innovation and satisfaction of customers in designing the portal.
- There is significant relationship between portal dynamic and customer satisfaction.
- There is significant relationship between access to portal and customer satisfaction in designing portal.
- There is significant relationship between portal adaptation and customer satisfaction in designing portal.
- There is significant relationship between comfort of portal and customer satisfaction.
- There is significant relationship between suitability of portal and customer satisfaction in designing portal.
- There is significant relationship between customization or conformity of portal and satisfaction of customer in designing portal.
- There is significant relationship between portal flexibility and satisfaction of customers.
- There is significant relationship between portal completeness and satisfaction of portal design.

Review of literature
Portal: single point of access (SPOA) for organizing, interaction, distribution and merging organizational knowledge. Because organizational portals leads to lower cost, organizing and constructing information and low access time but their competitive advantage is in filtering, purposing and classifying information, such that users receive what they need (Kiran, 2005). Essential parts of a portal are:
- Portal services
- Fundamental portal part
- Integration tools
Horizontal portals: in order to resolve the limitations of general customer portals, special sites are moving toward horizontal portals that includes a model of customizations. my exite, my yahoo are examples of these portals which are built on the opinions and ideas of each person. Horizontal portals display a customized home page for every user based on their tastes. Lingenfeld considers the customer satisfaction from emotional-psychological aspect which obtains by the comparison between characteristics of product with needs and requests of customers and social expectation in relation to product. Rapp, based on the above definition, defines customer satisfaction as an individual view for customer which is caused by permanent comparison between real performance of organization and customer performance (Ranganthan & Ganapathy, 2002). Electronic satisfaction: is the amount of customer satisfaction for receiving and sending products, after-sale services, cost of product or services, quality of web site contents, web site speed, confidence to website, ease of using website, security (Lee, 2001). Individuals can decide based on their feelings and without attention to
recognition and awareness about product and buy the product or good (Abdolvand et al., 2011).

Brokers: brokers are legal entities which transact securities and products or other services in the capital market as agents of customers. Broker activity needs obtaining establishment license and activity from stock and securities organization and membership in stock exchange association.

**Most important activities of brokerage**

**Transactions in stock exchange:** includes stock transactions, equity and other bonds listed in stock exchange;

Future stock transactions in stock exchange: includes all future transactions listed in stock exchange;

Consulting to accept in stock exchange: includes presenting consultation to firm requested to accept in stock exchange about accept process and presenting documents related to applicant agent to board;

Product transactions in Iran’s stock exchange: presenting services of products accepted in Iran’s stock exchange to customers;

Future transactions in Iran’s stock exchange: future transactions of stock exchange on products in Iran stock exchange.

Acceptance consulting in Iran’s stock exchange: presenting consultation to applicant about accepting process and supply product in stock exchange;

Transactions in over the counter: includes presenting stock services, equity and debt bonds.

Online transactions: presenting services for buying and selling share, equity of stock and debts accepted in stock exchange and over the counter in online and direct form by customers through internet.

Portfolio: buying stock exchange (securities listed in stock exchange and over the counter) for customers in order to benefit;

Investment consulting: presenting consultation to customers about purchasing in stock exchange and over the counter;

Processing financial information: presenting information related to security, transaction, purchase order and issuing securities to customers.

Underwriter obligation: doing purchase commitment during underwriting.

**Research Methodology**

Based on the purpose, this research is applied. Applied researches are researches that are used for meeting human needs using background and knowledge (Dovas, 2004). This is a descriptive survey in terms of method. On the other hand, regarding studying the issues related to this research, this is a case study. Finally, this is a field study in terms of data gathering (via questionnaire).

Statistical sample, sample size and sampling method

Statistical population of this research includes all e-commerce customers and users in stock exchange. Regarding large number of individuals and open statistical society, some of e-commerce customers and users in brokerage using cluster sampling.

Regarding open society, following formula was used in order to estimating number of sample (Momeni, 2007).

\[
 n = \frac{(z^2_{\alpha/2}) \cdot \sigma^2}{\varepsilon^2}
\]

Z\(\alpha/2\): normal change corresponding with (1-\(a\)) confidence level that in this research in 95% confidence level is 1.96.

\(\sigma^2\): variance of sample using initial sample (n=30) is with 0.07.

\(\varepsilon\): permitted error which is 0.05 in most researches.

Therefore, sample size in this research is:

\[
 n = \frac{(1.96)^2(0.07)}{(0.05)^2} \approx 107
\]

**Information analysis**

In this research, descriptive analysis procedures like mean, standard deviation, skewedness along with related graphs and inferential analysis with normality test were used.
Table 1: descriptive statistics of organizational portal components

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
<th>Skewedness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>innovation</td>
<td>107</td>
<td>2.50</td>
<td>5.00</td>
<td>3.8162</td>
<td>.60351</td>
<td>3.149</td>
<td>.718</td>
</tr>
<tr>
<td>Dynamic</td>
<td>107</td>
<td>2.33</td>
<td>5.00</td>
<td>4.0109</td>
<td>.64965</td>
<td>2.302</td>
<td>.838</td>
</tr>
<tr>
<td>Access</td>
<td>107</td>
<td>2.00</td>
<td>5.00</td>
<td>3.9657</td>
<td>.67126</td>
<td>2.464</td>
<td>.391</td>
</tr>
<tr>
<td>Comfort</td>
<td>107</td>
<td>2.00</td>
<td>5.00</td>
<td>3.8061</td>
<td>.60199</td>
<td>2.302</td>
<td>.259</td>
</tr>
<tr>
<td>adaptability</td>
<td>107</td>
<td>2.00</td>
<td>5.00</td>
<td>3.9657</td>
<td>.67126</td>
<td>2.464</td>
<td>.391</td>
</tr>
<tr>
<td>Ease of use</td>
<td>107</td>
<td>2.50</td>
<td>5.00</td>
<td>3.9673</td>
<td>.62390</td>
<td>3.175</td>
<td>.773</td>
</tr>
<tr>
<td>suitabilty</td>
<td>107</td>
<td>2.71</td>
<td>5.00</td>
<td>3.8985</td>
<td>.60989</td>
<td>3.028</td>
<td>.127</td>
</tr>
<tr>
<td>customization</td>
<td>107</td>
<td>2.00</td>
<td>5.00</td>
<td>3.7944</td>
<td>.66837</td>
<td>2.354</td>
<td>.512</td>
</tr>
<tr>
<td>Flexibility</td>
<td>107</td>
<td>2.20</td>
<td>5.00</td>
<td>3.8224</td>
<td>.68313</td>
<td>3.121</td>
<td>.594</td>
</tr>
<tr>
<td>Completeness</td>
<td>107</td>
<td>2.50</td>
<td>5.00</td>
<td>3.8925</td>
<td>.65796</td>
<td>3.147</td>
<td>.783</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>107</td>
<td>1.86</td>
<td>4.57</td>
<td>3.2190</td>
<td>.69192</td>
<td>3.098</td>
<td>.874</td>
</tr>
</tbody>
</table>

Normality of data

In order to use tests and parametric methods, research data should be normal; otherwise, we are forced to use non-parametric methods for testing hypothesis. Since the accuracy of parametric data is higher than non-parametric methods, it is common to use these models in these researches. In this part, Kolmogrov-Smirnov test was used in order to measure normality of data. If significance level of Smirnov test becomes higher than 0.05 in 0.05 percent level, this variable is normal and if it becomes less than 0.05, the variable is not normal (Momeni, 2008). SPSS software output is as follows:

Table 2: normality test using Kolmogorov-Smirnov test

<table>
<thead>
<tr>
<th>N</th>
<th>Dynamic</th>
<th>Access</th>
<th>Adaptability</th>
<th>Comfort</th>
<th>Ease of use</th>
<th>Suitability</th>
<th>Customization</th>
<th>Flexibility</th>
<th>Content</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>107</td>
<td>1.15</td>
<td>1.7</td>
<td>1.13</td>
<td>1.25</td>
<td>1.05</td>
<td>1.08</td>
<td>1.20</td>
<td>.939</td>
<td>.115</td>
<td>.990</td>
</tr>
<tr>
<td>.448</td>
<td>.068</td>
<td>.066</td>
<td>.155</td>
<td>.086</td>
<td>.218</td>
<td>.191</td>
<td>.108</td>
<td>.341</td>
<td>.138</td>
<td>.281</td>
</tr>
</tbody>
</table>

Because sig in higher than 0.05, in 95% confidence level, normality of data assumption is not rejected and it can be used to test hypotheses with parametric tests.

Figure 3: histogram of residue normal curve

Studying the accuracy of structural model

Based on Chin theory (1998), Rsq (R²) with values larger than 0.67 to 0.33 is average and lower than 0.19 is weak. In a certain model, which is a combination of intrinsic hidden variables with one or two extrinsic variable (dependent variable), in this case moderate R² is acceptable (Chin, 1998, p101). In above model, Rsq was higher than 0.60, therefore R² is acceptable. In order to study all factors and questions of questionnaires, and if there is an outlier among questions, by eliminating them, it is expected to improve all factors and Rsq statistics.

Table 3: value R² of model estimation

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>R square</th>
</tr>
</thead>
<tbody>
<tr>
<td>satisfice</td>
<td>0.643600</td>
</tr>
</tbody>
</table>
Testing hypotheses and interpretation of model variables using factor analysis with PLS method

Results of variable coefficients and t-Student statistics from structural model are presented in above table. If t-Student statistics becomes higher than 1.64, this means that significance level is lower than 0.05 and non-significance assumption of independent variables is rejected. Based on results extracted by PLS method, t-Student statistic is higher than 1.64 and significant for all variables.

Table 4: results of variables and t-Student statistics from structural model

<table>
<thead>
<tr>
<th>Structural Model—JackKnife</th>
<th>Entire Sample estimate</th>
<th>Mean of Subsamples</th>
<th>Jackknife estimate</th>
<th>Standard error</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>flexible-&gt;satisfice</td>
<td>0.1530</td>
<td>0.1553</td>
<td>0.0473</td>
<td>0.1929</td>
<td>0.2452</td>
</tr>
<tr>
<td>complete-&gt;satisfice</td>
<td>0.2370</td>
<td>0.0371</td>
<td>3.4449</td>
<td>0.2072</td>
<td>16.6299</td>
</tr>
<tr>
<td>Innovation-&gt;satisfice</td>
<td>0.4640</td>
<td>0.587</td>
<td>0.7077</td>
<td>0.2155</td>
<td>3.2841</td>
</tr>
<tr>
<td>Dynamics-&gt;satisfice</td>
<td>0.2190</td>
<td>0.2166</td>
<td>0.3286</td>
<td>0.2072</td>
<td>1.9861</td>
</tr>
<tr>
<td>Access-&gt;satisfice</td>
<td>0.3920</td>
<td>0.0882</td>
<td>0.2682</td>
<td>0.1996</td>
<td>2.9436</td>
</tr>
<tr>
<td>compact-&gt;satisfice</td>
<td>0.2010</td>
<td>0.2601</td>
<td>0.3011</td>
<td>0.2587</td>
<td>1.1638</td>
</tr>
<tr>
<td>easy-&gt;satisfice</td>
<td>0.3190</td>
<td>0.3173</td>
<td>0.3983</td>
<td>0.2039</td>
<td>1.9633</td>
</tr>
<tr>
<td>use-&gt;satisfice</td>
<td>0.4310</td>
<td>0.1311</td>
<td>0.1241</td>
<td>0.2173</td>
<td>2.5713</td>
</tr>
<tr>
<td>useful-&gt;satisfice</td>
<td>0.4990</td>
<td>0.1020</td>
<td>9.3450</td>
<td>0.2643</td>
<td>35.3637</td>
</tr>
<tr>
<td>custom-&gt;satisfice</td>
<td>0.2690</td>
<td>0.2638</td>
<td>0.5068</td>
<td>0.1339</td>
<td>3.7857</td>
</tr>
</tbody>
</table>

Regarding above table and significance of research hypotheses, because t-Student statistic is higher than 1.64, significance test of each hypothesis is confirmed at 5% significance level, except two factors flexibility and portal adaptability that are not significant in 5% level. Regarding model coefficient, suitability has higher importance with 0.499, and after it are innovation with 0.464, ease of use with 0.431, access type with 0.392, portal comfort with 0.319, customization (0.269), completeness and content (0.237) and dynamic with 0.219 have the least importance.

Table 5: correlation coefficient

<table>
<thead>
<tr>
<th>Correlation of Latent Variables</th>
<th>Innovation</th>
<th>Dynamics</th>
<th>Access</th>
<th>compact</th>
<th>complete</th>
<th>easy</th>
<th>flexible</th>
<th>custom</th>
<th>useful</th>
<th>use</th>
</tr>
</thead>
<tbody>
<tr>
<td>satisfy</td>
<td>0.350</td>
<td>0.584</td>
<td>0.444</td>
<td>0.674</td>
<td>0.409</td>
<td>0.687</td>
<td>0.402</td>
<td>0.366</td>
<td>0.239</td>
<td>0.549</td>
</tr>
</tbody>
</table>

In this part, PLS model analysis has most applied results for managers and employees of organization and can measure relation and correlation of all variables. Correlation coefficient of portal comfort has highest correlation with 0.687. After it, adaptability has highest adaptation with 0.674. Correlation coefficients are: portal dynamicity (0.854), ease of sung portal (0.549), access type (0.444), content and completeness (0.409), portal flexibility (0.402), customization (0.366), innovation (0.350), suitability (0.239).

Summary of results and hypotheses testing

According to fitted model, hypotheses are inferred and concluded as below:
1. There is significant relationship between portal innovation and customer satisfaction in designing organizational portals. Estimation of coefficients shows that by one unit increase in innovation, customer satisfaction increases as 0.350.
2. There is significant relationship between portal dynamicity and customer satisfaction in designing organizational relationship. SME coefficients by one unit increase in dynamicity, customer satisfaction increases as 0.854.
3. There is significant relationship between access type and customer satisfaction in designing organizational portals. Estimation of SME shows that by one unit increase in access type, satisfaction of customer increases as 0.444.
4. There is no significant relationship between portal adaptability and customer satisfaction in designing organizational portals.
5. There is significant relationship between portal comfort and customer satisfaction in designing organizational portals. Estimation of SME shows that by one unit increase in portal comfort, satisfaction of customer increases as 0.687.
6. There is significant relationship between ease of using portal and customer satisfaction in designing organizational portals. Estimation of SME coefficient shows that by one unit increase, customer satisfaction increases by 0.549.
7. There is significant relationship between portal suitability and customer satisfaction in designing organizational portals. Estimation of SME shows that by one unit increase in suitability, customer satisfaction increases as 0.39.

8. There is significant relationship between portal customization and customer satisfaction in designing organizational portals. Estimation of SME shows that by one unit increase in customization, customer satisfaction increases as 0.36.

9. There is no significant relationship between portal flexibility and customer satisfaction in designing organizational portals.

10. There is significant relationship between portal completeness and content and customer satisfaction in designing organizational portals. Estimation of SME shows that by one unit increase in content, customer satisfaction increases as 0.49.

Regarding results of model fitness and because t-Student is higher than 1.64, significance test of all hypotheses is confirmed in 5% significance level except two portal flexibility and adaptability that are not significant in 5% level. Regarding results of model estimation, we can say that suitability (0.499) has the highest importance and after it are innovation (0.464), ease of use (0.431), access type (0.392), portal ease (0.319), customization (0.269), completeness and content (0.237) and dynamicity (0.219).

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