The Investigation of The Relation Between Operation Quality, Technology Quality and Word of Mouth

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ABSTRACT

The current study was carried out with the aim of investigating the relation between operation quality, technology quality with word of mouth (WOM) of Shiraz private banks. The data of this study were collected by survey method by researcher-built questionnaire of a sample with the volume of 250 people of the customers of private banks branches of Shiraz city by simple random sampling by Krejcie and Morgan's Table. The relation of independent variables (trust benefits, social benefits, specific behavior benefits, operational quality and technology quality) on dependent variable (WOM) were investigated and were tested by Pearson correlation index and multi-variant regression. The results of the study showed that all independent variables had positive and significant relation with WOM. The multi-variant regression results showed that in multiple regression equation, the highest influence among operational quality variables, technology quality on WOM were operational quality variable and independent variables could predict 0.55 of WOM variance.

Key words: Operation Quality, Technology Quality, Trust Benefits, Social Benefits, Specific Behavior Benefits, WOM.

Introduction

Most of the business units considered the only way of advertisement using costly methods as commercial advertisement. While advertisements even as effective increase sale as temporarily with the problems of not being prepared for rapid growth and sudden drop. Indeed, in an environment in which the trust of consumer is reduced to the organization and advertisements and TV advertisements, the lack of financial affordability of most of business units to take advertisement costs, WOM presents a way by which we can achieve competitive benefit and it can be a solution to provide the requirement of the customers and the owners of jobs. As it was said, the researches in our country about WOM are rare. The applied variables in this study were not evaluated since now. There was no literature with the title of the current study in Iran. By the study of a paper with this title and theoretical bases, the conceptual model of the study was inspired of Sandy Ng and Meredith E. David and Tracey S. Dagger [8] paper.

2. Methodology:

Research Literature:

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of customers satisfaction with the increase of advertisements, due to its word of mouth, the factors increasing the customers satisfaction and the advertisements should be investigated.

In this study, it is attempted to define the relation of the factors including operational quality and technology quality and each of them are as the result of some factors as trust, commitment, special benefits and social benefits with WOM.

Theoretical basics:

Shabbir et al., [13] carried out a study titled the investigation of the relation between services quality, WOM and trusting the patients satisfaction. The results of this study showed that services quality, WOM and trust had positive effect on the patients’ satisfaction. This case was true in private hospitals more than general hospitals. Thus, the managers of the hospital should create job satisfaction for the staffs for customers’ loyalty and satisfaction.

Litvin et al., [10] carried out a study titled the effect of electronical WOM on tourism management and hospitality. The results of this study showed that tourism marketing managers and hospitality should know their guests are increasing continually and the customers in electronic world are affected by the sites working in trip.

Research Problem:

General objective:

The investigation of the relation between operational quality and technology quality with WOM.

Partial objectives:

1- The investigation of the relation between trust benefits and operational quality
2- The investigation of the relation between special behavior benefits and operational quality
3- The investigation of the relation between social benefits and operational quality
4- The investigation of the relation between trust benefits and technology quality
5- The investigation of the relation between specific behavior benefits and technology quality
6- The investigation of the relation between social benefits and technology quality
7- The investigation of the relation between operational quality and WOM
8- The investigation of the relation between technology quality and WOM

Research hypotheses:

1- There is a positive and direct association between trust benefits and operational quality.
2- There is a positive and direct association between special behavior benefits and operation quality.
3- There is a positive and direct association between social benefits and operational quality.
4- There is a positive and direct association between trust benefits and technology quality.
5- There is a positive and direct association between specific behavior and technology quality.
6- There is a positive and direct association between social benefits and technology quality.
7- There is a positive and direct association between operation quality and WOM.
8- There is a positive and direct association between technology quality and WOM.

Concepts definition:

Operational quality:

Operational quality is including the proposal of services and services delivery and it increases customer perception and include customers attraction and effectiveness of services quality. In other words, operational quality refers to the services sending process and mutual effect between the customer and service provider [1].

Technology quality:

Technology quality can express the customers and the results in their speech with others in relation with high quality experiences. In other words, technology quality is related to a real result of confronting with a service provider [1].

WOM:

It is informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers’ [9].

Special behavior benefits:

The special behavior benefits show themselves as naturally as reduction of prices and services rapidly than expected limit [11]. These get good results in better understanding.

Social benefits:

It shows personal mutual effect and friendly relation between the customers and staffs and increase of satisfaction level [5]. Social benefits are related to the communication of the customers with the service providers and give good and satisfactory feeling to the customer [7].
Trust benefits:

When a key variable affects communication responses of the customers, the customer trust is attracted by trust benefits. Trust benefits are considered by increasing confidence, anxiety reduction and reduction of received services risk as the most important benefits of communication.

Conceptual model of the study:

As it was said, the researches in our country about WOM are rare. The applied variables in this study were not evaluated since now. There was no literature with the title of the current study in Iran. By the study of a paper with this title and theoretical bases, the conceptual model of the study was inspired of Sandy Ng and Meredith E. David and Tracey S. Dagger [8] paper.

Research Methodology:

The current study is of survey and technique applied, sampling technique and using questionnaire. The required statistical population in this study were all the customers of various branches of private banks of Shiraz and the studied sample based on the initial researches was the number of total customers of the branches of the banks with bank account of higher than 100 million Rls in the past 6 months, they were 750 people based on Krejcie and Morgan’s Table, it was 254 people. Of each bank, 50 customers (250 in total) were selected as sample size.

Data collection instrument:

The data collection instrument in this study was researcher-built questionnaire consisting of two sections. The first section is related to the profile of the respondents and the second section is including 39 questions of variables evaluation. In this study, face validity was used. Face validity is one of content validity kinds. Face validity is the agreement of the specialists in relation with an index or criterion. Face validity is due to the agreement of some specialists.

Reliability:

In this study, Cronbach’s alpha for dependent variable (WOM) was 0.91, for independent variables (operational quality) 0.84, (technology quality)0.87,(communication quality)0.86, (trust benefits) 0.77, (specific behaviors benefits) 0.92, (social benefits)0.9 and total questionnaire 0.97.

Data analysis:

In this study, besides descriptive statistics, Pearson correlation coefficient was applied and SPSS software was used for data processing.

3. Results:

First hypothesis test:

There is a direct and positive relation between trust benefits and operational quality.

Based on the results of Table 1, there was a positive and significant relation between trust benefits and operational quality of private banks of Shiraz city. Correlation coefficient between two variables was 0.65 and it showed significant relation between two variables. Based on the significance level of this hypothesis is supported at significance level 0.05.

| Table 1: Pearson correlation coefficient between trust benefits and operational quality. |
|-----------------------------------------------|------------------|------------------|
| Statistical index Variables                  | Pearson correlation coefficient (r) | Significance level (p) |
| Trust benefits                               | Operational quality | 0.649            | 0.000            |

Second hypothesis test:

There was a direct and positive association between special behavior and operational quality.

Based on the results of Table (2), there is a positive and significant relation between special behavior benefits and operational quality y of private banks of Shiraz city. Correlation coefficient between two variables was 0.76 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

| Table 2: Pearson correlation coefficient between special behavior benefits and operational quality. |
|-----------------------------------------------|------------------|------------------|
| Statistical index Variables                  | Pearson correlation coefficient (r) | Significance level (p) |
| Special behavior benefits                     | Operational quality | 0.762            | 0.000            |

Third hypothesis test:

There was a direct and positive association between social benefits and operational quality.

Based on the results of Table (3), there is a positive and significant relation between social benefits and operational quality of private banks of Shiraz city. Correlation coefficient between two variables was 0.77 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

| Table 3: Pearson correlation coefficient between social benefits and operational quality. |
|-----------------------------------------------|------------------|------------------|
| Statistical index Variables                  | Pearson correlation coefficient (r) | Significance level (p) |
| Social benefits                              | Operational quality | 0.77             | 0.000            |
Fourth hypothesis test:

There was a direct and positive association between social benefits and technology quality. Based on the results of Table (4), there is a positive and significant relation between trust benefits and technology quality of private banks of Shiraz city. Correlation coefficient between two variables was 0.6 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

Table 4: Pearson correlation coefficient between trust benefits and technology quality.

<table>
<thead>
<tr>
<th>Statistical index</th>
<th>Variables</th>
<th>Pearson correlation coefficient (r)</th>
<th>Significance level (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust benefits</td>
<td>Technology quality</td>
<td>0.6</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Fifth hypothesis test:

There was a direct and positive association between special behavior and technology quality. Based on the results of Table (5), there is a positive and significant relation between special behavior benefits and technology quality of private banks of Shiraz city. Correlation coefficient between two variables was 0.48 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

Table 5: Pearson correlation coefficient between special behavior and technology quality.

<table>
<thead>
<tr>
<th>Statistical index</th>
<th>Variables</th>
<th>Pearson correlation coefficient (r)</th>
<th>Significance level (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special behavior</td>
<td>Technology quality</td>
<td>0.48</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Sixth hypothesis test:

There was a direct and positive association between social benefits and technology quality. Based on the results of Table (6), there is a positive and significant relation between social benefits and technology quality of private banks of Shiraz city. Correlation coefficient between two variables was 0.56 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

Table 6: Pearson correlation coefficient between social benefits and technology quality.

<table>
<thead>
<tr>
<th>Statistical index</th>
<th>Variables</th>
<th>Pearson correlation coefficient (r)</th>
<th>Significance level (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social benefits</td>
<td>Technology quality</td>
<td>0.56</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Seventh hypothesis test:

There was a direct and positive association between operational quality and WOM. Based on the results of Table (7), there is a positive and significant relation between operational quality and WOM of private banks of Shiraz city. Correlation coefficient between two variables was 0.68 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

Table 7: Pearson correlation coefficient between operational quality and WOM.

<table>
<thead>
<tr>
<th>Statistical index</th>
<th>Variables</th>
<th>Pearson correlation coefficient (r)</th>
<th>Significance level (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational quality</td>
<td>WOM</td>
<td>0.68</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Eighth hypothesis test:

There was a direct and positive association between technology quality and WOM. Based on the results of Table (8), there is a positive and significant relation between technology quality and WOM of private banks of Shiraz city. Correlation coefficient between two variables was 0.66 showing the significant relation between two variables. Based on the significance level of this hypothesis is supported at level 0.05.

Table 8: Pearson correlation coefficient between technology quality and WOM.

<table>
<thead>
<tr>
<th>Statistical index</th>
<th>Variables</th>
<th>Pearson correlation coefficient (r)</th>
<th>Significance level (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology quality</td>
<td>WOM</td>
<td>0.66</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Multi-variant regression:

Based on multi-variant regression test by Enter method and in accordance with Table 9 in determining WOM of the sum of independent variables (operational quality and technology quality), it is observed that multiple correlation coefficient ($R=0.74$) and determination coefficient ($R^2=0.55$), of significant independent variables in the model, we can determine about 0.55% of WOM variance.

Table 9: The determination of the effect of operational quality and technology quality on WOM.

<table>
<thead>
<tr>
<th>Statistical indices</th>
<th>Multiple correlation coefficient</th>
<th>Determination coefficient</th>
<th>Estimation criterion error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values</td>
<td>0.74</td>
<td>0.55</td>
<td>3.65</td>
</tr>
</tbody>
</table>

In Table 10, the reports of multi-variant variance analysis of WOM variable is observed. Variance analysis table defines significance of total model. Generally, if significance level $F$ is less than 0.05, independent variables can well determine the dependent variable changes. If this value is greater than 0.05, independent variables don’t determine dependent variable changes. As is shown, $F$ is equal to $F=86.29$ and significance level is $\text{sig}=0.000$. Thus, as significance level is less than 0.05. The model is significant. Table 11 is related to one of the outputs of multi-variant regression and are called coefficients table and Betas are reported. Betas are standardized coefficients. The greater Beta and T and less significance level, it means that independent variable had considerable effect on dependent variable. In the following table, beta value for operational quality was 0.327, technology quality was 0.289. Based on the results of table, it is predicted that operational quality variable had the highest influence on WOM.

Table 10: Multi-variant regression variance analysis of WOM.

<table>
<thead>
<tr>
<th>Changes source</th>
<th>Degree of Freedom</th>
<th>The sum of squares</th>
<th>The mean of squares</th>
<th>$F$</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of residual regression</td>
<td>3</td>
<td>3465.031</td>
<td>155.01</td>
<td>13.386</td>
<td>86.29</td>
</tr>
<tr>
<td>Total</td>
<td>213</td>
<td>6276.037</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Coefficients or Beta.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-standard coefficients</th>
<th>Standard coefficient</th>
<th>T</th>
<th>Sig (significance )</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Standard error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational quality</td>
<td>0.372</td>
<td>0.079</td>
<td>0.327</td>
<td>4.73</td>
</tr>
<tr>
<td>Technology quality</td>
<td>0.413</td>
<td>0.101</td>
<td>0.289</td>
<td>4.08</td>
</tr>
</tbody>
</table>

References


