A STUDY ON INTERRELATIONS AMONG SERVICE QUALITY, CUSTOMER PERCEIVED VALUE AND LOYALTY INTENTION IN E-TAIL SERVICE QUALITY

C.BALAMURALIKRISHNAN
Assistant Professor
Department of Commerce
Bishop Heber College
Tiruchirapalli

Abstract

Digital India is a new initiatives launched by our government of India for improving the nation digitally. It creates number of avenues to the business man nationally and globally to do their business virtually without any interruption. In the wake of “Digital India” the e-commerce business is looking for their brighter future in virtual market place. In this competitive environment it is necessary for businessmen to improve their e-services. So, the e-service qualities become apparent to give a best service to the customers/consumers virtually. So, the researcher made this study among college students to identify the relationship among Service quality, customer’s perceived value and Loyalty intention to understand and serve the customers of e-tail. Hypotheses were created based on the previous studies and tested with Pearson correlation and Regression. This study shows that there are meaningful relationships between the two sub dimensions of E-service Quality and Perceived Value. The correlation analysis shows that the Privacy and System availability factors are have low correlation with the perceived value. The perceived value is also having a significant effect on the Loyalty intention of the customers.

I. INTRODUCTION

Online shopping (sometimes known as e-tail from “electronic retail” or e-shopping) is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. A research showed that the e-commerce market will account for 2.5% of the India's GDP by 2030. According to Google India, there were 35 million online shoppers in India in 2014 and is expected to cross 100 million mark by end of year 2016. According to Forrester, the e-commerce market in India is set to grow the fastest within the Asia-Pacific Region at a CAGR of over 57% between 2012 to 2016. Overall e-commerce market is expected to reach Rs 1, 07,800 crores by the year 2015 with both online travel and e-tailing contributing equally.

A successful web store is not just a good looking website with dynamic technical features, listed in many search engines. In addition to disseminating information, it is also about building a relationship with customers and making money. Businesses often attempt to adopt online shopping techniques without understanding them and/or without a sound business model; often, businesses produce web stores that support the organizations' culture and brand name without satisfying consumer expectations. User-centered design is critical. Understanding the
customer's wants and needs is essential. Living up to the company's promises gives customers a reason to come back and meeting their expectations gives them a reason to stay. It is important that the website communicates how much the company values its customers.

In this scenario our Government of India has also launched a new programme called “Digital India” for the overall development of the nation digitally. This creates number of avenues to the business man nationally and globally to do their business virtually without any interruption.

In the wake of “Digital India” the e-commerce business is looking for their brighter future in virtual market place. In this competitive environment it is necessary for businessmen to improve their e-tail services. So, the e-service qualities become apparent to give a best service to the customers/consumers virtually. So, the researcher made this study among college students to identify the mediating effect of Perceived Value on the relationship between E-Services Quality, and the Loyalty Intentions. For this purpose, the researcher researched the related literature; and developed hypotheses for this study, and made numerous analyses in order to test our hypothesis. This study revealed the causes of changes in the Perceived Value considering the effects of E-Services Quality and Loyalty Intention.

II. E-SERVICE QUALITY – A REVIEW

E-Service Quality

Research about service quality has been popular for many years, but it is only recently that it started to take place in e-commerce environment. Service quality in e-commerce can be defined as the consumers' overall evaluation and judgment of the excellence and e-service quality offerings in the virtual marketplace.

Jeon (2009) Found nine attributes underlying the service quality of e-commerce businesses they are information usefulness, usability, accessibility, aesthetics/design, privacy/security, personalization/customization, past experience, social influence, and advertisement.

Ho and Lee (2007) study shows that the information quality, security, ease of use, availability, customization, community, responsiveness, and delivery fulfilment are important indicators.

Yang et al.,(2005) identified in his study usefulness of content, adequacy of information, usability, accessibility, privacy/security, interaction are the dimensions of service quality.

Parasuraman et al.,(2005) obtained following four dimensions. (1) Efficiency: The ease and speed of accessing and using the site. (2) Fulfilment: The extent to which the site’s promises about order delivery and item availability are fulfilled. (3) System availability: The correct technical functioning of the site. (4) Privacy: The degree to which the site is safe and protects customer information.

Wolfinbarger and Gilly (2003) stated that fulfillment/reliability, customer service, personalization, usability, experiential/atmospheric, ease of use, informativeness, selection, and security/privacy as the factors of e-service quality.

Zeithaml et al., (2002) and Parasuraman et al.,(2005) empirically examined E-S-QUAL, a multiple item scale with core service quality aspects and four dimensions: efficiency, privacy, fulfillment and availability.

Zeithaml (2002) has defined similar dimensions in the following manner. (1) Efficiency refers to the ability of the customers to get to web site, find their desired product and information associated with it and check out with minimal effort. (2) Fulfilment incorporates accuracy of service promises, having products in stock and delivering the products in the promised time.

(3) Reliability is associated with the technical functioning of the site, particularly the extent to
which it is available and functioning properly. (4) The privacy dimension includes assurance that shopping behavior data are not shared and that credit card information.

Jeong and Lambert (2001) explained some basic dimensions in his research they are perceived usefulness, perceived ease of use and perceived accessibility.

O’Connor (2003) explained ease of use, transaction speed, update speed, traffic levels, integration and security in their research.

Yoo and Donthu (2001) explained, ease of use, aesthetic design, processing speed, security as the important factors in assessing perceived quality of online shopping sites.

Among these related literature the researcher used Parasuraman and Zeithaml model of service quality dimensions for the study because which is academically accepted by most of the researchers worldwide.

**Perceived Value**

Perceived value is depending on how they evaluate the quality or benefits to be received from a product rather than the cost or sacrifice inherent in the price. It has argued that buyers’ perceptions of value represents a kind of trade-off between the quality or benefits they perceive in the product relative to the sacrifice they perceive by paying the price; Perceived Value = (Perceived Benefits) / (Perceived Sacrifice).

Fuentes Blasco et al., (2010) identified five dimensions of e-service quality, such as efficiency system availability and fulfilment, security and responsiveness; they further reveal that all five dimensions, except fulfilment, positively influence customer’s perceived value.

Marimon et al., (2009) found that, of the four, two dimensions, system availability and fulfilment, significantly and positively affect customer’s perceived quality.

Bauer, et al., (2006) study showed that the quality of web site is positively associated with customers’ perceived value.

As we agreed with previous researches, our study focused e-service quality.

**Loyalty Intention**

Brand loyalty is an indicator of customers’ degree of passion and commitment to the brand.

Engel et al., (1990) defined brand loyalty as a customer’s positive attitude and behavioral reaction towards one or several brands that are in the same product line, over a period. In the literature, behavioral loyalty represents repetitive purchasing of a brand over a period by consumer.

Rachjaibun (2007) found that e-relationship quality significantly affected loyalty.

Therefore, we studied Loyalty Intentions in our study. Our first goal is to find out the relationship with E-Services Quality and Loyalty Intentions, secondly, the relationship with perceived value and its effect on Customer Loyalty.

**III. HYPOTHESES**

The researcher has framed the following hypothesis based on the review of literature.

H1: There is a significant relationship between the Efficiency and customer Perceived value.

H2: There is a significant relationship between the System availability and Perceived value.

H3: There is a significant relationship between the Fulfillment and Perceived value.

H4: There is a significant relationship between the Privacy and Perceived value.

H5: There is a significant relationship between the E-Service Quality and Perceived Value.

H6: There is a significant relationship between Perceived Value and Loyalty Intentions.

H7: There is a significant relationship between the E-Service Quality and Loyalty Intentions.
IV. METHODOLOGY

Online shopping sites are increasing in number and they are increasing their service quality in order to attract greater number of customers. Owing to the opportunities provided by service quality and its effect on attracting customers from real shopping to online shopping, giving importance to service quality is coming into prominence with all dimensions. In this study, the service qualities of e-commerce web sites have been measured by E-S QUAL scale.

Aim of this study is to put forth whether service quality of these sites has an effect on their value perceived by their customers and loyalty intentions of their customers or not.

Sample and Data Collection

The study was conducted among the college students in Tiruchirapalli City. Out of the total population 39 samples were selected for the study. In this research E-S QUAL, a scale developed by Parasuraman et al., consisting of 22 items on four dimensions (2005), has been used with the aim of measuring service quality, perceived value and loyalty intentions. Main dimensions of this scale are:

Efficiency: The ease and speed of accessing and using the site.

Fulfillment: The extent to which the site’s promises about order delivery and item availability are fulfilled.

System availability: The correct technical functioning of the site.

Privacy: The degree to which the site is safe and protects customer information.

V. ANALYSIS AND DATA INTERPRETATION

This analysis gives an empirical evidence for the study. It gives the findings of the study made by the researcher. The researcher made a reliability test i.e., an alpha test for all the variables and showed α=.862. This analysis made with the help SPSS. Correlation and Regression analysis was made to find out the relationship among the variables.

Table 1: Demographic variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 18</td>
<td>14</td>
<td>35.9</td>
</tr>
<tr>
<td>19 to 21</td>
<td>23</td>
<td>59</td>
</tr>
<tr>
<td>22 to 24</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Above 25</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>29</td>
<td>74.4</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>25.6</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UG</td>
<td>34</td>
<td>87.2</td>
</tr>
<tr>
<td>PG</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below Rs.100000</td>
<td>21</td>
<td>53.8</td>
</tr>
<tr>
<td>100001 to 300000</td>
<td>7</td>
<td>17.9</td>
</tr>
<tr>
<td>300001 to 500000</td>
<td>7</td>
<td>17.9</td>
</tr>
<tr>
<td>Above 500000</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>9</td>
<td>23.1</td>
</tr>
<tr>
<td>Urban</td>
<td>20</td>
<td>51.3</td>
</tr>
<tr>
<td>Semi urban</td>
<td>10</td>
<td>25.6</td>
</tr>
<tr>
<td>Preferred online shopping site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flipkart</td>
<td>32</td>
<td>82.1</td>
</tr>
<tr>
<td>Amazon</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>Snapdeal</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>ebay</td>
<td>1</td>
<td>2.6</td>
</tr>
</tbody>
</table>
Pearson Correlation

According to Welkowitz et al., a correlation coefficient is a very useful way to summaries the relationship between two variables with a single number that falls between -1 and +1.

Morgan et al., (2004) study stated that -1.0 (a perfect negative correlation), 0.0 (no correlation), and +1.0 (a perfect positive correlation).

Pallant (2001) suggested the following interpretation of r-value. This value will indicate the strength of the relationship between two variables.

- \( r = 0.10 \) to 0.29 or \( r = -0.10 \) to -0.29 Small
- \( r = 0.30 \) to 0.49 or \( r = -0.30 \) to -0.49 Medium
- \( r = 0.50 \) to 1.0 or \( r = -0.50 \) to -1.0 Large

HYPOTHESIS TESTING
Efficiency and perceived value

\( H_1 a \): There is a positive correlation between Efficiency and customer Perceived value.

\( H_1 a_0 \): There is no correlation between Efficiency and customer Perceived value.

In the table 2, it can be seen that the correlation \( (r) \) of Efficiency is 0.460 and the significant level is 0.01 \( (p<.01) \). The table shows that the p-value is 0.003, which is less than 0.01. We therefore reject the null hypothesis, and concluded that there is a medium positive \( (r = .491) \) relationship between Efficiency and customer Perceived value in services of online shopping sites.

<table>
<thead>
<tr>
<th>Service Quality</th>
<th>Efficiency</th>
<th>System Availability</th>
<th>Fulfillment</th>
<th>Privacy</th>
<th>Loyalty</th>
<th>Perceived Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>15.31</td>
<td>2.95</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Availability</td>
<td>14.59</td>
<td>3.62</td>
<td>.508 .001</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulfillment</td>
<td>14.95</td>
<td>3.03</td>
<td>.622 .000</td>
<td>.358 .025</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>12.41</td>
<td>1.99</td>
<td>.251 .124</td>
<td>.301 .063</td>
<td>.269 .098</td>
<td>1</td>
</tr>
<tr>
<td>Loyalty</td>
<td>20.46</td>
<td>3.03</td>
<td>.469 .003</td>
<td>.377 .018</td>
<td>.654 .000</td>
<td>.385 .015</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>31.85</td>
<td>4.11</td>
<td>.460 .003</td>
<td>.091 .581</td>
<td>.385 .015</td>
<td>.149 .366</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

System availability and perceived value

\( H_2 a \): There is a positive correlation between System availability and Perceived value.

\( H_2 a_0 \): There is no correlation between System availability and Perceived value.

The table 2 shows that the correlation \( (r) \) is 0.091 for System availability and the p-value is 0.581, which is greater than the significant level (0.01). Therefore, the null hypothesis is accepted and concluded that there is no relationship between the System availability and Perceived value of the services provided by the e-tailers.

Fulfilment and perceived value

\( H_3 a \): There is a positive correlation between Fulfillment and Perceived value.

\( H_3 a_0 \): There is no correlation between Fulfillment and Perceived value.
It can be observed from the table 2 that the correlation (r) of Fulfillment is 0.385 and the p-value is 0.015, which is less than 0.05. Therefore, the null hypothesis is rejected and it can be concluded that Fulfillment is positively (medium) related to Perceived value in the services of online shopping sites.

**Privacy and perceived value**

H4 a: There is a positive correlation between Privacy and Perceived value
H4 a0: There is no correlation between Privacy and Perceived value.

The table 2 shows that there is no correlation between Privacy and Perceived value in the services of online shopping sites where r=0.149. So, the null hypothesis is accepted.

**Service quality and perceived value**

It examines the correlation between service quality, perceived value and customer loyalty in the services of online shopping sites.

H5 a: There is a positive correlation between Service quality and Perceived value.
H5 a0: There is no correlation between Service quality and Perceived value.

The table 2 elaborate that the Pearson correlation (r) value is .363 and the p value is 0.023 at 5% significance level. So, the p value is less than the significance level so the null hypothesis is rejected. There is a positive correlation (medium) between the service quality and the perceived value.

**Perceived value and Customers Loyalty**

H6 a: There is a positive correlation between Perceived value and Customer Loyalty Intention.
H6 a0: There is no correlation between Perceived value and Customer Loyalty Intention.

Referring to the table 2, it can be observed that the correlation (r) of Perceived value is 0.425 and p-value is 0.007, which is less than 0.01. Therefore, the null hypothesis is rejected and it can be concluded that Perceived value is positively (Medium) related to customer loyalty in the services of online shopping sites.

**Service quality and Loyalty intention**

It examines the correlation between service quality and Loyalty intention. The hypotheses are:

H7 a: There is a positive correlation between service quality and Loyalty intention.
H7 a0: There is no correlation between service quality and Loyalty intention.

The Table 3 elaborate that the correlation (r) is .634 and the p value is .000 which is less than the significance level of 0.01 so we reject the null hypothesis. There is a positive (large) correlation between service quality and Loyalty Intention.

**Table 3: Correlation analysis of service quality and perceived value**

<table>
<thead>
<tr>
<th>Service quality</th>
<th>Mean</th>
<th>S.D</th>
<th>Service quality</th>
<th>Perceived Value</th>
<th>Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulfillment</td>
<td>20.46</td>
<td>3.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>31.85</td>
<td>4.11</td>
<td>.363*</td>
<td>.023</td>
<td>1</td>
</tr>
<tr>
<td>System Availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>57.26</td>
<td>8.68</td>
<td>.634**</td>
<td>.000</td>
<td>.425**</td>
</tr>
<tr>
<td>Loyalty</td>
<td></td>
<td></td>
<td>.634**</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

**Table 4: Regression Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.510*</td>
<td>.260</td>
<td>.173</td>
<td>3.74099</td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), Fulfillment, Privacy, System Availability, Efficiency*
Table 5: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>167.247</td>
<td>4</td>
<td>41.812</td>
<td>2.988</td>
<td>.032</td>
</tr>
<tr>
<td>Residual</td>
<td>475.830</td>
<td>34</td>
<td>13.995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>643.077</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Fulfilment, Privacy, System Availability, Efficiency.
b. Dependent Variable: Perceived value.

Table 4 explains the relationship between the individual service quality factors and its impact on perceived value. R square shows that there is a variance of 26% by the factors of fulfilment, privacy, system availability and efficiency on the perceived value. The ANOVA table shows that at 5% significance level the P value is .032 which is less than the significance level 0.05. There is a significance relationship between the independent variables (that is Efficiency, System availability, Fulfillment and Privacy) and the dependant variable i.e., perceived value.

VI. CONCLUSION AND RECOMMENDATIONS

In a digitally empowered society E-S-Quality are obliged to serve without any trouble. Otherwise, they cannot fulfill their market-oriented duties. In this study we have focused on the importance of electronic service quality which has become very important after companies started to adopt a more market oriented strategy- and its effect on Loyalty Intentions and Perceived Values. By using E-S-QUAL scale, it is observed that the relationship of E-service Quality, with Perceived Values and Loyalty Intentions is positive. After making correlation analysis and regression analysis it is observed that there are meaningful relationships between the two sub dimensions of E-service Quality and Perceived Value. The correlation analysis shows that the Privacy and System availability factors have low correlation with the perceived value. System availability and privacy are the prime factors to create a positive value among the customers. But, most of the time that it loads slowly and create a dilemma to the shoppers. While ordering the goods it leads to a broken and freeze webpage that is the major reason that the people feel negative about the e-services quality. At this point the improvements should be made in the privacy and system availability factors. It will give a better platform for their offerings. In creating Loyalty ensuring perceptions; Fulfillment, Effectiveness and Privacy factor are seen prominent initiators, improving the sites in privacy aspect could also encourage the customers to perceive better.

VII. REFERENCE