Analysis Electronic Service Quality through E-S-Qual Scale: The Case Study of Nowshahr Hotel

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Abstract: The aim of this study is to analyze the electronic service quality in Arsh Hotel which is located in Nowshahr city using Kano and E-S-Qual scale. All given the importance and position of electronic hotel service and the growing trend of electronic hotel services in the country in recent years, now is the financial and credit institutions and banks have found a good position to maintain and develop effective strategies without the utilization of scientific and practical management Information and communication is not possible. Today, hotels in order to remain competitive need to improve the quality of its electronic services to the linear view of this topic are not comprehensive. In order to study integrated model E-S-Qual and Kano is used that with removal the linear hypothesis is. In the first step towards electronic service quality factors based on the Arsh Hotel E-S-Qual model to determine the current practice of banks and provide the service expectations of customers and their vision of electronic service quality mentioned has been evaluated. In the first step factors towards electronic service quality the Arsh Hotels based on E-S-Qual model to determine the current practice of hotels and provide the service expectations of customers and their vision of electronic service quality mentioned has been evaluated. Considering the gap between customer expectations and current practice of hotels in providing these services, services to the two categories is divided into weak and strong. In the second step of research with integrating E-S-Qual and Kano model, service quality factors based on Kano model classified to determine which features of electronic service quality determined by the model E-S-Qual and evaluated, is the strategic importance in relation to customer satisfaction.

Keywords: E-S-Qual, hotel, Kano model, services

INTRODUCTION

Quality is the collection of features and specifications of the product or service that is able to meet the explicit or implicit requirements. In most definitions, customer satisfaction and meeting of their demands is the most important factor. Customer satisfaction is: considering the amount of customer requirements that have been meeting. Zeithaml said that; service is the collection of apparent and hidden benefits and advantages that engender by using the facilitating goods and supporting equipment (Zeithaml, 2000). From Parasuraman opinion, service quality, is the size and direction of the difference between customer’s perceptions and expectations of service (Parasuraman et al., 2005). With the rapid growth of internet and globalization of markets, most institutions often are in seeking to attract and capture customers in the competitive electronics market. Electronic services importance not only is increasing in success or failure of electronic commerce application, but also in a good channel reservation service with interaction of information flow in exchange processes (Santos, 2003). One of the options of government for improving the quality of service and the transformation of it, is using the ICT and electronic government. Electronic government is referred to provide government information and service through the instantaneous internet or other digital tools. Electronic government can provide some of the main goals for the public sector, including TQM, customer oriented, empowering communities, workers and customers and the effectiveness and efficiency (Teicher et al., 2002). The main channels and electronic media also is the same organization’s web site that all the service is offered by it. Here, service quality measurement comes out from the physical environment and organization structure and inter to the world of web sites, that is, virtual world. So, with this big change in the way of delivering service, certainly the methods of assessment will change and new indicators for measuring and evaluating this type of service are required. Another point that increases the
importance of assessment of services quality is that every so often we are seeing organizations claim of becoming electronic and electronic services in their organization. Measuring the electronic service quality in the public sector can help us to review this claims. Offering and delivering online service is very different than traditional service that is based on mutual information flow between customers and service providers. Electronic service quality not only having the potential of providing strategic advantages, but also considered to increase operational efficiency and profitability takes (Zeithaml, 2000). Electronic services are crucial even for companies to attract and maintain customers. Online customer’s experience for web site of companies is a sense of loyalty that through good service of company comes into existence. Oliveria et al. (2002) suggest that, companies can achieve competitive capabilities from providing services through appropriate electronics customers and quality of delivering service has a stronger impact on customer satisfaction on firm performance. The importance of the quality of electronic services by Zeithaml (2002) has been accentuated. They claimed that removal electronics’ service quality gaps lead to customer satisfaction which increases the value of e-SQ, purchase and repurchase received. Most conducted studies are in the field of dimensions, evaluation and characteristics of electronic service quality. Implementation of strategic quality management program requires a clear understanding of organizational attitudes of service quality, customer expectations, perceived quality, quality measures and major determinant of quality. Recognition of the above mentioned point is necessary for improving the quality of services but not sufficient, but need to conceptual model that help management in identifying the deficiencies and planning for implementing of the quality of improvement program strategy (Ghobadian, 1994). For investigate and identify the factors affecting on service quality from customer view there is a little consensus and there is various models for evaluating quality of services, like hysteresis models, Kano, Servqual, Web-qual, QFD, etc. In this respect, objective of this study is to evaluate the quality of electronic service by using Kano model and E-S-QUAL models. For implementation of this goal, the quality of electronic services in the hotel industry has been evaluated and the electronic hotel services of Arsh Hotel have been studied. This paper is organized as following steps that at first review the literature of electronic services, electronic service quality and evaluating service quality and each Kano, E-S-QUAL models. Then in the next section the research methodology will be introduced. After familiarity with research methodology, results of each analysis of the models is presented separately. Finally concluded from the study will be presented.

LITERATURE REVIEW

Electronic service quality: By increasing in demand for electronic commerce in organizations, the importance of evaluation and monitoring service quality in electronic virtual world become more and more. Various studies have done to develop the evaluation of indicators in the field of service quality (Table 1). In Table 1, examples of studies about electronic services, including areas for research and dimensions of the quality of electronic services are listed. It is evident that the most of these studies is guided mainly in three different areas: online sales service quality, quality of website design and online service quality. In fact, quality of web site design and quality of online sales, both of them are the important components of quality of online services (Cristobal et al., 2007).

One of the first definitions of service quality was introduced by Zeithaml et al. (2000). They stated that the quality of internet services, where the web site facilitate the sales, purchasing and on time delivering of goods or services is extended. Zeithaml (2002) extended the dimensions of E-S-QUAL and also compared the dimensions of E-SERVQUAL with ES-QUAL. They stated that, some aspects of SERVOUAL

<table>
<thead>
<tr>
<th>Number</th>
<th>E-S-QUAL dimensions</th>
<th>Avg. of performance</th>
<th>Avg. of expectations</th>
<th>Distance</th>
<th>Electronic service quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reliability</td>
<td>3.30</td>
<td>3.10</td>
<td>+0.20</td>
<td>Strong</td>
</tr>
<tr>
<td>2</td>
<td>Responsiveness</td>
<td>3.25</td>
<td>3.62</td>
<td>-0.37</td>
<td>Week</td>
</tr>
<tr>
<td>3</td>
<td>Access</td>
<td>3.57</td>
<td>3.92</td>
<td>-0.35</td>
<td>Week</td>
</tr>
<tr>
<td>4</td>
<td>Flexibility</td>
<td>3.40</td>
<td>3.80</td>
<td>-0.40</td>
<td>Week</td>
</tr>
<tr>
<td>5</td>
<td>Ease of navigation</td>
<td>3.46</td>
<td>3.36</td>
<td>+0.10</td>
<td>Strong</td>
</tr>
<tr>
<td>6</td>
<td>Efficiency</td>
<td>3.00</td>
<td>3.35</td>
<td>-0.35</td>
<td>Week</td>
</tr>
<tr>
<td>7</td>
<td>Assurance/trust</td>
<td>3.96</td>
<td>4.00</td>
<td>+0.40</td>
<td>Strong</td>
</tr>
<tr>
<td>8</td>
<td>Security/privacy</td>
<td>4.21</td>
<td>4.26</td>
<td>-0.05</td>
<td>Week</td>
</tr>
<tr>
<td>9</td>
<td>Price knowledge</td>
<td>3.88</td>
<td>4.15</td>
<td>-0.27</td>
<td>Week</td>
</tr>
<tr>
<td>10</td>
<td>Site aesthetics</td>
<td>4.06</td>
<td>3.74</td>
<td>+0.32</td>
<td>Strong</td>
</tr>
<tr>
<td>11</td>
<td>Customization/personalization</td>
<td>3.65</td>
<td>4.23</td>
<td>-0.58</td>
<td>Week</td>
</tr>
</tbody>
</table>

Avg.: Average
dimensions can be used in electronic service quality, but there is some traditional aspects in electronic services that most of them often have relations, especially with the technology and the ES-Qual scale was included 11 dimensions that after the Parasuraman et al. (2005), ES-QUAL were developed to 7. These 7 dimensions are divided in two separate sections-core dimensions and improvement and recycling dimensions. ES-Qual is the name of scale for core dimensions: performance, availability, system performance and latency. Second scale is named, as ERecSQUAL: Sensitivity, compensation and interaction (Parasuraman et al., 2005).

In this regard, the apparent dimensions of electronic service quality have been proposed based on customer experience and evaluation viewpoints that considered the admission arrangements of electronic services (Rowley, 2006). Most studies on electronic services are the combination of traditional service quality dimensions and the dimensions which is related to web. Dabholkar explained his research work in the quality of electronic services and web site design based on seven aspects of quality of electronic services as fundamental parameters in judging the quality of electronic services (Dabholkar, 1996). Donthu and Yoo (1998) developed an indicator called SITEQUAL for evaluating the quality of the service lines, which consists of the following four dimensions: the ease of use, beautiful design, processing speed and sensitivity interaction. Cox and Dale (2001) launches 6 aspects of selling services on line’s quality with compared to traditional service quality dimensions. Wolfinbarger and Gilly (2002) developed an electronic service quality scale that at first COMQ and later was called as advanced eTailQ. Lociacono et al. (2002) developed a scale of service quality called WEBQUUAL which is composed of 11 dimensions. According to the subject of study, E-S-QUAL scale is selected for evaluating. Recently, research on electronic service quality, shows different dimensions of electronic service quality.

Santos (2003), Yang and Fang (2004), Long and McMellon (2004), Gounaris et al. (2005), Lee and Lin (2005), Kim et al. (2006) and Madu and Madu (2002) developed 15 dimensions of the electronic service quality based on better understanding of customer’s perspective and providing services in accordance with customer needs and experiences.

**E-S-Qual dimensions:** Zeithaml et al. (2000) study identified dozens of Web site features at the perceptual attribute level and categorized them into 11 e-SQ dimensions:

- **Reliability:** Correct technical functioning of the site and the accuracy of service promises (having items in stock, delivering what is ordered, delivering when promised), billing and product information
- **Responsiveness:** Quick response and the ability to get help if there is a problem or question
- **Access:** Ability to get on the site quickly and to reach the company when needed
- **Flexibility:** Choice of ways to pay, ship, buys, search for and return items
- **Ease of navigation:** Site contains functions that help customers find what they need without difficulty, has good search functionality and allows the customer to maneuver easily and quickly back and forth through the pages
- **Efficiency:** Site is simple to use, structured properly and requires a minimum of information to be input by the customer
- **Assurance/trust:** Confidence the customer feels in dealing with the site and is due to the reputation of the site and the products or services it sells, as well as clear and truthful information presented
- **Security/privacy:** Degree to which the customer believes the site is safe from intrusion and personal information is protected
- **Price knowledge:** Extent to which the customer can determine shipping price, total price and comparative prices during the shopping process
- **Site aesthetics:** Appearance of the site
- **Customization/personalization:** How much and how easily the site can be tailored to individual customers’ preferences, histories and ways of shopping

**Kano model:** In most of the previous definition about quality, like Herzberg’s definition, quality is linear and one dimension in nature. But in 1970, professor Kano with some others of Japanese’s assistants developed their Kano model to define service quality in the context of customer needs and rejected the traditional view and introduces quality as a two-dimensional. Compliance parameters of service quality performance and customer satisfaction in tow dimensional axis have caused that the definition of quality become more complex. Thus, Kano et al provided three required clause for services that when they are fulfilling, effects on customer satisfaction in a different methods. These clauses include: essential features and a single and attractive features. Essential features are necessary but are not sufficient clause customer satisfaction. If single features are exist, the customer’s satisfaction is provided and the absence of it, causing dissatisfaction. So, it can say about the one dimensional features that, if the quality of perceived services becomes higher, customers’ satisfaction will increase and vice versa. Attractive features are that if there exist, customers are satisfied and vice versa. In fact attractive services
features have the most affection on the level of
customer’s satisfaction in services area (Carpinitti et al., 2003). Kano analysis is one of the quality
measurement tools for prioritizing customer demands
based on their impact on customer satisfaction and
satisfaction. Kano analysis helps different customers to
determine the requirements which have higher priorities
(Cheng and Chiu, 2008). Kano model improves
understanding of the requirements of product or service.

RESEARCH METHODOLOGY

Since this study describe the conditions and
phenomena for further understanding of situation and
also help the decision-making process, can be
considered descriptive studies and because the desired
data collected from sampling, it can be called survey
study. On the other hand the present study, according
to the goals, is an applicable study. This study is
conducted at Arsh hotel, located in Nowshahr city at the
north of Iran, in 2012. Population of this study is the
customers of Arsh Hotel in Iran that use the electronic
hotel services. Sampling in this study is randomly-
clustered. So, some of them have been choose as a
cluster in countries and then 150 samples randomly
selected and the questionnaires were given to them. In
this study for assessing the validity of two
questionnaires, after the initial design and consultation
with teachers and experts in electronic hotel industry,
the necessary reforms was carried out and the final
form of the questionnaire were identified. To test the
reliability of questionnaires, 30 questionnaires
considered as a pre-test and used alpha test as the most
important and prevalent instruments for measuring the
questionnaire that the amount of it for first
questionnaire was 75% and 87% for the second
questionnaire, indicating that research questionnaires
have high credibility.

CASE STUDY

The first step in this research is to determine the
factors of service quality in strategic section of Arsh
Hotel based on E-S-Qual model. In this study, after
study the resources related to the quality of electronic
services and consultation with experts of electronic
hotel industry, by using the 11 dimensions of
Loiacono’s et al model (Loiacono et al., 2002), quality
of electronic hotel service of Arsh Hotel was evaluated.
In order to determine the strong and weak
characteristics of the quality of electronic hotel service
of Arsh Hotel, 150 customers that use electronic hotel
services randomly selected and questionnaire was
distributed among them to present their evaluations
about the current electronic service and their
expectations about the quality of this service. This
analysis can be seen in Table 1.

After collecting data and analyzing them as can be
seen in the Table 1, customers determined four
characteristics of "Reliability", “Ease of navigation”,
“Assurance/trust" and "Site aesthetics" that there is a
strong positive difference between current performance
and customer expectations and it means that customers
have been satisfied from the quality of four features of
service. In 7 other features, there is a negative
difference between current performance and customer
expectations, indicating that there is a lack of
customer’s satisfaction from the quality of these
features. Position of the quality of electronic service of
Arsh Hotel based on the evaluating of E-S-QUAL model
revealed that the customers were not satisfied from
the quality of electronic service. The second phase
of research, is classification of service quality based on
the Kano model. For this purpose a questionnaire that
includes Kano scales was distributed among the Arsh
Hotel customers of electronic services. This analysis is
shown in Table 2.

After collecting data, each characteristics of service
quality which respondent determined, has been
investigated through frequency rate. As Matzler and
Hinter Haber have suggested that the simplest method
for evaluation is the frequency of response. Thus, in
defining of categories of service feature, each group
that having the highest frequency among the four
categories, is classified as an indicator of service

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Table 2: The results of Kano analysis

<table>
<thead>
<tr>
<th>Number</th>
<th>E-S-Qual dimensions</th>
<th>Attractive</th>
<th>One dimensional</th>
<th>Necessary</th>
<th>Indifferent</th>
<th>Total</th>
<th>Type of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reliability</td>
<td>30</td>
<td>78</td>
<td>26</td>
<td>16</td>
<td>150</td>
<td>One dimensional</td>
</tr>
<tr>
<td>2</td>
<td>Responsiveness</td>
<td>25</td>
<td>47</td>
<td>44</td>
<td>34</td>
<td>150</td>
<td>One dimensional</td>
</tr>
<tr>
<td>3</td>
<td>Access</td>
<td>43</td>
<td>64</td>
<td>26</td>
<td>17</td>
<td>150</td>
<td>One dimensional</td>
</tr>
<tr>
<td>4</td>
<td>Flexibility</td>
<td>80</td>
<td>44</td>
<td>7</td>
<td>19</td>
<td>150</td>
<td>Attractive</td>
</tr>
<tr>
<td>5</td>
<td>Ease of navigation</td>
<td>47</td>
<td>56</td>
<td>30</td>
<td>19</td>
<td>150</td>
<td>One dimensional</td>
</tr>
<tr>
<td>6</td>
<td>Efficiency</td>
<td>15</td>
<td>61</td>
<td>46</td>
<td>28</td>
<td>150</td>
<td>One dimensional</td>
</tr>
<tr>
<td>7</td>
<td>Assurance/trust</td>
<td>20</td>
<td>43</td>
<td>65</td>
<td>22</td>
<td>150</td>
<td>Necessary</td>
</tr>
<tr>
<td>8</td>
<td>Security/privacy</td>
<td>23</td>
<td>12</td>
<td>71</td>
<td>44</td>
<td>150</td>
<td>Necessary</td>
</tr>
<tr>
<td>9</td>
<td>Price knowledge</td>
<td>19</td>
<td>38</td>
<td>43</td>
<td>50</td>
<td>150</td>
<td>Indifferent</td>
</tr>
<tr>
<td>10</td>
<td>Site aesthetics</td>
<td>69</td>
<td>55</td>
<td>10</td>
<td>16</td>
<td>150</td>
<td>Attractive</td>
</tr>
<tr>
<td>11</td>
<td>Customization/personalization</td>
<td>77</td>
<td>54</td>
<td>5</td>
<td>14</td>
<td>150</td>
<td>Attractive</td>
</tr>
<tr>
<td>12</td>
<td>Number of defined attributes of service quality in each category</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
quality. For example in service of number 10, among total 150 numbers, 69 numbers considered it attractive, 55 numbers considered it one dimensional, 10 numbers considered it necessary and 16 numbers were indifferent. Since a larger number of customers (69 cases) introduced this feature as an attractive feature, so “Site aesthetics “feature as the feature considered as an attractive feature. Similarly, other features are classified. As can be seen in the last line of Table 2 features of the 11 features of electronic service quality were classified as "attractive", 5 features of electronic service quality were classified as an “one dimensional”, 2 features of electronic service quality were classified as an "Necessary" and 1 remaining features were classified as "indifferent", that are relevant to satisfaction or dissatisfaction customers regardless of whether the quality is achieved or not.

**CONCLUSION**

According to the mechanism process and increasing of private sector in the field of hotel services in Iran which in turn create various opportunities and threats for public services enterprises, it is proper for agencies that by using new management tools, maintain their ability of competitivenes and then they can take the maximum opportunity and equipped their against possible and potential threats. The difference between customer’s expectations and customer’s perception of the product or service determined the satisfaction of customers. Based on this definition and by using the E-S-QUAL model, evaluated the customer’s satisfaction from the quality of services which offered by Arsh Hotel in Iran. In fact, the position of the quality of electronic service of Arsh Hotel evaluated by E-S-QUAL model and the results showed that the customers were not satisfied from the quality of services which offered by Arsh Hotel. In the next step by using the Kano Model, classified the quality of electronic service and the results showed that based on customers comments, from 11 features, 3 features are attractive. However, the companies for gaining competitive privilege and customer’s satisfaction should focus on attractive quality features than necessary or one dimensional feature. Thus, the main focus of this study is to improve the related process of attractive features of service quality. Since, in this study, 3 characteristics were determined as attractive features, therefore corresponding internal processes for improving must be selected. Then in the next priority, corresponding processes with attractive features for improving have been elected. Moreover, service organizations to improve their service quality are faced with problems and barriers which some of them are originated from the nature of services (Ghobadian, 1994).

**REFERENCES**


