Assessing Service Quality in the International Flights of Islamic Republic of Iran Airlines (HOMA) Using SERVQUAL Model

Vahideh Asadi Niasar¹, Abolfazl Kalanaki², Afshin Khodabandeh³

Abstract— Regarding the competitive atmosphere and increasing customers' expectations of service quality in aviation industry, airlines plan to set up their policies and activities in such a way that they can outpace their rivals in offering high quality services to meet the customers' needs. In this paper, the researchers have assessed quality of the services offered in international flights of the Islamic Republic of Iran Airlines (HOMA) using the Servqual model through questionnaires. Assessment of HOMA customers' satisfaction may help the managers realize the expectations of the customers and consider the feedbacks in their policies and programs. The statistical population of this descriptive survey includes the passengers of Imam Khomeini International Airport (IKIA). Cluster sampling has been used in the survey and the hypotheses have been tested using dependent/independent t-student test. Results show that there is a meaningful difference between the customers' expectations and their perceptions of the quality of HOMA international flights services. It is recommended to conduct similar research for other airlines to perform comparative analysis.

Keywords: Service Quality, SERVQUAL model, expectations, perceptions

1. Introduction
Quality of competitive and turbulent business environment cause growing competition level between companies to survive and increase their market share. Service quality conditions influence a firm’s competitive advantage by retaining customer patronage, and with this comes market share (Park et al., 2004; Morash and Ozment, 1994). There are a few companies that have a safe margin in this market, because development of science and technology has removed the physical boundaries. So, to maintain their market share, organizations are forced to fight with other organizations and local companies in addition to ardent competitors around the world. In such circumstances, compliance with customer demands is one of the fundamental principles in business environment. To reach a long-term relationship with customers, it is needed to understand their expectations and fulfill them with best possible fit. On the other hand, providing quality service is one of the key factors for success or failure of these companies; but unlike tangible goods that have a scale for measuring quality, measuring the service quality is intangible and heterogeneous, because customers gain different experiences from the services.

Travel is one of the most significant industries that service quality is an issue in it. Improving people's living standards is expected to receive higher quality services. In the case of travel services, this leads to people favor in air travel and the use of aircraft. Due to the sensitivity of air services companies and also competition in an international environment, these companies should do more efforts on increasing the quality of their services. In a highly competitive environment the provision of high quality services passengers is the core competitive advantage for an airline's profitability and sustained growth (Chen, 2008). Delivering high-quality service to passengers is essential for airline survival, so airlines need to understand what passengers expect from their services (HUANG, 2009). As the importance and size of the service sector of the global economy grows, the study of services and innovation are becoming increasingly important (Landrum et al., 2009). The majority of the researchers have attempted to use the SERVQUAL (Parasuraman et al., 1985) methodology in an effort to measure service quality (Rahaman et al., 2011). In this research, the service quality of international flights in Islamic Republic of Iran airline (Homa) is assessed by means of SERVQUAL model. The next section reviews the literature and history of service quality. Then the research method and its results are presented. Finally, results and research limitations are noted.
In this survey, the researchers are to find out the gaps leading to customers dissatisfaction and the ways to remove the gaps regarding the SERVQUAL five dimensions of tangibles, reliability, responsiveness, assurance, and empathy.

For the lack of any previous studies and researches on HOMA service quality and unavailability of comprehensive, reliable statistics of service quality offered by this airline, the research is performed to reveal the gaps of existing policies in the airline.

2. Research background

2.1 Services quality

According to Asubonteng et al (1996), increasing the intensity of competition and environmental factors confliction, make the service quality as the basis of marketing strategies for companies. Quality is a concept that caused great interest among researchers (Wisniewski, 2001). In the marketing literature, service quality is defined as an overall measurement of service by customers (Eshghi, et al., 2008), or the estimated size of the service that meets customers needs or expectations. Parasuraman et al. (1994) described service quality as: the difference between customer perceptions of services a company offers and the services provided by the company. If what is perceived, be lower than expectations, the customer will judge the poor quality, and if what is perceived meets the expectations of customers or overtakes it, then the offered quality would be assessed desirable by them.

In the last decades, service quality has been focused by business owners, managers and researchers, because this concept has a great impact on business performance, cost reduction, customer satisfaction, customer loyalty, and profitability (Leonard and Sasser, 1992; Cronin and Taylor, 1994; Gummesson, 1998).

Importance of service quality and its wonderful impact on business have pushed many researchers to develop ways by which we can properly evaluate the quality of services provided by organizations and resolve the service short comings in a best way. So far, about 19 models have provided by various researchers to assess the quality of services. One of the most useful models is SERVQUAL. According to studies by Ladhari (2009), SERVQUAL model, is a proper scale for measuring service quality in different service industries.

In 1985, Parasuraman et al. developed the primitive SERVQUAL model for the measurement of service quality. They have classified more than 200 features in service quality. These features have been specified through interviews with four distinct services sector customers, such as banks, credit card provider organizations, maintenance services companies, and call centers. Parasuraman et al. (1985) identified gaps that are causing customer dissatisfaction as follows:

1. The gap between actual customer expectations and perceptions of employees and management (giving service) of these expectations.
2. The gap between management perceptions of customer expectations and designed quality characteristics.
3. The gap between service quality and service standards that actually is provided to customers.
4. The gap between service quality which is provided, with quality service that is promised to customer.
5. The gap between customer expectations of service quality that they actually receive. In other words, the gap between customer expectations and perceptions (Parasuraman et al, 1985).

Nijel & Silizer introduced new approach in 1990 for customer satisfaction. They noted five dimensions for service assessment: tangibles, reliability, responsiveness, assurance and empathy (Grewe, 2009). So far, many researchers have used SERVQUAL model to assess the service quality in various industries, especially in the field of Air Traveling; some of them are mentioned in the below table:

<table>
<thead>
<tr>
<th>The researched organization</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airline tickets</td>
<td>CSIPAK et al., (1994)</td>
</tr>
<tr>
<td>Airline Services</td>
<td>Zhao, (2000)</td>
</tr>
<tr>
<td>Airlines</td>
<td>Lim et al., (2002)</td>
</tr>
<tr>
<td>International Airline</td>
<td>Clemes et al., (2008)</td>
</tr>
</tbody>
</table>
3. Research methodology

3.1 Research model

In this study, existing models to assess the service quality and previous studies using this model have been undertaken. Then to evaluate the quality level of services in the Islamic Republic of Iran Airlines (HOMA), SERVQUAL model has been chosen as the original model. International flights of Iran Air customer expectations and perceptions were subsequently condensed into five dimensions of service performance known as SERVQUAL:

1. Confidence: the knowledge and courtesy of employees and their ability to build customer confidence and trust;
2. Empathy: sympathy and attention of a company to its customers;
3. Reliability: the ability to provide a reliable and accurate service promised;
4. Responsiveness: the staff's willingness to help customers and provide fast service;
5. Tangibles: a company physical facilities, equipment, personnel and communications.

3.2 The main hypothesis of the research

The main hypothesis is based on the SERVQUAL model main philosophy that measures the gap between customer's expectations and perceptions of service quality. In fact this gap is the fifth and the most important one in the SERVQUAL model and represents the amount of customer satisfaction from provided services. So the main research hypothesis is stated as follows:

There is a significant difference between customer expectation and perception of "Homa" international flights service quality.

3.3 Research sub-hypothesis:

For a closer look, the gap between passengers’ expectations and their perceptions in each of the five dimensions of service quality in SERVQUAL model has been evaluated through the subsidiary assumptions. These assumptions include:

1. Customers’ expectation of tangible factors is beyond their perception of the tangible factors;
2. Customers’ expectation of confidence is beyond their perception of confidence;
3. Customers’ expectation of empathy is beyond their perception of empathy;
4. Customers’ expectation of reliability is beyond their perception of reliability;
5. Customers’ expectation of assurance is beyond their perception of assurance;
6. Customers’ expectation of responsiveness is beyond their perception of responsiveness;
7. Customers’ expectation of assurance is beyond their satisfaction with assurance;
8. Customers’ expectation of empathy is beyond their satisfaction with empathy.

As the original SERVQUAL model has some limitations for the airline industry, hence 22 original questions were redesigned by studying two similar papers as well as interviewing HOMA staff and 25 passengers, inquiring their service quality priorities.

To assess the expectations and perceptions of airline passengers, a two-part questionnaire was designed. The respondents were asked to separately evaluate each service attribute, according to the gap between their perceptions and expectations, using a five-point Likert scale: "much better than expected", "better than expected", "equal to expected", "worse than expected", and "much worse than expected". Five different scores were assigned: 5, 4, 3, 2, 1, to represent this five-point scale, respectively.

3.4 Reliability and Validity of Questionnaires

In order to confirm the internal consistency or reliability, Cronbach's alpha calculation has been used. The Cronbach's alpha calculations confirm 85.3% valid cases for perceptions questionnaire and 97.1% for expectations questionnaire.

Content validity was assessed by a panel of three experts in the field of aviation and airline industry.

3.5 Population and sampling selection

Since there is no list of all international flights passengers in Imam Khomeini Airport, a combination of cluster and quota sampling is used. Based on this method, Iran Air flight destinations were divided into three regions: Europe, Middle East, and Far East. Because the number of clusters is limited to these regions flights, all of them have been selected. Then, each region has been allocated quotas based on the number of passengers in the last three years. Quotas are as below:

In Europe 42/32 percent, the Middle East 40/86 percent, Far East 16/81 percent.
Since the number of routes in each area is different, passengers were selected randomly. The questionnaire was distributed between Iranian and foreign passengers flying with HOMA in Imam Khomeini International Airport (IKIA) to assess their perceptions from actual performance of the Iranian airline.

The sample size, as calculated using the infinite population formula, equals 384 people. So, 600 questionnaires were distributed among the Iranian and foreign passengers of HOMA international flights at the arrivals and departures areas in IKIA during three days, 215 questionnaires of which have been disposed of for being incomplete or inaccurately completed. Therefore, 385 complete questionnaires were collected for analysis (318 questionnaires by Iranian passengers and 67 by foreigners).

<table>
<thead>
<tr>
<th>Table 2. Frequency and demographics of sampling population</th>
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</thead>
<tbody>
<tr>
<td>Item</td>
</tr>
<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>&lt;35</td>
</tr>
<tr>
<td>35-55</td>
</tr>
<tr>
<td>&gt;55</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>High school and below</td>
</tr>
<tr>
<td>Bachelor</td>
</tr>
<tr>
<td>Master</td>
</tr>
<tr>
<td>PhD</td>
</tr>
<tr>
<td>Overseas travels per year</td>
</tr>
<tr>
<td>Once</td>
</tr>
<tr>
<td>Twice</td>
</tr>
<tr>
<td>More than twice</td>
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<tr>
<td>Aim of travel</td>
</tr>
<tr>
<td>Business</td>
</tr>
<tr>
<td>Tourism</td>
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<tr>
<td>Education</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td>Route</td>
</tr>
<tr>
<td>Europe</td>
</tr>
<tr>
<td>Middle East</td>
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<tr>
<td>Far East</td>
</tr>
</tbody>
</table>

4. Research findings

4.1 The main hypothesis test results

"There is a significant difference between customers' expectation and perception of service quality in Homa international flights".

As the statistically significant table shows, the average of passengers’ expectation from service is 4.13 out of 5 units; while the perception average of service quality is 2.38.

<table>
<thead>
<tr>
<th>Table 3: The statistical indicators of two communities in relation to the overall service quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive</td>
</tr>
<tr>
<td>passengers expectation of flight</td>
</tr>
</tbody>
</table>

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Referring to the "t" test statistic (sig=0.000, t=80.391) it can be stated that by confidence level of 0.99, there is a significant difference between customer expectation and perception of service quality in international flights of Homa company. These differences represent the passengers' dissatisfaction. A 95% confidence interval for the difference between expected and perceived quality average, is:

$$1.708 \leq \mu \leq 1.793$$

Because the low and high limits are positive, so it can be said that the passengers’ expectation average of quality level is more than their perceived quality average.

4.2 Analysis of sub-hypotheses:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average of expectation level</th>
<th>Average of perception level</th>
<th>&quot;t&quot; result of difference between expectation and perception</th>
<th>The most dissatisfaction about</th>
</tr>
</thead>
<tbody>
<tr>
<td>tangible factors</td>
<td>4.16</td>
<td>2.28</td>
<td>there is mean difference</td>
<td>in-flight visually and modern appealing equipment</td>
</tr>
<tr>
<td>responsiveness</td>
<td>4.14</td>
<td>2.31</td>
<td>there is mean difference</td>
<td>prompt respond of employees of the airline to your request or complaint</td>
</tr>
<tr>
<td>empathy</td>
<td>4.18</td>
<td>2.46</td>
<td>there is mean difference</td>
<td>frequent cabin service rounds by flight attendants</td>
</tr>
<tr>
<td>assurance</td>
<td>4.11</td>
<td>2.51</td>
<td>there is mean difference</td>
<td>safety performance of airline</td>
</tr>
<tr>
<td>reliability</td>
<td>4.06</td>
<td>2.35</td>
<td>there is mean difference</td>
<td>remedial procedures for delayed or missing baggage</td>
</tr>
</tbody>
</table>

4.3 The first main hypothesis result

The average of Iranian airline passengers' perception level, from service quality is 2.28 (lower than the average number 3). This means that the average of rates is less than 3. So we can conclude that the most of customers are dissatisfied with services provided by the airline of the Islamic Republic of Iran.

4.4 Result of the first sub-hypothesis: tangible factors

The average of Iranian airline passengers' perception level from tangible factors is 2.28 (lower than the average number 3). So, most of customers of Homa are dissatisfied with tangible factors provided by the airline of the Islamic Republic of Iran. According to the results of the questionnaire on tangible factors, the difference between expected and perceived quality and variety of foods and inside services such as stewardess appearance and comfortable seats inside the plane is less than the difference between their expectations and perceptions of the two indicators of advanced equipment and entertainment flights. It indicated that the Iranian airline passengers are more satisfied by the first three indicators than the next two indicators. Most of the Iranian airline passengers' dissatisfaction is about the lack of advanced equipment and inappropriate visual entertainment in the aircraft.

4.5 Result of the second sub-hypothesis: responsiveness
The average of Iranian airline passengers' perception level, from responsiveness factors is 2.31 (lower than the average number 3). So the most customers of Homa are dissatisfied with responsiveness factor provided by the airline of the Islamic Republic of Iran.

The difference between expected and perceived quality from information about flight cancellations and delays, response time employees, passengers, and the use of alternative facilities and programs is less than the difference between their expectations and perceptions of the two indicators of safety training by cabin crew and immediate response to passengers complained by staff. It indicated that the Iranian airline passengers are more satisfied from the first three indicators than the next two indicators. Most of the Iranian airline passengers' dissatisfaction is about the inadequate training of safety issues by cabin crew and staff impatience in resolving their problems.

4.6 Result of the third sub-hypothesis: empathy

The average of Iranian airline passengers' perception level, from empathy factor is 2.46 (lower than the average number which is 3). So the most customers of Homa are dissatisfied with empathy factor provided by the Islamic Republic of Iran airline.

The difference between expected and perceived quality from schedule of flights, accommodations for passengers who travel a lot, and 24-hour Internet service, is less than the difference between their expectations and perceptions of the two indicators of friendly cabin crew and cabin service. It indicated that the Iranian airline passengers are more satisfied from the first three indicators than the next two indicators. Most of the Iranian airline passengers' dissatisfaction is about the lack of friendly cabin crew and inappropriate cabin service.

4.7 Result of the fourth sub-hypothesis: assurance

The average of Iranian airline passengers' perception level, from confidence factor is 2.51 (lower than the average number 3). So, most customers of Homa are dissatisfied with confidence factor provided by the Islamic Republic of Iran airline.

The difference between expected and perceived quality from staff knowledge level, travelers rely on staff behavior, and follow up the passengers problems, is less than the difference between their expectations and perceptions of the two indicators of feeling safe during the flight and staff politely behavior. It indicated that the Iranian airline passengers are more satisfied from the first three indicators than the next two indicators. Most of the Iranian airline passengers' dissatisfaction is about low-level secure feeling during the flight and the lack of polite behavior.

4.8 Result of the fifth sub-hypothesis: reliability

The average of Iranian airline passengers' perception level, from reliability factor is 2.35 (lower than the average number 3). So, most customers of Homa are dissatisfied with reliability factor provided by the Islamic Republic of Iran airline.

The difference between expected and perceived quality from no delayed flights, the deadline committed service and proper loading, is less than the difference between their expectations and perceptions of the two indicators of problem solving by staffs and loading baggage. It indicated that the Iranian airline passengers are more satisfied from the first three indicators than the next two ones. Most of the Iranian airline passengers' dissatisfaction is about failure to address problems by staffs and remedial procedures for delayed or missing baggage.

5. Conclusion

As noted, airlines need to explore the service expectations and perceptions of customers to stay alive in industries' increasing competition. Knowing customer's preferences accurately, companies are able to give customers exactly what they want by customizing the products or services, to surprise and delight them and to make a core competency to overcome their competitors. In this research, we assessed the service quality in Islamic Republic of Iran’s Airlines and mentioned there exits gap between customers’ expectation and their perception of these airlines services. Considering nowadays competitive market of international airways, Homa managers should be alarmed about passengers’ dissatisfaction rate and the causes of these satisfactions. Prioritizing the main problems based on our results in this research can be helpful for Homa’s managers to fill the mentioned gap between expectations and perceptions of their customers as a quick way of decreasing dissatisfaction rate. Furthermore, knowing the customers’ expectation clearly is the best way to satisfy them.

According to the outcomes of this study, passengers flying with Homa emphasize on the followings:

- Modern, advanced in-flight facilities and equipment
- In-flight visual entertainments
- Prompt staff response to passengers' complaint
- Training safety tips by the crew
- Friendly, polite behavior of the cabin crew
- Feeling safe during the flight
- Fast baggage acceptance
6. References


7. Grewe, T., (2009), The Identification of Gaps between perceived and required Service Quality and Strategies to increase Customer Satisfaction, pp10-40


