

## Measuring Service Quality in Ethiopian Airlines

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### Abstract

*The aim of this paper is to investigate the relationship between airline service quality, passengers' satisfaction and loyalty towards Ethiopian Airlines. SERVQUAL model was used to measure the perceptions and expectations of passengers' on the services received from Ethiopian Airlines. The five dimensions of SERVQUAL, i.e. reliability, assurance, tangibility, empathy and responsiveness were used to measure the service quality of Ethiopian Airlines. Through the identification of 21 service quality indicators a questionnaire containing 47 items was developed. According to the findings of this study, the passengers were dissatisfied with all five dimensions of service quality. The most dissatisfied dimension was reliability with the highest service gap score. Three dimensions i.e. tangibles, assurance and reliability of service quality positively affected the passengers' level of satisfaction and among those dimensions, assurance has the strongest effect on the level of customers' satisfaction. It was also indicated that passenger satisfaction plays an important role in enhancing passenger loyalty. The findings of this study will help Ethiopian Airlines to redefine their marketing strategy to one that is customer-focused and emphasizes on service quality. It will also be important for other African Airlines to identify the dimension of service quality most preferred by the passengers'.*

**Keywords:** Service quality, Passengers' Loyalty, Satisfaction, Airline, SERVQUAL

### Introduction

Deregulation and liberalization in the airline industry transformed the industry into fastest growing and competitive market. This led to the emergence of a variety of new entrants into the airline industry. These factors created a new management challenge for Airlines. In early periods, price leadership strategy called Low Cost Carriers (LCCs) was used by airlines to tackle the challenge. In recent years airline service quality has assumed greater importance and viewed as an important part of competitive strategy (Tiernan, 2008).

Currently, service quality has become the most important factor for the success and survival in airline industry. It is a key differentiator between the competing airlines. It is especially very critical in a highly competitive environment such as that of the Ethiopian Airlines operating environment. Furthermore, delivering high quality airline services can help in meeting several requirements such as customer satisfaction, customer loyalty, market share, soliciting new customers, improved productivity, financial performance and profitability (Llosa et al., 1998).

The purpose of this study is to assess the level of service quality offered by Ethiopian Airlines. It also tries to investigate the impact of service quality on passengers' satisfaction as well as the relationship between satisfaction of passengers' and their loyalty to create a long term commitment with Ethiopian Airlines.

## Theoretical Background

Research into airline service quality has increased rapidly since its relationship with passenger satisfaction and profitability has been established (Heskett et al., 1994). Much of the literature suggests that airline passengers perceive service quality as a multi-dimensional construct, which is in accordance with the conception of service quality proposed by Parasuraman et al. (1988) in their well-known service-quality measuring instrument called SERVQUAL. According to the SERVQUAL model (Parasuraman et al., 1988), service quality can be measured by identifying the gaps between customers' expectations of the service to be rendered and their perceptions of the actual performance of the service.

To achieve a high level of customer satisfaction, most researchers suggest that a high level of service quality should be delivered by the service provider as service quality is normally considered an antecedent of customer satisfaction. As service quality improves, the probability of customer satisfaction increases (Clemes, 2008). This will lead to loyal and committed customers (Reichheld, 1996)(Cronin and Taylor 1992).

## Research Hypotheses

The hypotheses to be tested in this study are given below as:

**H1.** There is a significant difference between passenger expectation and their perceptions of service quality offered by Ethiopian Airlines

**H2.** There is a significant relationship between perceived service quality provided by Ethiopian Airlines and passenger satisfaction

**H3.** There is a positive relationship between passenger satisfaction and their loyalty in Ethiopian Airlines

## Methods and Procedures

In this study both primary and secondary sources of data were used to collect the needed information from the sources. The primary data were collected through administering questionnaire from selected passengers. In order to get the answer for questions, 110 questionnaires were distributed to 110 passengers of Ethiopian Airlines. Because some customers may not master the English language, the questionnaire was designed in two versions, Amharic and English. The targeted population includes customers of Ethiopian Airlines located in Addis Ababa. The questionnaire was distributed to passengers waiting to travel and arrived from different location using Bole International Airport. From the 110 questionnaires, 99 responses were received. The data provided were then examined. The screening process resulted in excluding 5 responses from the study because of missing data items. The remaining responses 94 represent an effective response rate of around 86 percent of the total sample.

The questionnaire has four sections consisting of 54 questions. The first part of the questionnaire consists of issues related to the personal information of the respondent. It included the age, gender, educational background and travel history of the respondents. The second part was concerned with the questions used to assess service quality in Ethiopian Airlines. The research instrument design is based on the five dimensions of service quality and the 22 service items of the SERVQUAL model. The developed questionnaire includes four items correspond to the tangibles dimension; five items correspond to the reliability dimension, four items correspond to the assurance dimensions, four items to the responsiveness and four items to empathy. Respondents

were asked to indicate their degree of agreement with each of the items on seven-point likert scale. It has also two parts containing perception and expectation of passengers towards the service provided. Passengers were required to express their agreement by encircling from number one (if they strongly disagree) to number seven (if they strongly agree).

Studies on customer satisfaction with services have traditionally measured using single item measures. In this study, passenger's satisfaction was measured using one item that captures overall satisfaction on service offered by Ethiopian Airlines. It was measured using a seven-point likert scale (1-strongly disagree to 7-strongly agree). Passenger's loyalty comprised four items adapted from Zeithaml et al. (1996). It comprised of questions that can be used to measure the passengers' willingness to recommend to other people, their future commitment and intention of repurchase. It was also measured using a seven-point likert scale (1-strongly disagree to 7-strongly agree). The populations of this study comprised of passengers' who used Ethiopian Airline to travel from one location to another i.e. domestic or international. This study used non-probabilistic sampling technique to select respondents among the total population. The passengers were picked using convenience sampling from domestic and international flights during one week at Bole international Airport from May 2-9. The total numbers of respondents are 110.

After collecting the data from the respondents, the researcher used various quantitative methods to analyze the data. The data collected was edited, coded, tabulated, and presented for analysis. After calculating the mean score value for expectations and perceptions of service quality, a so-called "gap score" (G) is then calculated as the difference between the "perception-of-performance" score (P) and the "expectations score" (E). To test the existence of significance difference between expectations and perceptions paired sample t-test is used. Paired t-test is a way of to test for comparing two related samples (Kothari, 2007). In this study, the paired-samples t test is used to compare the means score values for expectations and perceptions of service quality dimensions. As, this study attempts to find the effects of the independent variables on the dependent variables multiple regressions is used to test the effect of service quality on passengers satisfaction, and passengers satisfaction on their loyalty. The quantitative data analysis was made by using computer software called SPSS.

## **Results**

### **Demographic Characteristics of the Respondents**

From the respondent, 67 percent of them are male and the remaining 33 percent are females. Accordingly, majority of the respondents lie between ages 30 and 40 constituting 43.6 percent of the respondents. 34 percent of the respondents are from 18 to 29, 6.4 percent are from 41 to 60, and the remaining 4.3 percent are above 60 years old. The educational qualification for the majority of the respondents' is above first degree. Respondents below secondary school education constitute 8.5 percent of the whole respondents, 16 percent of them belongs to diploma, first degree and second degree and above comprise 39.4% and 36.2% respectively. There are passengers who use Ethiopian Airlines for local flight, international flight, and both flights. Accordingly, 12.8 percent of the respondents use the domestic flight, 54.3 percent are international flight passengers and the remaining 33 percent use both domestic and international flights.

## Expectations of Service Quality

The responses to questions about expectations provide an idea of the relative importance of a service quality dimensions. Table 1 displays the expectations of service quality mean score values for Ethiopian Airlines and their relative importance as compared to other dimensions.

*Table 1 Mean scores of expectations and their relative importance*

<b>Dimensions</b>	<b>Mean Scores</b>	<b>Ranking</b>
Tangibles	6.3750	4
Reliability	6.7766	1
Responsiveness	6.3856	3
Assurance	6.5904	2
Empathy	6.3021	5

Source: Own survey (2011)

As per the passengers' response, reliability dimension ranked as the first important dimension among the five service quality dimensions with a mean score value of 6.7766. This result is consistent with the findings by Parasuraman et al. (1991) in their studies on other service firms. Studies conducted in India civil aviation industry context (Khan, 2008) and international context (Sultan et al., 2000) indicated reliability as the most important requirements of airline operations. The second important dimension is assurance, with the least important being the dimension empathy with a mean score value of 6.3021.

## Perception of Service Quality

Table 2 indicates the perception of passengers on the service delivered by Ethiopian Airlines. According to Table 2, the tangible dimension of service quality is carried out superior to the other four dimensions with the mean score of 5.0346.

*Table 2 Mean scores of perception and their relative importance*

<b>Dimension</b>	<b>Mean Score</b>	<b>Ranking</b>
Tangibles	5.0346	1
Reliability	3.9872	5
Responsiveness	4.2580	3
Assurance	4.8856	2
Empathy	4.0213	4

Source: Own survey (2011)

Perception for Ethiopian Airlines services are lowest for reliability with the mean score value of 3.9872. Empathy is the second lowest with a mean score value of 4.0213.

## Service Gaps

As can be seen from Table 3, the mean service gap score for all values are negatives suggesting that there exists a gap between the respondents' expectations of what the services of Ethiopian Airlines

should be and their perceptions of the service quality actually offered by Ethiopian Airlines in all dimensions of service quality.

Table 4 Service Gap score values

<b>Dimension</b>	<b>Gap (Perception – Expectation)</b>	<b>t value</b>
Tangibles	- 1.3404	13.361*
Reliability	- 2.7894	23.305*
Responsiveness	- 2.1276	17.416*
Assurance	- 1.7048	14.744*
Empathy	- 2.2808	11.912*
<b>Overall</b>	<b>-2.0486</b>	

Source: Own survey (2011)

\*Significant at 0.05 levels

The overall service gap for Ethiopian Airlines rated by passengers was - 2.0486. The deviations from the expectation of passengers vary amongst the five dimension of service quality. As per passengers' perception the worst dimension of service quality is reliability followed by empathy, responsiveness, assurance and tangibles respectively. Unfortunately with 95% confidence level, the passengers of Ethiopian Airlines participated in this study are dissatisfied with the service which they receive. The t-values for all variables indicate expectations to be higher than perceptions, i.e. respondents' dissatisfaction on all the five dimensions. Hence, hypothesis H1 is accepted.

### Service Quality and Passengers Satisfaction

In this study, to test the effects of the variables of customers' perceptions of service quality on the variable of level of customers' satisfaction, multiple regression analysis was used. Table 4 presents the regression results of the five service quality dimension of Ethiopian Airlines and passengers satisfaction.

Table 4 Regression results of service quality of and passengers' satisfaction

<b>Independent Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>t-value</b>
Constant	-.504	.318	-1.584
Tangibles	.204	.088	2.307*
Reliability	.415	.114	3.630*
Responsiveness	.020	.092	.220
Assurance	.427	.109	3.902*
Empathy	.030	.077	.393
$R^2 = 0.832$ Adjusted $R^2 = 0.823$ $F = 87.385$ *			

Source: Own survey (2011)

\*Significant at 0.05 levels

The regression result in Table 4 indicates all service quality dimension (tangibles, reliability, responsiveness, assurance and empathy) combined significantly influence the satisfaction of passengers using Ethiopian Airlines. Therefore, H2 is accepted. The adjusted  $R^2$  of 0.823 indicates 82.3 percent of variance in passengers' satisfaction can be predicted by the service quality dimensions of Ethiopian Airlines.

The t-values in Table 5 indicates tangibles, reliability and assurance dimension of service quality have a significant influence on passengers' satisfaction at 95% confidence level. Conversely, responsiveness and empathy dimension have no significant influence on passengers' satisfaction in Ethiopian Airlines.

### Passenger Satisfaction and Loyalty

Table 5 displays the relationship between passengers satisfaction with their loyalty to Ethiopian Airlines. In order to test their relationship multiple regressions is used at 95 percent confidence level. The overall satisfaction of Ethiopian Airlines passengers seems to have statistically significant and positive effect on their loyalty. The adjusted  $R^2$  of 0.149 indicates that 14.9 percent of passengers' satisfaction is associated with their loyalty. The positive significant coefficient suggests higher passengers' satisfaction on Ethiopian Airlines service quality and the higher the loyalty of the passengers. Therefore, hypothesis H3 is supported.

Table 5 Regression results of passengers' satisfaction and loyalty

<b>Independent variable</b>	<b>Coefficient</b>	<b>Standard error</b>	<b>t value</b>
Constant	2.285	0.622	3.670
Passengers' satisfaction	0.560	0.135	4.155
$R^2 = 0.158$ $Adjusted R^2 = 0.149$			

Source: Own survey (2011)

\*Significant at 0.05 levels

The result of this study indicates, passenger satisfaction is not the sole determinant and predictor of passengers' loyalty in Ethiopian Airlines. There are other variables that influence passenger loyalty better than passenger satisfaction, because the adjusted  $R^2$  of 0.149 indicates 14.9 percent of variance in passenger loyalty can be predicted by the passenger satisfaction.

### Conclusion

The high ranking of the reliability and assurance dimensions suggest passengers expect Ethiopian Airlines to perform the services as promised consistently and accurately. To them, providing service at convenient time and giving more personal attention to the passengers is not important when delivering the Airlines service rather the reliability of service that matter most. In order to fulfill the needs of passengers', Ethiopian Airlines must make sure that services delivered are reliable at all times. Therefore, the center of attention should be on providing the service efficiently as promised consistently with knowledgeable employee capable of providing prompt attention to passengers' specific needs. Moreover, there should be an increase in investment to create interesting travel environment through visually appealing equipments. Providing variety of in-flight entertainment facilities better than the current level is also indispensable.

The study signifies differences that exist between consumer perceptions and expectations in Ethiopian Airlines. The expectations are greater than the perceived performance and resulted in dissatisfaction of passengers. Ethiopian Airlines should develop a system to fill the gap exist towards the five dimensions of service quality. Priority should be given to dimension with the highest service gap score and most important to the passengers specifically on the service provider's ability to provide accurate and dependable services. This will help to retain more passengers as a customer for Ethiopian Airlines.

As far as the level of passengers' satisfaction concerned, Ethiopian Airlines passengers dissatisfied with all dimensions of service quality. This indicates the Airlines poor performance in meeting passengers' needs and requirements. To reduce the passengers' dissatisfaction and meet passengers' expectations Ethiopian Airlines is required to improve all dimensions of service quality. All improvement activities require the commitment of the employee and management of the Ethiopian Airlines. The other tool to fill the gap is designing training programs. Training is an important mechanism to increase the efficiency of employees in doing their job. They can gain skills on solving the problems of passengers easily, to show consistent performance, and to be sincere in resolving passengers' complaints.

In order to get satisfied and delighted customers, the focus should be placed largely on tangibility, reliability and assurance dimensions. These are the dimensions that have significant influence on passengers'. On contrary, the other two dimensions i.e. responsiveness and empathy have insignificant influence on the satisfaction of passengers. The positive significant coefficient for passengers' satisfaction and loyalty relationship suggests higher passenger satisfaction on Airlines service quality and the higher the loyalty of passengers towards Ethiopian Airlines. Thus, satisfied passenger is important in developing a loyal passenger.

Ethiopian Airlines should seek to develop strategies that enhance loyalty of passenger. These strategies should include meeting customers' desired service levels, dealing effectively with dissatisfied customers, and confronting customer complaints positively. Ethiopian Airlines needs some strategic alliance to have with other travel related partners, car rentals, hotels and travel insurance. These programs benefit both the passenger and Ethiopian Airlines and increase the satisfaction of passengers. Numerous and easy to use ticketing systems, convenient flight schedules, and attractive mileage programs to reward frequent passengers can help to get loyal and committed passengers.

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