ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE

The Effect of Service Quality on Customer Satisfaction in the Aviation Industry: The Case of Ethiopian Airlines

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ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE GRADUATE STUDIES MARKETING MANAGEMENT MA PROGRAM

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APPROVED BY BOARD OF EXAMINERS

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Declaration

I, the undersigned graduate student, hereby declare that this thesis is my original work, and that all sources of the materials used for this thesis have been duly acknowledged. This research study is being submitted in partial fulfillment of the requirement for Master of Arts degree in Marketing Management.

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Abstract

Customer satisfaction has been one of the main concerns of airline industry all over the world. This has been necessitated by the stiff competition in the aviation industry. Airlines are striving hard to offer quality services to maintain existing customers and to convince new ones as well. The main objective of the research was to assess the effect of airline service quality on customer satisfaction using the five service quality dimensions of AIRQUAL model in Ethiopian Airlines. A sample of 270 customers was taken. The questionnaire was developed based on five dimensions of AIRQUAL model. In methodology part the collected data are analyzed using descriptive statistical tools like mean and correlation and also to analyze the effect relationship regression analysis, normality test and multi-Collinearity test was implemented using SPSS 22 statistical tool. The main findings of the study include the following: all dimensions of AIRQUAL except empathy have a positive relationship with customer satisfaction. The study revealed that airline tangible, terminal tangible and images have positive and significant influence or effect on customer satisfaction. The output of regression shows, from the five dimensions airline tangible, terminal tangible and image have positive and significant effect on customer satisfaction while personnel and empathy were insignificant as the result customer satisfaction is predicted by service quality by the value 63.3% based on the five dimensions of AIRQUAL model.

Recommendation that was made include; Ethiopia airlines should have to give more emphasis and do strongly on the dimensions of airline tangible, terminal tangible and image that have positive relationship and significant effect on customer satisfaction. The employees should be polite enough to assure customers feel confident and safe. Employees should try to understand and identify with customers' specific needs and help according to their respective need. From the research seen all dimensions have a positive effect on customer satisfaction but it is needed to give more emphasis and do on the dimensions of airline tangible, terminal tangible and image that have significant effect on customer satisfaction. However, empathy, and personnel has not been found significant in this study. This study may indicate that customers who used frequently the airline service have a higher tendency of being loyal and hence satisfied with the services.

Key words: service quality, customer satisfaction, AIRQUAL

Chapter One

INTRODUCTION

This chapter includes the background of the study, statement of the problem, the research questions, and objectives of the study, hypothesis of the research, definitions, significance and scope of the study.

1.1 Background of the study

The aviation industry has become the most important sector in the economic development of a country. It plays a dynamic role in moving people or goods from one place to another destination, be it local or international, especially when the distances involved are too far.

Airline marketing offers a particularly fascinating illustration of the application of marketing principles because it contains examples of both industrialized and Consumer Marketing. Selling to the business air traveller, and of air shipping services.

Air carriage is one of the most important industries in economy of the nation. Aviation provides the only worldwide transportation network, which makes it crucial for global commerce and tourism. It plays a dynamic role in facilitating economic growth; mostly in developing countries (ATAG, 2014)

Air transportation is one of the most important aspects that affect the international development significantly in the new era. The aviation industry normally represents a service sector. In rapidly changing situations, the airlines have to adapt to economic downturns, high-tech changes, market changes, airline commercial deregulation, and the global trend toward privatization of the business. It is considered as the "global connectivity that ultimately strengthens production and economic growth as a whole" (Perovic, 2013). The Airline industry can be defined as activities that are directly related to the transporting and moving of people and goods by air from one place to another destination (Chikwendu, 2012). Airline industry plays a key role in every countries economic activity and it supports in opening up of the countries market to both local and foreign investors (Abeyratner1998). Also, airline industry helps to generate employment. Globalization has made the air transport more necessary for everybody to be every-where at any time.

At this time, the aviation market has become more challenging and carriers or airlines have turned to focus on service quality to increase service satisfaction. In service industries, globally, the question of service quality remains critical as businesses struggle to sustain a competitive position in the marketplace .There is need for air carriers to give attention on service quality if the airlines desire to improve on market share and further improve financial Performance in both local and international market (Albrecht and Zemke,1995). Service quality situations influence an

organization's competitive advantage by retaining customers and market share (Park et al., 2004).

The final product of an airline is the transportation services that it offers to the customers. And the performance indicator of an airline is its service quality that it offers to its customers. By service quality is meant all the sequence of activities that must takes place efficiently and effectively to transport the customers from origin airport to the destination airport (Mersha, 2004). Aviation services are made up of a very complex mix of intangibles Gursoy et al.(2005). Thus, measuring/evaluating customers' expectations, as well as their service quality is a real task because customer satisfaction is determined by many factors of intangibility such as neatness of the cabin, crews attitudes, etc. (Fitzsimmons and Fitzsimmons, 1994).

In Africa, especially Ethiopia, the air transport industry has energetic role to play in achieving a sustainable growth and competitive excellence. The expansion of the services is essential condition for the development of a more diversified export and expansion of tourism in the region. Perhaps the major powerful contribution that air transport can make to economic advance in Africa is through developing and promoting/endorsing international tourism (Mersha, 2004).

In some cases, the airlines industry is the only direct exit for a land locked nation like Ethiopia. In such cases the well-being and the sustainability of the airline industry becomes not only a commercial subject, but also a survival issue (Mersha, 2004).

Ethiopian airline is bare to a very high competition against different giant alliance carriers in the international scene, regional alliance in Africa and the part of Middle East, and strong individual airlines from Europe, Middle East and Africa. Unless the airline prepare and develops strategy to stand the upcoming competitive burden, the consequences could be hard (Gashaw, 2011). Airline Service Quality is a key distinguisher between the competitor airlines. It is especially very critical in a highly competitive environment such as that of the Ethiopian Airlines operating environment. Therefore, Service Quality improvement is key issue that determines the very survival of the airline itself (Mersha, 2004).

The air transport industry is one of the world's most important service industries. Air transport is essential to economic progress. In an increasingly global community and market place, air transport makes possible the rapid movement of millions of people and billions of dollars' worth of goods to the market around the world fast and efficiently. The challenges arise in the airlines industry not only because of growing competition between the airlines; but also due to growing consumer demands for better service. In a highly competitive environment the provision of high quality services to passengers is the core competitive advantage for an airline's profitability and sustained growth. In the past decade, as the air transportation market has become even more challenging, many airlines have turned to focus on airline service quality to increase service

satisfaction (Archan and Shuba, 2012).

Ethiopian Airlines

Ethiopian Airlines (Ethiopian) (ET) is a government owned company found in the capital city of Ethiopia, Addis Ababa, with its head office located at Bole International Airport (Ethiopian Fact Sheet 2011).

Ethiopian Airlines is considered as a successful African flag carrier airline (Megersa 2007).Ethiopian AirlinesformerlyEthiopian Air Lines (EAL)and often referred to as simply Ethiopian is the flag carrier of Ethiopia and is wholly owned by the country's government. EAL was founded on 21 December 1945 and commenced operations on 8 April 1946, expanding to international flights in 1951. The firm became a share company in 1965, and changed its name from Ethiopian Air Lines to Ethiopian Airlines. The airline has been a member of the International Air Transport Association since 1959, and of the African Airlines Association (AFRAA) since 1968. Ethiopian is a Star Alliance member, having joined in December 2011 (www.ethiopianairlines.com).

Ethiopian has become one of the continents leading carriers, unrivalled in Africa for efficiency and operational success, turning profits for almost all the years of its existence. Operating at the forefront of technology, the airline has also become one of Ethiopia's major industries and a veritable institution in Africa. It commands a lion's share of the pan African network including the daily and double daily east-west flight across the continent. Ethiopian currently serves 94 international destinations operating the newest and youngest fleets.Ethiopian airlines offers two classes of service: cloud nine which offers combined services of first and business classes and Economy class where passengers are offered 12 audio chandelles with access to a video library of more than seven titles.

The loyalty program is offered by different types of airlines. Customers enrolled in the program to accumulate frequent flyer program (FFP).

There are three Tier levels in the Program with increasing privileges as a member progress from Blue to Silver, and from Silver to Gold. The sum of status miles or the number of qualifying sectors flown annually determines a membership status to a higher Tier level. These benefits are not only for international flights but members can also accrue a minimum of 500 miles per flight segment on any Ethiopian Airlines domestic flight.

Moreover, after the integration of Ethiopian with Star Alliance, ShebaMiles launched a frequent flyer program partnership agreement with over 28 airlines including all the Star Alliance member airlines. In addition, it currently has over 65 non-airline partners (hotels, restaurants, car

rentals, shopping centres, spas, gas stations etc.) where members have the privilege to earn and redeem miles whenever they utilize the services of these partners. (www.ethiopianairlines.com).

The Addis Ababa Bole international Airport is the major hub for Ethiopian Airlines and one of the largest airports in Africa. The ultra-modern airport terminal was inaugurated on January 21, 2003. This spacious terminal handles all international flights with its 21st century facilities. Addis Airport is the busiest airport in East Africa with a capacity of providing a world class passenger.

During the past sixty five plus years, Ethiopian has become one of the continents leading carriers, unrivalled in Africa for efficiency and operational success, turning profits for almost all the years of its existence.

1.2 Statement of the problem

The service sector nowadays covers a wide range of areas and activities. Service quality and customer satisfaction are very crucial concepts that companies must realize if they want to remain competitive and productive (Biljana and Jusuf, 2011). In today's highly competitive environment rendering high quality service is the key for a sustainable and competitive benefit. Customer satisfaction has a positive effect on an organization's productivity. Satisfied customers form the foundation of any winning business as customer satisfaction leads to repeat purchase, brand loyalty, and positive word of mouth (Biljana and Jusuf, 2011).

With the ever increasing competition in the aviation service industry, the delivery of high level of service quality by the airline companies became a marketing requisite in recent decades in particular (Miller, 1993). As a consequence, different airlines began to offer various benefits or incentive such as frequent flyer programs (FFP), in an effort to construct and maintain the loyalty of customers (Miller, 1993). Airline companies also attempted to differentiate their service through use of automated reservation system which was also designed to create customer loyalty in distribution channels.

It has been stated that an organization that consistently satisfies its customers, enjoy higher retention levels and greater profitability due to increase customer loyalty (Wicks and Roethlein, 2009). Although there are other factors such as promotion, price, product quality etc. other than service quality that determine customer satisfaction the interest of the research is to undertake a study on service quality alone (Wicks and Roethlein, 2009). This is because service quality has been proven to be the best determinant of customer satisfaction when it comes to service sectors (Janet 2011)

There is a number of dissatisfaction on the service delivery system of Ethiopian Airlines both on domestic and international flights. A Number of reasons are behind this customer

discontents. Whatever the reasons may be, once the customer is dissatisfied, it would be very difficult to gain their trust back. In this regard, a research should be carried out to urge a major reform; to assess the root causes of the problem and get the problem rectified (Gashaw).

There are different literatures that postulate the problems in the service quality of Ethiopian airlines. Mersha, 2004 has identified poor service quality on different areas as one of the weakness of the airline. Furthermore online rating from passengers on the quality of services provided indicate that the airline lacks in area such as quality of cleanness of the aircraft interior, in-flight meal, customer service and personnel interactions and irregularity handling. Furthermore, most studies conducted to test the relationship between service quality and customer satisfaction in the aviation industry adopted the SERVQUAL model. So a study on aviation industry is done to find out the relationship between service quality and customer satisfaction.

In line with the above statement the researcher believe in this highly competitive market environment there are a wide range of airline customers that can choose from major airline like United airlines, Lufthansa and the like and low cost carrier airlines like Fly Dubai flying the same destinations as Ethiopian airlines each offering their own different service packages now is the time more than ever to emphasize on the quality of service provided and customer satisfaction.

This research has attempt to measure the effects of service quality provided by Ethiopian airlines. It has also tried to look in to how the quality of service has affected the level of customer satisfaction in today's extremely competitive market. It also attempts to forward different possible ways to increase customer satisfaction and gain competitive advantage through the quality of service provided to the customers.

There are few studies that use the AIRQUAL model instead of SERVQUAL. Foreinstance, the study by Ekiz and Hussain (2006) "perception of service quality in North Cyprus airline industry: a path analysis application" also adopted the AIRQUAL model to overcome the psychometrical application problem of SERVQUAL scale. The SERVQUAL has its own limitation on the Airline industry and the AIRQUAL model is very suitable to use.

1.3Research Objectives of the study

In line with the specified problems and research questions, the objective of this research has been categorized into general objective and specific objectives.

1.3.1 General objectives

To analyse the effect of service quality on customer satisfaction for Ethiopian Airlines.

1.3.2 Specific objectives

The specific objectives of the study are:

- To examine the airline tangibles that affect service quality and customer satisfaction.
- To identify terminal tangibles that affect service quality and customer satisfaction.
- To determine the effect of empathy on customer satisfaction.
- To investigate the effect of personnel that could affect airline service quality and customer satisfaction.
- To examine the effect of EAL image on customer satisfaction.

1.4 Research questions

The following are the research questions of the study

Main research question

- What does service quality influence customer satisfaction in the aviation industry in the case of EAL?

Sub research questions

- How does the airline tangible affect customer's satisfaction?
- How do the terminal tangibles affect customer's satisfaction?
- How does empathy affect service quality and customers satisfaction?
- How does personnel affect service quality and customer satisfaction in the airline industry?
- How does the image influence the level of satisfaction expected by EAL customers?

1.5 Research Hypothesis

The hypotheses developed based on the problem statement that tested in this study were founded on the following assumptions:

H1: Airline tangible has a positive and significant effect on customer satisfaction.

H2: Terminal tangibles have a positive and significant effect on customer satisfaction.

H3: Personnel have a positive and significant effect on customer satisfaction.

H4: Empathy has a positive and significant effect on customer satisfaction.

H5: Image has a positive and significant effect on customer satisfaction.

1.6 Significance of the study

The service sector is continuously growing quality of service providing is becoming very crucial to gain competitive advantage. This research is going to assess the effects how the service

quality provided by Ethiopian airlines has affected the level of customer satisfaction and pave the way for an enduring success for the company. The research will add to existing knowledge with the concept of customer satisfaction and quality of service in general especially in the case of Ethiopian airlines. Findings of this study will go on to assist future researchers and academicians as an input for embarking upon similar researches in the future and reckon to further their insight regarding the issue. Generally the findings and conclusion from this study may be used to by different carriers for decision making by addressing the root problems hindering customer satisfaction. The research is mandatory for the researchers for the partial fulfilment of MA degree in marketing management, in addition with the opportunity for acquiring knowledge throughout the research.

1.7 Scope of the study

Despite the fact that airline industry is a global industry with various carriers operating to at different destination, the research has focused on passengers of Ethiopian Airlines on service quality and the study focused on the perception of customers who consume the service. Because the broad nature of the area of the study, the study couldn't access all the literatures concerning customer satisfaction and service quality because it would have been too much, thus it is in a limited aspect within the literature, thereby around the relationship between customer satisfaction and service quality dimension of AIRQUAL model was applied. Finally, the scope of the study was restricted to the research plan that is the effect of service quality on customer satisfaction on perception of customers in the airline industry by using AIRQUAL model.

1.8 Limitation of the study

The airline industry in this study focus on is international with various airlines operating to and from different destinations now it focus only on passengers of Ethiopian airlines. Moreover this topic concerns both employees and customers and it focus on quality of customer satisfaction as the interested in the perception of the customers who consume the service. The sampling method that was used is convenience sampling even if it is simple methods to collect and access the data it could lead to over or under presentation of a particular group within the sample. Even if convenience sampling could affect the data representation, it is forced to use it because it is very difficult to get the population sample frame.

1.9 Organization of the Paper

This paper is classified in five chapters. Chapter One covers the introduction part. Chapter Two presents review of related literatures and previous studies made related to the topic. Chapter Three contain research methodology and design. Chapter Four presents the results of findings. And

finally, Chapter Five presents the summary of major findings, conclusions, recommendations and implication of future research.

Chapter Two

REVIEW OF RELATED LITRATURE

2.1 Service

According to Kotler (2000), whether the production is tied with a tangible product or not, a service is any act or performance that one party offers to another that is essentially intangible and does not result in the ownership of anything. Using simple terms, services are also defined as deeds, processes and performances (Zeithaml and Bitner, 2003). They are different from physical products and cannot be stored. Their purpose however is to satisfy human needs and wants. Although services are part of our life there is difference between services and commodities. Schneider and White (2004) highlighted that pure services cannot be seen, touched, held, or stored because they have no physical manifestation, but are considered part of a process or interaction. Berry (1980) distinguished between services and goods and argued that, services are acts, deeds, performances, or efforts, whereas, goods are articles, devices, materials, objects, or things.

Lovelock and Wright (1999) presented two approaches to capture the essence of the word service. In the first approach service is defined as an act or performance offered by one party to another while in the second services as economic activities that create value and provide benefits for customers at specific times and places, as a result of bringing about a desired change in or on behalf of the recipient of the service.

2.1.1 Characteristics of service

Most literatures discuss about the four characteristics of services that differentiate them form that of physical goods. These unique characteristics have their implication on marketing strategy of services. Below are the descriptions as elaborated by Mudie and Pierrie(2006).

Mudie and Pirrie (2006) as well as Kotler and Armstrong (2012) have identified four distinguishing features of services. These include intangibility, inseparability, variability and perishability.

I. Intangibility

This is the most basic and often quoted difference between goods and services. Unlike tangible goods, services cannot generally be seen, tasted, felt, heard or smelled before being consumed. To help a customer picture a service prior to usage a service organization needs to provide something tangible, e.g. computerized representation of hairstyles or a university prospectus.

To reduce uncertainty, buyers look for "signals" of service quality. They draw conclusions about quality from the place, people, price, equipment, and communications that they can see. Therefore, the service provider's task is to make the service tangible in one or more ways and send the right signals about quality. One analyst calls this evidence management in which the service organization presents its customers with organized, honest evidence of its capabilities.

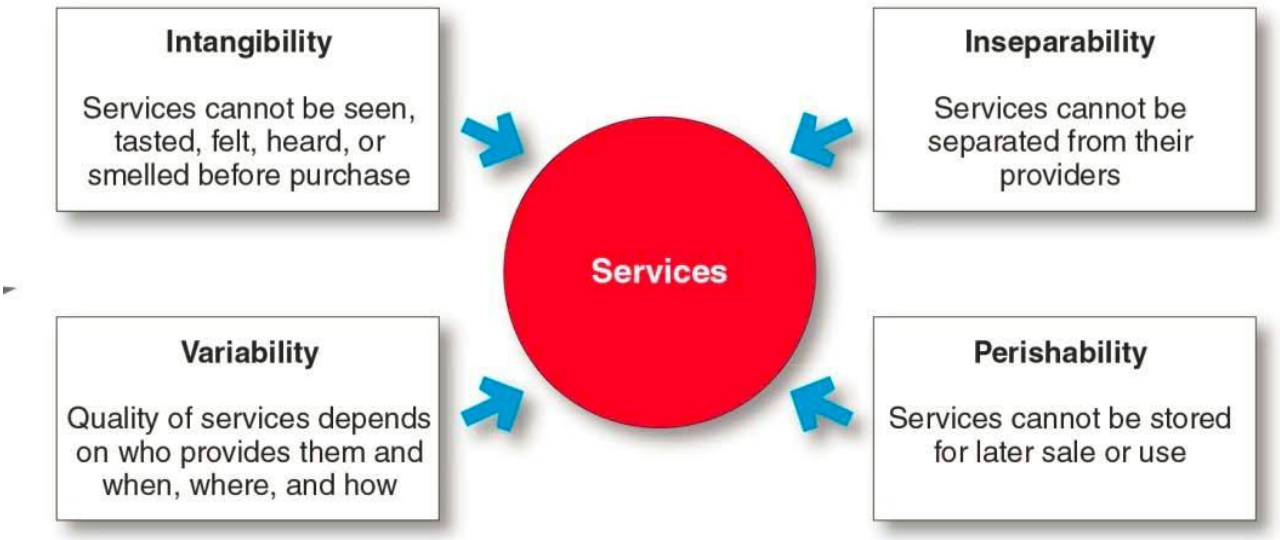


Fig 2.1 characteristics of services

Source: Kotler and Armstrong (2012)

II. Inseparability (or simultaneous production and consumption).

As a process that is intangible then, service is experienced the moment it is delivered (Kotler, 2003, Gronroos, 1990).The provider is present when the service is being delivered and consumed.

There is distinction between physical goods and services in terms of the Sequence of production and consumption. Goods are first produced, then stored and finally sold and consumed, services are first sold, then produced and consumed simultaneously. In services marketing, the service provider is the product. Service inseparability means that services cannot be separated from their providers, whether the providers are people or machines. If a service employee provides the service, then the employee becomes a part of the service. Because the customer is also present as the service is produced, provider-customer interaction is a special feature of services marketing. Both the product provider and the customer affect the quality of the service. Airline managers must work hard to leave no empty seat exists as it cannot be inventoried for later use (Schneider and White, 2004)

III. Heterogeneity/Variability

An unavoidable consequence of simultaneous production and consumption is variability in performance of a service. The quality of the service may vary depending on who provides it, as well as when and how it is provided. The service delivery is totally dependent on the skill level of staff members. Firms have the extra challenge maintaining standards of quality (Zeithaml et al., 1985).

IV. Perishability

Services are perishable, which means that they cannot be saved, stored for reuse at a later date, resold, or returned in the same sense as a product (Lovelock, 2004). Zeithaml et al., (1985) definition of perishability states that, unlike products that can be stored or reinvented for future orders, services cannot be returned, recaptured; only repeated. In the case of airlines, if the customers wait for the registration process in long queues or wait in the boarding area for long hours, service perishability is resulted (Hartman and Lindgren, 1993).

2.1.2 The 7- P's of service

Marketing activity is usually structured approximately the '4 Ps' – product, price, promotion and place. However, the unique characteristics of services require the addition of three Ps – people, physical evidence and process.

- People – the appearance and behavior of service personnel
- Physical evidence – everything from the appearance, design, layout of the service setting, to brochures, signage, equipment (the 'tangibilizing' ofthe intangible)
- Process – how the service is transferred or delivered, the actual procedures and flow of activities.

Each of the three extra Ps is of central importance in services as each represents cues that customers rely on in judging quality and overall image (Mudie and Pirrie, 2006).

2.2 Quality

Quality has different definitions in different contexts the following scholars give the following meanings. Quality is the entirety of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs (Kotler et al., 2002)

Quality is defined as the summation of the affective or emotional evaluations by each customer of each attitude object that creates customer satisfaction (Wicks &Roethlein, 2009).

Although the above and other scholars describe quality in different concept, no one's definition (of quality) is greatest in every situation because each definition has both strengths and

weaknesses in relation to criteria such as measurement and generalizability, managerial usefulness and customer significance or relevance.

2.3 Service quality

Service performance has been the quality of service, or the evaluation of the performance of the service. Service quality is a focused evaluation that reflects the customer's perception of elements of service such as interaction quality, physical environment quality and outcome quality. These elements are in turn evaluated based on specific service quality dimensions: reliability, assurance, responsiveness, empathy and tangibles.

Lewis and Booms (1993) define service quality as a measure of how well the service delivered match customer expectation. Providing service quality means conforming to customer expectation on consistent basis. It has also defined as the difference between customer expectation and service delivered.

Service quality has been given increased attention in recent years, due to its specific contribution to business competitiveness. Because of the difficulties in defining and measuring service quality, it is a concept that has aroused considerable interest and debate in the research literature (Wisniewski, 2001). According to M. Rahaman, Abdullah and A. Rahman (2011) service quality is an approach to manage business processes in order to ensure full satisfaction of the customers which will help to increase competitiveness and effectiveness of the industry. Service quality can thus be defined as the difference between customer expectations of service and perceived service performance. Mostafa (2005) observes that service quality has become a famous research topic because of its important relationship to cost, profitability, customer satisfaction, customer retention, service guarantee, and financial performance. Service quality as Martin (2013) cited is "the degree to which an event or experience meets individual's needs or expectations". Regardless of the definition of quality used, company leaders need to identify how the company's customers define quality (Parasuraman, 1988).

Service quality is considered as a critical dimension of competitiveness (Lewis, 1989). Excelling in service quality and opting for high customer satisfaction is the vital issue and challenge facing the contemporary service industry.Service quality is an important subject in both the public and private sectors, in business and service industries (Zahari et al., 2008). The concept of service quality has been defined differently by many authors as follows:

Service quality evaluation takes place when the customer's perceptions of the service

experienced are compared with the service expected. The difference between customers' expectations and the service delivered is termed the service quality (Parasuraman et al., 1985). Parasuraman, Zeithaml and Berry (1985) also suggest that Quality is a comparison between expectations and performance. Meeting or exceeding customers' expectation means good service quality.

2.4 Service Quality in the Airline Industry

Service quality and customer satisfaction in the travel industry today are two critical elements to most organizations. Professionals are constantly searching for new and exciting ways to promise more than the competition and delivery on their promise. O'Neill and Palmer (2004) explained that service quality and the degree of satisfaction derived from service quality is becoming the single most important differentiating factors in almost every travel environment. For the travel industry, the increasing competition and expansion of unique services and amenities has forced travellers to continuously search for competitive advantage. Today, customers have several choices of Air transport. Customers are educated, well-travelled and notorious for conducting extensive research before selecting that perfect airline, resort, tours or cruise line experience. Tour and Travel organizations face a significant challenge when they attempt to deliver quality service to create satisfied customers; customers who will hopefully demonstrate their loyalty to one exclusive brand (James, 2014).

Continuous quality improvement strategies are one of the methods employed by service providers in order to obtain service quality standards and deliver on their promises (James, 2014). The measurement and testing quality signifies the organization's commitment of quality to the customer.

An integral part of any organization's attempt to install a "quality culture" is a commitment to a process of "continuous improvement" (Witt and Muhlemann, 1995). In order to remain competitive in the marketplace and to be recognized as a leader in service quality, an organization must continue to utilize different forms of formal and informal measurements(James, 2014).

With regards to the airline industry service quality is contemplated as a composite of different interactions between customers and airlines, with employees seeking to influence customers' perceptions and the image of the carriers (Gursoy et al., 2005).

2.5 Service process in Airline Industry

As Gliatis & Minis (2007) say, a service is a sequence of processes; and each of those processes generates a different value for a service in question. The value of each service process depends on service attributes (characteristics) as well as the way the process accounts for these attributes. Similarly, Chen & Chang (2005) define airline service experience as a chain of services; each service is made of a series of processes. Here, a service process is divided into ground and in-flight services (sub-processes), and whereas Chen and Chang (2005) suggest that both have to be evaluated separately (which they do in their article), a customer is not very likely to differentiate between them. Thus, in this study, a service process is a descriptive service process from a customer's perspective, a process that coverts inputs to outputs through service steps that each customer takes when using air transportation. Service process consists of sub-processes, each of sub-processes contributing towards a service in question.

Fig 2.2 service process model (Kelley, 2012)

Here, the customer enters to a service process with certain expectations, created by e.g. word of mouth, prior experiences, marketing campaigns etc. (as discussed by Parasumaran et al., 1985). The expectations (or expected service) have an impact on the process itself as well as the output of the process, i.e. perceived service. As in Parasumaran's (1985) gap model, here, perceived service quality is a difference between expected and perceived services. The idea of airline passenger lifecycle is to evaluate the opportunities for value creation. The author suggests that an airline has an opportunity to create value for the customer in between each stage in this lifecycle. However, the cycle seems rather generalized and misses such value creation aspects like interaction with airline staff (Carlzon, 1989). Kelley (2012) does not make a difference between services provided by an airline, and services provided by an airport/third party as e.g. Chen & Chang (2005) do it.

The service process steps are based on the airline passenger lifecycle suggested by Kelley (2012), which consists of five stages 5)

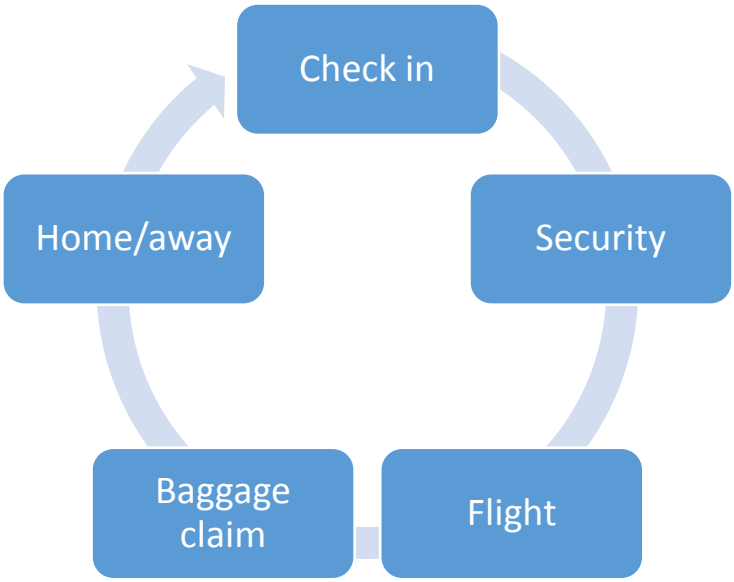


Fig 2.3 Airline passenger lifecycle (Kelley, 2012)

2.6 Managing customer Satisfaction

Quality is a driving force for improved competitiveness, customer satisfaction and profitability. Therefore, measurement of service quality is essential for measuring customer satisfaction. Parasumaran *et al.* (1991) categorized customer service expectations into five service dimensions: reliability, tangibles, responsiveness, assurance and empathy. Through these dimensions customer satisfaction can be measured and these dimensions are very popular in service quality judgment and customer satisfaction measurement. Chen and Chang (2005) suggested that service process is a descriptive service process from a customer's perspective, a process that coverts inputs to outputs through service steps that each customer takes when using air transportation. To measure customer satisfaction, Airlines should use the each service process step to measure customer satisfaction. Consequently, it will help them to measure customer satisfaction as well as service process improvement. When it comes to airline transportation, it is important to remember that the services are provided not by only carrier itself, but also by a number of other service companies. The airline provides actual transportation as well as tickets sales (although not in all cases) and on board services, an airport offers shopping services, check-in services (not in all cases) as well as baggage handling services. A subcontractor chosen by the airport often provides baggage handling, catering and technical services. In this environment, so heavily relying on outsourcing the services, it is often hard for an airline to keep service quality in control.

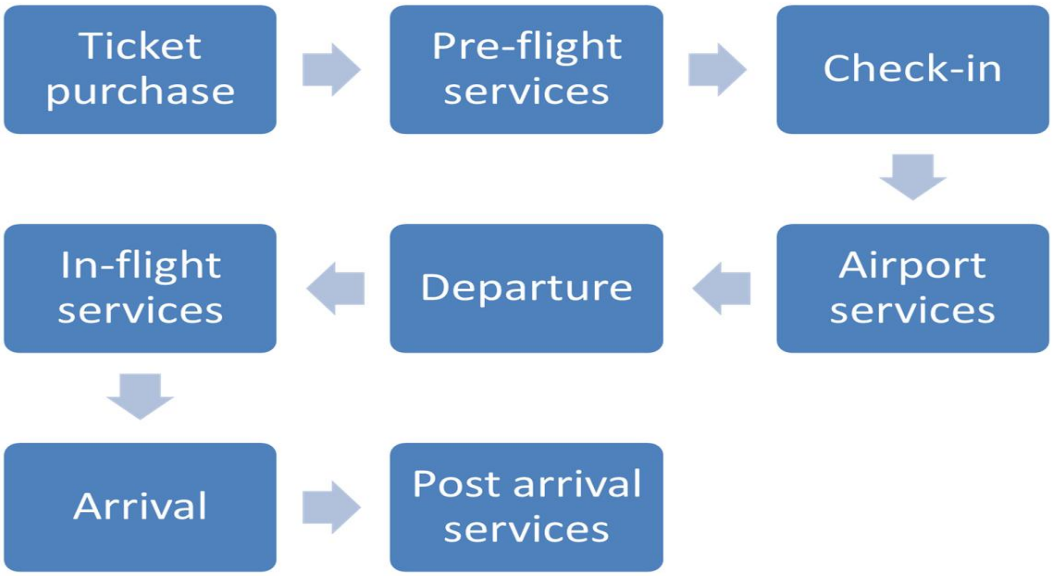


Fig 2.4: Service Process (Kelley, 2012).

Ticket Purchase:

• Easily available information on ticket prices, flight schedule etc.

• Ease, accuracy and speed of reservation and ticketing.

Pre-flight Services:

• Availability of pre-flight services (early baggage check-in, email reminder etc.).

• Airport is conveniently located / parking facilities are easily accessible and close to the airport.

Check-in Services:

• Ease, accuracy and speed of check-in.

• Availability of more than one check-in option

• Employees of the airline are courteous and helpful in case you use traditional check-in or have trouble with machine check-in.

Airport Services:

• Airline has comfortable waiting lounges.

• The airport has all necessary facilities and is clean and up-to-date.

• Airport staff is courteous and helpful.

• Employees of the airline are courteous and helpful during the flight.

• The aircraft has clean and comfortable facilities and seats

Departure:

• The flight departs and arrives at a time it promises.

• In case of delay, airline immediately makes an announcement and provides all necessary information (length of waiting, possibility to receive food vouchers, stay at the hotel or rebook a flight) In-flight Service:

• The airline has in flight entertainment facilities/program

• The airline offers good quality food and beverages.

• The airline offers onboard shopping with wider selection of products.

Arrival:

• See departure.

Post-arrival:

• Promptness and accuracy of baggage delivery

• The airline has other travel related partners such as car rentals, hotels and travel insurance where you can get discounts or earn extra miles.

2.7 Models for Measuring Service quality

Several conceptual models have been developed by different researchers for measuring service quality. It is envisaged that conceptual models in service quality enable management to identify quality problems and thus help in planning for the launch of a quality improvement program thereby improving the efficiency, profitability and overall performance (Seth and Deshmukh, 2005).

2.7.1 SERVQUAL Model

According to Parasuraman, Zethaml and Berry (1985) there are five identified criteria's used to measure service quality. Relative importance of dimensions Parasuraman et al. (1988) have observed that their instrument (SERVQUAL) can be used to evaluate the relative importance of the dimensions of quality in influencing customers' overall perceptions of a service. The SERVQUAL scale (Parasuraman et al., 1985) has been widely applied by both academics and practitioners across industries in different countries in terms of service quality measurement (Ali et al., 2013; Wu and Ko, 2013).

Zeithaml et al (2006), stated that "service quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy, and tangibles" (Zeithaml et al., 2006, p. 106-107). They added that among these dimensions, "reliability" has been shown consistently to be the most important dimension in service quality(Zeithaml et al., 2006); Parasuraman et al. (1985) developed a procedure for quantifying customers' perceptions of service quality be the most important dimension in service quality (Zeithaml et al., 2006).

Parasuraman et al. (1988) has developed the new refined instrument of SERVQUAL with five dimensions, namely; tangibles, reliability, responsiveness, assurance, and empathy.

a. Tangibles: - are those factors that the customers can see, hear and touch. It includes the appearance of physical facilities, equipment and appearance of contact personnel.

b. Reliability: - Ability to perform the service accurately and dependably.

c. Responsiveness: - The willingness to help customers and provide a prompt service.

d. Assurance:- The employees' knowledge and courtesy and their ability to inspire trust and confidence.

e. Empathy: - Provides caring individualized attention to customers.

While every service standards set by the company to meet the service quality, there should be an instruction which is specific to customers, measurable and achievable goals, relevant to customers, timely and supported by the company.

One of the first items of research to be conducted on airline service quality was by Gourdin (1988). Interestingly Gourdin (1988) did not use SERVQUAL. However, along with Kloppenborg in 1991 used the Parasuraman et al.'s (1985) conceptual gaps model to find out the gaps between passenger expectations and management perceptions of these gaps that might result in customer dissatisfaction in the airline industry. The service quality gaps approach using SERVQUAL scale to measure perceived service quality has also been applied by many other researchers in various service industries (Fick & Ritchie, 1991).

When developing SERVQUAL, Parasuraman et al. (1985) noted that both focus group and in-depth interviews methods were adopted in the beginning with senior management of different service firms, including; banks, telecommunication, securities brokerages, appliance repair and maintenance shops, and credit card companies. Further, empirical research was undertaken where proved that the criteria used by consumers in evaluating and assessing service quality consists of ten dimensions which was later refined to five main dimensions (Parasuraman et al., 1988). Customers' responses to their perceptions and expectations are measured on a 7-point Likert scale at (perception - expectation) gap scores.

The refined version of SERVQUAL, (Parasuraman et al., 1988) replaced communication, credibility, security, competence, and courtesy with one main dimension of assurance. This consists of a number of dimensions, including:

- Customers should be able to trust employees of these firms.
- Customers should be able to feel safe in their transactions with these firms' employees.
- A firm's employees should be polite; their employees should get adequate support from

these firms to do their jobs well.

Further, understanding /knowing the customers, and access was replaced by empathy. The items they used for empathy (expectation and perception) are:

- Firms should not be expected to give customers individual attention
- Employees of these firms cannot be expected to give customers personal attention.
- It is unrealistic to expect employees to know what the needs of their customers are
- It is unrealistic to expect these firms to have their customers' best interests at heart
- They shouldn't be expected to have operating hours convenient to all their customers.

The aggregated sum of difference between perceptions and expectations from the five dimensions forms the global perceive quality construct. (Laroche et al., 2004) Following this view, customers' expectations were met through the outcome dimension (reliability) and exceed it by means of the process dimension (tangibility, assurance, responsiveness, and empathy).

Indeed, Alotaibi (1992) stated that they should decompose the word quality into manageable components or dimensions, which can in turn be quantified and processed. Parasuraman et al. (1985) developed a procedure for quantifying customers' perceptions of service quality. SERVQUAL determines customers' quality perceptions as influenced by a series of five distinct gaps that can interfere with delivery of high quality service.

2.7.1.1 Criticism of SERVQUAL

Research on service quality is a volatile area of research, with fierce debate from many theorists adopting a number of wide and conflicting stands.

Buttle (1996) mentioned a number of criticisms of SERVQUAL. A principle criticism of SERVQUAL is that the main focus is on the process of service delivery and not the outcomes of the service encounter. As a means of determining 'quality' therefore, it focuses not on the perceived receipt of service quality from the consumer, (whose perceptions can change depending on culture, context, and personal subjectivity), but on the quality of the service process itself. Further, the five dimensions of SERVQUAL (Tangibles, Reliability, Responsiveness, Assurance and Empathy) are not universal.

In a similar manner, the seven-point Likert scale used in SERVQUAL has also been criticized by numerous studies. Babakus and Mangold (1992) also suggested using a five-point Likert scale instead because the seven-point Likert may cause frustration and decrease both response rate and response quality.

Carman (1990) highlighted the limitations of SERVQUAL instrument and stated that the all items were never completely applicable, therefore, the robustness of the instrument. Al-alak (2009)

indicated that SERVQUAL cannot be used to measure customer satisfaction to any great extent because of its relevance to measuring service quality. Another criticism of SERVQUAL dimensions is its inability to measure service quality consistently across different cultures, countries, and ethnicities (Furer et al., 2000).

2.7.2 AIRQUAL Model

Given the wide criticisms of SERVQUAL as a process-based assessment of service quality, a new measurement scale was developed by Bari et al. (2001): AIRQUAL.

AIRQUAL was important as many researchers argued that the dimensions and nature of the SERVQUAL construct may be industry specific (Ekiz et al., 2006; Nadiri et al, 2005; Nadiri et al., 2008 ; Babakus&Mangold, 1992).

Nevertheless, the multiple items of AIRQUAL has good reliability and validity in measuring airline service quality which service providers can use to better understand the service expectations and perceptions of customers. As a result, it will enable them to improve their service performance levels.

Bari et al. (2001) came up with an instrument for measuring service quality in the airline industry, and named it AIRQUAL. The AIRQUAL scale developed by Bari et al. (2001) has five distinct dimensions, namely, airline tangibles, terminal tangibles, personnel, empathy, and image. In the AIRQUAL instrument these five dimensions inquire various aspects of the airline product.

2.8 Customer satisfaction

Airline industry is highly competitive and customers are most important factor of the travelling process. Besides enhancing service quality, flight safety. Customer satisfaction is the most important strategies of the airlines (Fried, 1989; Gardner, 2004; Zaid, 1995)

Kotler (2003) explains that satisfaction is the feeling of someone who described feeling happy or disappointed that the result of comparing the perceived performance of a product with the expected product performance. If performance fails to meet what is expected, then the customer will feel disappointed or dissatisfied. If the performance is able to meet what is expected, then the customer will feel satisfied. If the performance can exceed what is expected, then the customer will feel very satisfied. Customer satisfaction or dissatisfaction is a response to the evaluation of the perceived discrepancy between expectations and service performance. Customer satisfaction is a function of expectations and service quality performance.

Customer satisfaction has become a key intermediary objective in service operations due to the benefits it brings to organizations (Ranaweera and Prabhu, 2003). The importance of Customer

satisfaction is derived from the generally accepted philosophy that for a business to be successful and profitable, it must satisfy customers (Shin and Elliott, 2001).

Previous research has demonstrated that satisfaction is strongly associated with re-purchase intentions (Cronin and Taylor, 1992; Fornell, 1992). Customer satisfaction also serves as an exit barrier, helping a firm to retain its customers (e.g., Fornell, 1992). In addition, customer satisfaction also leads to favourable word-of-mouth publicity that provides valuable indirect advertising for an organization (Fornell, 1992). In many industries, having satisfied customers also means that the organization receives fewer complaints (Fornell, 1992), hence reducing costs in handling service failures. Researchers also maintain that satisfied customers are willing to pay more for the benefits they receive and are more likely to be tolerant of an increase in price (Fornell et al., 1992). Shin and Elliott (2001) concluded that, through satisfying customers, organizations could improve profitability by expanding their business and gaining a higher market share as well as repeat and referral business.

Satisfaction could be the pleasure derived by someone from the consumption of goods or services offered by another person or group of people or it can be the state of being happy with a situation (Jenet, 2011).

Satisfaction plays a key role in the service industry and especially in the travel and hospitality industry (Chang and Chang, 2010). As the service has evolved, researchers have made great strides to define and understand satisfaction from the customers perspective. The emphasis to comprehend what truly creates satisfied customers has lead to an ever increasing body of literature surrounding satisfaction, how service providers create satisfied customers and the value as well as effects that satisfaction has on business today (Andrson and Fornell, 2000)

In the airline industry, Saha and Theingi (2009) found a significant relationship between airline service quality and passenger satisfaction, meaning that the higher the perceived service quality, the higher was the passenger satisfaction (Lau et al., 2011). On the contrary, when a customer is not satisfied, he or she is more likely to switch to another airline and to not recommend the airline to friends or family members (Abdullah et al., 2007).

2.9 Customer's Expectation

As expectations are dynamic customer expectation may differ among people from different countries and cultural background where service treatment standards may differ a lot. service expectation also derive from many other sources such as personal needs, perceived service alternatives, customer self- perceived service role, service promises, word of mouth communication, past experience and situational factors beyond the control of the service provider

(Parasurman, Zeithaml, & Berry 1985)

Customers' expectation is what the customers wish to receive from the services. Expectations are the results of prior experience with the company's products. In addition, Zeithaml et al. (1990) stated that customer service expectation is built on complex considerations, including their own pre-purchase beliefs and other people's opinions. Similarly, Miller also stated that customers, expectation related to different levels of satisfaction. It may be based on previous product experiences, learning from advertisements and word-of-mouth communication.

Different customers have different expectation based on the customer's knowledge of a product or service. Anderson, Fornell and Lehmann (1994), who conducted investigation on Swedish firms, argue that there is a positive and significant relationship between expectations and customer satisfaction.

2.10 Customer Perception

Perception is an opinion about something viewed and assessed and it varies from customers to customers, as every customer has different beliefs towards certain services and products that play an important role in determining customer satisfaction. Customer satisfaction is determined by the customer's perceptions and expectations of the quality of the products and services. In many cases, customer perception is subjective, but it provides some useful insights for organizations to develop their marketing strategies. Providing high level of quality service has become the selling point to attract customer's attention and is the most important driver that leads to satisfaction. Therefore, customer perception and customer satisfaction are very closely linked together, because if the perceived service is close to customer's expectations it leads to satisfaction. Satisfied customers provide recommendations; maintain loyalty towards the company and customers in turn are more likely to pay price premiums. Perceptions of customers are based solely on what they receive from the service encounter (Angelova, 2011).

According to Kotler and keller (2006) successful companies add benefits to their offering that not only satisfy customers but surprise and delight them. Delighting customers is a matter of exceeding expectations.

2.11 Empirical Literature Review

Archana and Subha (2012) conducted a research study on service quality and passenger satisfaction on Indian airlines. The findings of this study were based on the analysis of a sample of 270 respondents and the survey was conducted at the Chennai international terminal of Tamil Nadu. The study analyzed the data from passengers of three classes, economy, business and premium. Sampling was done by interviewing randomly selected passenger. Exploratory Factor Analysis issued for measuring airline service quality to determine the dimension of airline service quality on

three variables Passenger Satisfaction and Service Quality on In-flight Services, Passenger Satisfaction and Service Quality on In-flight Digital Services and Passenger Satisfaction and Service Quality on Airline Back office Operations. The findings of the factor analysis showed that the overall cumulative percentage of variance was 53.686 to in-flight service, 62.239 to in-flight digital service and 72.793 to back-office operations. In this study, passengers were satisfied to the service provided and overall facilities delivered by the airline companies. The study revealed that the passengers were satisfied with the services quality delivered in in-flight service, in-flight digital service and back office operations.

From the research Archana and Subha concluded failure to provide quality services to passengers may damage the formation of airline image and cause negative impact on passengers‟ behavioral intentions. These findings imply that airline companies‟ in-flight service quality depends upon the different delivery strategies deployed.

Ali et al. (2013) conducted a research "an assessment of service quality and resulting customer satisfaction in Pakistan International Airlines". The target population for this study was defined as all passengers having flown with PIA in the last 12 months. A total of 848 questionnaires were distributed, of which 498 questionnaires were handed back. The survey model that was used in this study is the AIRQUAL model. This scale has five distinct dimensions, namely airline tangibles, terminal tangibles, Personnel, empathy, and image. The findings of this study indicate that airline tangibles (β=0.608; t-value=3.998; p=0.03) has as significant influence on customer satisfaction. Terminal tangibles (β=0.411; t-value=2.366; p=0.000) has a significant influence. Personnel has a significant effect on customer satisfaction (β=0.500; t-value=4.603; p=0.000), empathy as well has a significant influence on customer satisfaction (β=0.391; t-value=2.137; p=0.02). Lastly, Image (β=0.558; t-value=4.617; p=0.000) has a significant influence on Customer satisfaction. The result of the regression analysis show that airline tangible has the highest influence followed by image, Personnel, terminal tangible and empathy respectively.

Ali et al. (2013) recommend the company should be able to create high perceptions using tangible cues such as aircraft's exterior and interior appearance and terminal appearance, and should also recruit and train human resources to provide a personalized service and ensure empathy, which seem to be highly important to customers. Moreover, PIA should update their catering service facilities, as this is one of the major components of service quality in airlines.

Trimba et al. (2013) "service quality and and customer satisfaction at Kenya airways" The study mainly adopted a case study approach and the respondents constituted passengers who had used Kenya airways for a period of six months between Jan- June 2012.The sample of this study consisted of one hundred (100) passengers. The study findings indicate that among the key

determinants of customer satisfaction with passengers were luggage security and safety, proper communication with customers to update them on status of their flights, provision of food variety and ability of the airline to communicate to passengers about the weather on arrival destinations. Weather conditions prevailing at the destination, compassion by airline crew toward any disabled persons onboard were particularly noted to increase significantly the level of customer satisfaction.

Perceived satisfaction with air line satisfaction revealed that Majority of the factors that were extracted shared a >0.7 proportion of variance with the rest of the factors under consideration. The least factor extracted had a communality score of 0.446. This communality represented the safety of luggage. The highest factor score was 0.934 the factor under consideration in this construct relates to how the elderly, the aged and the disabled were treated through boarding and in flight.

Extracted factor on perceived customer satisfaction, shows that the factors extracted accounted for highly significant variability in the behavior of the major variable/construct which was the importance respondents attach to service quality parameters of airlines. Cumulatively, the extracted factors accounted for 69.239% of the variability in the main construct. The extracted factors were in order; ability of airline to communicate to passengers by phone their booking status, variety of foods offered in flight, briefing about weather in arrival destination, on-board assistance to disabled passengers, food quality, food variety, available hand luggage compartment and Ability to reserve seats at time of booking. This is to say that to the passengers, quality service in an airline should include; confirmation of booking status by phone, variety of foods served in flight, food quality, briefing on weather conditions prevailing at the destination, compassion by airline crew toward any disabled persons on-board, availing space in the plane that is adequate to fit a hand luggage, and the ability of the passengers to reserve seats.

Customer satisfaction at Kenya airways, the research study revealed that there were three main parameters that passengers were most satisfied with as passenger with Kenya airways, these parameters were the aged and disabled were well attended, the passengers were well informed about such services such as food in good time and during boarding process passengers were promptly attended. These parameters had mean score of 4.33, 4.0, and 4.05 respectively. Majority of the parameters under this construct had mean scores that ranged between 3.11 for crew can be trusted to handle luggage well and passengers needs and concerns are adequately taken care off when flights are cancelled 3.79. The respondents felt shortchanged whenever their flights were cancelled for reasons beyond management control. This is based on their expectations on compensation for time lost, alternative accommodation provided and the manner in which they were treated. The

respondents indicated that they were not happy without being informed about flight cancellations in good time.

Evidence from the study show that, Kenya Airlines has to improve performance on all the dimensions of service quality in order to increase customer satisfaction since consumers expect more than what is being offered currently by the service providers. This will enable them maintain high level of competitiveness.

Another study by Ekiz and Hussain (2006) "perception of service quality in North Cyprus airline industry: a path analysis application" also adopted the AIRQUAL model to overcome the pshychmetrical application problem of existing quality scale. Out of the 610 questionnaires distributed 583 questionnaires were found to be useful and used in the analysis and conclusion. The sampling that was used in the study non-probability judgmental techniques. The study used path analysis to test hypothesis and findings showed that airline tangibles have a significant positive effect on both customer satisfaction and repurchase intentions and the same is true for the four dimensions namely, Terminal tangible, personnel, empathy and image. The study depicts that service quality dimensions jointly explain 68% of the variance in customer satisfaction.

According to the results of the study Ekiz and Hussain (2006) recommended that in order to better satisfy their customers National airline should give importance to physical equipments such as aircraft's exterior and interior appearance, efficient cargo handling procedures, technical maintenance of aircraft at regular intervals. Personnel should be trained and highly qualified in order to better understand and serve the customers. Moreover they should update their catering service facilities. Especially in the field of marketing the company should recruit qualified personnel.

Gashaw (2011) studied on Assessment of Service Quality and Customer Satisfaction Airlines using SERVIQUAL model. The total sample of 150 passenger's selected using convenience sampling for passengers that had traveled using Ethiopian airlines was taken as a respondent. Out of which 144 passengers returned a filled questionnaire therefore analysis and conclusion was done using the 144 responses. The study found that tangible (1.592) has the highest mean difference which placed it in the first position in Ethiopian air lines performance from the passengers' point of view, followed by Reliability (.043) then Empathy (-.158) which shows that performance was below expectation of the customer, assurance (-1.612) has the group mean difference showing negative it implies that passengers perceive less than what the passengers expecting in assurance items. The last item is responsiveness where findings show that Ethiopian air line has not tried hard to improve its responsiveness as group mean is negative (- 2.699).

2.12 Conceptual frame work

The framework (see Figure 2.1) used in this study is adapted from AIRQUAL model presented by Ekiz et al (2006). This model comprised five distinct dimensions, namely airline tangibles, terminal tangibles, personnel, empathy, and image. AIRQUAL model was used to overcome the psychometrical application problems of the existing service quality scales.

This study considers that the dimensions of service quality as the independent variable and customer service satisfaction as the dependent variable. In addition three control variables: gender, frequency of flight, and Income from socio-economic variables is included to the framework.

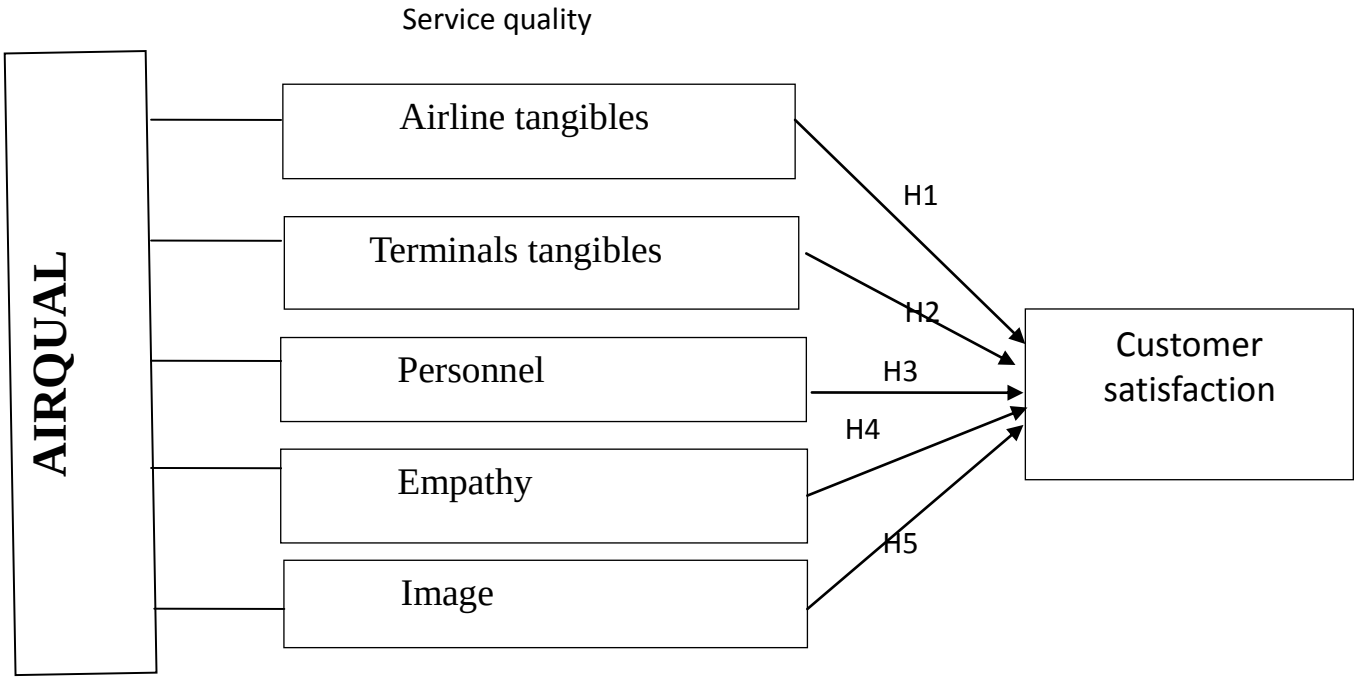


Fig 2.5 Conceptual framework of the research (source Ekiz et al, 2006)

Chapter Three

RESEARCH METHODOLOGY

This chapter covers the Research Design and Approach, Population and Sampling Techniques, Sources and Tools/Instruments of Data Collection, Procedures of Data collection, Methods of Analysis, Reliability and Validity and Ethical Considerations

This section of the thesis highlights the overall methodological considerations used in gathering, analysing and interpreting the data.

3.1 Research Approach

Aliaga and Gunderson (2002) have described the quantitative method as "quantitative research is an inquiry into a social problem, explain phenomena by gathering numerical data that are analysed using mathematically based methods e.g. in particular statistics".

Quantitative research design examines the research between variables and tests the hypothesis. It gives greater emphasis on numerical data and statistical tests to reach on conclusion that can be generalized (Saunders, 2012). To achieve this research objective statistical analysis will be applied to obtain the findings; therefore the design for this research is quantitative research design.

This study is quantitative nature because it uses statistical tools to be able to investigate the relationship between the factors related to service quality and customer satisfaction.

3.2 Research Design

A research design is a plan for a study that provides specification of procedures to be followed by the researcher in order to achieve the research objective, as well as, to test the hypotheses. Similarly, many researchers (Churchill and Iacabucci; 2005) call it a blueprint for a research to be followed in order to successfully implement the research.

Research design represents the major methodology driving the study, being distinctive and specific research approaches which are best suited to answer the research question (Comack,1996).It explains and justifies the type and method of data collection,, source of information, sampling strategy and time-cost constraints(Saunders, 2012). The research methodology can be classified using the variety of ways, such as methods of data collection, time dimensions, researcher participation and the purpose of the study (Blumberg, 2008). There are

three types of research design based on the study purpose: exploratory, descriptive and causal (David, 1987).

The research has been explanatory as it is focused on attempting to test a causal (attributes of service quality) and effect (customer satisfaction).

3.3 Target population

The entire set of units or objects the researcher wishes to generalize the study findings, that a researcher is interested in researching and analysing. A sampling frame is then drawn from this target population. So people, firms, markets that are of interest to the researcher are called the population. The target population for this study are passengers of Ethiopian airlines those who uses both on domestic and international flights. The sample frame is a set of items from which the sample is drawn.

3.4 Sampling Method and Sample size

The current study will depend on non-probability sampling; namely, convenience sampling because the sampling frame is unavailable (Saunders *et al.*, 2012). Non probability sampling is a sampling technique in which some parts of the population have zero chance of selection or where the probability of selection cannot be accurately determined (Bhattacherjee, 2012). According to Kothari (2004) when the population element were selected for inclusion in the sample based on the easiest of access, in can be called convenience sampling .This is a technique in which a sample is drawn from that part of the population that is close to hand, readily available ,or convenient (Bhattacherjee, 2012). It is an easy, quick, and cost-effective technique, but the main drawback is that it is unrepresentative of the population (Churchill, 1995; Saunders *et al.*, 2012).

The sample size for this study was 270. In order to develop accurate sample size the researcher use default statistical techniques. However, as Stevens et al. (2006) explain, statistical methods of establishing sample size are only applied to probability samples. In the case of non-probability samples, the choice of sample size was determined by the insight, judgment, experience or financial resource of the researcher.

The appropriateness of the 270 respondents is justified by Neuman (2007) who asserts that when it comes to sampling size selection the researcher should use his discretion. In addition, this decision is consistent with Tabacknick and Fidell (1996) who suggested that, for a regression analysis, the minimum sample size (N) should be $N > 50 + 8M$, where M is the

number of predictors (independent variables). In this study, there are 5 main predictors as contained in the conceptual framework adapted for this study (i.e. Airline tangibles, terminal tangibles, personnel, empathy and image), thus the sample size based on their recommendation should be greater than 90.Thus, the researcher considers available fund and time, sample size used by similar past studies and to determine the sample size for example a study on service quality and passenger satisfaction on Indian Airlines (Archan and Shuba, 2012). Hence, a sample of 270 participants was drawn from the targeted population. However, after data collection the sample size was reduced to 224 due to missing data, incomplete surveys, and indifferent answer patterns.

3.5 Data collection procedure

To show the representativeness of the sample, the passenger were selected based o convenience sampling from different segments. The questionnaires were administered face to face with 270 passengers that are selected while travelling via Addis Ababa airport. The research was made only with passengers that had the will to take part in the study and they were also assured about confidentiality of the information

3.6 Data Collection Tools and research instrument

Data capture instrument is the item used to collect data for a research project (Agbor, 2011). This could be a questionnaire or a personal interview. In this case, data were collected from primary sources using questionnaire that was distributed to customers of Ethiopian airlines.

Data was collected from both primary and secondary sources. Primary data was obtained from customers, employees and managers of the company. Secondary data was obtained from broachers, magazine, internet, annual sales report, reference books journals, articles; previous research works and Companies written documents that help the researcher to increase the knowledge in the topic under study. So as to decrease invalid responses questionnaires was distributed to passengers at Addis Ababa Bole international airport.

The questionnaire developed was 5 point likert scale rating from 1 (strongly disagree) to 5 (strongly agree), the research instrument is adapted from AIRQUAL model presented by Ekiz et al., (2006) to reduce respondents' frustration and increase response rate and quality.

3.7 Validity and Reliability

Each attribute was derived from relevant literature to ensure the validity of the questionnaire. The questionnaire were derived from the adapted model and checked with

previous related studies. In addition the questionnaires were also seen by management members of Ethiopian airlines Validity in research refers to how accurate an instrument is at measuring what it is trying to measure. Reliability is conducted to assess data quality. A reliability test is used to assess consistency in measurement items (Cerri, 2012). Cronbach Alpha was used to test the reliability of multi-Items.

3.7.1 Reliability Analysis

In order to test the internal consistency of variables in the research instrument Cronbach‘salpha coefficient were calculated. As Zikmund, Babin and Griffin (2010) state scales with coefficient alpha between 0.6 and 0.7 indicates fair reliability. Thus, for this study, a Cronbach‘s Alpha score of 0.60 or higher is considered adequate to determine reliability. The reliability in this study as assessed by coefficient alpha was found to be 0.960, as indication of acceptability of the scale for further analysis.

Table 3.1 reliability test **Reliability Statistics**

variables	Cronbach's Alpha	N of Items
Airline tangibles	.856	7
Terminal tangibles	.912	11
Personnel	.920	7
Empathy	.845	8
Image	.780	4
Customer satisfaction	.910	6
Overall reliability	**.960**	**43**

source own servey, SPSS 2017

In the conducted study, for each variable Cronbach’s Alpha value was tested based on the number of questions and all indicates alpha value greater than 0.7 and the overall value was 0 for the 43 items in the AIRQUAL scale alpha value 0.960 was achieved, indicating good consistency and stability of the instrument.

3.7.2 Validity Analysis

Validity in research refers to how accurate an instrument is at measuring what it is trying to measure. Reliability is a pre-requirement before a research is labelled as valid.

Validity is the most critical criterion and indicates the degree to which an instrument

measures what it is supposed to measure. In order to ensure the quality the research design content and construct validity of the research were checked.

Therefore, in order to test the construct validity, correlation coefficient for the independent and dependent variables were calculated. Based on the result of the correlation analysis, all the five factors of service quality were positively related with customer satisfaction. Since the independent variables are positively related with the dependent variables, the independent variables therefore can be considered as good dimensions of customer satisfaction.

3.8 Operational Variables

Dependent variables:-customer satisfaction is defined as passengers opinions on the service delivered by Ethiopian Airlines. In this research 5 items were used to measure customer satisfaction and respondents were provided 5 point likert scale to indicate the level of satisfaction.

Independent variables- variables that stands alone and is not changed by other variable, and on this research the independent variables are the following:-

Table 3.2 Operational definition of independent variables

Type of variables	Definitions and measure	Expected effect on passengers satisfaction
Airline Tangibles	It is the interior part of the aircraft used by theairlines that include the quality of the plane, the cleanness of the planes toilets the cleanness of the plane seats, the comfort of the seat and the quality of the meal in the plain. . It is measured using 5 point Likert scale.	positive
Terminal tangibles	The area used or intended to be used for such facilities as terminal conveniences of check-in, cleanness of the airport toilets, availability of shops in the airport, air condition of the airport and other service buildings. It is measured using 5 point Likert scale.	positive
Personnel	Is designed to evaluate employees working performance in the airlines including employees' attitude and knowledge, personal care of employees, and airline error-free reservation and ticketing transactions. It is measured using 5 point Likert	Positive

	scale.	
Empathy	Connected with the issue such as punctuality of the departure and arrivals, transportation between city and airport, loyalty program, care paid to passenger's luggage. . It is measured using 5 point Likert scale.	positive
Image	Defined by consistency of ticket price with a given service, image of airline company and availability of low price ticket offerings. . It is measured using 5 point Likert scale.	posetive

Source research literature review

3.9 Methods of Data Analyses

To conduct this study data was gathered from different respondents. The collected data was organized in order to remove errors and coded and analysed with the statistical tool of the software program: statistical package for social science (SPSS22). SPSS version 22 was applied to analyse the data based on the needed results and objective of the study.

The relationship between the dependent variable, customer satisfaction, and the independent variables is expressed as a linear combination of the independent variables plus an error term. Finally the regression line equation is:

$Y= \beta0 + \beta1X1+ \beta2X2 + \beta3X3 + \beta4X4 + \beta5X5 + \varepsilon$

SA=0.302+0.280AT+0.127TT+0.019PP+0.017EM+0.414IM+e

Where; SA = Satisfaction

AT= Airline tangibles

TT=terminal tangibles

PP= personnel

EM= Empathy

IM= Image

e= error

3.9.1 Descriptive Analyses

Descriptive statistics allow the researcher to describe the data and examine relationships between independent variable and dependent variable. Descriptive statistics frequency and percentage, histogram, pie-chart, and tabular summarization were applied to represent the dimensions of AIRQUAL model.

3.9.2 Quantitative Analysis

To measure the relationship and effect between service quality dimensions and customer satisfaction i.e. to test hypotheses coefficient of correlation and regression were employed in the method of data analysis using SPSS22.

3.10 Ethical Consideration

The study considers ethical issues. When collecting questionnaires form customers their permission were asked to fill the questionnaires. Name of the respondents and companies name were not asked to write in order to increase the confidentiality of the information they give. And also the questionnaire explains that the purpose of research was for academic purpose and finally the respondents were included based on their willingness.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

In this section the data collected from respondents has been analyzed and interpreted in detail. The objective of the analysis of primary data collected from survey was to answer the research questions which include finding out whether there is positive effect relationship between service quality dimensions and customer satisfaction and also whether there is gap between customer expectation and perception in Ethiopian airlines.

The data was collected from customers of Ethiopian Airlines in Addis Ababa airport and to get representative data 270 questioners were prepared and distributed for customers in the airport and out of which 224 responses which is 83% response rate were obtained then the data was decoded and analysed using SPSS 22.

4.2 Data Screening and Data Cleaning

This is important because unprepared and unclean data may produce biased results, and even cause failure. Therefore, before proceeding with further analyses, this stage was considered with the many steps, e.g., handling of missing data, identifying outliers and checking for normality.

4.2.1 Data Missing

The first duty during the data screening and cleaning phase was to check for any missing data. It is normal that during the completion of the questionnaire, some respondents do not fill certain questions, or they forget to answer. In any case, these missing values in the data set must be controlled, as it may cause serious problems during the analyses, consequently, producing biased results.

Schafer and Graham (2002) states that most of the statistical software lacks the capability of handling missing data. That is why, special care is required during the administration stage of the questionnaire (De Vaus, 2001; Schafer & Graham, 2002) and thorough planning is also needed during the collection and data entry stage (Roth, 1994). Hence, all these were taken into consideration and were implemented on this research.

A case showing peculiar responses on more than one variable is called multivariate outlier (Kline, 2011). In order to detect univariate outliers, it is suggested by Kline (2011) to examine univariate skewness and kurtosis. The value of skewness above 3 and kurtosis above 10 may trigger caution, as it may be a univariate outlier (Kline, 2011). and thorough planning is also

needed during the collection and data entry stage (Roth, 1994). Hence, all these were taken into consideration and were implemented on this research.

4.3 Demographic characteristics of the respondents

The demographic description of the respondents including gender, age group, education level frequency of flying, which airline frequently use and the reason for travel are described as follows:

4.3.1 Gender of respondents

As we see from the table below majority of the respondent's gender are males (54.91%) and the remaining 45.09% are female respondents so that males are slightly higher than females.

Table 4.1 Gender of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	123	54.9	54.9	54.9
	female	101	45.1	45.1	100.0
	Total	224	100.0	100.0	

Source: own survey, SPSS result 2017

4.3.2 Age of respondents

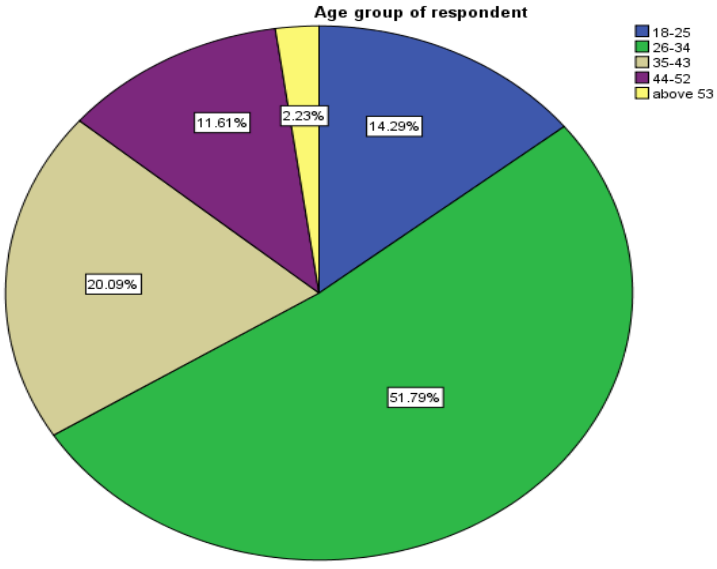
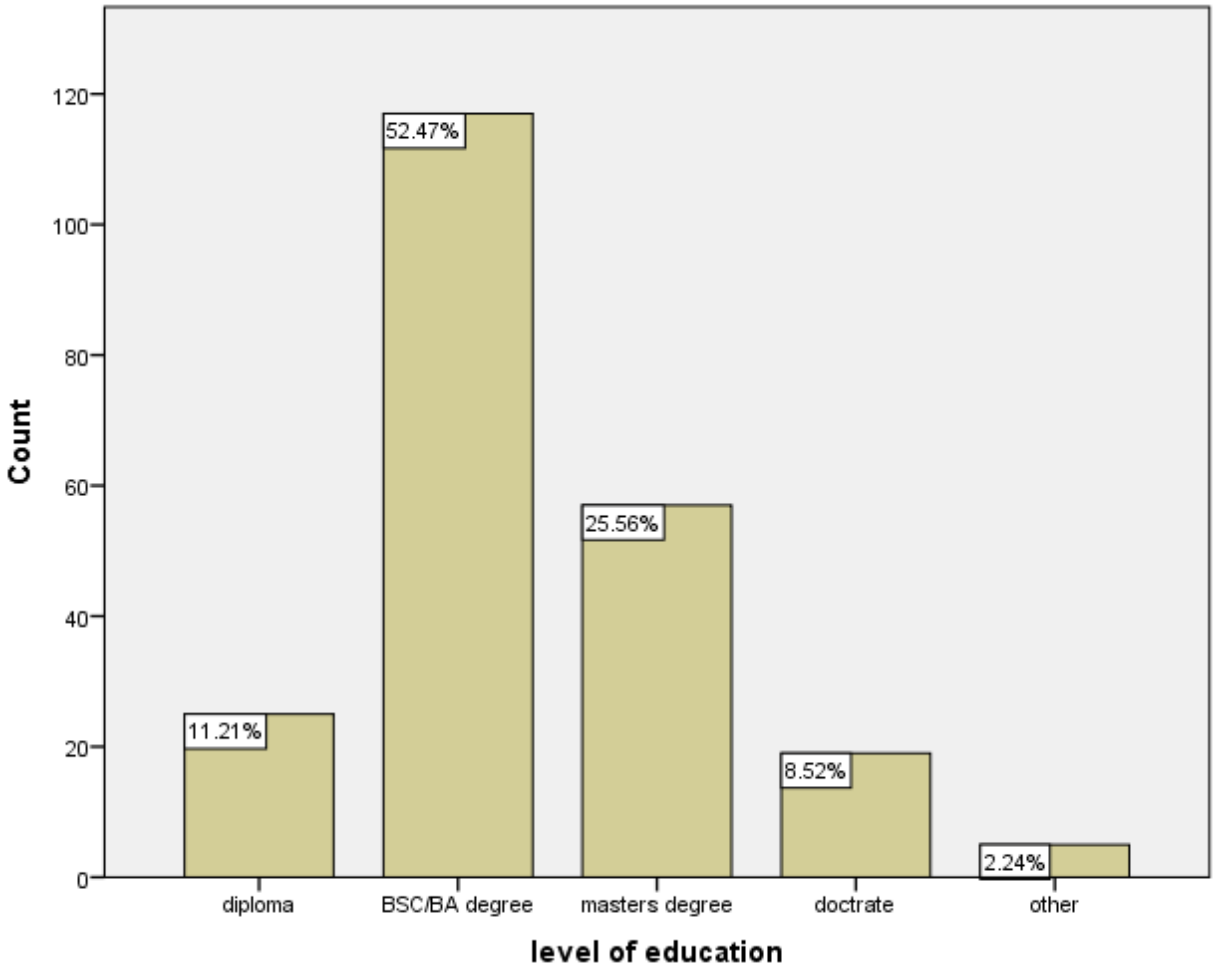


Fig 4.1 The age group of respondents

source own servey, SPSS result 2017

Regarding to age group the greater respondent were 51.79% within the age of 26-34, followed by 20.9% were from 34-43, and the others 14.29% were within the age group of 18-25, 11.61% were 44-52 and the last 2.23% were with the age group of 53 and above respectively.

4.3.3 Education level of respondents



source own servey, SPSS 2017

Fig 4.2 respondents level of education

Regarding to educational background of the respondents the majority 52.47% of the respondents have Bsc/BA degree while, 25% of the respondents have Master's Degree, 11.2% have a diploma, and 8.52% of the respondents have a doctorate while 2.24% respond other. The response shows that most of the respondents have a good educational background.

4.3.4 Frequency of travel

How respondents frequently travel with Ethiopian airline per year?

Table 4.2 customers frequency of travel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	113	50.4	50.4	50.4
	6-10	84	37.5	37.5	87.9
	11-15	13	5.8	5.8	93.8
	16-20	10	4.5	4.5	98.2
	more than 20	4	1.8	1.8	100.0
	Total	224	100.0	100.0	

source own servey, SPSS 2017

From the table the customer who travel frequently per year 1 to 5 are 50.4% and those respondents who traveled 6to10 are 37.5%, and from 11 to15 are 5.8%, customers those fly 16to20 are 4.5% and more than 20 are 1.8% and the response depicts that the passengers who fly more than 5 times per year can get a privilege to access the lounge and can get a priority at any time.

4.3.5 Type of airline

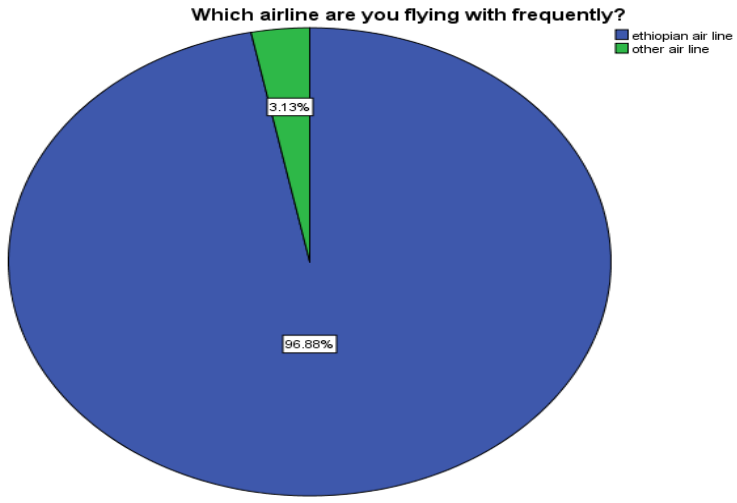


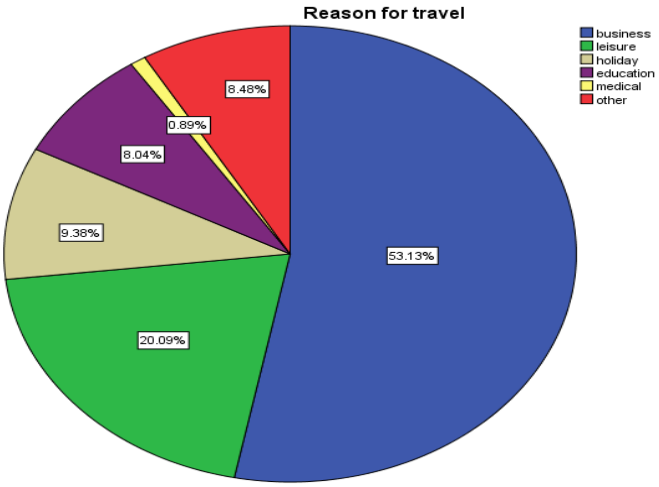
Fig 4.3 Type of airline respondents fly frequently

source own servey, SPSS 201

The above pie chart depicts that most of the respondents 96.88% were Ethiopian airlines customers and the rest 3.13% were with other airlines and more travellers respondents were with

Ethiopian airlines.

4.3.6 Reason for traveling



source own servey, Spss 2017

Fig 4.4 reasons for travel

From the fig. most of the respondents53.13% was traveling for business purpose and 20.09% were for leisure, 9.38 % for holiday, 8.48% for other purpose, 8.04 % for educational purpose and the other 0.98% was traveling for medical reason.

4.3.7 Income per year in Dollar

Table 4.3 Income per year in $

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 5000	66	29.5	29.5	29.5
	5001-10000	73	32.6	32.6	62.1
	10001-15000	51	22.8	22.8	84.8
	15001-20000	12	5.4	5.4	90.2
	above 20000	22	9.8	9.8	100.0
	Total	224	100.0	100.0	

Table 4.3 Respondents income per year in dollar

source own servey, SPSS 2017

As inferred from the above table there was a high difference of income, the lower is below 5,000 USD and the highest was above 20,000 per year. And from the table 32.6% of the

respondents were from 5001-10000 USD per year and takes place the largest frequency of respondents, and below 29.5% were below 5,000 USD which were the second largest respondents, 28% of the respondents earn from 10,001 to 15,000 USD and above 20,000 USD were 9.8% and the rest 5.4% were from the range of 15001 to 20000 respectively.

4.3.8 Cross tabulation of yearly income in Dollar and frequency of flying

Table 4.4 Cross tabulation between frequency of flying per year and yearly income in Dollar with Ethiopian airlines.

source own servey, SPSS 2017

How frequently travel with Ethiopian airline per year? * Income per year in $? Cross tabulation

How frequently travel with Ethiopian airline per year?	Income per year in $?					Total
	below 5000	5001-10000	10001-15000	15001-20000	above 20000	
1-5	52	35	15	3	8	113
6-10	12	32	24	7	9	84
11-15	2	3	5	2	1	13
16-20	0	2	6	0	2	10
more than 20	0	1	1	0	2	4
Total	66	73	51	12	22	224

Regarding the income of the respondents from the surveyed sample, the least is below 5000 USD per year while the highest is above 20,000 USD per year. This means that there were highest income gaps among the sampled respondents. The frequency of traveling with Ethiopian airlines also varies where some of the passengers are flying more than 20 in a year and there should be in mind that first time travelers were also filled the questionnaire.

From the above table the chi-square test of yearly income and the frequency of flying were shown, so there is a significance association between the yearly income and frequency of flying.

4.4 The Most Important Service Quality factors in airline industry

One of the objectives of the research was to identify the most important service quality factors that affect the air transportation from the customers' point of view.

In the following table the 43 attributes of AIRQUAL were summarized based on their importance from customers' perspective in their hierarchical order. It was used the 5 point likert scale to answer the questions of the AIRQUAL model, close to 5 has the higest value.

The Most Important Service Quality Dimensions in aviation Industry

Table 4.5 Airline tangible **Descriptive Statistics**

Airline tangible	N	Mean
Plane seats are clean	224	4.13
The aircraft is safe and clean	224	4.02
The quality of Air-condition in the plane are good	224	4.01
Plane seats are convenience	224	4.00
Plane toilets are clean	224	3.94
Meal services served in a plane is good	224	3.60
In-flight entertainment is available during the flight (up to date magazine, newspapers, videos and films.)	224	3.52
Overall AIRLINE TANGIBLES	**224**	**3.8890**
Valid N (listwise)	224	

source own servey, SPSS 2017

From table 4.5 the most important attribute of service quality for the passengers is the value with the highest mean score for the air line tangible was the cleanness of the seatsso that cleanness of the seat was the first choice of the respondents among the questions and its mean score was 4.13close to 5 and the least value was In-flight entertainment is available during the flight (up to date magazine, newspapers, videos and films), the mean value was 3.52 and the overall value of the mean was 3.8890.

Table 4.6 Terminal tangibles **Descriptive Statistics**

Terminal tangibles	N	Mean
Employee's uniform are usually appealing	224	3.79
Security system is reliable	221	3.76
Trolleys are abundantly available in the airport	224	3.66
Convenient passenger check-in	224	3.60
The air port toilets are clean	224	3.31
The airport has good air conditioning	224	3.23
The airport has good signage system	224	3.16
The waiting area of the airport is comfortable	224	2.98
The size of the airport is big enough for holding the passengers	224	2.91
The airport is convenient for disabled person	224	2.83
There are sufficient number of shops in the airport	224	2.65
TERMINAL TANGIBLS	**224**	**3.2596**
Valid N (listwise)	221	

source own servey, SPSS 2017

The above table depicts the respondents/passengers most important service quality dimensions about terminal tangible their highest mean score were (3.79) on the 5(five) point likert scale, and the least point was that there is sufficient number of shops in the airport the mean value was 2.65 and the overall mean value of the determinant of the terminal tangibles was 3.2596.

Table 4.7 personnel Descriptive statistics

Personnel	N	Mean
The personnel are polite and willing to help	224	3.67
Employees attitude is good	224	3.64
Employees are patient, confident and empowered	224	3.51
Personnel give exact answer to the question	224	3.50
The personnel show empathy	224	3.49
Employees are respectful and go extra mile to solve the problem	224	3.46
The employee show personal care equally to everyone	224	3.34
PERSONNEL	**224**	**3.5147**
Valid N (listwise)	224	

source own servey, SPSS 2017

Table 4.1 the questions that was proposed to the respondents were that the personnel's are polite and wailing to help, the greatest mean value of the respondents were 3.67 and the least value was the employee show personnel care equally to everyone the mean value was 3.34, and the overall mean score was 3.5147.

Table 4.8 Empathy **Descriptive Statistics**

Empathy	N	Mean
Flight departure and arrival are on time	224	3.81
Convenient flight services are available with enough frequencies	224	3.59
On-line flight booking is convenient	224	3.52
There are enough amount of flights to satisfy passengers' demand	224	3.45
There are air line offices in different locations	224	3.38
The airline pays good care to passengers luggage	224	3.33
There is convenient transportation system between city and airport	224	3.13
The airline provides compensation in case of loss or damage	224	3.08
EMPATHY	**224**	**3.4113**
Valid N (listwise)	224	

source own servey, SPSS 2017

From table 4.8 the highest mean score of dimension empathy is 3.81 using the 5 point likert scale and the least value is 3.08 the overall value is 3.4113.

Table 4.9 Image **Descriptive Statistics**

	N	Mean
The airline has a good image	224	4.02
The airline gives cost effective very good services	224	3.38
The ticket price is consistence with given service	224	3.21
Low ticket price offerings are available	224	2.64
IMAGE	**224**	**3.3125**
Valid N (listwise)	224	

source own servey, SPSS 2017

Table 4.9 the important attribute for the passengers mind set on the image was that the airline has a good image the highest mean value was 4.02, and the lowest is low ticket price offering are available which mean score value was 2.64. the overall mean score was 3.3125.

Table 4.10 customer satisfaction **Descriptive Statistics**

Customer satisfaction	N	Mean
I have more positive attitude toward the company	224	3.83
I am satisfied with Ethiopian airline as a service provider	224	3.75
I did the right decision when I choose to travel by Ethiopian	224	3.74
The air line is customer friendly	224	3.68
My satisfaction with Ethiopian has increased	224	3.47
My experience with the airline is above my expectation	224	3.40
CUSTOMER SATISFACTION	**224**	**3.6451**
Valid N (listwise)	224	

source own servey, SPSS 2017

Table 4.10 the dimension customer satisfaction which was dependent variable the highest mean score of the respondents response about positive attitude toward the company was 3.83 the lowest is 3.40. The overall mean score was 3.6451.

From these customers expect the airline to have adequate knowledge to answer their questions of AIRQUAL attributes. On the other side the least desire important dimension were low ticket price offerings and its mean value was (2.64),Then, from the table designated that the air craft is safe and clean was the first most important attribute having average mean value of (4.13) and overall mean score 3.8890.

4.5 Correlation Analysis

Table 4.11 Correlation between service quality dimensions, and customer satisfaction

		airline tangible	terminal tangible	personnel	Empathy	Image	satisfaction
airline tangible	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	224					
terminal tangible	Pearson Correlation	.462**	1				
	Sig. (2-tailed)	.000					
	N	224	224				
personnel	Pearson Correlation	.442**	.647**	1			
	Sig. (2-tailed)	.000	.000				
	N	224	224	224			
Empathy	Pearson Correlation	.542**	.683**	.678**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	224	224	224	224		
Image	Pearson Correlation	.564**	.506**	.582**	.696**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	224	224	224	224	224	
satisfaction	Pearson Correlation	.644**	.584**	.536**	.612**	.715**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	224	224	224	224	224	224

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

source own servey, SPSS 2017

The above table provides a pearson correlation efficient between various service quality dimensions and customer satisfaction which is found using the SPSS22. The final result of the correlation analysis shows that all the service quality dimensions have a positive association with customer satisfaction in Ethiopian Airlines.

The correlation results are presented with in the above table. Pearson correlation coefficient is used to test the relationship between service quality dimensions and customer

satisfaction. The result shows that the service quality dimensions, airline tangibles depicts a positive relationship with customer satisfaction at ($r=0.644$, $p<0.01$) in the case of terminal tangibles shows a positive relationship with customer satisfaction ($r=0.584$, $p<0.01$). The other dimension personnel also show a positive relationship with customer satisfaction ($r=0.536$, $p<0.01$). The dimension empathy shows a positive relationship with customer satisfaction ($r=0.612$, $p<0.01$) and the dimension image shows a positive relationship with customer satisfaction($r=0.715$,$p<0.01$).

The linear regression was run to find out that whether the service quality is a predictor of the customers' satisfaction. The results are shown in the following table.

Table 4.12 Model R Square Adjusted R Square Std. Error of the Estimate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796[a]	.633	.625	.47459

a. Predictors: (Constant), Image, terminal tangible, airline tangible, personnel, Empathy

b. Dependent variable customer satisfaction

Table 4.7 provides the model summary of the model which specifies customer satisfaction as a function of airline tangible, terminal tangible, personnel, empathy and image. R square of the model is .633 which entails that 63.3% of the variation in the dependent variable i.e. customer satisfaction is accounted for by this model which is quite good.

4.6 Normality test

Normality is considered as one of the most fundamental assumptions in multivariate analysis, under this part was to check the data for normality of the distribution. It refers to the shape of the data distribution and is tested by examining the skewness and kurtosis. Extreme values in skewness and kurtosis indicate the possibility of abnormality in the data distribution Kline (2011).

A simple rule of thumb to be applied. If either score divide by its standard error and the result is greater than ±1.96, it suggests that the data are not normal with respect to statistic.

Table 4.13 Normality test of Skewness and kurtosis (SPSS output)

Statistics

		air line tangible	terminal tangible	personnel	Empathy	Image	satisfaction
N	Valid	224	224	224	224	224	224
	Missing	0	0	0	0	0	0
Mean		3.8890	3.2596	3.5147	3.4113	3.3125	3.6451
Median		4.0000	3.3636	3.5714	3.3750	3.2500	3.6667
Skewness		-.525	-.389	-.241	.313	-.009	-.272
Std. Error of Skewness		.163	.163	.163	.163	.163	.163
Kurtosis		.838	-.534	-.120	.029	-.265	.645
Std. Error of Kurtosis		.324	.324	.324	.324	.324	.324

source own servey, SPSS 2017

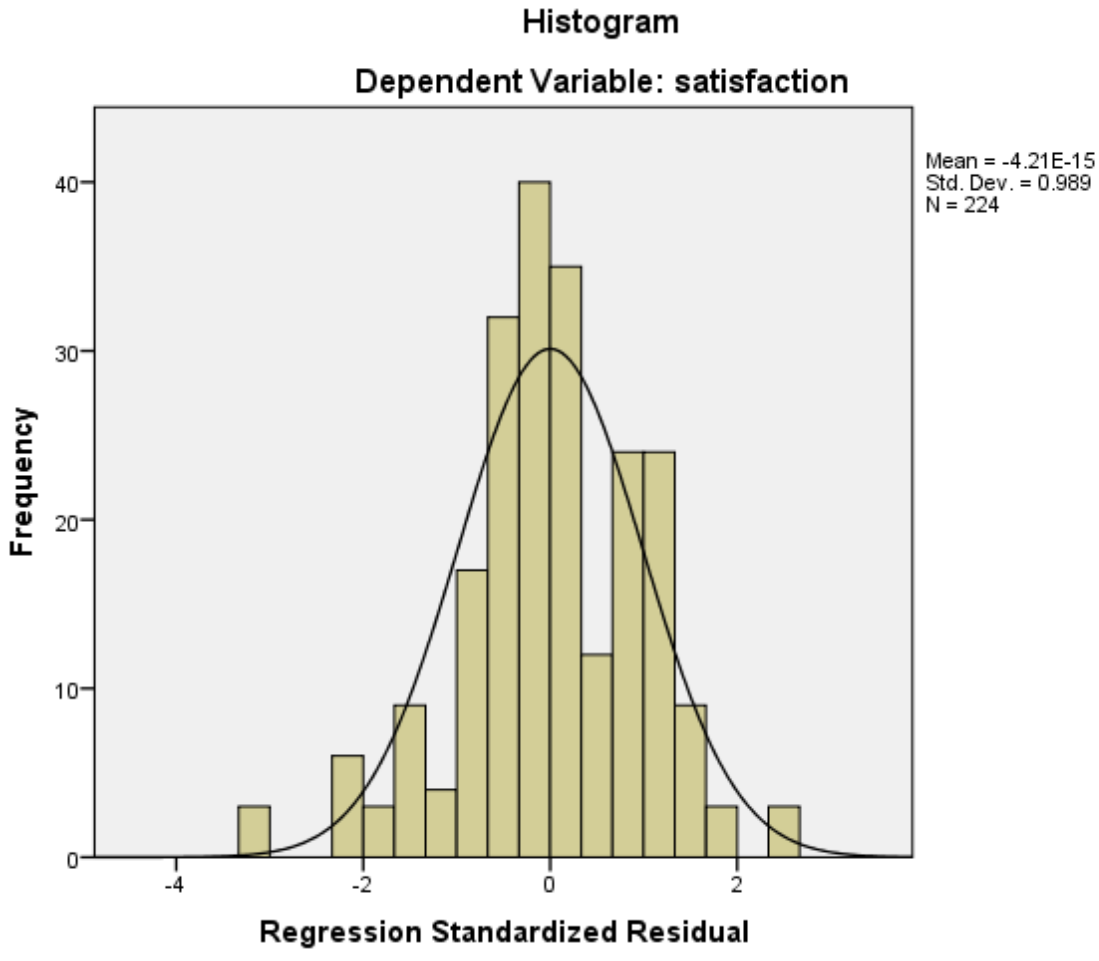


Fig 4.5 **Histogram with normal curve plotted (SPSS output)**

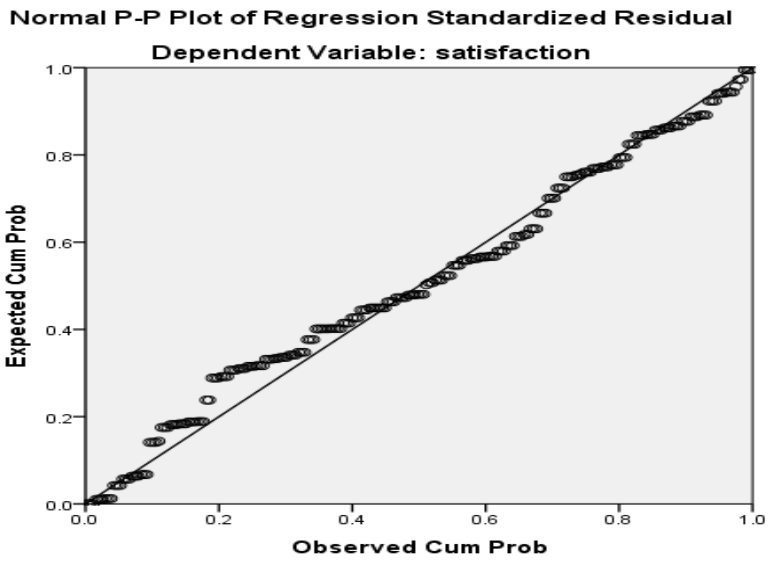


Fig 4.6 p-p plot of regression

4.7 Multi Collinearity Test

Table 4.14 Multi collinearity

test Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.172	.213		.809	.419		
	air line tangible	.359	.063	.296	5.712	.000	.626	1.597
	terminal tangible	.227	.060	.228	3.789	.000	.463	2.160
	personnel	.017	.064	.016	.270	.787	.457	2.186
	Empathy	-.021	.081	-.019	-.265	.791	.335	2.988
	Image	.408	.057	.436	7.129	.000	.450	2.224

a. Dependent Variable: satisfaction

Multi collinearty diagnostic measures tolerance and VIF. For the questionnaires which have 5 scale the tolerance must be >0.2 and the VIF value must be <5, so that for this research on the above table the multi collinearity test was fulfilled.

4.8 Multiple Regression Analysis

Table 4.15 Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.172	.213		.809	.419
	Airline tangibles	.359	.063	.296	5.712	.000
	Terminal tangibles	.227	.060	.228	3.789	.000
	Personnel	.017	.064	.016	.270	.787
	Empathy	-.021	.081	-.019	-.265	.791
	Image	.408	.057	.436	7.129	.000

a. Dependent Variable: satisfaction

Table source own servey, SPSS 2017

Table above presents the results of the model predicting customer satisfaction with the variables of airline tangibles, terminal tangibles, personnel, empathy and image. All dimensions have a positive effect except empathy. Airline tangibles, terminal tangibles, and image have positive and significant effect on customer satisfaction, the dimension empathy have strangely shows a negative but insignificant effect on customer satisfaction, the other dimension personnel have positive but insignificant effect on customer satisfaction.

The multivariate regression analysis result leads to accept hypotheses of H1, H2, and H5 postulating a positive effect of airline tangibles, terminal tangibles, personnel, and image on customer satisfaction. The hypotheses H3 and H4 regarding effect of personnel and empathy on customer satisfaction are however fail to accept. The result of testing the hypothesis is discussed below.

H1: The more physical design and appearance of the aircraft and the services which are delivered to the customers like the cleanness of the seat, cleanness of the toilet, the convenience of plane seats, meals served inside the air craft, in-flight entertainments and the air conditions has a positive effect and is supported as p value=0.000 and β=0.296.

H2: Airline tangibles of a service has positive effect on customer satisfaction is also supported at P-Value < 0.000 and β=0.228. This is the service material which is more outside of the aircraft that the airline uses as facilities to serve the customers.

H3: Personnel the greater customer service renders has a positive effect on customer satisfaction is not supported by the data collected as P Value is >0.05.

H4: Empathetic service has a negative effect on customer satisfaction is not supported by the

data collected as p value is >0.05.

H5: the image of the airline has positive effect on customer satisfaction is also supported as P-Value = 0.000 and β=0.436

In general, based on the data collected from the respondents, customer satisfaction is positively predicted by the variables of service quality, such as airline tangibles, terminal tangibles, and image but personnel and empathy on the contrary do not have significant effect on customer satisfaction.

SA=0.172+0.296AT+0.228TT+0.016PP-0.019EM+0.436IM+e

Where; SA = Satisfaction

AT= Airline tangibles

TT=terminal tangibles

PP= personnel

EM= Empathy

IM= Image

e= error

4.9 Summary of Findings

The objective of this study was to assess the effect of service quality on customer satisfaction of Ethiopian Airlines in Addis Ababa. The study was conducted by distributing questionnaires.

The main objective of this study was to determine the effect of various service quality dimensions on customer satisfaction in aviation industry especially in Ethiopian Airlines by employing the AIRQUAL scale developed by Ekiz et al. (2006) and investigate its effect on passengers' satisfaction.

The model proposes that there are five dimensions of service quality which are Airline tangibles, Terminal tangibles, Personnel, Empathy and Image.

The data collected from 224 Ethiopian Airlines respondents showed that, customer satisfaction is positively predicted by the variables of service quality, such as airline tangibles, terminal tangibles, and image but personnel and empathy on the contrary do not have significant effect on customer satisfaction.

Findings from the collected data show that more than half of the respondents which is 63.3% are satisfied with the services quality of the airlines with a given parameter. As findings of Ekiz et al. (2006) on Cyprus national Airline the findings demonstrate the dimensions of AIRQUAL model have a significant positive relationship with the impact of customer satisfaction so that service quality explains 68% in customer satisfaction. From this Ethiopian airline should have to exert high on the dimension of AIRQUAL especially on airline tangible, terminal tangible and image.

Chapter Five

CONCLUSIONS AND RECOMMENDATIONS

This chapter includes conclusions and recommendations of the study, and implications for further research.

5.1. Conclusions

Service industry is one the essential sectors in today's competitive environment. Presently, increment customers' demands together with ever growing competition are convincing the aviation industry to adapt new competitive and innovative ways which will help them to take the lead in the market place. Evidences entail that service quality is an excellent technique for enhancing customers' satisfaction level to the organization in today's competitive environment.

The main objective of this study was to determine the effect of various service quality dimensions on customer satisfaction in aviation industry especially in Ethiopian Airlines by employing the AIRQUAL scale developed by Ekiz et al. (2006) and investigate its effect on passengers' satisfaction. The model proposes that there are five dimensions of service quality which are Airline tangibles, Terminal tangibles, Personnel, Empathy and Image. Findings from the collected data show that more than half of the customers are satisfied with the services quality of the airlines with a given parameter. As promised in the research objective the first objective was to identify dimensions of service quality which affects customer satisfaction in Ethiopian Airlines. According to the research airline tangibles, terminal tangibles and image positively influence customer satisfaction and significantly affect the quality of customer service. The regression was run which indicated that the service quality dimension predicts 63.3% of variation in customer satisfaction. Findings indicate that service quality on customer satisfaction and its dimensions airline tangibles, terminal tangibles and image have significant and positive effect association with satisfaction of customers.

The research also shows that Ethiopian airlines need to pay more attention to the service quality dimensions of airline tangibles, and image as these dimensions significantly and positively affect customer satisfaction. This may mean that service deliveries by the airline need to focus on this applicable service quality dimensions.

5.3 Recommendations

This research has focused on passengers rating on the five dimensions of service quality; future studies can include more variables to measure service quality to get a broader view on quality of service provided and to come up with a more inclusive strategy to improve over all service quality.

Another perspective would be use semi- structured interview or open ended-questions so that the respondents are able to provide more detailed response. In this research the respondents gave their ratings to provided specific questions. While if other methods such as those mentioned were used respondents will have freedom to include items that are important to them they may have been overlooked by the researcher and give more detailed responses to questions asked. This will help the researchers to identify real problem areas as well as areas that are doing exceedingly well.

The airline has to shape behaviour of its employees to instil confidence in delivering quality services to customers, employees has to show their commitment for safe feeling of customers in transactions with themselves, they have to be polite in communications with customers, and have to have the knowledge to answer customers' requests to assure satisfaction of customers in significant level.

From the research shown the dimensions of airline tangible, terminal tangible and image have a positive relationship and significant effect on customer satisfaction and it is needed to give more attention or emphasis and do hard on these dimensions.

Last but not least comparative studies can be done evaluating customers rating of service quality and customer satisfaction with Ethiopian airlines with their ratings of service quality and customer satisfaction with a different other airlines. This will enable to see how well the airline is doing compared to its competitors.

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www.ethiopianairlines.com

Addis Ababa University School of Commerce
Department of Marketing management
Post graduate program

Dear respondents;

This questionnaire is prepared to collect information on the "effect of service quality on customer satisfaction – case of Ethiopian airlines" for educational purposes. The information is solicited for the partial fulfillment of a Master of Arts Degree in Marketing Management, the Department of Marketing Management at Addis Ababa University School of Commerce. All the information you provide will be kept confidential and used only for academic purpose.
As a customer of the company, you will have valuable insights which can assist this research for the achievement of the study objectives. Your cooperation is highly appreciated.
I would, in advance, like to thank you for sharing your valuable time in filling this questionnaire.

Part I General information

Instruction: please give your response by putting a tick mark (√) in one of the box provided against for fixed alternative questions.

1. Gender? Male ☐ Female ☐
2. Age group?
   18-25 ☐ 26-34 ☐ 35-43 ☐ 44-52 ☐ 53 and above ☐
3. Level of education?
   Diploma ☐
   Bsc/BA Degree ☐
   Masters Degree ☐
   Doctorate Degree ☐
   Others Specify_____

4. How frequently travel with Ethiopian airline per year?
   1-5 ☐ 5-10 ☐ 10-15 ☐ 15-20 ☐ More than 20 ☐
5. Which airline are you flying with frequently?
   Ethiopian airline ☐ Other Airline ☐
6. Reason for travel? feel free to Select more than one option
   Business ☐ Leisure ☐ Holiday ☐ Education ☐ Medical ☐ Other ☐
7. Income per year in $?
   Below 5,000 ☐
   5,000-10,000 ☐
   10,000-15,000 ☐
   15,000-20,000 ☐
   Above 20,000 ☐

Part II: Determinants of service quality dimensions and customer satisfaction
Directions: you are required to choose the appropriate response category by encircling the number against each statement given on a 5-point likert scale where (1=strongly disagree; 2=Disagree; 3=Neutral; 4= Agree and 5= strongly Agree)

No	Airline Tangibles	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The aircraft is safe and clean	1	2	3	4	5
2	Meal services served in a plane is good	1	2	3	4	5
3	Plane seats are convenience	1	2	3	4	5
4	Plane seats are clean	1	2	3	4	5
5	Plane toilets are clean	1	2	3	4	5
6	In-flightentertainment is available during the flight (up to date magazine, newspapers, videos and films.)	1	2	3	4	5
7	The quality of Air-condition in the plane are good	1	2	3	4	5

No	Terminal Tangibles	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8	Convenient passenger check-in	1	2	3	4	5
9	The size of the airport is big enough for holding the passengers.	1	2	3	4	5
10	The airport toilets are clean	1	2	3	4	5
11	The airport has good air conditioning	1	2	3	4	5
12	The airport has good signage system	1	2	3	4	5
13	Trolleys are abundantly available in the airport	1	2	3	4	5
14	Security system is reliable	1	2	3	4	5
15	The airport is convenient for disabled person	1	2	3	4	5
16	The waiting area of the airport is comfortable	1	2	3	4	5
17	Employee's uniform are usually appealing	1	2	3	4	5
18	There are sufficient number of shops in the airport	1	2	3	4	5

No	Personnel	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19	Employees attitude is good	1	2	3	4	5
20	Personnel give exact answer to the question	1	2	3	4	5
21	The personnel show empathy	1	2	3	4	5
22	The personnel are polite and willing to help	1	2	3	4	5
23	The employee show personal care equally to everyone	1	2	3	4	5
24	Employees are patient, confident and empowered	1	2	3	4	5
25	Employees are respectful and go extra mile to solve the problem	1	2	3	4	5

No	Empathy	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
26	Flight departure and arrival are on time	1	2	3	4	5
27	There is convenient transportation system between city and airport	1	2	3	4	5
28	The airline pays good care to passengers luggage	1	2	3	4	5
29	On-line flight booking is convenient	1	2	3	4	5
30	Convenient flight services are available with enough frequencies	1	2	3	4	5
31	There areair line offices in different locations	1	2	3	4	5
32	There are enough amount of flights to satisfy passengers' demand	1	2	3	4	5
33	The airline provides compensation in case of loss or damage	1	2	3	4	5

No	Image	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
34	The airline has a good image	1	2	3	4	5
35	The airline gives cost effective very good services	1	2	3	4	5
36	The ticket price is consistence with given service	1	2	3	4	5
37	Low ticket price offerings are available	1	2	3	4	5

No	Customer satisfaction	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
38	I am satisfied with Ethiopian airline as a service provider	1	2	3	4	5
39	I did the right decision when I choose to travel by Ethiopian	1	2	3	4	5
40	I have more positive attitude toward the company	1	2	3	4	5
41	The air line is customer friendly	1	2	3	4	5
42	My experience with the airline is above my expectation	1	2	3	4	5
43	My satisfaction with Ethiopian has increased	1	2	3	4	5

Thank you for your time.