ASSESSING THE EFFECT OF E-COMMERCE ATTRBUITE ON CUSTOMER SERVICE QUALITY ENHANCEMENT: THE CASE OF ETHIOPIAN AIRLINES

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Declaration

I, **FrehiwotMolla**, affirm the thesis entitled: **"Assessing the effect of e-commerce attribute on customer service quality enhancements: the case of Ethiopian Airlines**" is my own creation, completed with the guidance of my advisor, Hailemariam Kebede(Ph.D).

This research constitutes a partial requirement for the Master of Arts Degree Award in Marketing Management, and it has not been previously submitted to any diploma or degree in any other institution.

Additionally, Iconfirm that all sources utilized in the study have beenappropriately acknowledged.

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Certificate of Approval of Thesis

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This is to certify that the thesis prepared by **Frehiwot Molla**, entitled **"Assessing the effect of e-commerce attribute on customer service quality enhancements: the case of Ethiopian airlines"** and submitted in Partial Fulfillment of the Requirements for Degree of Master of Arts Marketing with the regulations of the University and meets the accepted standards with respect to originality and quality.

Name of Advisor: _**Dr. Hailemariam Kebede**; Signature: _____Date: _____.

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Acronym

CRS=Computer Reservation System

E-commerce=electronic Commerce

ET=Ethiopian Airlines

E-business=Electronic Business

E-service=Electronic Service

SERVQUAL=Service-Quality

TAM = Technology Acceptance Model

TPB = Theory of Planned Behavior

TRA = Theory of Reasoned Action

UTAUT = Unified Theory of Acceptance and Use of Technology

SPSS=Statistical Package for Social Science

Abstract

This thesis explores the impact of e-commerce attributes on the enhancement of customer service quality, focusing on the case of Ethiopian Airline services. Seven determinants of e-commerce service quality variables - fulfillment, reliability, responsiveness, efficiency, privacy, compensation, and contact - are employed as measurements. A quantitative research approach, utilizing both descriptive and correlation methods, was adopted. A simple random sampling technique was employed to select a sample from the population, and a questionnaire was designed using Likert's five-point scale to assess all attributes of Ethiopian Airlines' e-commerce services. Out of the 384 questionnaires distributed, 363 respondents completed and returned their questionnaires. The statistical analysis of the study was conducted using SPSS software version 20, presenting results through inference and descriptive analyses. The descriptive statistics revealed that the factors influencing the level of customer service quality were above the satisfactory level, with a mean value of 3.44 on a 5-point Likert scale. This implies that the efficiency, fulfillment, responsiveness, reliability, privacy, compensation, and communication attributes of e-commerce services significantly impact the customer service quality of Ethiopian Airline. The overall findings of the multiple linear regression analysis indicated that there is variation in the effects of e-commerce service quality dimensions on customer service quality. Specifically, any increase in efficiency, fulfillment, reliability, privacy, responsiveness, compensation, and contact contributes to a 33.6%, 10%, 21.5%, 16.9%, 11.4%, 11.1%, and 6.5% enhancement in customer service quality, respectively. Based on these findings, it is recommended that Ethiopian Airlines prioritize efficiency, reliability, and privacy to elevate the quality of their customer services since those variables has higher contribution than the rest.

Keywords: Service quality, efficiency, fulfillment, reliability, privacy, responsiveness

Chapter One

1. Introduction

1.1. Background of the study

In today's increasingly competitive markets, adopting digitization and e-commerce is critical to survive and thrive. E-commerce allows businesses to provide convenient, informative, and personalized experiences for different types of buyers. It also enables them to save the cost of retail floor space, staff, and inventory (Kotler and Keller, 2012). E-commerce involves many issues such as trust, security, privacy, accessibility, familiarity, awareness, and quality of public services (Jaeger, 2003).

The commencement of the e-commerce era in the airline industry can be traced back to the introduction of Sabre, the first computer reservation system (CRS), by American Airlines in 1964. This pivotal development played a significant role in establishing the foundations for the e-commerce principles observed today. Subsequently, various airlines worldwide followed suit and implemented their own CRSs. This enabled them to electronically handle the increasing quantity and intricacy of seat inventory and pricing data internally, resulting in enhanced efficiency and effectiveness.

The convenience of being able to purchase goods and services without time and geographical constraints has led to the rapid uptake of e-commerce, and one of the sectors at the forefront of the e-commerce revolution has been the air-travel industry. Surveys show that these are among of the most popular of all transactions conducted online, and over the next few pages we shall examine why this is the case and take an in-depth look at the impact of e-commerce in the sector.

In general, the internet has revolutionized the way business is conducted enabling buyers and sellers to conduct a two-way dialogue in real time, 24 hours a day. Besides serving as a convenient platform for commerce, the World Wide Web also helps customers/organizations to communicate on a one-to-one basis, build brand relationships, act as a channel to market, and provides a customer service function. (Mudie and Pirrie, 2006)

E-commerce is defined as the purchase or exchange of goods and services over the Internet, between individual consumers, businesses, or other organizations. It started out in the 1970s as an industry standard called EDI (Electronic Data Interchange) which was a structured way of exchanging data between companies, mainly to simplify purchasing and supply procedures. However, EDI required the usage of

expensive and complicated private networks which nullified its impact on consumers and small enterprises. The advent of the World Wide Web, which used the Internet and its low cost and ease of entry, radically changed this landscape to allow access by individual customers as well, thus revolutionizing trade forever (Rincon et al, 2001). The convenience of being able to purchase goods and services without time and geographical constraints has led to the rapid uptake of e-commerce, and one of the sectors at the forefront of the e-commerce revolution has been the air-travel industry. Surveys show that these are among of the most popular of all transactions conducted online, and over the next few pages we shall examine why this is the case and take an in-depth look at the impact of e-commerce in the sector. The ever-growing cell phone penetration across the world further expanded online marketing and transaction across the globe allowing consumers and businesses to order and purchase goods and services from any place.

1.2. Statement of the Problem

A lot of the e-commerce principles and methodologies were pioneered by the airline industry. The first exchanges of business-to-business electronic information owe their existence to the airline industry (Smith et al, 2001).The availability of reliable low-cost communications through the Internet-enabled airlines to calibrate consumer supply-and-demand cycles, produce multi-pronged product marketing strategies, and practice dynamic pricing structures (Smith et al, 2001).

The adoption of e-commerce is slow in Ethiopia, there aren't enough studies conducted on online sales and services. E-commerce is in its infancy in Ethiopia with only a few years of existence (Hassen & Svensson, 2014). Even some of the leading companies in the country did not embrace the technology fast enough. Comparatively more financial institutions mainly banks have been launched and comparatively more people are being driven to own bank accounts (Hassen & Svensson, 2014). Despite some advancement in the expansion of mobile banking, card banking, and internet banking services, many banks continue to rely on traditional methods centered on physical cash and prioritize the growth of physical branches. (Hassen & Svensson, 2014).

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Companies in the banking sector are among those at the forefront of e-commerce adoption. Almost all banks in Ethiopia are offering their services online besides serving as intermediaries for e-commerce between consumers and other companies (Gardachew, 2010). For instance, Kenya, which authorized the telecom operator Safaricom to engage in the financial sector with its mobile money called M-Pesa(Fox,2018), the sole telecom operator in Ethiopia, Ethio-telecom, is currently using application named Tele birr in serving as intermediary with service giving businesses such as Ethiopian airlines, Dstv, Immigration online payments, canal plus, other payments and the like to facilitate online customer service. Many e-commerce businesses realize that the key determinants of success or failure are the quality of the electronic service (e-service quality) and not merely website presence and low price (Yang, 2001).

Moreover, previous studies have also revealed that service quality in online environment is an important determinant of an effective e-commerce (Yang, 2001,Janda et al., 2002). Increased e-service quality on the web could assist online companies to be more effective and appealing and subsequently help them to achieve higher level of customer service quality and retention (Gronroos, 2000). For online consumers, a higher quality e-service implied high standard of services (Yang, 2001). It is much easier to compare product technical features and prices online than through traditional channels and henceforth, e-service quality becomes a key factor for online customers (Santos, 2003).

Delivering exceptional service quality in e-commerce is a crucial concern for the airline industry in order to address challenges and ensure the highest level of customer satisfaction. This entails focusing on various dimensions of e-commerce service quality, including efficiency, system availability, fulfillment, privacy, contact, responsiveness, and reliability. Therefore, the current study‘s main area is determining is assessing the effects of ecommerce attribute on customer service enhancement in the case of ethiopianairlines.There are three reasons to concentrate in this study 1) Ethiopian airline has been receiving multiple customer complaints through a general feedback channel, indicating areas where improvements are needed, 2) The star alliance rating for customer service quality, as determined by surveys, falls below the average for the alliance as a whole,3) Ethiopian Airlines is among the companies that are spearheading the development and utilization of e-commerce in Ethiopia through ticket sales and related customer services, this research is conducted with a view to filling this gap and paving the way for other private airline companies in Ethiopia.

1.3. Research Questions

The information gathered from online customers of Ethiopian Airlines was utilized to analyze and address the following inquiries systematically.

Main question:

- What is the Effect of e-commerce attributes enhance customer service quality in Ethiopian Airlines?

Sub questions:

- What is the effectiveness of e-commerce affect customer service quality enhancement at ET?
- Does the fulfillment of e-commerce affect customer service quality enhancement at ET?
- Does the privacy of e-commerce affect customer service quality enhancement at ET?
- Does the responsiveness of e-commerce affect customer service quality enhancement at ET?
- Does the e-commerce reliability affect customer service quality enhancement at ET?
- Does e-commerce contact system affect customer service quality enhancement at ET?
- Does compensation of customer using e-commerce affect customer service quality enhancement at ET?

1.4. Objective

1.4.1 General Objective

The research's overall purpose deals with assessing the Effect of e-commerce attributes on customer service quality enhancement in the Case of Ethiopian Airlines

1.4.2 Specific Objectives

- Examine the effectiveness of e-commerce on customer service quality enhancement at ET.
- Analyze the effect of the fulfillment of e-commerce on customer service quality enhancement at ET.
- Determine the effect of privacy on customer service quality enhancement at ET.
- Examine responsiveness of e-commerce on customer service quality enhancement at ET.
- Investigate the effect of e-commerce reliability on customer service quality enhancement at ET.
- Analyze contact of e-commerce on customer service quality enhancement at ET.
- Determine the effect of e-commerce compensation methodology on customer service quality enhancement at ET.

1.5. Significance of the Study

This study is important for executives, directors and managers, and an employee of Ethiopian Airlines as it gives highlights the effect of e-commerce to improve customer service quality. The study is of importance for the information technology division on e-commerce processes that influence customer service quality to revise and update the digital services for effective e-commerce.

This research gave information on the perceptions and awareness of e-commerce services and the study is of importance for students and practitioners who want to pursue further study on the subject matter as it will be used as a source of information and reference for further study or research on e-commerce's and its effect on customers and organizational performance.

1.6. Scope of the Study

The scope of the study is confined to assessing the effect of e-commerce on Ethiopian Airlines' customer service quality enhancement. The study focused on Ethiopian Airlines' customers or passengers and this study will be bound by the perception of Ethiopian airlines customers/passengers that currently uses the service in Addis Ababa bole international airport.

Finally, the study is bounded by the quantitative type of research methodology, which restricts the respondent's opportunity to respond to open-ended questions and have only to choose from the alternatives given in the questionnaire form.

1.7. Organization of the Study

The study is structured is into Five chapters. Chapter one provides an overall introduction to the research. It includes the background of the study, problem statement, research questions, significance of the study, objective of the study, and scope of the research.

Chapter two encompasses the review of related literatures. In this chapter, a comprehensive review of related literature is presented. It includes theoretical and empirical reviews, demonstrating how the proposed research aligns with previous studies from reputable journals.

The third chapter focuses on the methodology that will be used in the research. It provides details on the research approach, research design, sample size, data collection procedures, and the interpretation and discussion of results.

Chapter four discusses the research findings, provides interpretation, and presents statistical tests used. It showcases the statistical results obtained from the data analysis.

Chapter five, the final chapter includes a summary of the findings, conclusions drawn from the research, and recommendations. It also addresses the limitations faced during the research process and suggests potential areas for future studies.

Chapter two

2. Review of Related Literature

This chapter focuses on reviewing relevant literature related to the study and consists of three main parts: theoretical review, empirical review, and conceptual review.

2.1. Theoretical Review

2.1.1. Definition of Electronic commerce (E-commerce)

E-commerce is defined as an online transaction that includes selling goods and services on the internet, either in one transaction or over time. It is a "subset of e-business focused on transactions that include buying/selling online, digital value creation, virtual marketplaces and storefronts, and new distribution channel intermediaries." (Strauss et al, 2014)

E- Commerce is the purchase or exchange of goods and services over the Internet, between individual consumers, businesses, or other organizations. It started out in the 1970's as an industry standard called EDI (Electronic Data Interchange) which was a structured way of exchanging data between companies, mainly to simplify purchasing and supply procedures. However, EDI required the usage of expensive and complicated private networks which nullified its impact on consumers and small enterprises (Rincon et al, 2001). The advent of the World Wide Web, which used the Internet and its low cost and ease of entry, radically changed this landscape to allow access by individual customers as well, thus revolutionizing trade forever (Rincon et al, 2001). The convenience of being able to purchase goods and services without time and geographical constraints has led to the rapid uptake of e-commerce, and one of the sectors at the forefront of the e-commerce revolution has been the air-travel industry. (Strauss et al, 2014)

In today's increasingly competitive markets, adopting digitization and e-commerce is critical to survive and thrive. E-commerce allows businesses to provide convenient, informative, and personalized experiences for different types of buyers. It also enables them to save the cost of retail floor space, staff, and inventory (Kotler and Keller, 2012).

The ever-growing cell phone penetration across the world further expanded online marketing and transaction across the globe allowing consumers and businesses to order and purchase goods and services from any place.

In general, the internet has revolutionized the way business is conducted enabling buyers and sellers to conduct a two-way dialogue in real time, 24 hours a day. Besides serving as a convenient platform for commerce, the World Wide Web also helps customers/organizations to communicate on a one-to-one basis, build brand relationships, act as a channel to market, and provide a customer service function. (Mudie and Pirrie, 2006)

The intangible bundle of benefits businesses offers to consumers or other businesses are defined as a service. According to Kotler and Keller (2012), service is "any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything. "The other characteristics of service include the inseparability of production and consumption, heterogeneity of service depending on who delivers it, and its perishability. (Mudie and Pirrie, 2006).The service industry has been transformed in recent decades with the widespread use of the internet and the growing penetration of cell phones. Service organizations are reaping the benefits of technology in terms of productivity and cost savings while customers enjoy reliability, speed of delivery, and ease of use. (Mudie and Pirrie, 2006)

Service firms have been adopting technology to enhance and facilitate their service delivery to remain competitive vis-à-vis their rivals. The internet has also paved the way for the creation of what has come to be known as pure-click companies "that have launched a Web site without any previous existence." (Kotler and Keller 2012).

To remain competitive in the evolving operating environment, service companies need to keep investing in ensuring the quality of the service they offer thereby paving the way for better market share and customer loyalty. Laudon and Traver, (2009) define electronic commerce as the use of the internet and the web to transact business or the use of digitally enabled commercial transactions between and amongst organizations. E-Business is the term used to describe the information systems and applications that support and drive business processes, most often using web technologies, e-Business allows companies to link their internal and external processes more efficiently and effectively and work more closely with suppliers and partners to better satisfy the needs and expectations of their customers, leading to improvements in overall business performance. This concludes that when e-commerce is combined with information systems of the firm it results to the firm doing e-business. The common element is the effective implementation of business activities using Internet technologies.

2.1.2 E-commerce and Airline Industry

Airline profits continue to be throttled down by the global economic downturn, high fuel costs and the prospect of ever more stringent environmental regulations. In order to survive and prosper in these conditions, airlines must rationalize their processes and increase asset utilization to a greater degree than ever before. This will require business-driven IT transformation—that is, the fundamental redesign and integration of business systems and processes within and across airline functions. Airlines will have to carefully manage the internal demand for IT services, implement project delivery methodologies that focus on business process design and change management, and adopt a sourcing strategy that enables them to match suppliers to project goals on the basis of the capabilities and degree of collaboration required (Kamau,2015).

Those that do will be able to significantly raise their business performance and earn improved returns on their IT investments. E-commerce has a significant impact on business costs and productivity and has a chance to be widely adopted due to its simple applications. Thus, it has a large economic impact. It gives the opportunity for ―boundary crossing‖ as new entrants, business models, and changes in technology erode the barriers that used to separate one industry from another. This increases competition and innovation, which are likely to boost overall economic efficiency. The potential value of ecommerce has received extensive coverage in research and trade publications with several successful e-commerce stories (Kariuki, 2015).

E –commerce will open fresh sources of revenues and opportunities for firms, it will bring more dialogue between business and consumer on a number of levels within the supply chain that will result in greater revenue generation. Airlines rely heavily on e-commerce for many purposes. One primary benefit is it reduces the number of employees needed, save money through lower costs of reservations, sales offices, advertising and agent fees and commissions (Hoq et al., 2005). Through the e-commerce platform, Airlines enhance their relationship with their passengers who will book directly with the airline rather than through travel agents. In addition, airlines increase their revenues through sales of optional services such as baggage, seat assignments and ancillary services such as car-hire, hotels, and insurance. E-commerce enables airlines to offer more services to customers, more channels to deliver their business, more intelligence to understand their business, greater efficiency, and lower cost.

2.1.3. Service Quality Model

The SERVQUAL model 1st developed by (Parasuraman et al. 1988) has been widely tested as a means of measuring customer perceptions of service quality. The SERVQUAL model is consists of five dimensions namely tangibles, reliability, responsiveness, assurance and empathy. In past decades SERVQUAL model has been tested for measuring service quality in e-commerce settings (Xegash al., 2003). More attention is needed in customer evaluation of e-services because methods of measuring service quality differ between e-commerce and physical marketplace services (Parasuraman and Grewal, 2000). The researchers also suggested that more studies are required on whether the definition and relative importance of the SERVQUAL dimensions will change when customer interact with technology rather than with service personnel.

(Dimitrios 2004) discusses that Information Communication Technologies (ICT‘s) have revolutionized the entire business world. The airline industry has fostered a dependency on technology for their operational and strategic management. Airlines were early adopters of ICTs and have a long history of technological innovation, in comparison to many other travel and tourism businesses. This paper discusses comprehensive research, including exploratory research with airline executives, using qualitative methods to examine the use of ICTs in the contemporary airline industry and to discuss recent developments in the industry. The work demonstrated that the airline industry was using the Internet to improve its distribution strategy and reduce costs. It also used Intranets and internal systems to develop tactical and strategic management. In addition, Extranets were being gradually used for communicating with partners and to support business-to-business (B2B) relationships. The effort demonstrated that ICTs will be critical for the strategic and operational management of airlines and will directly affect the future competitiveness of airlines.

In order to analyze service quality in airline industry, the starting point is to recognize and classify the key attributes or features that make up service quality in airline operations (Faheed, 1998). According to Phillip and Hazlett (1997), service quality components overlap between attributes, which are classified and defined as pivotal (outputs), core, and peripheral (jointly representing inputs and processes). The core attributes integrate people, processes, and the service framework through which customers interact with to accomplish the pivotal attributes. Third-level attributes focus on the peripheral attributes which represent the structures designed to add value to the service encounter and to enhance customer experience (Nitin, Deshmukh, and Prem, 2004). According to Chase

(1978), airline operations exhibit mixed service features (with high contact and low contact at their terminals), pure service features (inflight), and quasi-manufacturing system (moderate contact) features in the area of operations. In the airline industry, Chen and Chang (2005) categorized service processes into ground (process) and in-flight services (sub-processes). They reiterated further that the process and each sub-process contribute towards the delivery of the service.

Indices that make up ground services in an airline are check-in services for passengers, airline lounges, and moving passengers' baggage to the claim area. According to the Airport Cooperative Research Program (2013), ground experience can be categorized into four distinct segments: (1) getting to the airport, (2) waiting in the terminal before security, (3) passing through security checkpoints, and (4) finding the gate. Flight services, on the other hand, include in-flight entertainment, food and beverages, seat comfort, etc. Based on the attributes, customers form expectations which relate to what they anticipate from service experience. Therefore, the extent to which customers identify and are ready to accept variations between expectations and perceived performance is referred to as the zone of tolerance (Zeithaml et al., 1990). Consequently, if the service level drops below adequacy, customers will be frustrated, and dissatisfaction will set in. If, on the other hand, service performance exceeds the desired level (i.e. higher than the zone of tolerance), customers will be very pleased and probably delighted (Zeithaml et al., 1990)

In fact, analysis of the impact of e-commerce on the productivity of different industry sectors shows that the air travel industry overall recorded an increase in productivity to the tune of 1%, (Rincon et al, 2001), better than the negative slide for the others which were struggling from the effects of the dotcom bust at the time of this study.

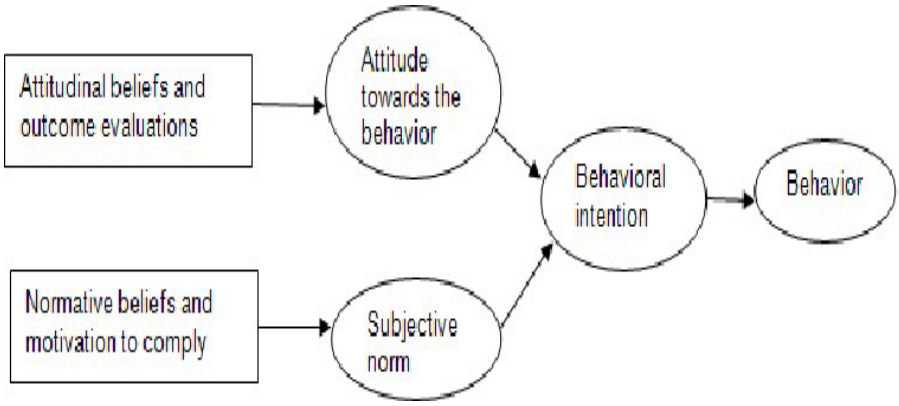
2.1.4 Related Theories and Models

There are a bunch of theories formulated by different scholars to test the people's intention to use and actual adoption and usage of any technological findings from information systems information technologies, and disciplines relating to human behavior and psychology (Dwivedi, et al., 2017). Among the well-known theories and models, some of them are mentioned in the subsequent paragraphs.

2.1.4.1 Theory of Reasoned Action (TRA)

The theory of reasoned action was first developed by Fishbein &Ajzen (1975) to propose a decision to do or take actions by a person is determined by that person's individual control of his/her behavior that is driven by behavioral intentions. This intention is defined by the individual's attitudes and his/her subjective norms towards that behavior (Raeisi&Lingjie, 2016; Ismail &Razak,2011). This theory generally suggests that attitudes toward a specific behavior is influenced by a composition of two related factors - individual beliefs about the result of the behavior and individual evaluation of the possible result. Thus, if a person perceives that the result from acting a behavior is positive, then he or she will have a positive attitude towards acting the behavior and vice versa. This theory is represented by the following model.

Figure 1: Model of Theory of Reasoned Action



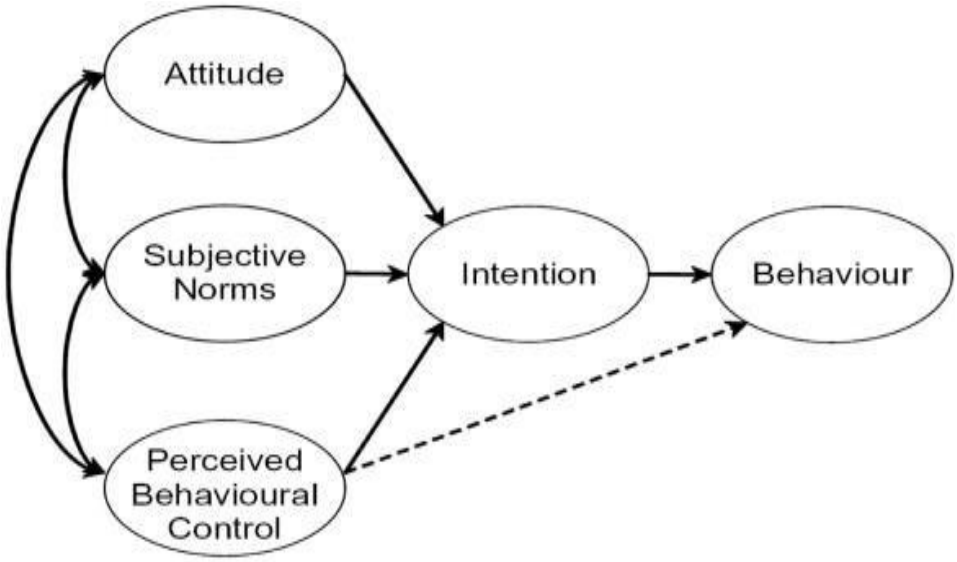
Source: Adopted from Ismail & Raza (2011)

This shows an expanded picture of how, when, and why attitudes predict consumer behavior; the theory of reasoned action was primarily applied in the western countries' cultures. This implies that some of the assumptions in the model may not be compatible with other cultures from the other terminals of the world, especially those in the eastern nations and the Africans who are comparatively culturally impacted and with a high normative influence.

2.1.4.2 The Theory of Planned Behavior(TPB)

According to Solomon et al. (2006), the model of reasoned action was extended to another more extended model called the Theory of Planned Behavior that predicts behaviors over which consumers perceive they have control by examining their perceived behavioral control. According to this model, the combination of motivational factors, attitudes toward a behavior, perceived behavioral control and subjective norms can influence the intention of a behavior. The following figure summarizes TPB factors and variables.

Figure 2: Model of Theory of Planned Behavior



Source: Adopted from Raeisi & Lingjie(2016)

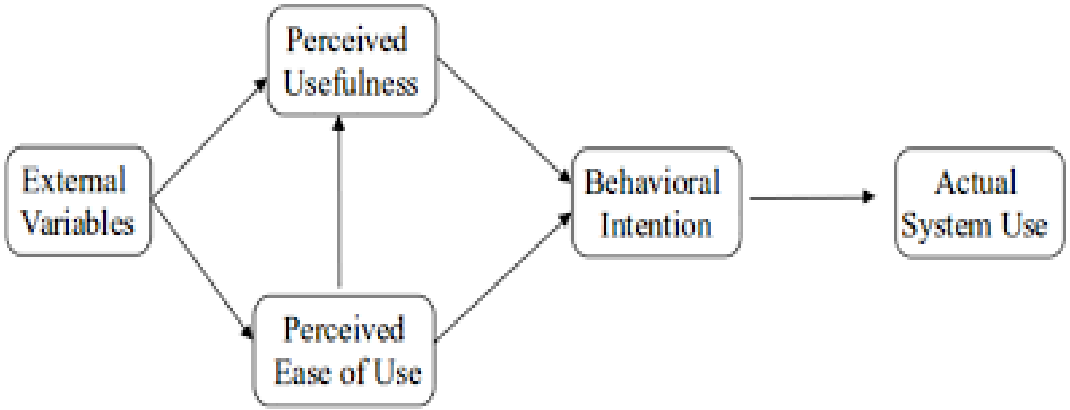
2.1.4.3 Technology Acceptance Model(TAM)

Raeisi&Lingjie (2016)stated that the TAM was first formulated by Davis (1986) expanding it based on the original theory of reasoned action, while the latter predicted and explained human behavior in general, the TAM remained specific to information system usage. The original TAM hypothesizes two cognitive assumptions in explaining system usage: perceived ease of use and perceived usefulness were two main determinants of technology acceptance behavior (Dwivedi, etl., 2017). Venkatesh, et al., (2000) have indicated that the TAM was among the very strong and logical models to predict the intention and acceptance of new technological innovations by individuals over the last

two decades prior to their studies. The arguments were also supported by the fact that the model had been the most adopted theory to explain the customers' intention and usage of different kinds of electronic banking channels such as Internet banking.

The Technology Acceptance Model (TAM) is adjusted to information systems contexts and was developed to forecast information technology acceptance and usage on the job environments. Unlike the Theory of Reasoned Action (TRA), the final conceptualization of TAM eliminates the construct of attitude in order to better explain intention carefully. TAM has been widely applied to a diverse set of technologies and users (Chao, 2019). The model is shown below.

Figure 3: Technology Acceptance Model



Source: Adapted from Davis (1985)

2.1.4.4 Innovation Diffusion Theory(IDT)

The diffusion of innovation theory was formulated by Rogers (1983) defining it as a process by which an innovation is disseminated through some idea overtime within a social system among the members of that system. The contents communicated among the members in this concept are considered as new ideas. The IDT model is mainly compatible with products or services that are potentially used in high technology applications (Raeisi & Lingjie, 2016).

There are five factors (all perceptual and subjective in nature), that have a bearing on the adoption process: relative advantage, compatibility, trialability, observability, complexity. These factors have the potential in determining the rate of acceptance or resistance of the market to a product. Relative

advantage deals with the perceived marginal value of then product relative to the old, while compatibility is about the technology's harmoniousness or match with the acceptable behaviors, norms, values and so for thin the person's social system. Besides, complexity is all about the degree of sophistication associated with the use of the newly innovated technology product use and trial ability represents the level of economic and/or social risk associated with technology use. Finally, observability is to mean the simplicity with which the product benefits can be communicated (Cateora,etal.,2011;On kvisit& Shaw, 2004;Raeisi &Lingjie, 2016).

2.1.4.5 The Unified Theory of Acceptance and Use of Technology (UTAUT)

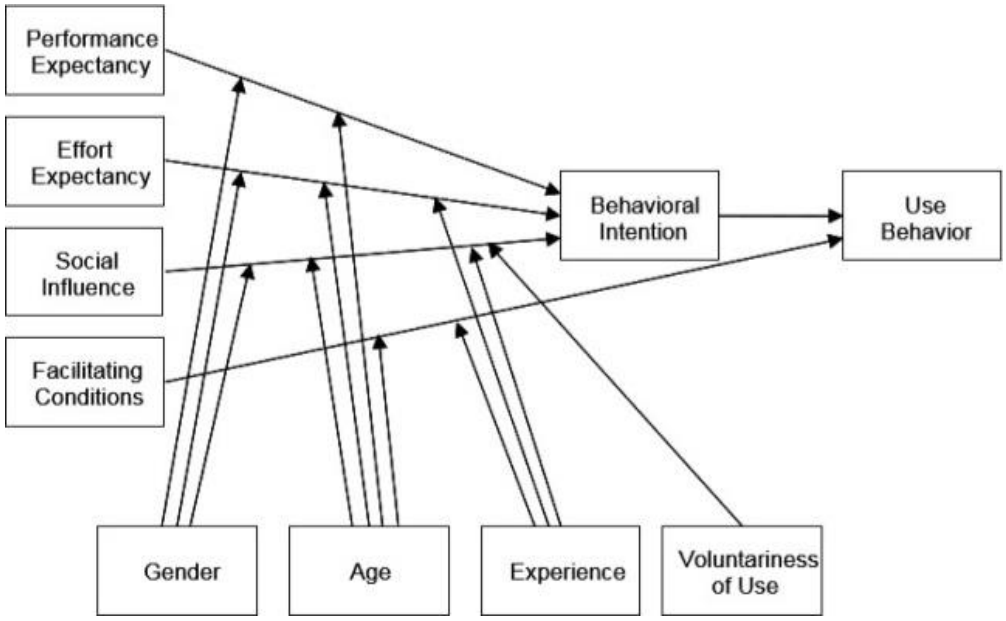
Although different scholars worldwide have developed several models to measure people's acceptance and use of technology in a separate manner, a more integrated model that tried to embrace the main constructs of preceding models was formulated by Venkatesh, etal. (2003).Not only integrating the concepts of prior models, but the UTAUT was also considered as a trial to unify the terminology of variables of different models and theories of technology acceptance.

The first UTAUT (Unified Theory of Acceptance and Use of Technology) model was developed by Venkatesh and colleagues, encompassing four theoretical constructs that serve as determinants of user behavior and intention to accept and use a particular technology. These constructs are Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. Venkatesh et al. also included four facilitating conditions in their model, namely gender, age, experience, and voluntariness of use (Venkatesh et al., 2003; Dwivedi et al., 2017).

After the initial development of the UTAUT model, it underwent validation, and subsequent empirical studies were conducted using this model. These studies confirmed the validity of the UTAUT model, further solidifying its relevance and applicability.

According to Venkatesh et al. (2003), the first three constructs are direct determinants of usage, intention, and behavior, and the fourth construct is a direct determinant of use behavior. The constructs of the UTAUT model have been displayed as follows.

Figure 4: Models of Unified Theory of Acceptance and Use of Technology

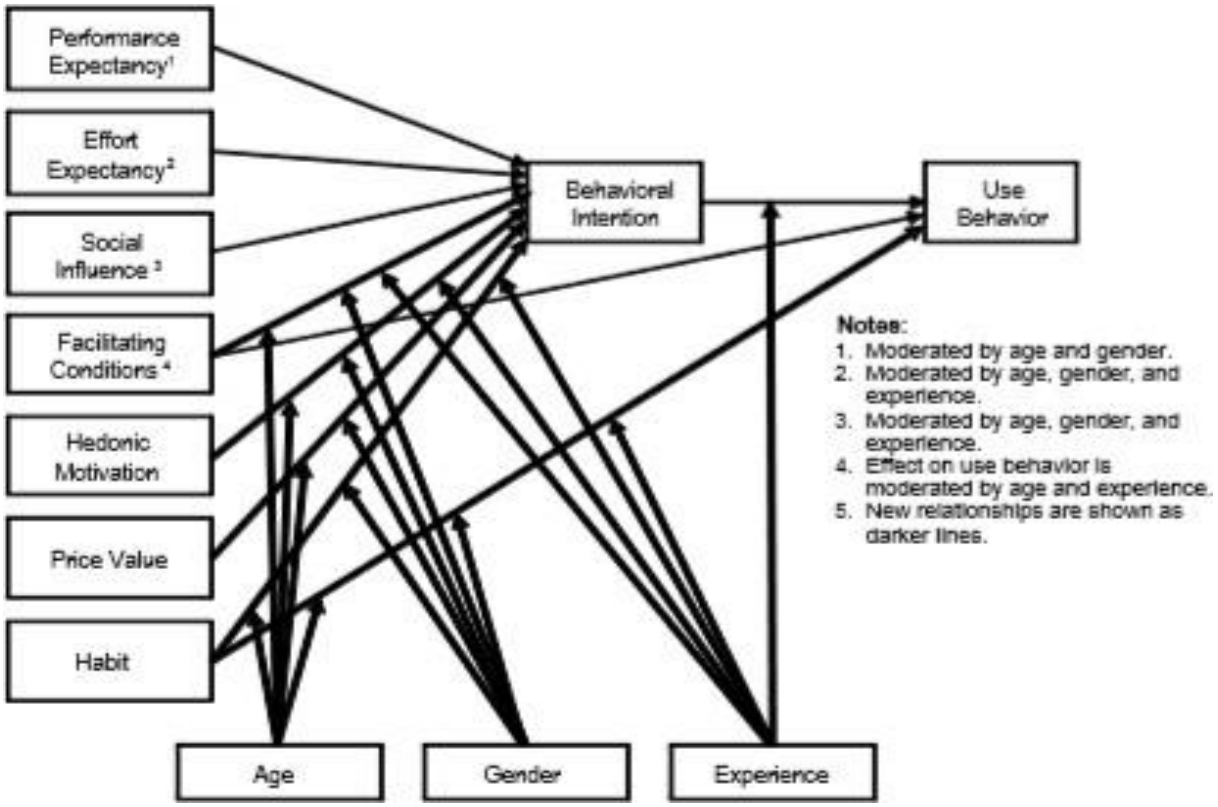


Source: the UTAUT model adopted from Venkatesh, etal. (2003)

2.1.4.6 Extended Unified Theory of Acceptance and Use of Technology(UTAUT2)

About nine years after the formulations of the first UTAUT model, Venkates hand his co-workers considered modifying the old model into a newer one adding three more constructs: Hedonic Motivation, Price Value, and Habit as indicated here below. Although the UTAUT model explained about 70 percent of the variance in behavioral intention to use technology and about 50 percent of the variance in technology use, the model was formulated based on organizational contexts. However, the newer model of UTAUT2 focused on the consumer than the employees of an organization (Venkatesh, etal, 2012).The diagrammatical representation of the extended UTAUT2 model has been depicted as follows.

Figure 5:Models of Extended Unified Theory of Acceptance and Use of Technology



Source: The UTAUT2 model adopted from Venkatesh etal.(2012)

2.2.Review of Empirical Studies

Empirical evidence and results from various studies show similar trends on the positive impact of e-commerce Service quality and technological innovation.

Review of past studies revealed that e-service quality was developed from internet marketing and the traditional service quality literature. The concept of service quality in e-commerce can be defined as consumers' overall evaluation and judgment of the excellence and quality of e-service offerings in the virtual marketplace (Santos, 2003). According to Zeithaml et al. (2001), service quality in the internet is the extent in which a website facilitates efficient and effective shopping, purchasing and delivery of products and services.

2.2.1 Efficiency with E-Commerce Service Quality

According to Parasuraman (2007) the level of efficiency of an e-commerce website can be assessed from the ease of the customer in using the website, structured appropriately and little information needed by the company that will be input for the company from consumers. Efficiency can also be seen from how companies simplify and speed up website access. Efficiency has a strong effect in influencing the e-statistic factor because; efficiency is a critical factor in seeing firsthand the quality of service from the website.

Hypothesis1. E-commerce application efficiency has a significant and positive effect on customer service quality enhancement.

2.2.2 Reliability with E-Commerce Service Quality

According to Wolfinbarger (2007) guarantees or reliability involve an accurate representation of the product, timely delivery and accurate orders. Meanwhile, according to Parasuraman (2007) the factor referred to as customer service in this guarantee contains items related to the company's. Willingness to respond to customer needs, the company's interests in solving problems, and the accuracy of the questions answered. This dimension, very good as other products may be relevant for customer assessment of service quality on the website, this needs to be tested further.

This factor contains a level of customer trust, if the customer wants something to buy the product and has already paid for it, the company must fulfill the customer's desire to deliver the product accurately, timely and reliably. Customer trust due to customer order guarantees in accordance with customer expectations greatly affects the level of satisfaction. According to Wolfinbarger (2003), revealed that the guarantee rating (fulfilment) is the strongest predictor of quality and customer service quality, while the second predictor is the customer's intention to buy back on an e-commerce website. A guaranteed factor that is in accordance with the customer's wishes can increase customer service quality.

Hypothesis 2. Reliability has a significant and positive effect on customer service quality enhancement.

2.2.3 Privacy with E-Commerce Service Quality

Privacy means that the safety of shopping site. The transaction with this website is secure, it will not disclose transaction information, and payment is also safe 20 Safety is an index that cannot be ignored in the development of e-commerce. This index is a problem that e-commerce must solve today. With the popularity of the Internet, network fraud is also frequent, mainly because the network fraud is on the Internet, is virtual, and cannot be tracked in time. This also affects customers' trust in online shopping. When the safety factor of the website is high, it will enhance customer satisfaction. Privacy as an important indicator for measuring the quality of electronic services. It is also pointed out that privacy affects customer satisfaction (Wolfingurger et al., 2003).

According to Weiss (2003) privacy is the protection of personal information and the security of protection from the risk of fraud and financial losses that have been empirically proven to have a strong impact on attitudes towards the use of online financial services. This happens in online transactions; therefore companies that use e-commerce websites must really maintain the privacy of their customers, while according to Parasuraman (2007) the level of customer trust in how much privacy is protected is the extent to which customers believe the site is safe from interference and protected personal information. Maintaining customer privacy is very important for the company by not spreading confidential information about its customers to any site, maintaining the security of the customer's shopping account, maintaining the confidentiality of the customer's bank account and shopping behavior. If a customer believes in an e-commerce site,

then he will believe that the information will be safe and will not be distributed. This is in accordance with the wishes and expectations of customers so that customers will be satisfied with the ecommerce website of the company concerned.

Hypothesis 3. E-commerce application privacy has a significant and positive effect on customer service quality enhancement

2.2.4 Fulfillment with E-Commerce Service Quality

Fulfillment is the whole process between placing the order and delivering the products (or service). Fulfillment policy is a key feature of site design. To provide complete fulfillment service, orders should be entered correctly, processed rapidly, sent to the appropriate location, and delivered on time. From the consumers' point of view, fulfillment is related to issues such as correct order procedure, fast and low-cost delivery, and interactive customer support (Song and Zinkhan, 2003). Consumers are concerned about being unable to return an item if it fails to meet their approval (Bhatnagar et al. 2000). Consumers are re-assured when they are informed about the progress of the order process, step-by-step. For example, many sites provide an order tracking service that keeps consumers informed via email.

Hypothesis 4. E-commerce application fulfillment has a significant and positive effect on customer service quality enhancement.

2.2.5 Responsiveness with E-Commerce Service Quality

Responsiveness mean that the customer personnel of website can quickly meet and respond the needs of customers. After customer order product, the enterprise should respond to and confirm the order in time. If the enterprise delays the customer's time during the process of processing the order, it will lead to the loss of the customer's resources. (Qiao J ,2014) describes responsiveness as an important indicator of the quality of electronic services in the study of the quality of electronic services to customer satisfaction, and points out that responsiveness affects customer satisfaction (Peterson, 2014).Responsiveness in an examination of the top 100 U.S. retailers, responsiveness was a key indicator of e-service quality (Zeithaml et al., 2000). Responsiveness is measured by the promptness with which the e-retailer responds to customer questions and problems. In offering good customer service, the response to the customer inquiry promptly

improves the perception of service quality (Parasuraman et al., 1988) and customer service quality (Lee & Lin, 2005).

Hypothesis 5. E-commerce application responsiveness has a positive and significant effect on customer service quality enhancement.

2.2.6 Contact with E-Commerce Service Quality

Compensation indication when the customer is not satisfied with the product, the shopping site can accept the required of returned or change product, or provide the compensation for the loss of the customer Compensation is an important indicator in measuring the quality of electronic services, because errors are unavoidable, so it is especially important to make up for errors when errors occur. Compensation will directly affect customer satisfaction. (Parasuraman, 2005)

In the realm of ecommerce, there is no such thing as a one-size-fits-all solution. Customers demand a tailored approach that treats them as individuals. Businesses must maintain constant contact with their clients through customer service. As a result, they will have a deeper understanding of their clients and will be able to establish a long-term and meaningful relationship with them. Contact points to the need of customers to be able to speak to a live customer service agent online or through the phone, email or other communication mechanism. When a customer purchases goods from an online website, this requires entering private information such as name, address, and contact number, including credit card information (Holloway and Beatty, 2008).

Hypothesis 6. Contact has a positive and significant effect on customer service quality enhancement.

2.2.7 Compensation with E-Commerce Service Quality

Compensation is dimension that involves receiving money back and handling costs. Compensation, including returns, exchange of goods and services, and provide warranty online. With the following indicators refunds for items damaged or not by order and returns due to defective or not in accordance with agreement. Compensation indication when the customer is not satisfied with the product, the shopping site can accept the required of returned or change product or provide the compensation for the loss of the customer Compensation is an important indicator in measuring the quality of electronic services, because errors are unavoidable, so it is especially important to make up for errors when errors occur. Compensation will directly affect customer satisfaction. (Parasuraman ,2005)

Hypothesis 7. Compensation has a positive and significant effect on customer service quality enhancement.

2.3. Conceptual Framework

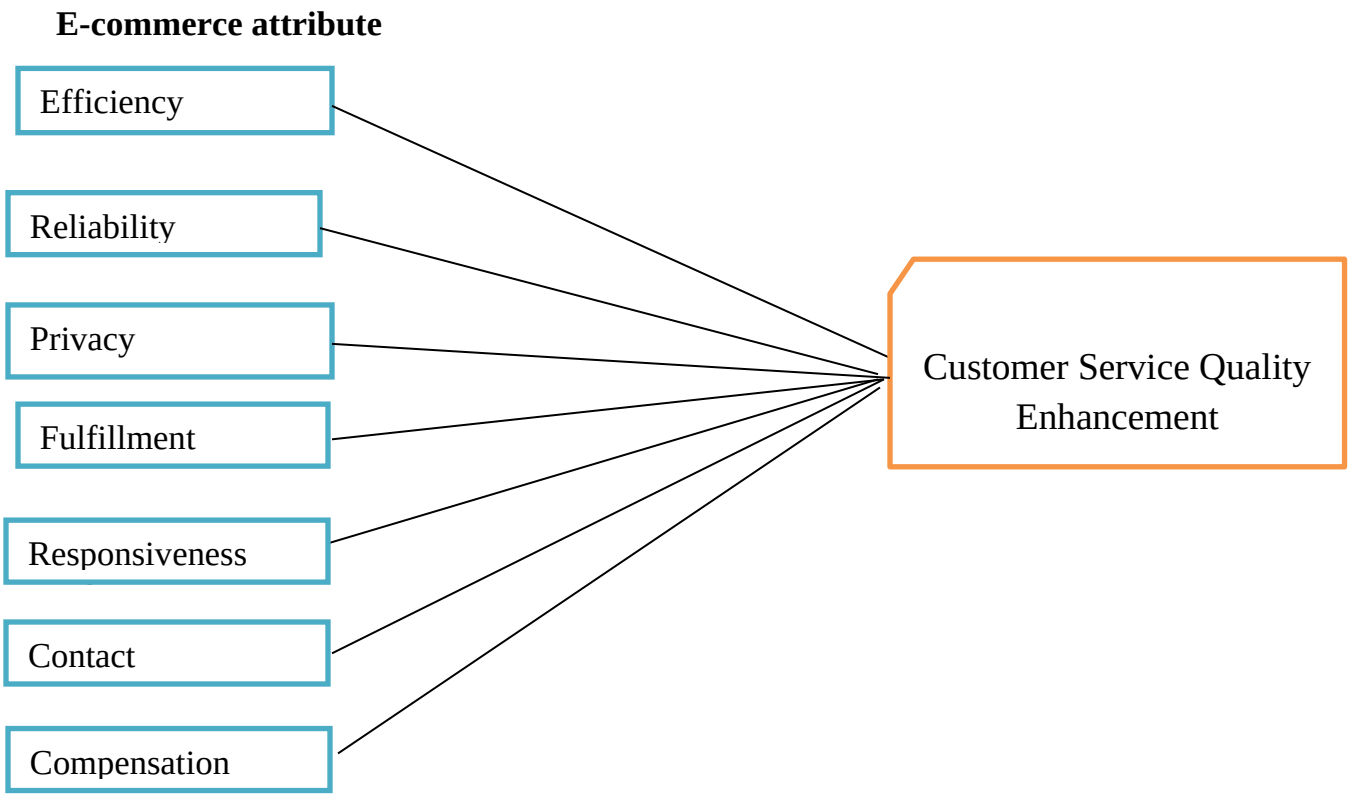
The goal of service quality enhancement is to satisfy, or even delight, the customer. The e-SERVQUAL model of Zeithaml et al. (2002) is a framework adapted from the service-quality (SERVQUAL) model to serve as a tool for assessing online service quality.

Accordingly, the researcher will assess the impact of e-commerce on the service quality of Ethiopian Airlines through the service quality determinants, namely, efficiency, fulfillment, reliability, privacy, responsiveness, compensation, and contact. (Chaffey and Ellis-Chadwick, 2012)

There are two main variables which is independent and dependent variable. An independent variable is one that can be changed or controlled in research to test the effects on the dependent variable. A dependent variable is a variable being tested and measured in research. From the conceptual framework, customer service quality enhancement is the dependent variable which is been predicted by the e-commerce attributes. The extent of this relationship has been tested in the research scope and study area.

Figure 6: Conceptual framework Diagram

(Source: own formulation)



Chapter Three

3. Methodology

3.1 Description of the Study Area

This study focused on assessing the effect of e-commerce on Ethiopian airlines on its customer service quality. Ethiopian Airlines (ET) is a flag carrier of Ethiopia fully owned by the government. It is currently ranked the largest airline in Africa in its Fleet size, countries of destination, a number of passengers transported, and Revenue and profit earned. The study focused on the contribution of e-commerce to improved passenger service quality enhancement and the success of the airline. Under this topic: the research design and approach, target population and sampling techniques, method of data collection and analysis, and Instrument validity & reliability test are discussed below.

3.2 Research Design

The research design is the conceptual structure or master plan of the study which specifies the methods and procedure for collecting, measuring, and analyzing the needed data. It is a blueprint that plans the action and activities of the research project. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure". Kothari (2004).

In order to capture the logical structure of the study, the researcher used both descriptive and explanatory research designs. These designs clearly attest to attributes of e-commerce as well as show its effect on customer service quality enhancement. Explanatory research helps to look for reasons or causes and to provide evidence and explanation that support or refute an explanation. It helps to answer both the why and how aspects of the research question. This design helped in establishing the cause-and-effect relationship between variables of the study e-commerce dimensions and customer service quality enhancement.

3.3 Research Approach

There are three different types of research methods qualitative, quantitative, and mixed method, and the applicable research approach is determined based on the nature of the data to be collected. For this research, the researcher used a quantitative research approach fully design with close-ended questions. According to Creswell (2014), this approach is preferred as it attempts to examine the relationship between variables, which are measured numerically and analyzed using a range of statistical and graphical techniques.

Quantitative research has its own strength as it generates precise, numerical data from large survey sizes. Moreover, the findings are more reliable and can be generalized and replicated in many populations (Maxwell and Delaney, 2004). The method is selected as it helps produce reliable and quantifiable data that can potentially be generalized to a large population in a short period of time.

3.4. Population and sampling design

During the past fiscal year (2021/22), Ethiopian Airlines has transported around 7 million passengers, the airline will to transport around 25,000 passengers daily. 25 percent of Ethiopian Airlines' total sales are conducted online through the carrier's website and mobile app.

For the sake of manageability, amongst the passengers of Addis Ababa International Airport, the researcher took the daily maximum number of passengers (i.e., 25,000) as the population of Ethiopian Airlines passengers. Given that 25 percent of Ethiopian Airlines' total sales are conducted online; a rough calculation will give us a population of around 6,250 passengers who buy their air tickets online.

3.5. Sample Size Determination and Sampling Technique

3.5.1 Sample Size Determination

It is not feasible to study the whole population due to constraint factors like feasibility, accessibility, and cost implications. So, it's very crucial to choose a sample that is a genuine representative of the population. The practical limitation: cost, time, and other factors which are usually operative in the situation stand in the way of studying the total population (Singh, 2006).

There are several methods for determining the sample size. In this paper, the researcher will adopt a Cochran's sample size formula for a population of unlimited size has been used to calculate the sample size for this study. The sample size determination formula is as presented below:

$$n = \frac{z^2 * p(1-p)}{(e^2)} = \frac{1.96^2 * 0.5(1-0.5)}{(0.05^2)} = 384$$

Where "

z = 1.96 (Based on a 5% margin of error. Data are assumed two-tailed (i.e., a margin of error of 2.5% on each end of a normal distribution curve), thus a value of 0.9750 will be looked up within the z-score table.)

$\hat{p}$ = 50% or 0.50 (This value is often pulled from previous research/ literature. If unsure, use 50%.)

ε = 5% or 0.05 (Same value used to get the z-score estimate but provided as a decimal/ percentage.) "Thus, the total sample size is 384.

3.5.2 Sampling Technique

The next step after the determination of the representative sample size is selecting representative respondents applying appropriate sampling techniques. Accordingly, a simple random sampling technique used as a sample technique.

3.6. Data Collection Instrument

This study largely utilized primary data collection methods through survey methods by using standard questionnaires. According to Krishnaswami and Ranganatham (2007), the advantage of this method is that it is less expensive, permits anonymity, and may result in more responses than honesty. Moreover, secondary data is gathered from both published and unpublished theoretical literature. Books, IT procedure manuals, Ethiopian Airlines periodic reports, Dissertations, online sources, and scholarly journals were reviewed for secondary source data.

The five-point Likert scales (i.e., Strongly Agree, Agree, Moderate Agree, Disagree, and Strongly Disagree) were applied in the questionnaire to obtain and measure the responses of the respondents. The advantages of using the Likert scale is that it is simple to construct a questionnaire, easy and less time taking to read and complete. The questionnaires were designed from different previous literature on related topics and customize to fit the research problem. Among those, I have reviewed and incorporate some questions from Yang, S (2001) E-Commerce in the Airline Business, pros Revenue Management and other sources. Sample questionnaires were distributed to pre-test and check its appropriateness for gathering all the required information and adjust based on initial recommendations. The reason for the selection of the questionnaire is it`s a relatively inexpensive, faster, and efficient way of collecting extensive data at a lesser cost and to have access to wide geographical area coverage in a relatively reasonable span of time.

3.7 Method of Data Analysis

The collected data were analyzed using the quantitative data analysis method. Descriptive analysis such as frequencies and percentages are used to present quantitative data in form of tables and graphs. Data were coded and entered the computer using the statistical package for social science (SPSS Version 20) for analysis. It gives means, standard deviations, correlations, and coefficient of variables, All ANOVA results including statistical model specification outputs and frequency distribution of each independent and dependent variable. Inferential statistics are used for customer service quality regressed against the seven independent variables with the multiple regression model and its

ANOVA. The mean and standard deviation are the most descriptive statistics used in this study to describe the data.

The research used the statistical model specification methods to determine which independent variable to include and exclude from a regression equation and to avoid biased results. These statistical models' specifications are selected models that have larger adjusted and predicted R-squared values, the p-values have been less than the significance level but reducing the model until the model contains only significant terms and by omitted variable bias in multiple regression model.

The model specification equation multiple regression models are like as follow.

$$CSQEA= \beta 0+ \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \beta 4\ X4 + \beta 5\ X5 + \beta 6\ X6+ \beta 7\ X7+ \varepsilon$$

Where:

- CSQ(Customer Service Quality) in the dependent or predicted variable.
- β 0 is the CSQ intercept, i .e, the value of CSQ when X1, X2, X3, X4, X5,X6 and X7 are 0.
- β1, β2, β3, β4, β5, β6 and β7 are the regression coefficients representing the change in EC relative to the one-unit change in X1, X2, X3, X4, X5,X6 and X7 are respectively.
- E is the model's random error (residual) term.

3.8 Reliability Test

This study utilized Cronbach's alpha, a widely-used method for assessing the internal consistency of a measurement instrument. A recommended threshold for acceptable reliability is a value of 0.70. Reliability refers to the extent to which a measurement consistently and accurately captures the construct it intends to measure. In this study, Cronbach's alpha coefficient was employed to assess reliability, and items that scored above the acceptable threshold were retained.

According to Tavakol and Dennick (2011), when a test comprises multiple concepts or constructs, it may not be meaningful to report a single alpha value for the entire test. This is because a larger number of questions in the test inherently increase the likelihood of

obtaining a higher alpha coefficient should be calculated for each of the concepts rather than for the entire test or scale.

Cronbach's alpha coefficient ranges from 0 to 1, with higher values indicating better internal consistency reliability. A value of 0.5 or less is generally considered unsatisfactory and unacceptable in terms of internal consistency reliability (Ramayah, 2011). On the other hand, Zikmund et al. (2000) suggest that scales with Cronbach's alpha coefficients between 0.6 and 0.7 can be considered as having fair reliability and can be deemed acceptable.

Table 1: Reliability Test

Each Variable Reliability Statistics

	Item	N	Cronbach's Alpha
Efficiency	3	40	.888
Fulfillment	3	40	.904
Reliability	3	40	.882
Privacy	4	40	.885
Responsiveness	3	40	.903
Compensation	3	40	.892
Contact	3	40	.884
Customer Service Quality	7	40	.868
Total	**29**		

(Source: Researcher's Survey, 2023)

Based on the above range all the 40 variables designed were found to be a good measure of the internal consistency. The Variable’s alpha coefficient is greater than 0.8 which implies that the data reliability is excellent and acceptable.

3.9. Validity Analysis

Validity refers to the degree to which a measuring instrument accurately captures the true differences among the individuals being tested (Kothari, 2004). In essence, it indicates how well an instrument measures what it is intended to measure. Ensuring the quality of the research design involves assessing both content validity and construct validity.

Content validity, as described by Kothari (2004), pertains to the extent to which a measuring instrument adequately covers the topic being studied. If the instrument includes a representative sample of the entire scope of the subject, it exhibits good content validity. Determining content validity is primarily based on expert judgment and intuition. It can also be evaluated by forming a panel of experts who assess how well the measuring instrument meets the required standards. Content validity does not lend itself to numerical expression.

In this study, content validity was ensured by involving professionals who evaluated the measuring instrument to determine its appropriateness and comprehensiveness in covering the subject matter.

3.10 Ethical Consideration

The personal integrity of each participant was respected in the process of conducting the research. Every participant in the research was informed properly in an accessible manner about the purpose of the research and asked orally his/her consent before any information asked was begun. No information was asked from a participant without his/her prior consent. The information provided by each respondent has been kept confidential and will only be used for research purposes.

CHAPTER FOUR

Data Presentation, Analysis, and Interpretation

4.1 Introduction

In this chapter, the data collected from the respondents through survey questionnaires will be presented. Various visual aids, such as tables and charts, will be used to effectively display the data. These visual aids will be accompanied by thorough analyses and interpretations to provide a comprehensive understanding of the findings. The presentation of the data will facilitate a clear and organized representation of the research results.

4.2 Response Rate

Out of the 384 questionnaires distributed, a total of 363 respondents filled and returned their completed questionnaires. This represents an overall response rate of approximately 96%. Close follow-up and guidance were provided to ensure the respondents' active participation in completing the questionnaires. However, 21 respondents did not respond and failed to return their questionnaires, accounting for only around 11% of the total.

According to Saunders (2002), a response rate of 70% or higher for a questionnaire survey is considered sufficient to proceed with the analysis. In this study, the response rate surpasses this benchmark, indicating a satisfactory level of participation from the respondents. Several questions that measure services quality with the e-commerce services provided by Ethiopian Airlines are included in the questionnaire.

The questionnaires were distributed to customers of Ethiopia Airlines at the main hub of Addis Ababa Airport. The basic assumptions of online air transport ticketing selected service quality attributes namely efficiency, fulfillment, responsiveness, reliability, privacy, composition, and communication or contact influence customer service quality. In this study, a multiple regression modeling approach was adopted as a robust method for examining the relationships between variables. The results obtained from this multiple regression model were analyzed and discussed in this chapter.

4.3. Data Screening and Cleaning

Once the usable data were entered into the Statistical Software for Social Sciences (SPSS) version 20, a thorough check was conducted to identify any missing values or inappropriate insertions. The missing values were coded accordingly, and their proportions were examined. It was determined that the missing values were random and accounted for less than 5% of the entire dataset. Consequently, the decision was made to leave the missing values as they were since their impact on the study's results was deemed insignificant.

Tabachnick and Fidell (2013) support this approach, stating that if a small proportion of data points, specifically 5% or less is randomly missing from a large dataset, there is generally no significant problem associated with these missing values. Therefore, no specific measures were taken to handle the missing values, as the results would likely be similar regardless (p. 63).

4.4 Descriptive Analysis

4.4.1 Demographic characteristics of Respondents

The questionnaire used in this study included a section that captured the customer's profile, including various demographic factors and other variables that are likely to impact the perception of customer service quality in the context of air transport services provided by Ethiopian Airlines. Analyzing the background information of the respondents is crucial in understanding their thinking patterns and behaviors, as social background often plays a significant role.

The background information collected encompassed variables such as age, gender, and educational level. Regarding the gender of the respondents, it was found that **64.2%** of the participants were male, while the remaining **35.8%** were female. This indicates that a majority of the participants engaging with Ethiopian Airlines' e-commerce services are male.

Table 2: Demographic characteristics Analysis of Respondents

No of Item	Item	Characteristics	Frequency	Percentage
1	Gender	Male	233	64.2
		Female	130	35.8
2	Age	20-30	205	56.5
		31-40	124	32.0
		41-50	34	9.4
		51-60	8	2.2
3	Educational Level of Participant	Diploma	24	6.6
		Degree	270	74.4
		Masters	69	19.0

Source: own survey 2023.

Majority respondents belongs to age group 20-30 years which accounts 56.5 %, followed 31-40 years having (32.0%) ,41-50 years (9.4%), and 51-60 years (2.2%) share. This shows that most airline e-commerce services user customers are between the age of 20 and above 40 years. It implies that the service users are dominated by adults and this finding suggest that most of the customers were found in the working-age bracket as they might be much used in air transport services.

Regarding education, the respondents were predominantly first degree, master and diploma holders with 74.4 % and 19.0 % respectively. There are only 6.6 % of respondents who were diploma. This shows that the respondents had high literacy levels.

4.4.2 Descriptive Statistics

Descriptive statistics, such as mean and standard deviations, were calculated for the scores provided by the respondents. These statistics were used to compare and analyze the different factors influencing the level of customer service quality. By examining the mean scores and standard deviations, a comparison can be made among the respondents.

The purpose of using descriptive statistics is to gain insights into the various factors affecting customer service quality by examining the average scores and the degree of variability. Table 4 presents the mean value, which represents the overall customer service quality based on the data collected. As far as this descriptive statistic is concerned, e-commerce service on the customer service quality is above satisfactory level with a mean value of **3.44 on** a 5-point Liker scale. This implies that efficiency, fulfillment, responsiveness, reliability, Privacy, composition, and communication or contact influence customer service quality.

In this study, descriptive statistics were utilized; particularly mean scores, to analyze the data. The purpose of using mean scores was to determine the average responses of the respondents for each question within the different dimensions of the predictor variable. The interpretation of the mean scores was based on a specific measurement scale intervals or range. According to the scale used, mean scores falling within the range of 4.51-5.00 were considered excellent or very good, scores ranging from 3.51-4.50 were classified as good, scores between 2.51-3.50 were seen as average or moderate, scores from 1.51-2.50 were consideredfair, and scores within the range of 1.00-1.50 were categorized as poor. This measurement scale was referenced from Poonlar Btawee (1987) as cited by Hailu (2013).

Table 3:Descriptive Analysis

Descriptive Statistics

	N	Mean	Std. Deviation
Efficiency	363	3.39	.650
Fulfillment	363	3.84	.542
Reliability	363	3.25	.642
Privacy	363	3.25	.774
Responsiveness	363	3.75	.580
Compensation	363	3.28	.662
Contact	363	3.60	.637
Customer Service Quality	363	3.15	.588
Valid N (listwise)	363		
Grand Mean		**3.44**	

Source: own survey 2023.

The table suggests that all e-commerce air transport services quality dimensions rated as above satisfactory. As far as the mean values are concerned, out of the e-commerce service quality dimensions fulfillment (mean of 3.84), responsiveness (mean of 3.75), contact (mean of 3.60), efficiency (mean of 3.39), compensation (3.28), privacy (mean of 3.25) and reliability (mean of 3.25) have relatively major roles on e-commerce and in turn overall `customer service quality. From this, we can deduce that all explanatory variables play a fundamental role in the customer service quality of e-commerce services provided by Ethiopian Airlines.

4.5. Correlation Analysis

Correlation is perhaps the most basic and most useful measure of association between two or more variables (Marczyk, Dematteo and Festinger, 2005). Cooper & Schindler (2009) suggested that a correlation coefficient above 0.8 between explanatory variables should be corrected because it is a sign of multi-collinearity problems. Malhotra (2007) argued that the correlation coefficient can be 0.75. Lastly, Hair et al. (2006) argued that a correlation coefficient below 0.9 may not cause a serious multi-collinearity problem.The correlation matrix presented below displays the correlations between variables using the Pearson correlation coefficient. This coefficient is used to determine the strength of the relationships among the variables, specifically between the dependent variable (customer service quality) and the independent variables (efficiency, fulfillment, responsiveness, reliability, privacy, composition, and communication/contact).

Pearson correlation analysis was employed to assess the convergent validity of the study. The Pearson correlation coefficients provide information about the magnitude and direction of the relationships between variables, indicating whether the relationships are positive or negative and the strength of the relationship.

Table 4: Correlation matrix of dependent and independent variable

Correlations

		Efficiency	Fulfillment	Reliability	Privacy	Responsiveness	Compensation	Contact	Customer Service Quality
Efficiency	Pearson Correlation	1	.652**	.535**	.527**	.343**	.470**	.473**	.804**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000
	N	363	363	363	363	363	363	363	363
Fulfillment	Pearson Correlation	.652**	1	.462**	.414**	.108*	.243**	.288**	.598**
	Sig. (2-tailed)	.000		.000	.000	.040	.000	.000	.000
	N	363	363	363	363	363	363	363	363
Reliability	Pearson Correlation	.535**	.462**	1	.729**	.374**	.475**	.675**	.787**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000
	N	363	363	363	363	363	363	363	363
Privacy	Pearson Correlation	.527**	.414**	.729**	1	.284**	.480**	.766**	.773**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	363	363	363	363	363	363	363	363
Responsiveness	Pearson Correlation	.343**	.108*	.374**	.284**	1	.758**	.494**	.530**
	Sig. (2-tailed)	.000	.040	.000	.000		.000	.000	.000
	N	363	363	363	363	363	363	363	363
Compensation	Pearson Correlation	.470**	.243**	.475**	.480**	.758**	1	.505**	.661**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
	N	363	363	363	363	363	363	363	363
Contact	Pearson Correlation	.473**	.288**	.675**	.766**	.494**	.505**	1	.720**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	363	363	363	363	363	363	363	363
Customer Service Quality	Pearson Correlation	.804**	.598**	.787**	.773**	.530**	.661**	.720**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	363	363	363	363	363	363	363	363

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

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

Source: Own Survey 2021

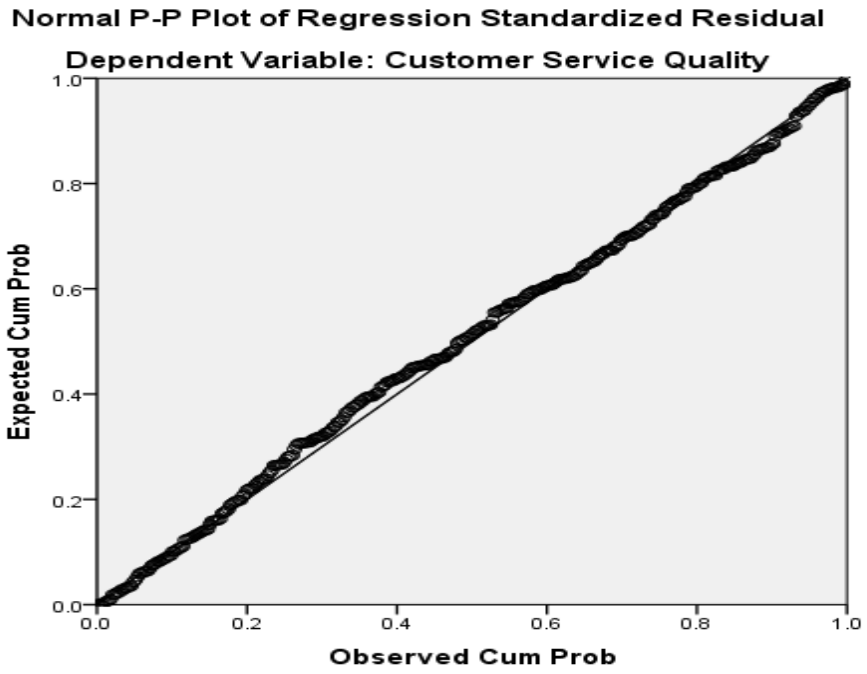
Based on the above correlation coefficient result table, the correlation coefficient between customer service quality with responsiveness, fulfillment and compensation are positive with a value of 0.53, 0.598 and 0.66 respectively, this implies that there is a positive correlation between customer service quality with responsiveness, fulfillment and compensation of e-commerce service. Based on the correlation result of reliability, privacy, and empathy of employees have a positive and moderate relationship with

customer service quality with the coefficient of 0.787, 0.773 and 0.720, respectively. The Correlation between customer service quality and efficiency showed a positive coefficient of the relation of 0.804. This result shows that service efficiency has a significant relationship with customer service quality

4.5.1. Linearity Test

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. To determine whether the relationship between the dependent variable and the independent variables (efficiency, fulfillment, responsiveness, reliability, privacy, compensation, and communication or contact) is linear; plots of the regression residuals through SPSS software had been used.

Figure 7:The scatter plot of residuals



The scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right in figure 7. This result suggests the relationship we are trying to predict is linear.

4.5.1. Test of normality of the Data

Among the others, one of the assumptions was the normality of the data should be tested before running the analysis of the data using skewness and Kurtosis. According to Fieled (2005), normally distributed data assumed that the data are from one or more normally distributed populations. The rationale behind hypothesis testing relies on having normally distributed populations and so if these assumptions are not met then the logic behind hypothesis testing is flawed.

Therefore, the value of S (Skewness) and K (Kurtosis) and their respective standard errors were computed. An absolute value between -2 and +2 score for Skewness and Kurtosis is expected to be significant at $p< 0.05$.

The large sample will give rise to small standard errors and so when sample sizes are big, significant values arise from even small deviations from normality for both skewness and Kurtosis (Fieled, 2005)Errors can occur when dealing with sample sizes that are large. In such cases, even small deviations from normality in terms of Skewness and kurtosis can result insignificant values. This means that the assumption of normality becomes more critical as sample sizes increase, and departures from normality can have a greater impact on the statistical analysis. It is important to assess the distribution of the data and consider the potential impact of non-normality when interpreting the results, especially in large samples (Fieled, 2005).

Table 5:Test of normality of the Data

Descriptive Statistics

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Efficiency	363	.161	.128	-.401	.255
Fulfillment	363	-.254	.128	-.253	.255
Reliability	363	-.045	.128	-.247	.255
Privacy	363	-.212	.128	-.261	.255
Responsiveness	363	.037	.128	-.909	.255
Compensation	363	.088	.128	-.396	.255
Contact	363	-.147	.128	-.401	.255
Customer Service Quality	363	.146	.128	-.157	.255
Valid N (listwise)	363				

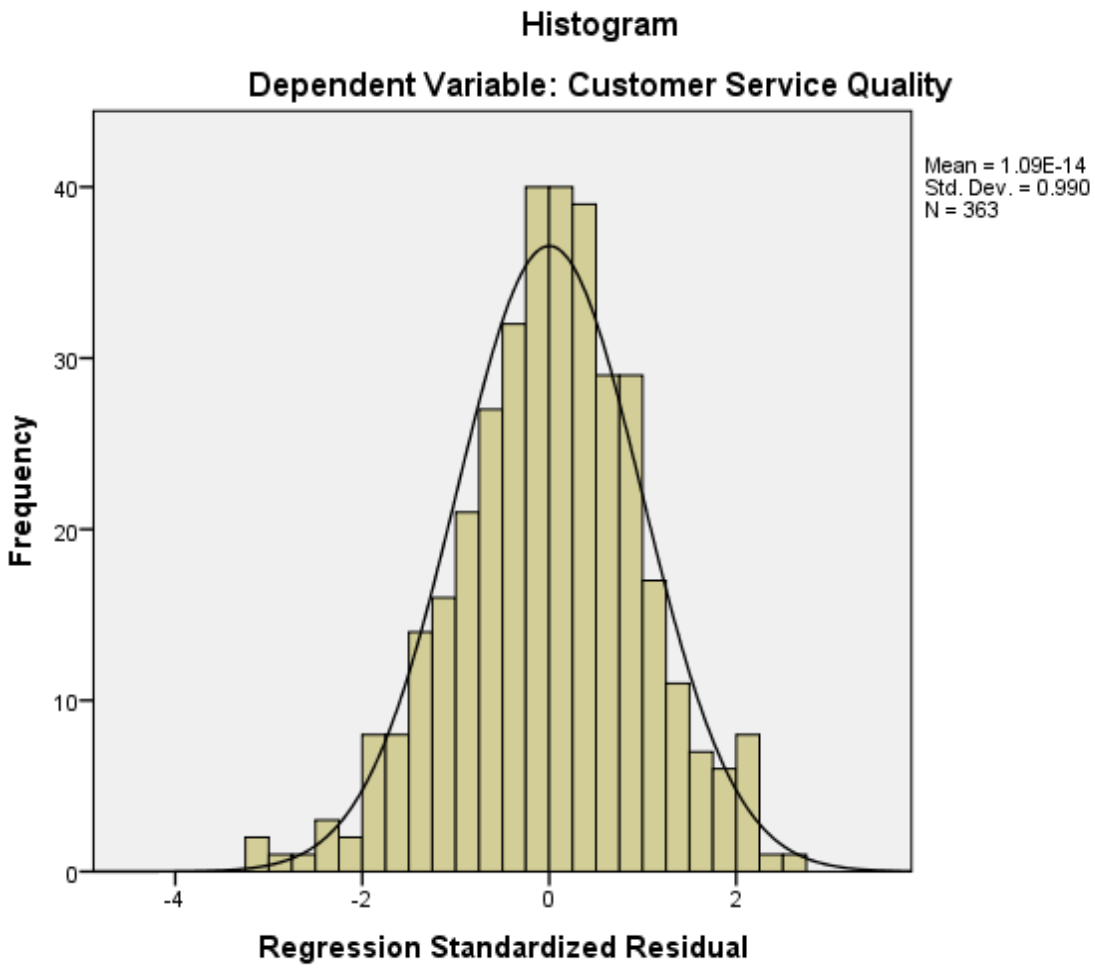
Source: own survey 2023.

From the information provided, it is stated that Table 2 shows the absolute values of Skewness and kurtosis for the variables. It is mentioned that all the absolute values of Skewness and kurtosis fall within the range of -2 to +2. This range suggests that the distribution of the data for the independent variables is not severely skewed or exhibiting excessive kurtosis.

Additionally, it is stated that all the independent variables are significantly affected by the dependent variable, as indicated by their p-values being less than 0.05. This suggests that there is a statistically significant relationship between the independent variables and the dependent variable.

However, please note that without the actual values or the full context of Table 2, it is not possible to provide a comprehensive interpretation. It is important to carefully examine the specific values and conduct appropriate statistical tests to draw accurate conclusions from the data.

Figure 8: Histogram Normality Distribution



4.5.2. Multicollinearity Test

To assess Multicollinearity in the regression model, a Multicollinearity test was conducted. The test examined the correlation between the independent variables to ensure that there is no high correlation among them, as Multicollinearity can impact the decision-making process regarding the partial effects of the independent variables on the dependent variable.

In this study, the Multicollinearity test utilized the Variance Inflation Factor (VIF) values, which were obtained using SPSS software. The VIF value is a measure of Multicollinearity, and if it falls within the range of 1 to 10, it indicates the absence of Multicollinearity. However, if the VIF value exceeds 10, it suggests the presence of Multicollinearity issues.

Table 6: Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Efficiency	.438	2.284
Fulfillment	.524	1.907
Reliability	.389	2.569
Privacy	.274	3.646
Responsiveness	.342	2.922
Compensation	.330	3.033
Contact	.309	3.240

Source: Own survey 2023

Based on the above Coefficients Output collinearity statistics, the VIF values of the independent variables are obtained between 1 to 10, it can be concluded that there are no multicollinearity problems.

4.5. Regression Result

The overall regression model and its ANOVA are summarized as follows:

Table 7:The overall regression model (ANOVA and Adjusted R Square)

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	113.117	7	16.160	473.694	.000[b]
	Residual	12.110	355	.034		
	Total	125.227	362			

a. Dependent Variable: Customer Service Quality

b. Predictors: (Constant), Contact, ,Fulfillment, Responsiveness, Efficiency, Reliability, Compensation, Privacy

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.950[a]	.903	.901	.185	.903	473.694	7	355	.000	1.924

a. Predictors: (Constant), Contact, ,Fulfillment, Responsiveness, Efficiency, Reliability, Compensation, Privacy

b. Dependent Variable: Customer Service Quality

The R-squared value in the regression model measures the goodness of fit, indicating how well the explanatory variables explain the variations in customer satisfaction measures. In Table 6, the adjusted R-squared value for the regression model is reported as 0.901. This means that the explanatory variables (contact, compensation, reliability, responsiveness, efficiency, privacy, and fulfillment) included in the study explain approximately 90% of the variation in the level of customer service quality. The remaining 10% of the variation is attributed to other factors not included in the model.

It is important to note that while all the e-commerce service dimensions (contact, compensation, reliability, responsiveness, efficiency, privacy, and fulfillment) are significant explanatory

variables of customer service quality, they may not have equal correlations with the customer service quality level.

The results of the multiple linear regression analysis indicate that there is variation in the effect of e-commerce service quality dimensions on customer service quality. Additionally, the F statistics, which measure the overall significance of the model, show a p-value of 0.000, indicating that the null hypothesis can be rejected. This suggests that the model is well-fitted and statistically significant at a 5% level of significance.

Table 8: Coefficient of Variables

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.645	.093		-6.965	.000
Efficiency	.336	.023	.371	14.873	.000
Fulfillment	.100	.025	.092	4.050	.000
Reliability	.215	.024	.235	8.875	.000
Privacy	.169	.024	.223	7.064	.000
Responsiveness	.114	.029	.112	3.968	.000
Compensation	.111	.026	.125	4.337	.000
Contact	.065	.027	.071	2.385	.018

a. Dependent Variable: Customer Service Quality

b. Predictors: Efficiency, Fulfillment, Reliability, Privacy, Responsiveness, Compensation and Contact

Source: Own survey 2023

The regression table provides important information about the overall significance and acceptability of the regression model from a statistical perspective. In this study, the significance value of the F statistic is shown to be less than 0.05 ($p < 0.05$), with a value of 0.000. This indicates that the model is statistically significant, suggesting that the variation explained by the model is not due to chance.

The regression coefficients in the table explain the average amount of change in the dependent variable that is caused by a unit change in the independent variable. A larger value of the Beta

coefficient indicates a stronger impact of the independent variable in predicting the dependent variable.

Based on the table, the coefficient analysis reveals significant relationships between the dependent variable and independent variables. These relationships were statistically significant at a 5% level, supporting the research hypothesis. This implies that the independent variables have a substantial contribution to improving customer service quality.

From the findings presented in Table 6, we can develop the following regression model to further understand the relationships between the variables.

$CSQ = \beta 0 + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \beta 4\ X4 + \beta 5\ X5 + \beta 6\ X6 + \beta 7\ X7 + \varepsilon$

Where:

- CSQ(Customer Service Quality) in the dependent or predicted variable.
- β 0 is the CSQ intercept, i .e, the value of CSQ when X1, X2, X3, X4, X5,X6 and X7 are 0.
- β1, β2, β3, β4, β5, β6 and β7 are the regression coefficients representing the change in CSQ relative to the one-unit change in X1, X2, X3, X4, X5,X6 and X7 are respectively.
- E is the model's random error (residual) term.

Based on table and taking the unstandardized beta value into consideration, the regression equation of this study can be expressed as:

$$\mathbf{CSQ = -0.645 + 0.336X_1 + 0.100X_2 + 0.215X_3 + 0.169X_4 + 0.114X_5 + 0.111X_6 + 0.065X_7}$$

4.6. Discussion of findings

- The output of the multiple regression analysis shows that the efficiency of e-commerce service has a positive significant influence on the customer service quality with significance level of (0.000). And also, the efficiency of e-commerce service coefficient value is 0.336; this is implying that every unit increase in the value of the efficiency of ecommerce service in the airlines, setting all other predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.336 units or 33.6%.

- Although, the aggregate result from the multiple regression analysis shows that the reliability of e-commerce service has a positive significant influence on the customer service quality with significance level of (0.000). And also, the reliability of e-commerce service coefficient value is 0.215; this is implying that every unit increase in the value of reliability of e-commerce service in the airlines, setting all other predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.215 units or 21.5%.
- The amount produced from the multiple regression analysis shows that the privacy of e-commerce has a positive significant influence on the customer service quality with significance level of (0.000). And also, the privacy of e-commerce service coefficient value is 0.169; this is implying that every unit increase in the value of privacy of ecommerce service in the airlines, setting all the remaining predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.169 units or 16.9%.
- The amount produced from the multiple regression analysis shows that the responsiveness of e-commerce service has a positive significant influence on the customer service quality with significance level of (0.000). And also, the responsiveness of e-commerce service coefficient value is 0.114; this is implying that every unit increase in the value of responsiveness of ecommerce service in the airlines, setting all the remaining predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.114 units or 11.4%.
- The amount produced from the multiple regression analysis shows that the compensation of e-commerce service has a positive significant influence on the customer service quality with significance level of (0.000). And also, the compensation fee/service of e-commerce coefficient value is 0.111; this is implying that every unit increase in the value of the compensation fee/service of e-commerce in the airlines, setting all the remaining predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.111 units or 11.1%.

- The multiple regression analysis result showed that the fulfillment of e-commerce service has a positive significant influence on the customer service quality with significance level of (0.000). And also, the fulfillment of e-commerce service coefficient value is 0.100; this is implying that every unit increase in the value of the fulfillment of e-commerce service in the airlines, setting all the remaining predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.100 units or 10%.
- The result of the multiple regression analysis showed that communication or ways contact in the e-commerce service has a positive significant influence on the customer service quality with significance level of (0.018). And also, the way of contact of e-commerce service coefficient value is 0.06; this is implying that every unit increase in the value of contact service of e-commerce in the airlines, setting all the remaining predictor (independent) variable to be constant, the value of response (dependent) variable which is customer service quality will increase by 0.06 units or 6%.
- Finally, all explanatory variables have a significant positive effect on the customer service quality in Ethiopian Airlines. The findings provide significant support for the compensation, reliability, responsiveness, efficiency, privacy, contact and fulfillment literature which advocates that the variables influence the customer service quality in Ethiopia Airlines.

4.7. Summary of Hypothesis Testing Results

In this study, the researcher had stated seven hypotheses derived from seven independent variables or predictor (compensation, reliability, responsiveness, efficiency, privacy, contact and fulfillment) had significant relationships with the e-commerce services. The researcher compared these hypotheses against the p-values analyzed using the regression method. Therefore, the hypotheses were tested summarized as follows.

Table 9: Summary of Hypothesis Testing Results

Hypothesis No.	Hypothesis	Result	Reason
Hypothesis 1.	E-commerce application fulfillment has a significant and positive effect on customer service quality enhancement.This means that customers are more likely to use e-commerce services when they receive their orders on time and in good condition.	Accepted	P=0.000 <0.05 β =0.100
Hypothesis 2.	E-commerce application efficiency has a significant and positive effect on customer service quality enhancement.	Accepted	P=0.000 <0.05 β =0.336
Hypothesis 3.	Reliability has a significant and positive effect on customer service quality enhancement.This means that customers are more likely to use e-commerce services when they can rely on them to deliver what they promise.	Accepted	P=0.000 <0.05 β =0.215
Hypothesis 4	E-commerce application privacy has a significant and positive effect on customer service quality enhancement.This means that customers are more likely to use e-commerce services when they feel confident that their personal information will be secure.	Accepted	P=0.000 <0.05 β =0.169
Hypothesis 5	E-commerce application responsiveness has a positive and significant effect on customer service quality enhancement.This means that customers are more likely to use e-commerce services when they receive prompt and helpful responses to their questions and concerns.	Accepted	P=0.000 <0.05 β =0.114
Hypothesis 6	Compensation has a positive and significant effect on customer service quality enhancement. This means that customers are more likely to use e-commerce services when they are compensated for doing so.	Accepted	P=0.000 <0.05 β =0.111
Hypothesis 7	Contact has a positive and significant effect on customer service quality enhancement.This means that customers are more likely to use e-commerce services when they have easy and convenient ways to contact the company if they have any questions or problems.	Accepted	P=0.018<0.05 β =0.065

Chapter Five

5. Summary of Major Findings, Conclusion And Recommendation

5.1. Introduction

This chapter summarizes the study, its conclusions, and recommendations. The recommendations are divided into two parts: the main recommendation and recommendations for future research. It is important to note that the recommendations are based on the findings of the study. Summary of Major Findings

Hence, this study has attempted to identify which determinant has the highest influence on the customer service quality of the e-commerce service of Ethiopia Airlines.

- To undertake the study, 384 questionnaires were distributed and 363 has been duly filled and returned. Descriptive analysis revealed that most of the customers of e-commerce series users in the Ethiopian Airlines were male, and most of the respondents fall between the age of 20 and 40 years means adult age group, regarding the education level, 74.4% of the respondents are first degree holders.
- The descriptive statistic result showed that the factor which affects customer service quality level is approximately above satisfactory level with a mean value of 3.44 on a 5-point Likert scale. This implies that efficiency, fulfillment, responsiveness, reliability, Privacy, composition, and communication or contact influence customer service quality. Hence, the effects with the highest means included: the e-commerce service fulfillment, responsiveness and contact are 3.84, 3.75 and 3.60 respectively. These inducted that the majority of the respondents admitted that fulfillment, responsiveness and contact are a highly significant factor to the customer service quality at Ethiopia Airlines. On the other hand, efficiency (mean of 3.39), compensation (3.28), privacy (mean of 3.25) and reliability (mean of 3.25) have had affected crew job performance in moderately.
- The result of the correlation coefficient between customer service quality with responsiveness, fulfillment and composition are positive with a value of 0.53,

0.598 and 0.66 respectively. Based on the correlation result of reliability, privacy, and empathy of employees have a positive and moderate relationship with customer service quality with the coefficient of 0.787, 0.773 and 0.720, respectively. The Correlation between customer service quality and efficiency showed a positive coefficient of the relation of 0.804. This also implies that service efficiency has a significant relationship with customer service quality.

- The result of the adjusted R-square values for the regression model is 0.901. This indicates the explanatory variables; contact, compensation, reliability, responsiveness, efficiency, privacy and fulfillment in this study explain approximately about 90 percent of the variation in the level of customer service quality. The remaining only 10 percent of the variation in the level of customer service quality of e-commerce services at Ethiopia Airlines are explained by other variables which are not included in the model. Therefore, e-commerce service dimensions (contact, compensation, reliability, responsiveness, efficiency, privacy and fulfillment) are excellent explanatory variables of the customer service quality level of Ethiopian Airlines e-commerce services, but it does not mean that all these factors of e-commerce service quality have equally significant correlation with customer service quality level.
- The results of the multiple linear regression analysis signals that there is variation in the effect of e-commerce service quality dimensions on customer service quality and Any increase in efficiency, fulfillment, reliability, privacy, responsiveness, compensation and contact leads to enhance the customer service quality by 33.6%, 10%, 21.5%, 16.9%,11.4%,11.1% and 6.5% respectively and all the null hypotheses are accepted. These results are significant at a 5% level of precision

5.3. Conclusion

The primary objective of this study was to examine the effect of e-commerce service quality on customer service quality in the case of Ethiopia Airline services.

Seven determinants of e-commerce service quality variables are used (fulfillment, reliability, responsiveness, efficiency, privacy, compensation and contact) and this study has also tried to answer the research questions stated in the introduction part.

The study used the self-administered questionnaire that contained 29 statements related to the seven service quality dimensions of e-commerce.

The data is analyzed using Statistical Package for Social Science (SPSS) software version 20 through descriptive and inferential statistics.

As it was described in the report findings the descriptive statistic result showed that the factor which affects customer service quality level is approximately above satisfactory level with a mean value of 3.44 on a 5-point Likert scale. This implies that efficiency, fulfillment, responsiveness, reliability, Privacy, composition, and communication or contact influence customer service quality.

In addition, e-commerce service dimensions (contact, compensation, reliability, responsiveness, efficiency, privacy and fulfillment) are excellent explanatory variables of the customer service quality level of Ethiopian Airlines e-commerce services but there is variation in the effect of e-commerce service quality dimensions on customer service quality and Any increase in efficiency, fulfillment, reliability ,privacy, responsiveness, compensation and contact leads to enhance the customer service quality by 33.6%, 10%, 21.5%, 16.9%,11.4%,11.1% and 6.5% respectively and all the null hypothesis are accepted . These results are significant at a 5% level of precision.

5.4. Main Recommendation

Based on the study results the following recommendations are forwarded to the concerned bodies.

- As efficiency, reliability and privacy of e-commerce service are highly significant positive impacts on the level of customer service quality due to this; the Ethiopia Airlines should emphasize efficiency, fulfillment, and privacy to increase the customer services quality.
- The Management of the service provider must design a strategy to provide convenient and attractive services to this group of customers by providing discount when they are booking the flight using the e-commerce.
- Ethiopian Airlines has to develop a system that will assure travelers the safety of buying flight tickets and other e-commerce services online and confirmation for transaction mistakes such as refund & compensation.
- Ethiopian Airlines shall continue to promote and advertise the e-commerce services in a better way which allows users to have awareness of the advantage. This will help customers to be more familiar with the e-commerce services.
- The airline should emphasize in designing an application and website that will allow better features of purchase considering the exposures of the passengers from all over the world Such as lifestyle, culture & language.
- The airline should focus on the non-users especially those who still show up at the travel agent should be given a new &clear view on the importance and advantages of using the E-Ticketing system.
- The airline should provide a means through which passengers can book their tickets online considering the limited access to the internet, smart devices and payment systems they have in different countries.

5.5. Recommendation for Future Research

This study also investigates the dimensions of e-commerce service quality that has major effects on customer service quality of the Ethiopia Airlines. But the variables included in the study were not exhaustive. Future researchers could include other variables which are not included in this study. Given the above, the researcher recommends that funds be made available for the study to be replicated in the other private airlines in Ethiopia since the findings of the current study indicated that there are varied challenges as well as advantages with e-commerce service. Recommendations from such a study would lead to a much better administration and patronage of air transport sectors for public health care.

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ANNEX: Questionnaire

Addis Ababa University College of Commerce Marketing Management Post Graduate Program in Master of Marketing Management

Questionnaire to be filled by Ethiopian Airlines customers

Dear Respondents,

This questionnaire is designed to collect data about **"Assessing the Effect of E-commerce Attributes on customer service quality enhancement: The Case of Ethiopian Airlines".** The information you provide through this questionnaire will be used as primary data in the case study I am conducting as a partial fulfillment of the requirements for the degree of Master of Marketing Management.

Confidentiality

Please rest assured that this research is conducted only for the academic purpose authorized by Addis Ababa University School of Commerce. No other person can access the collected data. In any report I may publish, I will make sure that no information is included that may make it possible to identify any respondents. I kindly request that you take a few minutes to complete the questionnaire.

General Instructions

1. No need of writing your name.
2. If you have some queries, use the following contact address.

The Researcher:FrehiwotMolla

Contact Address: +251-91-156-9793

E-mail: frehiwotmolla5@gmail.com

Thank you for your cooperation!

PART I: Demographic Information

Direction: Please put "X" to give your answer in the given boxes.

1. Gender Male ☐ Female ☐

2. Age below 20 ☐ 41-50 years old ☐

20-30 years old ☐ 51-60 years old ☐

31-40 Years old ☐ above 60 years old ☐

3. Educational background (choose more than one if necessary).

Below Diploma ☐ Master's Degree ☐

Diploma ☐ PHD ☐

Degree ☐

If you choose '**other**' please write_____

PART II: Assessing the Effect of e-commerce attributes on the customer service quality enhancement

Direction: Please **circle** your level of **agreement/disagreement** for each given statement using the following scales: Where,

1= strongly disagree, 2 = disagree, 3 = Neutral, 4 = Agree, 5 = strongly agree

Perceptions of respondents towards the effect of e-commerce attributes on the customer service quality enhancement	**Agreement Scale**				
Items	1=Strongly disagree	2=Disagree	3=Neutral	4=Agree	5=Strongly agree

		e			
1. Efficiency					
Ethiopian Airlines' e-commerce platforms (website and mobile app) are accessible to search for information.	1	2	3	4	5
I can transact with Ethiopian Airlines online through its digital channels.	1	2	3	4	5
The efficiency of Ethiopian digital service is above my expectation.	1	2	3	4	5
2. Fulfilment					
Ethiopian Airlines' e-commerce service fulfills its promise accurately.	1	2	3	4	5
Ethiopian Airlines delivers its service at the promised time.					
The airline's service is available as promised during e-commerce transactions.	1	2	3	4	5
3. Reliability					
The e-commerce (digital) platforms of Ethiopian Airlines function properly.	1	2	3	4	5
The e-commerce (digital) platforms of Ethiopian Airlines are available when needed.	1	2	3	4	5
The performance of the airline's digital platforms is satisfactory.	1	2	3	4	5
4. Privacy					
Ethiopian Airlines' e-commerce platforms keep customers' data secure.	1	2	3	4	5
Customer data are not shared with others.	1	2	3	4	5
Customers' credit card information is secure all the time.	1	2	3	4	5
I feel safe transacting with Ethiopian Airlines online.	1	2	3	4	5
5. Responsiveness					
When requested, Ethiopian Airlines provides appropriate information	1	2	3	4	5

through its digital platforms.					
I get support online from the airline when I need such support.	1	2	3	4	5
The e-service responsiveness performance is effective and efficient	1	2	3	4	5
6. Compensation					
Ethiopian Airlines' digital platforms facilitate a refund for unfulfilled services such as canceled flights.	1	2	3	4	5
The refund is provided action is done without any hassle	1	2	3	4	5
The amount I refunded is not deducted by any means	1	2	3	4	5
7. Contact					
Ethiopian Airlines provides a live service for customers to talk online when needed.	1	2	3	4	5
Ethiopian Global call center responded my request with using different channels	1	2	3	4	5
Ethiopian Airlines has announced real information about its service quality through social media	1	2	3	4	5

8. Customer Service quality					
I agree with the efficiency of Ethiopian Airlines' online service.	1	2	3	4	5
I agree with the fulfillment of the service Ethiopian Airlines promised in its online service.	1	2	3	4	5
I agree with the reliability of Ethiopian Airlines' online service.	1	2	3	4	5
I agree with the privacy of Ethiopian Airlines' online service.	1	2	3	4	5
I agree with the responsiveness of Ethiopian Airlines' online service.	1	2	3	4	5
I agree with the compensation available through Ethiopian Airlines' online service.	1	2	3	4	5
I agree with the availability of an online agent of Ethiopian Airlines to contact.	1	2	3	4	5

Thanks again for your time!!!