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Factors Affecting Travelers Use of Online Flight Booking:

The Case of Ethiopian Airlines

By:

Rodda Temesgen (GSD 1797/08)

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Addis Ababa, Ethiopia

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Advisor:
Dr. Abdurazak Mohammed

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Approved by Board of Examiners:

Dr. Abdurazak Mohammed Advisor	_____ Signature	_____ Date
_____ Internal Examiner	_____ Signature	_____ Date
_____ External Examiner	_____ Signature	_____ Date
_____ Chair Person	_____ Signature	_____ Date

CERTIFICATION

I, the undersigned, certify that this project work titled “Factors Affecting Travelers Use of Online Flight Booking: The Case of Ethiopian Airlines” is my original work performed under the supervision of my advisor Dr. Abdurazak Mohammed and has not been presented else where for assessment and for a degree in any other university. All sources of materials used for this thesis have also been duly acknowledged.

_____

Rodda Temesgen

ACKNOWLEDGMENT

A very dear person once quote to me the word of the bible on Jeremiah 9:24 ‘ **If people want to boast, they should boast about this ; They should boast that they understand and know me**”. That’s why I would like to express how I’ve been surprisingly fortunate enough to know God- my savior Jesus Christ who has given me a precious & most loving mother Aster Abraha whom I can’t imagine doing this without. I would also like to thank the rest of my family, friends, colleagues and church for supporting me. Most of all, my advisor Dr. Abdurazak Mohammed – Thank you for making it a smooth journey.

ACRONYMS AND ABBREVIATION

APP- Application

AW- Awareness

EAL - Ethiopian Airlines

E-commerce - Online Shopping

E-Ticketing - Online Flight Booking

ETU= E-Ticketing Usage

ICT- Information Communication Technology

IDT- Innovation Diffusion Theory

IS - Information System

OEC - Organization for Economic Cooperation and Development

PAX – Passengers

PBC - Perceived Behavioral Control

PEOU - Perceived Ease of Use

PU- Perceived Usefulness

PT - Perceived Trust

PR - Perceived Risk

RA – Relative Advantage

TAM - Technology Acceptance Model

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

The purpose of this study is to identify and assess the factors that affect Travelers' use of online flight booking (E-Ticketing) in Ethiopian Airlines (EAL). Due to the slow grabbling of E-Commerce and E-payment in Ethiopia, the utilization of e-ticketing in EAL is an important issue that should be addressed to improve the deficiency of the system. In this research, factors identified by (et al Yapp Jiin Fui, S. Mariapun, Abdullah- Al- Mamun, 2014) on adoption of E-ticketing that combines Acceptance Model (TAM) and online trust and purchase intention model for airline E- ticketing in Malaysia (Chen and Barnes, 2007 as cited from Goh, 2008) were used along with Relative Advantage. Primary data had been collected through 399 valid questionnaire surveys from target respondents of passengers on board Ethiopian Airlines international flights. Statistical Package for social Science (SPSS v20) was used to generate the actual results on frequency tables while descriptive analysis was used to analyze and describe the findings. In addition, logistic regression was used to determine the type of relationship the identified factors have on use of online flight booking by travelers in Ethiopian Airlines. The results confirmed that Relative Advantage, perceived ease of use, Perceived Trust & Awareness as having a positive significant relationship with usage of e-ticketing in Ethiopian Airlines, while perceived risk was proven to have a negative significant effect and Perceived Usefulness as having a positive insignificant relationship. The study recommended Ethiopian Airlines to give a new emphasis in promotion for better awareness, better design of user-friendly system that can be applicable for international users and to project higher trust when providing online booking services and letting customers get acquaintance of risk related issue in order to yield higher traveler acceptance. In general, based on the findings the researcher recommends for the airline to develop higher level of customer awareness, risk reduction, trust increasing and development of a competitive standard user-friendly convenient app that suits international customers considering the fact they have different backgrounds, cultures, exposure and language.

Keywords: Relative Advantage, Perceived Usefulness; Perceive Ease of Use, Perceived Behavioral Control, Perceived Trust, Awareness & Perceived Risk.

CHAPTER ONE

1.1. INTRODUCTION

This chapter presents a brief introduction providing a general idea of the study. It starts with the research background by giving a brief idea on online fight booking (e-ticketing) followed by the problem statement, research objectives which consist of general objectives and specific objectives, research questions, significance of the study and Disposition of the thesis.

1.2. Background of the Study

The new era of information technology has brought multiple advantages to the mankind. Internet and Communication Technology (ICT) offers the opportunity to reduce the barriers of distance and give countries better access to global economy (Khormm,2009). Moreover, the internet is allowing us to search for products in stores right from where we are located and find best offers in several clicks. As a result, these days most people all over the world prefer to shop online and order all kinds of products on different websites. This is where online shopping (E-commerce) comes into picture which covers electronics trading of goods and services, electronic fund transfer, online procurement, direct marketing, electronic billing, etc, through the Internet. It is very important for businesses to embrace the latest technology to conduct their business, whereby switching the traditional business models into a better model to improve efficiency, productivity, profitability and competitiveness.

Apart from consumer goods sales and e-tailing, online booking for the travelling sector has been booming in recent years and the number of users booking their vacations on the Web has been steadily growing (Bychkov,2014).The evolution of the business field has brought to the airline industry implementation of online flight booking (E-Ticketing) back in 1980's. E-Ticketing is an alternative marketing strategy implemented by airline to serve their customers via the Internet. It is basically an online flight ticket purchasing system which is an essential application of online shopping (E-commerce). The E-commerce revolution has created a competitive environment that change the way how business is being delivered and designed (Turban & King, 2003).

Travel related industry that dominates by hoteliers, airline companies and travel agencies is one of the sector that is being affected by the E-commerce revolution. In order to facilitate promotion and reservation processes, online flight booking system has been established to

provide conveniences of twenty-four hours, seven days a week services to the customers. The E-Ticketing system is a system where passengers travelling by air from one place to another do not have to go to a ticket office but only use the web based applications system to allow them to get an opportunity to book, purchase, check-in and even manage their bookings online with in a 'click' away on their computer, cellphones or any other type of smart device they own. E-ticketing offers benefits such as reducing overheads and gaining a much closer access to target consumers. The consumers, on the other hand, gain greater convenience, time saving, and faster response.

Historically, air tickets sales represented a big part of the travel industry and their share is even more significant when talking about online travelling. For instance, according to a forecast by the International Air Transport Association, (IATA) on 2013, the annual number of airline passengers worldwide has reached 3.3 billion in 2014, which makes it approximately 9 million people holding an air ticket and boarding a plane every day all over the world. Over the last few years, digital environment has significantly shaped the relationship between primary ticket sellers, i.e. airlines, intermediaries (e.g. travel agencies or other ticket resellers) and their customers (air passengers).

Bukhari et al. (2012) posit that despite the widespread discussions of online platforms on consumer buying decisions, there is still a lack of research in the area of its impact on consumer buying decision of air ticketing in developing countries thus, using the internet for different purposes and buying specific kind of products (e-tickets). Although, airline passengers' buying behavior has been looked at by different authors such as; Diggines (2010), Gupta et al. (2004) and Yu (2008) nonetheless all these stated works primarily focused on Anglo-American and Asian countries with no emphasis on sub-Saharan African consumers.

Various researches have been done in the world and show that E- ticketing adoption vary based on different factors. The U.S has a mature market with high internet penetration and online uptake. Over 70% of consumers research to book & finalize purchase of their flight tickets online. Western Europe has varied online purchasing rate. Online uptake is strong in UK and France with ratios of shop- to book near with the U.S level but only 75% in Germany because of longer and complex itineraries and lower credit card usage. In the middle East there is a growing penetration with rapid rise in the use of mobile. Around 15% of all travelers in the middle East use only mobile to access booking sites. In India internet access & broadband penetration lag behind other markets. However, there is high online penetration in the air travel

segment because of the simplicity of products and price transparency. Price is also a key driver of uptake and online channels are well aligned with the market; Phocuswirght (2015)

In the early years of E-Commerce, the tourism sector had high expectations for E-ticketing. All the major airlines invested huge sums of money, not only to make booking features available, but also to integrate them into attractive, easy-to-use Web offerings. Nevertheless, even after years of investment and improvements, the booking ratio for all but the no-frills airlines is still disappointing. E-Ticketing systems are analyzed as consumer information environments for scheduled airline tickets. The analyses are based on two experiments conducted in 1999 and 2002 respectively; Sreffan Klein (2014).

Meanwhile, the use of mobile and tablets for shopping, as opposed to buying, is accelerating even faster in emerging markets in which the desktop buying wave will mostly be skipped as consumers move straight from offline to mobile/tablets. In India 76% of travelers who book & purchase their flight tickets online use their computer while 14% use their smart phones and 10% use tablets. (Google Consumer, Barometer, 2014- 2015) Therefore, there is no universally known single factor that affects adaption of E-Ticketing all over the world and this makes it necessary to further study the subject matter.

EAL is a multi-award-winning airline registering an average growth of 25% in the past seven years. Tewolde Hailemariam EAL CEO said Ethiopian airlines has marked its 10 million passengers in the year 2018; opened eight new international destinations; received the four SKYTRAX customer service certification; introduced 14 brand new aircraft and surpassed its 100^{th} aircraft in service. (Selamta Megazine, vol. Nov\Dec 2018)

Ethiopian Airlines currently operates flights to over 116 destinations and 5 continents in the world namely Africa, Asia, Europe , Middle East & North America. Out of the 116 destinations operated by EAL, Africa routs has the largest number of destinations of 58 routes departing from Addis Ababa Bole International Airport and this makes Africa the continent with the largest share of more than 50 % of the total destination in which the airline operates all over the world. Therefore, EAL has earned popularity of being a central to hub of Africa connecting travelers from North America, Asia, Europe & Middle East to get connected to countries in Africa.

As per a Press release by Mrs. Hanna Atnafu Manager Corporate Communications, Ethiopian Airlines, 2017). EAL is the fastest growing Airline in Africa. In its seventy plus years of operation, Ethiopian has become one of the continent's leading carriers, unrivalled in efficiency and operational success. Ethiopian commands the lion's share of the pan-African passenger and cargo network operating the youngest and most modern fleet to more than 100 international passenger and cargo destinations across five continents. Ethiopian fleet includes ultra-modern and environmentally friendly aircraft such as Airbus A350, Boeing 787, Boeing 777-300ER, Boeing 777-200LR, Boeing 777-200 Freighter, Bombardier Q-400 double cabin with an average fleet age of five years. In fact, Ethiopian is the first airline in Africa to own and operate these aircraft. Ethiopian is currently implementing a 15-year strategic plan called Vision 2025 that will see it become the leading aviation group in Africa with seven business centers: Ethiopian Express & Ancillary Services; Ethiopian International Services; Ethiopian Cargo Services; Ethiopian MRO Services; Ethiopian Aviation Academy; ET In-flight Catering; and Ethiopian Ground Services.

1.3. Statement of the Problem

Selling in cyberspace is very different from selling in physical markets and requires a critical understanding of online consumer behavior and how new technologies challenge the traditional assumptions underlying conventional theories and models (Limayem et al., 2000).

EAL incorporated E-booking in 2002 in pursuant to the agreement made with Amadeus Airlines Solution Company to use Amadeus engine (Ethiopian airlines Selamta Magazine, 2007).

However, compatibility with other software & user unfriendliness were limitations in addition to the maintenance and updating shortfalls. Therefore Ethiopian Airlines dissolved its agreement with SITA at the end of 200G (ibid) and entered into an agreement with Saber soft airlines solution and started e-ticketing system in 2006. As a result, EAL has made available user-friendly Android & IOS E-ticketing mobile application software in addition to its website which is used for online booking, purchase and also check-in process for ease of use by travelers and competitiveness of the Airline itself. This has been developed for the purpose of online booking where passengers can book & purchase their tickets from the comfort of their seat in partnership with different bank online payment methods (E-payment) moreover check in and get their boarding passes with out having to queue at the terminal.

E-ticketing offers benefits such as reducing overheads and gaining a much closer access to target consumers. The consumers, on the other hand, gain greater convenience, time saving, and faster response. Although the benefits of using online flight booking system are obvious, it is a surprise that there are customers who prefer to stick to the traditional method of business transactions (Intan Salwani, 2010). As per the data found from the marketing department of EAL, only 41% of travelers purchase their tickets using EAL website or Application. Due to this low number, it is a need for EAL to find effective ways of persuading customers to use the E-Ticketing system. Thus, an investigation on factors that influence user's acceptance on online flight booking system could provide useful findings to the EAL.

(Butler and Peppard,1998) eloquently expressed the need for such Understanding: "Whether in the cyber-world or the physical world, the heart of marketing management is understanding consumers and their behavior patterns." This lack of understanding caused a wide confusion regarding what is really happening, how much potential there is, and what companies should be doing to take advantage of online shopping. As a result, commerce on the Net has turned out to be baffling, even to experienced managers and marketers (Aldridge et al., 1997). Though researchers have made noticeable progress with respect to the scope, quality and quantity of research, there are still significant disagreements about the findings in this area, and the research results appear to be rather Fragmented (Llimayem et al., 2003). This indicates the lack of good understanding of the factors affecting consumers' decision to buy from the Web.

With this in mind, this study aims an attempt to explore and determine the factors that are responsible for the slow adoption of the E-ticketing system in Ethiopian Airlines. It will address the gap in the area about the factors that affect the use of -Ticketing in EAL. It is worth to do this study to identify & determine the background factors that force passengers not to use the E- ticketing system of Ethiopian Airlines. It is an attempt with an expectation of results that will provide better understanding & recommendation to positive factors that can attract customers of Ethiopian Airlines to purchase their tickets online. Therefore, the objective of this study is to investigate and determine the factors that affect the use of E-ticketing system of EAL in Ethiopia.

1.1.1 Research Objectives and Questions

2.1.1 General Research Objectives:

The main objective of the study is to assess the factors that affect use of travelers online flight booking in EAL

3.1.1 Specific Research Objectives

- To identify the type of relationship between the factors and use of E-Ticketing system

The objectives are based on the assumptions of the below hypothesis:

H1*: There is a positive relationship between Relative Advantage and usage of E-ticketing.*

H2 *: There is a positive relationship between perceived usefulness and usage of E-ticketing.*

H3*: There is a positive relationship between Perceived Ease of Use and usage of E-ticketing.*

H4*: There is a positive relationship between perceived behavioral control and usage of E-ticketing.*

H5: *There is positive relationship between Perceived Trust and usage of E-ticketing.*

H6*: There is a positive relationship between awareness and usage of E-ticketing.*

H7*: There is a negative relationship between Perceived Risk and usage of E-ticketing.*

4.1.1 General Research Question

What are the factors that affect the use of online flight booking in Ethiopian Airlines

5.1.1 Specific Research Questions

- How do the identified factors affect use of E-Ticketing in EAL?
- What type of relationship is there between the identified factors and use of E-Ticketing in EAL?

1.4. Scope of the Study

Even though EAL has ticket purchases and departures from all over the world: Due to convenience & accessibility constraints, scope of the study is only limited to international

flights. Domestic flights are excluded as the researcher did not have access to domestic flights with in Ethiopia.

1.5. Limitation of the Study

There are some limitations identified during the research process. The limitation is specified below in order to further enable future researches to better address this case.

It is important for limitations to be recognized and learnt. During the study,

- There were respondents who were subjective and who focused concerning other issue they have with the airline.
- Even though, some respondents were found to have the awareness and practice of online booking and purchase; their awareness was only limited to searching for flight tickets online using any random website. Their awareness regarding EAL website or mobile app was limited or they never heard of it.

1.6. Significance of the study

The E-ticketing history of Ethiopian Airlines is a recent phenomenon. This paper is important to determine the factors that affect the use of E-Ticketing system by passengers in Ethiopia using Ethiopian Airlines. Researches such as this will have a contribution to what has been done and also to mainly answer what should be done in order to give recommendation on how to increase the number of passengers using the system. It will try to find a way to allow the rest of the society that's not currently using the online booking to get acquaintance of this technology and regarding technologies that may arise in relation to the online booking system.

This study will have a practical importance to recommend actions to be taken by the airline to increase the number of passengers who book their flight online to benefit the airline to increase time saving, global reach, price transparency, time competitive responsiveness and faster supply chain processes by determining the factors which are the reason behind the slow adaption of the system. It is also expected to have significance to help customers utilize the E-ticketing system for better availability, convenience, ease of use and contextual information. The conclusions will provide some valuable insights that may allow EAL to differentiate the factors of adaption and their extent of relationship with usage of E- ticketing service for better competitiveness while adequately meeting the passengers needs and demands.

1.7. Disposition of the Thesis

The research paper will be organized into five chapters: Chapter one deals with the introduction part of the paper and second chapter for the review of related literatures about the subject matter followed by chapter three that deals with research methodology used in the research. Chapter four result and discussion. Finally, in chapter five of the document covers conclusions and recommendations of the research.

CHAPTER TWO

LITERATURE REVIEW

2. Introduction

This chapter contains the literature review which begins with the introduction of E-Commerce, factors that affect usage of E- commerce, E- commerce in Ethiopia, E-ticketing, E-ticketing in Ethiopia, benefits of E-ticketing and factors that influence E-ticketing.

Technology Acceptance model and extended models will be discussed. Again, related works on customers' perception of and E-ticketing adoption using those models and the challenge and benefit of implementation of E-ticketing will also be discussed. Finally Relative Advantage, perceived ease of use and perceived usefulness, Perceived Trust, Awareness & Perceived risk, will also be discussed in detail. This will serve as a frame work for our research work.

2.1. Definition of E-Commerce

Electronic commerce or E-commerce has been defined in several ways. Kalakota and Whinston (1997:7) broadly define ecommerce as "A modern business methodology that addresses the needs of organizations, merchants and consumers to cut costs while improving the quality of goods and services and increasing the speed of service delivery." They view E-commerce as a production process that converts digital inputs into value-added outputs through a set of intermediaries.

The most comprehensive and widely used definition that has been found suitable for this study is the one provided by the Organization for Economic Cooperation and Development (OECD): e-commerce as "the electronic exchange of information that supports and governs commercial activities including organizational management, commercial management, commercial negotiations and contracts, legal and regulatory frameworks, financial settlement arrangements and taxation" (OECD 2001:21).

Some others have also defined e-commerce at its grass root level, describing it as an electronic method of doing business, typically over the Internet. It can be said that the definition of e-commerce is one that can be viewed from different angles (Kosiur, 1997). From a communications perspective, it is the delivery of information, products/services, or payments

via telephone lines, computer networks, or any other electronic means. From a business process perspective, it is the function of technology toward the automation of business transactions and workflows. From a service perspective, e-commerce is a tool that addresses the desire of firms, consumers and management to cut service costs while improving the quality of goods and increasing the speed of service delivery.

E-commerce, also known as electronic commerce or internet commerce, refers to the buying and selling of goods or services using the internet, and the transfer of money and data to execute these transactions. E-commerce is often used to refer to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet. Whereas E-business refers to all aspects of operating an online business, ecommerce refers specifically to the transaction of goods and services. The history of e-commerce begins with the first ever online sale: on the August 11, 1994 a man sold a CD by the band Sting to his friend through his website NetMarket, an American retail platform. This is the first example of a consumer purchasing a product from a business through the World Wide Web—or "ecommerce" as we commonly know it today. Since then, E- commerce has evolved to make products easier to discover and purchase through online retailers and marketplaces. Independent freelancers, small businesses, and large corporations have all benefited from E- commerce, which enables them to sell their goods and services at a scale that was not possible with traditional offline retail

6.1.1 Ecommerce in Ethiopia

Despite the very high rate of growth in internet usage in Ethiopia, the use and adoption of E-commerce services remain low. The E commerce development in Ethiopia is at its starting stage. Currently E- commerce in Ethiopia can be considered as accessing the internet to choose products over the web. Hence, only a customer can see the items and pay in person to actually buy the product. With the advent of new E- payment methods and which serve as a catalyst, E-commerce is on the edge to draw thousands of new users with in Ethiopia. review of the existing literature showed that e-commerce has been widely researched in the developed and emerging economies; however, there is not much of research for the developing Ethiopian economy. This study is therefore assumed to fill this gap.

2.2. Definition of E-ticketing

E-ticketing can be defined as a new way of purchasing tickets and issuing tickets without papers to clients and the transactions are purely done through electronic devices such as telephone and Internet. E-ticketing was started by United Airlines back in 1994. A decade later, the industry was not able to gain profit from saving costs $3 billion a year as only 20% of all airlines issued e-tickets. In June 2004, IATA set an industry target of 100% e-ticketing in four years. This announcement had been criticized that it was an unrealistic goal and the return on investment was uncertain. However, on 1 June 2008, the industry has successfully transformed into 100% e-ticketing (IATA, 2010).

As one of the e-commerce categories, e-ticketing system nowadays is being actively and widely practiced by not only airline companies but also other companies in different fields, for example cinemas for entertainment industry; buses, and trains for transportation industry; banking industry; and sports industry (Haneberg, 2008).

Electronic ticketing over the Internet is a good example of Internet commerce. The aim is to facilitate the buying or reservation of tickets online, thereby making the process more easily accessible and convenient. With this service tickets may be purchased from any location and at any time, provided an Internet connection exists. Typically, the tickets are ordered from a web site that provides both tickets information and the purchasing or reservation service. Internet or 'online' ticketing is all about providing a useful and efficient service to clients and customers. The aim is to make the purchase or reservation of tickets easier. Naturally, this will encourage sales. Online ticketing system has been used especially by firms who sell travel tickets, performing arts, game tickets, concerts, movies and many other activities.

In the context of airline industry, a customer can book a flight ticket through its web-based ticketing site. The customer is requested to fill in his or her personal details such as name, I/C number, credit card number, and address. After this, the information and reservation are transferred and stored in the company's database. The hardcopy confirmation is posted by the company to the customer via email, where the itinerary such as the flight number, date, departure location, destination location, and rules and regulations are stated. At this point, the transactions of e-ticketing are officially done. The passengers can then check-in in the airport by showing the identification card or passport. After luggage is checked, boarding pass will be

issued to the passenger who can proceed to the security to the gate area (Search CIO-Midmarket, 2001).

7.1.1 Benefits of E-ticketing

The use of the Internet makes buying a ticket more convenient since the service is available at any geographical location, including your home (or even remotely via a laptop and cellular phone) and at any time of the day, any day of the year. Online ticket services have a further advantage by providing relevant information alongside the service. This can aid purchasing decisions and may encourage future usage (Buford,1998). Therefore, ticket buyers have quite an easy commute to the ticket booth these days-they only have to get to their home personal computer and onto the internet. It beats standing in lines (perhaps out in the rain) and day, and the only traffic one encounters is that of the so-called information superhighway.

There are also benefits for those providing the service. New markets are being created and ticket sales are increased. Apart from maintenance and data updates, no manpower is required to provide the service once it has been established. The process of recording the transactions is more automated and overhead is reduced. An important point is that ticket providers are also providing a convenient service to customers and are thereby improving public image and encouraging return customers. (Burford, 1998). It allows the customer to purchase transportation at the time of reservation lock in the fare and eliminate the process of obtaining a conventional paper ticket. The electronic ticket replaces the paper ticket and allows customers to purchase, change and refund transportation transactions over the telephone, eliminating the need to visit the airport ticket counter, an airline city ticket office, or a travel agency. A receipt/itinerary will be provided if requested. Prior to departure, the customer will proceed to the baggage counter or directly to the gate for check-in, whichever is appropriate. Upon verification of the passenger's identity, a boarding pass will be printed, which will be collected by the gate agent when boarding the aircraft.

Strong argument in favor of a ticketless system is the decrease in time "wasted" by the passenger at the airport. The real benefit is for business travelers, as found by Reuben Gronau in his study of the monetary value of time for passengers, where he concludes: the price of time will determine the mode of transportation to use and business travelers price their time according to their hourly earnings, along with other factors such as the length of the trip, the

time of the day, etc. Given the proven time reduction with a ticketless system, all of these factors contribute to time-value savings for the traveler. (Reuben Gronau,1970)

8.1.1 E-ticketing in Ethiopia: The case of EAL

Consistently posting record profits for the past seven years, Ethiopian Airlines has been using Sabre's technology for its core reservations, network planning and e-commerce since 2005. Despite the daunting challenges in African aviation, Ethiopian Airlines has continued with thriving successes and has become the leading aviation group in Africa, nine years ahead of its 15-year strategic growth roadmap, Vision 2025. Addis Ababa Ethiopia and South Lake, Texas (Aug 31,2017))

"Leveraging the latest information technology and travel system solution is one of the pillars of our long-term growth plan, Vision 2025, and consequently we have made significant investments in technology to create a seamless passenger experience," said Tewolde GebreMariam, CEO, Ethiopian Group. "Sabre's technology partnership and expertise has been invaluable over the years, and that's a key decision driver in our expanded relationship which includes new cutting-edge technology that will help us create better customer experiences and remain the airline of choice among travelers around the world."

9.1.1 EAL Mobile APP

The Ethiopian Airlines mobile application (APP) and the web based online booking system allows passengers to book their flights and purchase their tickets online. The mobile app is available both on Google play and Appstore. It helps to book flights and purchase tickets using transactions over six payment methods. Check in and storing boarding pass is as easy as a click away. The online booking system helps view past and upcoming flights to help manage itinerary's and makes it very easy to check any flight status at any time and place.

The EAL mobile APP allows passengers to find date, status and fare of their flights while Booking. Once they book their flights it allows PAX to purchase their tickets through different E-Ticketing methods. Traveles from the other part of the world outside Ethiopia can use their credit cards as well.

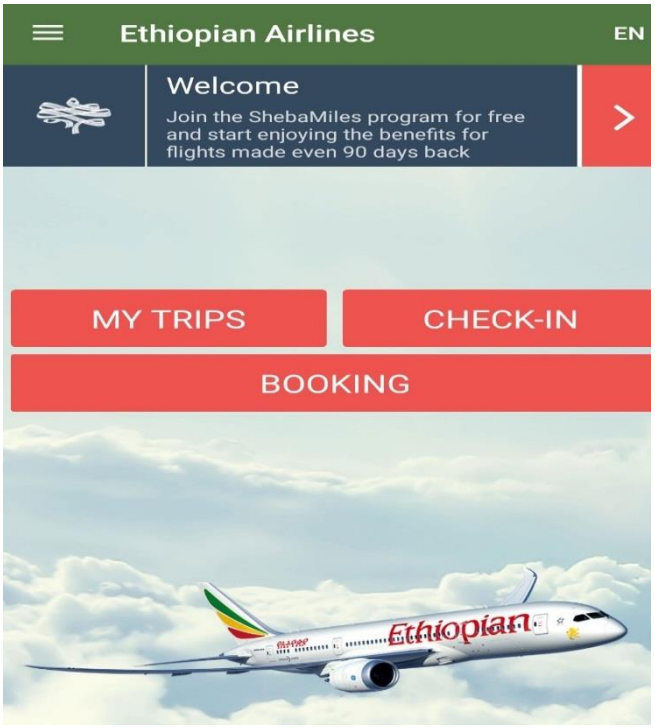


Plate. 2.1 EAL mobile APP

10.1.1 Services By EAL E-Ticketing System

3. **Booking**: As per figure 2.2 above, the 'Booking' section allows the traveler to find the preferred flight. The traveler is required to enter Departure Airport and Destination Airport. Once the destination is known then the next step is the date. For a traveler who entered the date, the App will allow them to see if the selected flight is available on the specific date or not. On the same page, the passenger is required to specify the number of travelers and if any child or infants are included. EAL has two booking classes.

- Cloud 9 Seats (C-9) which is an aircraft class classified due to its luxury seats & service. The C9 is equipped with seats that that can turn into fully flat bed and more leg room. C/9 seats are not more than 30 seats in one aircraft. Therefore this gives the passengers more privacy from the large crowd in an aircraft. These class has more expensive price and are very comfortable with better entertainment systems

- Economy class (E/Y): These class accommodates majority of the passengers in an aircraft and the fare for this class is much less. Therefore, the mobile APP allows travelers to choose their preferred booking class to display the relevant price. Here, the traveler can choose if they want to buy ticket one way or for a round trip. Once the

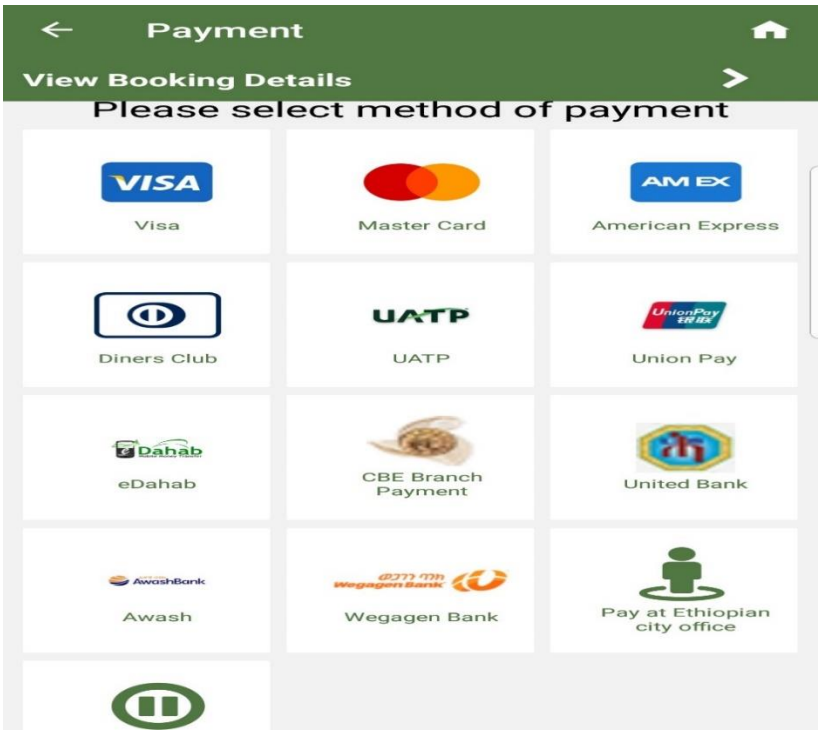
destination and price is selected then it will be upto the passengers preference to purchase the E-Ticket through the above mentioned payments or to go a ticket office.

4. My Trip : This section of the APP will allow a traveler to view status of a flight. This will help to find out Expected Time of Departure and Expected Time of Arrival(ETA) plus stop overs and over all detail of a specific flight.
5. Check In & Boarding Pass : This is another feature that will save the traveler from the long queue at terminal check in counters and not finding preferred seats.

11.1.1 E-Payment methods available for EAL E-Ticketing system

Travelers can book their tickets and pay at their respective banks or they can use their E-Ticketing app to transfer to EAL as a beneficiary. This mobile APP will also allow travelers to check their bookings and check in at the terminal if they prefer not to stand on a queue. The Check -in starts 36 hours before departure and ends 2hours before departure. A passenger who has already checked in can also issue their boarding pass. This will allow travelers to make their trip so much easier than going to travel agent, standing on a long queue at the terminal and choose their own preferred seats.

Plate. 2.2 EAL Mobile APP Payment section



Source: EAL mobile app

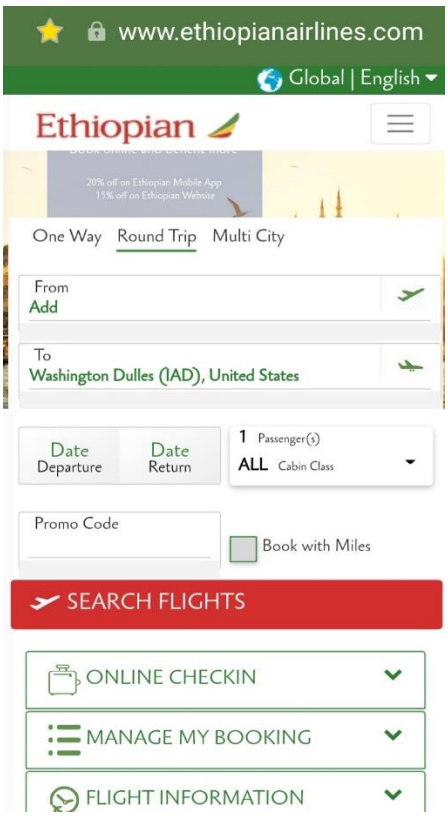
Table. 2.2 E-Payment methods for EAL

VISA	American Express	UATP	eDahab	
Master Card	Diners Club	Union Pay	CBE Payment	Branch
United Bank	Awash Bank	Wegagen Bank		

12.1.1 EAL website

The EAL website (www.ethiopianairlines.com)will also allow search for preferred flights, compare fare and book flights. Purchase is also possible with addition features of online check in and manage booking options. The website functions in the same manner to the mobile APP except the fact that the mobile APP is easily accessible.

Plate. 2.3: EAL Website



2.3. Factors that influence E-Ticketing

Several theories are offered in order to identify factors that may motivate people accept new technologies and information systems and use them (Rao and Troshani 2007). The next section presents a very popular model towards technology and one that was used for this study. Based on that a conceptual frame work for this study is formulated below.

2.3.1.Adoption Theories

Several theories are offered in order to identify factors that cause people accept new technologies and information systems and use them (Rao and Troshani 2007). The next section presents some of these theories and based on these theories, a conceptual frame work for this particular study is formulated

1.1.1.1. Technology Acceptance Model

Since the seventies, researchers have concentrated their efforts on identifying the conditions or factors that could facilitate the integration of information systems into business. Their search has produced a long list of factors that seem to influence the use of technology (Bailey and Pearson, 1983).

TAM was first introduced by Fred Davis in 1989 to predict user acceptance of new technologies. According to (Davis 1989), TAM suggests that perceived usefulness (PU) and perceived ease of use (PEOU) are the two most important factors in explaining individual users' adoption intentions and actual usage. Davis (1989) defines perceived usefulness as the degree to which a person believes that using a particular system will enhance his or her job performance. Perceived Ease of Use refers to the degree to which the person believes that using the system will be free of effort.

The Technology Acceptance Model (Davis 1989) is one of the most widely used models of IT adoption. Since its introduction, the technology acceptance model (Davis 1989) has received considerable attention in the IT community. Recent studies suggest it applies also to e-commerce and to the adoption of internet technology (Gefen and Straub, 2000). According to TAM, IT adoption is influenced by two perceptions: perceived Usefulness and perceived ease-of- Use.

TAM's dependent variable is actual usage. It has typically been a self-reported measure of time or Frequency of employing the application. TAM postulates that external variables intervene indirectly by influencing PEU and PU. There is no clear pattern with respect to the choice of

the external variables considered. these external variables include factors such as Situational involvement, intrinsic involvement, prior use, argument of change, Internal computing support, internal computing training, management support, external computing, , external computing training, Role with regard to technology, tenure in workforce, level of education, prior similar experiences, Participation in training, Tool functionality, tool experience, task technology fit, task characteristics and etc.

Davis suggested that PEOU (perceived ease of use) has a positive, indirect effect on system usage through PU (perceived usefulness). Empirical studies of TAM have shown that usage of IS is determined by user behavioral intentions, which themselves are jointly determined by User PU and attitudes toward using the information system (IS), the last of which are jointly determined by user PU and PEOU. This also has a positive but indirect effect on attitude through PU (Davis et al., 1989).

Many IS studies have been conducted based on the TAM, since PU and PEOU are two general beliefs suited to predicting information systems usage. All relevant empirical studies, such as the measurement of user acceptance of IT (Adams et al., 1992), and the self-reported usage of IS (Szajna, 1996) have supported the hypothesis of TAM that PU is directly related to IT/IS usage. Different from prior Studies (Chau, 1996; Gefen and Keil, 1998), Venkatesh and Davis (2000) have shown that PEOU has a positive, direct effect on user acceptance of IT. However, no consistent conclusions have yet been reached about the effect of PEOU on IS/IT usage.

Subsequent Research has expanded TAM in multiple directions. For example, TAM2 examines the antecedents of perceived usefulness and incorporates the subjective norm (i.e., social pressures related to adoption (Venkatesh, 2000). The impact of computer self-efficacy, objective Usability, and experience with a system on perceived ease of use is examined in (Venkatesh, 2000), whereas the antecedents of perceived ease of use in terms of anchors (i.e., general beliefs about computers and computer usage) and adjustments (beliefs shaped by direct experience with the target system) are examined in (Venkatesh and Davis, 1996).

TAM has been extensively tested and validated and is a widely accepted model, which can be modified or extended using other theories or constructs according to author in (Masinge 2010) and its usage has captured the attention of IS community attested by the authors in (Mathieson et al 2001). A research model by (Yapp Jiin Fui, S. Mariapun, Abdullah- Al- Mamun, 2014) on adoption of E-ticketing combines Acceptance Model (TAM) (Davis, 1989), and online trust

and purchase intention model for airline E- ticketing in Malaysia (Chen and Barnes, 2007 as cited from Goh, 2008). In the modified model, Internet trust (including perceived security and perceived privacy), personal trust disposition, perceived ease of use and perceived behavioral control are the independent variables whereas purchasing airline e-tickets is identified as the dependent variable. According to the study there are many factors that influence the intention, behavior, and attitudes to shop online or airline e-ticketing adoption. The factors include perceived risk, perceived usefulness, perceived ease of use, perceived enjoyment, perceived privacy, perceived security, subjective norm, trust, personal trust disposition, internet usage, experience, perceived behavioral control, and demographic variables.

i. Perceived Usefulness

Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job performance (Davis 1989). In the context of online consumer behavior, Chen et al., (2002), Childers et al., (2001), and Heijden et al., (2001) found that perceived usefulness affects attitude toward online shopping. Similarly, Chen et al., (2002), Gefen and Straub (2000), Heijden et al., (2001), and Pavlou (2001) found perceived usefulness to be a significant factor affecting intention to shop online.

ii. Perceived Ease of Use

In contrast to PU refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis 1998) Perceived ease of use (PEOU) refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). PEOU has received enormous attention in the IT adoption studies. Chen et al., (2002), Childers et al., (2001) and Heijden et al., (2001) found that PEOU influences attitudes toward online shopping.

Based on the following reasons TAM model is suitable to identify the online ticketing adoption factors in our country Ethiopia, therefore it was chosen to form the basis of the research model.

- TAM has been the most commonly employed model of IT usage (Taylor and Todd, 1995).
- TAM has received considerable empirical support (e.g., Davis, 1989; Davis et al.,1989; Mathieson, 1991; Taylor and Todd, 1995). Thesis studies have found that TAM consistently explains a significant amount of variance (typically about 40 percent) in usage intention and behavior.

- It has been found that TAM's ability to explain attitude toward using an information system is better than other model's (TRA and TPB) (Mathieson,1991).
- Two belief factors of the TAM model (perceived ease of use and perceived usefulness) are easy to understand and manipulate in information system design and implementation (Hung and Chang, 2004).

iii. Perceived Behavioral Control:

The construct of control reflects beliefs regarding the availability of resources and opportunities for performing the behavior as well as the existence of internal/external factors that may impede the behavior (Ajzen, 1991). Perceived behavioral control is important in explaining human behavior since an individual who has the intentions of accomplishing a certain action may be unable to do so because his or her environment prevents the act from being performed. In the context of online ticketing in Ethiopia, computer access, Internet access and availability of assistance for passengers who intend to purchase tickets online in Ethiopia are all behavioral control factors that are important in facilitating the E-ticketing behavior.

According to survey carried out by USA Today provides some early information as to customers' adaptation of ticketless travel. The Facts obtained from The Airline's own research work through a focus group method show that most consumers were initially uncomfortable with the idea of "ticketless" systems and raise many questions that are an evidence to consumer behavior to new products & services.

- What if the computers go down?
- What if the airline loses my reservation record?
- What if I do not have a fax machine to receive my itinerary from the airline?
- Do I get charged on my credit card when using the Ticketing Machine at the
- What if they do not get it right?
- What do I turn in if I have to switch to another airline?

Many passengers felt comfortable with the manual ticketing method and saw no need to change to another method. Others liked the security of having their ticket in their hands and did not "trust" the carrier to hold their record for them. Finally, some others thought that they have more leverage to get onto their flight having physical evidence of their reservation.

Therefore, consumer behavior is defined as "the way people act in an exchange process." (Chester R. Wasson, 1975). The key to understanding consumer behavior is in defining the kinds of internal and external forces that affect people in their purchasing patterns. The fields of individual psychology, social psychology, anthropology, sociology, communications research and economics would have to be visited to obtain a complete explanation. (Del Jones,1994)

That's why the researcher belives that the conceptual model for the research should include the construct of perceived behavioral control as well. Such factors (perceived behavioral control and Awareness) are a significant influence on IT usage behavior (e.g., Mathieson, 1991; Hence adding perceived behavioral control (PBC) and Awareness to TAM would provide a more complete test of the important determinants of usage of online ticketing adoption in specific)

iv.Awareness

According to (Sathye 1999), customers go through "a process of knowledge, persuasion, decision and confirmation" before they are ready to adopt a product or service. The adoption or rejection of an innovation begins when "the customers becomes aware of the product".

Customers must become aware of the new brand or technology. An important characteristic for any adoption of innovation service or product is creating awareness among the customers about the service or product (Sathye 1999).

Awareness creation speeds the sales of products and evidences from different participants, lay credence to this. The level of awareness (Palvia 2009) is an important factor in encouragement of consumers to adopt related self-service facilities.

Buying tickets through internet in Ethiopia is a new form of commercial activity, which tends to involve a higher degree of uncertainty and risk when compared with traditional way of buying tickets. Passengers who have got used in buying tickets through traditional ways would have doubts in security of such system to do online transactions and render trustworthy services. This implies the concept of trust which has been found to be one of the most important impediments of the online shopping.

V. Perceived Trust

Refers to the confidence a person has in his or her favorable expectations of what other people will do, based, in many cases, on previous interactions (Gefen, 2000). A significant number of studies (George 2002, Heijden et al., 2001, Jarvenpaa et al., 2000, Pavlou and Chai 2002) found that trust is a salient determinant of online shopping attitude. Moreover, Lynch et al., (2001) found that trust significantly affects a potential consumer's intention to shop online. Therefore, adding the concept of trust to our model will improve the predictive ability of the model to investigate the driving factors of E-ticketing adoption in our country.

As noted by Davis (1989), future research of Information system (System consisting of the network of all communication channels used within an organization) usage has to address the other variables which affect usefulness, ease of use and user acceptance. Consequently, these two determinants may not fully explain the factors which predict the acceptance of a technology application such as E-ticketing.).

Internet shopping is a new form of commercial activity, which tends to involve a higher degree of uncertainty and risk when compared with traditional shopping. Internet stores appear to be less well known to consumers, as they cannot physically examine the quality of the products before making a purchase, nor can they fully monitor the safety and security of sending sensitive personal and financial information through the Internet to a party whose behaviors and motives may be hard to predict (Lee and Turban, 2001).

Thus, the concept of trust becomes very important in the context of online consumer behavior. Trust refers to the confidence a person has in his or her favorable expectations of what other people will do, based, in many cases, on previous interactions (Gefen, 2000). A significant number of studies (George, 2002; Heijden et al., 2001; Pavlou and Chai 2002) found that trust is a salient determinant of online shopping attitude. Moreover, Lynch et al., (2001) found that trust significantly affects a potential consumer's intention to shop online.

The simple fact that electronic ticket is a new product is bound to create a certain degree of anxiety and uneasiness in the customer due to trust issues. Additionally, any problems that PAX encounter along the process will likely cause them to distrust the product even more. Again, it is difficult to isolate the instances that the PAX feels uneasy about his/her electronic ticket. The travel experience is full of unplanned events that cause distress. Electronic ticketing

is one of these multiple variables; however, finding when it is the sole variable, is almost impossible Passengers who have got used in buying tickets through traditional ways would have doubts in security of such system to do online transactions and render trustworthy services.

vi. Relative Advantage

The notion of relative advantage is concerned with the extent to which an innovation is perceived by potential adopters as being superior from the idea, product or service it supersedes (Rogers, 1983). The construct of relative advantage is highly domain specific, although dimensions that are found to have some generality include reduced costs and greater convenience. A key issue is that it is not the better performance of an innovation in an objective sense that matters, but rather the superiority of performance as subjectively perceived by the customer (Szymigin and Bourne, 1999).

According to (Rogers, 1983) Compared to telephone based ticketing services, except from having the details visually available, any additional advantages, However, it was highlighted that several disadvantages related to availability, accessibility and level of service. More specifically, it was mentioned that the time to log on might take longer than making a phone call, while once on-line, the transaction might take longer because the respondent felt that he had to "check and re-check" the form filled in on-line, as he or she was worried of making mistakes. Regarding accessibility, the use of a mobile phone was seen as leaving one more freedom with regard to where the transaction is taking place (e.g. from a bus). Telephone ticketing services, as well as visiting a travel agent, were also seen more positive due to the possibility of asking questions and having a contact person

If the innovation is perceived to be better than the existing system (a measure of its relative advantage), is consistent with the needs of the potential adopter (a measure of its compatibility), and is easy to understand and use (a measure of its complexity), it is more likely that a favorable attitude towards the innovation will be formed (Ching and Ellis 2004).

In the case of the air travel services industry there have been a limited number of studies into the adoption of related new technologies for distribution. The relative advantage associated with the convenience of being able to receive an airline's ticket outside of travel shop's opening hours has been found to be important in both the case of the adoption of tickets delivered by

traditional post (Rugimbana and Iversen, 1994) and telephone-based ticketing services (Lockett and Littler, 1997). By contrast, the attributes of flexibility and convenience were found to be of limited value as a source of relative advantage (Szymigin and Bourne, 1999). A major factor in people not adopting innovative ticketing delivery channels is the fact that customers may like to interact with travel agents (Zeithaml and Gilly, 1987; Leblanc, 1990).

vii. Perceived Risk

Perceived risk refers to a consumer's perceptions of uncertainty and adverse consequences of buying from the web (Grazioli and Jarvenpaa 2000). Prior studies (Heijden et al., 2001; Jarvenpaa and Todd 1996) found that perceived risk had a strong impact on attitude. Moreover, Heijden et al., (2001), Pavlou (2001) and Tan and Teo (2000) found that perceived risk affects intention to shop online significantly. Similarly, Miyazaki and Fernandez (2001) found perceived risk had a significant impact on online purchasing behavior. uncertainty plays a role in adoption decision in the form of perceived risk (Shimp and Bearden, 1982) and this construct is expected to be of considerable significance in relation to service adoption.

Factors of perceived risk such as perceived privacy & perceived security influence the intention, behavior, and attitudes to shop online or airline e-ticketing adoption..

- **Perceived security**: can be defined as the subjective probability with which consumers believe that their personal information (private and monetary) will not be viewed, stored, and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations (Chellappa, 2002). Ainin et al. (2008) found that security was one of the main barriers of e-ticketing.
- **Perceived privacy**: on the other hand, is defined as the consumer's belief and opinion regarding the respect of personal information confidentiality and the maintaining of his intimacy by the various agents, fundamentally companies, with which he or she interacts in Internet applications (Martinez-Lopez, 2004). Violation of consumers' trust in online shopping, in terms of privacy invasion or misuse of personal information, negatively influences attitude toward online shopping and leads to reluctant behavior among consumers to shop on the Internet in future occasions (Monsuwe, 2004).

Internet ticketing has received rather less research attention because of its comparative novelty, and much of the existing research has adopted an organizational perspective (e.g. Morrison and

Roberts, 1998). Where research has focused on consumer related issues, there is evidence to suggest that the patterns that emerge are similar to those of earlier work in that convenience, flexibility and control tend to encourage adoption of new channels and concerns about security and complexity discourage adoption (see, for example, Sathye, 1999). Interestingly, in a more detailed study of motivations, Barczak *et al.* (1997) suggest that this may be a rather simplistic view and highlight instead the importance of focusing attention on travel management philosophies as predictors of the types of channel used.

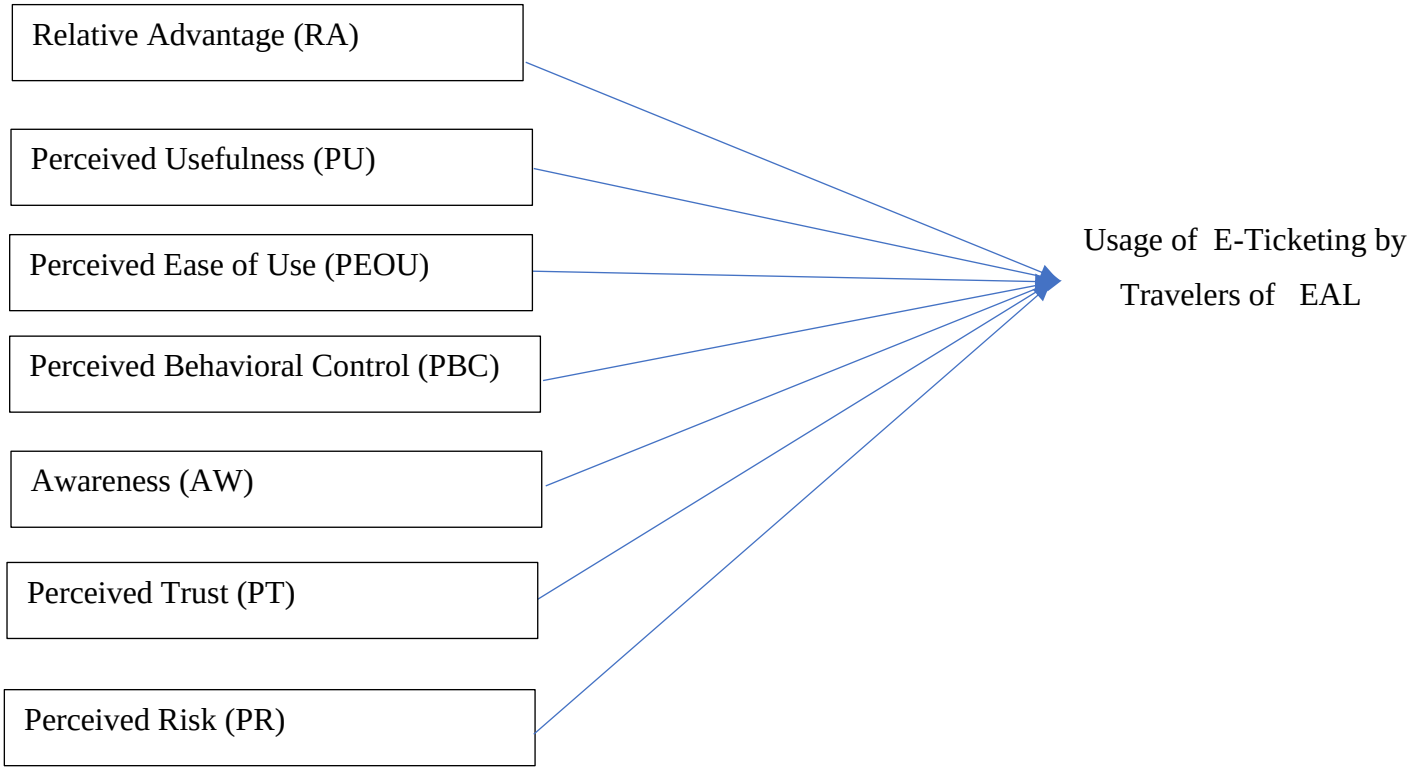
Therefore, the below conceptual model on Fig 2. 1 is developed as an extension of TAM model. The original TAM assumes that beliefs about usefulness and ease of use are always the primary factors of Information technology or Information system adoption (Lu et al., 2003). These two elements are interrelated and serve as a basis for attitude towards using a particular system, which in turn determines the intention to use, and finally generates the actual factors that affect usage of E-ticketing system for EAL. Therefore, in order to address the research gap, this project work will use an extended TAM of perceived usefulness & Perceived Ease-of-use along with the following constructs - Relative Advantage and a model by Perceived Trust, Awareness, Perceived Behavioral Control & Perceived Risk to explore the factors that influence the use of Online Flight booking system in Ethiopian Airlines. The study will formulate an inclusive project framework. This framework illustrates the interaction between the independent variables and the dependent variable

2.3.2.Conceptual Framework

The below research model is the modification and combination of extended Technology Acceptance Model (TAM) (Davis, 1989) by Yapp Jiin Fui, S. Mariapun, &Abdullah- Al-Mamun on the study of factors Affecting Airline Electronic Ticketing: Differences between Adopters and Non-Adopter along with Relative Advantage

In the modified model, Relative Advantage, perceived Usefulness, Perceived ease of use, perceived Behavioral control, Awareness and Perceived Risk are the independent variables, whereas Use of travelers e-tickets in EAL is identified as the dependent variable. A conceptual model is shown below:

Fig 2.3 Conceptual Framework



INDEPENDENT VARIABLE **DEPENDENT VARIABLE**

Source: Own Computation

CHAPTER THREE

3. RESEARCH METHODOLOGY

In the previous chapter, the literature review, which shows the conceptual framework for the study and review of issues related with factors affecting E-Ticketing for EAL has been presented. This chapter outlines and explains the methodology employed to achieve the research objective and test the research hypothesis formulated in the study. It starts by explaining the research objective and hypothesis development then goes through research approach, research design, data collection method, sampling design which embraces of target population, sampling frame and location, sampling elements, sampling technique and sampling size, data collection method, variables and measurement, data analysis technique, data processing and pilot test

3.1. Research objective and development of hypotheses

The major objective of this study is to identify the factors that affect the use of Travelers Online Flight Booking in Ethiopian Airlines.

In line with the broad purpose statement seven hypotheses was formulated.

I. Relative Advantage

Relative advantage describes the degree to which an innovation is perceived as being better than its precursor (Rogers 2003). The relative advantage associated with the convenience of being able to receive an airline's ticket outside of travel shop's opening hours has been found to be important in both the case of the adoption of tickets delivered by traditional post (Rugimbana and Iversen, 1994). Therefore, the below hypothesis is developed.

H1: There is a positive relationship between Relative Advantage and usage of E-ticketing.

II. Perceived Usefulness

Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job performance (Davis 1989). In the context of online consumer behavior, Chen et al., (2002), Childers et al., (2001), and Heijden et al.,(2001) found

that perceived usefulness affects attitude toward online shopping. Therefore, the following hypothesis is developed.

H2: There is a positive relationship between perceived usefulness and usage of E-ticketing.

III. Perceived Ease of Use

Perceived ease of use (PEOU) refers to the degree to which a person believes that using a particular system would be free of effort (Davis 1989). Even if an application is perceived as useful, it will only be used if it is seen by the user as easy to use (PEOU), that is,

benefits of usage outweigh the effort of using the system. Therefore, the following hypothesis is developed.

H3: There is a positive relationship between Perceived Ease of Use and usage of E-ticketing.

IV. Perceived Behavioral control

Perceived behavioral control refers to one's perceptions about the ease or difficulty in performing the behavior (Athiyaman, 2002). Perceived behavioral control is important in explaining human behavior since an individual who has the intentions of accomplishing a certain action may be unable to do so because his or her environment prevents the act from being performed. In the context of E-Ticketing, computer access, Internet access, and availability of assistance are all behavioral control factors that are important in facilitating online shopping behavior. Therefore the following hypothesis is formulated.

H4: There is a positive relationship between perceived behavioral control and usage of E-ticketing.

V. Perceived Trust

Internet shopping is a new form of commercial activity, which tends to involve a higher degree of uncertainty and risk when compared with traditional shopping. Trust refers to the confidence a person has in his or her favorable expectations of what other people will do, based, in many cases, on previous interactions (Gefen, 2000). Based on this; trust may refer to the confidence passengers have in the online transaction and consequences of purchasing tickets through internet. Therefore, the following hypothesis is developed.

H5: There is positive relationship between Perceived Trust and usage of E-ticketing.

VI. Awareness

According to the author (Sathye 1999) the adoption rate of an innovation could be determined by level of awareness of the customers. Based on the above rationale, the following hypothesis is formulated

H6: There is a positive relationship between awareness and usage of E-ticketing.

VII. Perceived Risk

Perceived risk refers to a consumer's perceptions of uncertainty and adverse consequences of buying from the web (Grazioli and Jarvenpaa 2000). Prior studies (Heijden et al., 2001; Jarvenpaa and Todd 1996) found that perceived risk had a strong impact on attitude. Online shoppers are afraid to suffer losses by the time what they expect is not the same with the reality (Pavlou, 2003). Researchers have identified various risks associated with online intention such as delivery risk, privacy risk, quality risk and time risk. Based on the dimension of perceived risk, researcher proposed the following hypothesis:

H7: There is a negative relationship between Perceived Risk and usage of E-ticketing.

Therefore, the study will be done based on the following research hypothesis which are derived from the specific objectives and tested in this study.

Table 2.3 List of Hypothesis

Hypothesis	Description
H1	There is a positive relationship between Relative Advantage and usage of E-ticketing.
H2	There is a positive relationship between perceived usefulness and usage of E-ticketing.
H3	There is a positive relationship between Perceived Ease of Use and usage of E-ticketing.
H4	There is a positive relationship between perceived behavioral control and usage of E-ticketing.
H5	There is a positive relationship between Perceived Trust and usage of E-ticketing.
H6	There is a positive relationship between awareness and usage of E-ticketing.
H7	There is a negative relationship between Perceived Risk and usage of E-ticketing.

Source: Own Computation

3.2. Research Approaches

The research approach implicitly reflects the researcher attitude as to how knowledge is constructed and also commands what method to be employed in the study.

The general objective of this study is to assess the factors that affect use Online Flight Booking by Travelers in EAL. This study adopted a quantitative research approach by using primary and secondary data source. Quantitative approach used statistical methods in describing patterns of behavior and generalizing findings from samples to population of interest, and. In order to answer the statement of the problem and meet the research objectives, the design of the study used descriptive statistics and regression analysis.

A quantitative research approach is appealing for this study because:

- The research problem tends to be explanatory which seeks to explain the relationship between E-Ticketing adoption and its affecting factors
- To achieve the objectives of the study and to test the hypothesis.
- Survey is used as important research tool to gather peoples thought and behavior which uses numerical data.

3.3. Research Design

Research design is a plan, structure, and strategy of the investigation so conceived as to obtain answers to research questions or problems. The plan is the complete scheme of the research. It includes an outline of what the investigator will do from writing the hypotheses and their operational implications to the final analysis of data (Kumar, 2011).

Since the objectives of this research is to assess the factors affecting use of online flight booking by travelers in EAL, employing descriptive survey was found to be appropriate as it is :

- It is a systematic method for gathering information from a relatively large number of cases at a particular time; Best and Kahn (1989).
- It is relatively better in describing the extent of correlation between variables.

3.4. Population, Sample and Sampling Procedures

3.4.1.Population (Universe) of the Research

Based on the data obtained from Ethiopian Airlines Selamta magazine (Nov/December 2018) EAL has reached its 10,000,000 passengers for the year 2018. Therefore, the target population will be the total number of passengers travelling annually using EAL.

3.4.2.Sampling Frame and Sampling Location

Population is the entire aggregation of items from which samples can be drawn. Sampling frame is representation of the elements of the target population which consists of a list or set of directions for identifying the target population (Malhotra & Peterson, 2006). As the entire population size is very large, the researcher has used a sampling frame of the total number of passengers who used EAL within two weeks of Oct 25th – Nov 10th 2018. As per the data from Ethiopian Airlines marketing department the number of passengers that travelled with in the 2 weeks is equal to 318,456.

Initially, the researchers plan was to apply **Judgmental sampling** to select destination with high number of travelers and frequency of departure. Due to a number of good enough reasons mentioned below; these was not applied. The main reason was

- Selecting a destination with high frequency of departures does not mean one with high number of travelers. For instance, EAL has 4 flights to Nairobi per day which has a large frequency of departure than Washington route but the number of passengers on board Nairobi flight is not more than 130 per flight while a single flight to Washington can mean up to 320 PAX.
- Selecting specific destination based on continents was also considered. But this is not representative as well since a passenger going to UK does not represent either Europeans or residents of that continent. The specific passenger can actually be from anywhere on vacation, first time traveler or going for business and even due to medical conditions. EAL passengers in one flight can represent a passenger form any corner of the world.
- The study was also meant to be framed to flights departing from Ethiopia only but passengers departing from Ethiopia do not represent either Ethiopians or passengers who booked their flights in Ethiopia. These passengers can be on transit from any part of the world. For instance, a passenger departing from Ethiopia and traveling to New-

York might be on transit from Nigeria. Even though this passenger departed from Ethiopia, it doesn't specifically mean that the ticket is purchased in Ethiopia or cannot represent passengers departing from Ethiopia.

- Convenience was another factor not to cover all (over 116 destinations). The only way the researcher could get in contact with specific destinations was at the terminal and that has a major negative impact on the quality of information provided by passengers as they don't have the time to fill out a survey as they are going to be rushing to their boarding gates.

Therefore, the researcher had to come up with a plan that will allow to represent every nationality and type of passengers using Ethiopian Airlines. Therefore, **Convenience sampling** technique was applied to select the respondents on randomly selected flights. These means that a single flight consist of different type of passengers from different parts of the world and it can be representative 'passengers of EAL. And since this study is about passengers of EAL, then this type of method fits the study very well. With this, the researcher could get enough time with the travelers to deliver the questionnaire while they are settled down and can give full attention to the survey. Here, the researcher hand delivers the questionnaire to the passengers on board their flight to those willing to fill the survey during their journey while they had plenty of time to do it.

3.4.3.Sampling Elements

For this research, the unit of analysis of the research was restricted to passengers who are above 18 years old.

3.4.4.Sampling Technique

The sampling technique that applied in this research study is non-probability sampling technique due to inability to obtain sample frame and non-probability sampling technique is cheaper and faster than probability sampling technique in terms of capital and commodity.

In this research study, the types of non-probability sampling technique that being adopted are convenience sampling where all the targeted respondents have been acquired most conveniently or being distributed the survey questionnaire on willingness basis. Convenience sampling is chosen because it has the advantages of cost-efficient and least time consuming and most convenient if compare with other sampling techniques.

3.4.5.Sample Size

An optimal sample size is important to draw meaningful deductions in a study. A large sample size can become administratively unwieldy to handle while a small one could give inaccurate results. It is therefore vital to select a sample size that determines a statistically significant outcome. It is also important to ensure that the sample selected an unbiased opinion. Therefore, For this research a sample size is calculated by using a formula used by different statisticians in different reference books as indicated further in the below formula.

According to the formula used to determine the sample size by Yamane (1967), a simplified formula to calculate sample sizes is provided. This formula was used to calculate the sample sizes with a 95% confidence level and precision P =0.05 are assumed for this equation.

$$n = N/\ 1 + Ne^2$$

Where: n = sample size
N= population size
e = Error of 10 %

Sample size n = $\underline{318{,}456}$ / 1 + (318,456 $*$ (0. 05^2))

Sample size n= 399.49 passengers.

Once the researcher determined an appropriate sample size using the above sample size calculator Yamane (1967), then to create a genuine representation of the fact, the researcher randomly did the survey by personally asking passengers if they are willing to fill the questionnaire during their flight on Ethiopian Airlines. Accordingly, four hundred and twenty questionnaires were distributed on the researchers randomly selected convenient international flights. Since the researcher did survey on the airplane, while the passengers are on their trip, it was very convenient for the researcher to reach out to sample size of 399 passengers within two-week time as they were comfortable and had the time to fill out the survey.

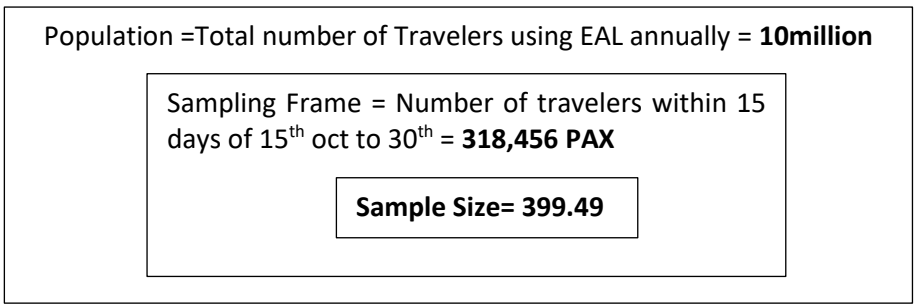


Fig 3.1 Sampling - *Source: Own computation*

3.5. Data Collection Method

In this research, primary data was obtained by self-administered questionnaire survey method which was conducted in during flights on board with passenger's journey during Oct 25 -Nov 10. This method is adopted because it is more accurate, easier and reliable and the results would directly reflect the traveler's true behavior. Delivery and collection method is used to target a higher response rate. The questionnaire is distributed to targeted respondents through personal face to face contact A pilot test was conducted of 30 samples among Ethiopian Airlines employees as who has experienced purchase of a flight ticket as travelers to investigate validity and reliability of the questionnaires before they were distributed to public**.**

3.6. Variables and Measurement

3.6.1.Nominal Scale

Nominal scale is used in the Section I of demographic profile in this study' s questionnaire which included gender and living states. The components are grouped accordingly and are assigned numbers for easy understanding and convenient category labels with no intrinsic value, apart from assigning one of two non-overlapping or mutually exclusive categories. In addition, this scale is also applied in the Section IV of general information which concerns the general questions of Usage of E-Ticketing for EAL.

3.6.2.Ordinal Scale

Ordinal scale is used in the survey to categories the respondents' age in the range of 18 to 55 years old & to measure the variables of level of difference. Subsequently, ordinal scale is also used to collect the information about the occupation, Travel experience and education level of the target respondents which are under part A of demographic profile.

3.6.3.Interval Scale

Interval scale of measurement is used with 5-Likert Scale to measure five of the independent variables which are Relative Advantage, Perceived Usefulness, Perceived Ease of Use, Perceived Behavioral Control, Perceived Trust, Awareness & Perceived Risk effect on usage of E-ticketing. This scale collects information based on the target respondents measurement about the level of agreement or disagreement on the constructed statements in the range of (1)

strongly Agree, (2) Agree, (3) Neutral, (4) Disagree to (5) Strongly Disagree in each series of the statement. In addition, measurement about the level of use of E-ticketing services was also constructed through (1) Never (2) Rarely (3) Sometimes (4) Often and (5) Always

3.7. Data Analysis Techniques

Data from the field was compiled, sorted, and coded to have the required quality, accuracy and completeness. Data was entered into the computer system using the Statistical Package for Social Sciences (SPSSv20) for analysis in generating the actual results, frequency tables were generated to determine the number of respondents who expressed their opinion on a particular item. Based on the frequency tables generated, descriptive statistic was used to analyze and describe the findings. Logistic regression analysis was also carried out to determine extent to which independent variables influence the dependent variable

3.7.1.Descriptive Analysis

Descriptive analysis is used to describe and explain the information of sample collected and summarizes a given data set, which can either be a representation of the entire population or a sample. The measures used to describe the data set are measures of central tendency and measures of variability or dispersion. In this research, descriptive analysis is used in part I of demographic profile and Section IV of general information.

3.7.1.1. Frequency Distribution

Frequency distribution is used for obtaining a count of the number of responses associated with different values of one variable and to express these count into percentage terms. Frequency distribution is used to analyse respondents‟ demographical profile in part A such as gender, age, Travel experience, occupation, residence and education level as well as general information in part B. In addition, the mean and standard deviation are measures of central tendency which are used to analyze data collected in the Section II of the questionnaire.

3.7.2.Scale Measurement

Scale measurement is used mainly to verify quality of the data collected and this can be determined by the reliability level of the data.

3.7.2.1. Reliability Test

Reliability of an instrument is testing for both consistency and stability. Consistency indicates how well the items measuring a concept hang together as a set (Sekaran & Bougie, 2010). The role of reliability is to reduce the errors and biases in a study (Yin, 1994). Also, according to Chisnall (1997), reliability is concerned with consistency, accuracy and predictability of specific research findings.

Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another. The closer Cronbach's alpha is to 1, the higher the internal consistency reliability and the greater the reliability of the instrument according to Sekaran and Bougie (2010). The researcher used Cronbach's alpha in order to measure the reliability of the information and results obtained through the questionnaire. Sekaran and Bougie (2010) stated that reliabilities that are less than 0.60 are considered poor, those in the 0.70 range are acceptable, and those more than 0.80 are excellent. This is the scale that the researcher relied upon to determine the reliability of the factors.

3.8. Logistic Regression

Logistic Regression attempts to investigate the relationship between two or more independent variables and a dependent variable that is dichotomous while keeping all the other variables constant. For this type of dependent variable there are only two categories to predict. In this study the dependent variable (Usage of E-ticketing) takes one of the two values of usage or non-usage. Logistic regression also accommodates independent variables that scaled end of a ratio scale ordinal or nominal.

In this study, whether an individual chooses to adopt E-Ticketing or not adopt E-Ticketing falls into the realm of two choice. Probabilities have to be between zero and one. Using linear probability model and ordinary least squares (OLS) is not preferable due to the return of probabilities outside the unit interval (Stynes and Peterson, 1984). In addition, the use of a linear probability model causes heteroscedastic errors and as a consequence, t-tests of significance are not valid (Miller and Hay, 1981). Therefore, it is preferable to use either a logit or probit model.

In logistic regression, we can write the equation interms of log odds (logit) which is a linear function of the predictors. The coefficient $\beta 1$ is the amount of the logit (log odds) change with

a one unit change in ‘X’. The logistic formulas are stated interms of the probability that Y=1 which is referred as ^p. The probability that Y is 0 is 1-p^

$\ln (p^/1-p^)= \beta 0+\beta 1X$

The ‘ln’ is a symbol to a natural logarithm and $\beta 0+\beta 1X$ is our familiar equation for the regression line. ‘P’ can be computed from the regression equation also. Therefore the regression equation is known then theoretically its possible to calculate the expected probability that Y=1 for a given value ‘X’

$$P= \frac{\exp (\beta 0+\beta 1X)}{1 + \exp (\beta 0+\beta 1X)} = \frac{e\beta 0+\beta 1X}{1+ e\beta 0+\beta 1X}$$

exp is the exponent function sometimes written as e. therefore the equation on the right is the same thing but replacing exp with e.

Whereby,

ETU= E-Ticketing Usage

RA – Relative Advantage

PU- Perceived Usefulness

PEOU - Perceived Ease of Use

PCB - Perceived Consumer Behavior

PT - Perceived Trust

AW- Awareness

PR - Perceived Risk

$\beta 1 \ldots \beta 5$ = Regression Coefficient for (RA PU, PEOU, PBC, PT, AW & PR)

3.8.1.Pearson's Correlation Analysis

Pearson's correlation analysis is used to indicate the strength and direction of relationship between two variables. In this study, this analysis is chosen to measure the co-variation between the seven independent variables and travelers usage of e-ticketing for EAL. The correlation coefficient determines how the value of one variable changes when the value of another variable changes.

The coefficient (r) indicates both the magnitude of the linear relationship and the direction of the relationship. The correlation coefficient ranges from +1.0 indicated perfect positive relationships to -1.0 which indicates perfect negative relationships while value of 0 shows no linear relationship. Absolute values is used to know strength of correlation. Correlation coefficient value range from 0.10 to 0.29 is deemed to be weak, from 0.30 to 0.49 is regarded as medium and from 0.50 to 1.0 is believed to be strong (Cohen, 1988). Nevertheless, to avoid multicollinearity problem among independent variables, this value should not go further than 0.9 (Hair et al., 2007).

3.8.2.Multicollinearity Test

Multicollinearity occurs when independent variables are correlated. If two independent variables are correlated, then it's difficult to keep the other independent variable constant. When multicollinearity arises, the ability to define any variable's effect is diminished (Hair et al., 2010). Independent variables should be *independent*. If the degree of correlation between variables is high enough, it can cause problems when you fit the model and interpret the results. Logistic regression does not accept multicollinearity as the high interrelationship of the independent variables can cause the inflation of the standard error of the logit coefficients (Garson, 2010). When independent variables are correlated, it indicates that changes in one variable are associated with shifts in another variable. The stronger the correlation, the more difficult it is to change one variable without changing another. It becomes difficult for the model to estimate the relationship between each independent variable and the dependent variable *independently* because the independent variables tend to change in unison. The acceptable level of correlation between each pair of the independent variables should be at 0.80 or less (Bryman and Cramer, 1999).

3.8.3.Cox & Snell R Square & Nagelkerke Analysis

The R Square refers to the percentage of the response variable variation. These variation takes a value between 0 & 100%. The higher the R square the better the model fits the data entered. The correlation coefficient R is a statistical technique that shows whether and how strongly pairs of variables are strongly related to each other. Cox & Snell R square refer to the percentage of variance that can be accounted for the independent variable that are used to create regression equation. According to cohen (1992) R-square value .12 or below indicate low, between .13 to .25 values indicate medium, .26 or above values indicate high effect sizes.

3.9. Data Processing

There are numerous steps that have to be taken before the data is being analyzed, which are questionnaire checking, data editing, data coding, and data transcription.

3.9.1.Questionnaire Checking

The initial step of data preparation process is checking questionnaire. It involves checking acceptable questionnaire for completeness and interviewing quality. The pilot test had been conducted before the large amount of questionnaires are distributed to respondents to reduce the risk of potential problems like question content, wording, sequence, form and layout, question difficulty, and instruction misunderstanding. Therefore, problems can be detected, and corrective action can be taken before the surveys have been completed. In this research study, the initial set of questionnaires have been edited after receiving the feedback from pilot test.

3.9.2.Data Editing

Data editing is being implemented to review the questionnaire to increase accuracy and precision of the research. It consists of screening the questionnaires to identify illegible, incomplete, and inconsistent or the ambiguous responses. In this study, all the incomplete data from collected questionnaires excluded for the data analysis.

3.9.3.Data Coding

As mentioned, the study conducted is a quantitative research. Thus, the data was being coded into numerical forms to simplify the data entry process. For instance, gender of respondents, male was coded as “1” and female was coded as “2”. Meanwhile, in section C, all the answers were coded „1“ for „Strongly Agree“, „2“ for Agree“, „3“ for „ Neutral“, „4“ for „ Disagree“

and „5" for „ Strongly Disagree". The advantage of coding was the simplistic storage of data with a few-digit code and easier to categorize comparing to lengthy alphabetical descriptions.

3.9.4.Data Transcription

All the data collected were keyed into the data analysis software, Statistic Package for Social Science (SPSS) version 20.0 in order to obtain desired result. Information of relevant variables is inserted into the "variable view". These included the variable name, data type, measurement scale, label and others. When entering data into "data view" of SPSS, data are arranged and categorized into different rows and columns respectively following the variables assigned. Instead, the data entering process have been carried out with due care in order to achieve the accuracy and completeness of data by minimizing the avoidable human errors.

3.9.5.Instrument Design and Pilot study

As mentioned above on Data collection section, the research instrument that was used in the study is Questionnaire. It was developed based on previous research and the literature review. Most of the questionnaire was taken from the instruments structured for the study conducted by Olav c. Unger (1996) and EAL past survey that was taken on September 2018. Yet the researcher modified the questions to be consistent with research objective and up to date considering the intended respondents and added some questions.

The questioner was comprised of close-ended questions developed on a five-point Likert scales ranging from 1 (strongly agree) to 5 (strongly disagree). Demographic questions about respondents were also included in the instrument. The questionnaire begins with an introductory statement, which specifies the purpose of the research as purely academic. Respondents will be encouraged to be objective in their responses since they will be assured of confidentiality.

The questionnaire has been presented to EAL employees for validity who traveled as a passenger and those who worked closely with the system in order to check the appropriateness of the questionnaire to the study's main objective and to examine validity of the research instrument. In addition it was presented to a group of experts in EAL at the marketing department who were involved on the recent survey. The Suggestions and adjustments mentioned were used to ensure improvement of the validity of the instruments. The questionnaire was subsequently amended in accordance with their instructions and

recommendations. The majority's approval was considered indicative of the questionnaire's validity and reliability was checked using a pilot study of 30 respondents.

3.10. Pilot Test

Table 2.4 Rules of Thumb about Cronbach‟s Alpha Coefficient Size Alpha Coefficient Range Strength of Association

Table 3.1 Reliability Test

Independent Variables	Cronbach's Alpha
Relative Advantage	0.899
Perceived Usefulness	0.802
Perceived Ease of Use	0.882
Perceived Behavioral Control	0.865
Perceived Trust	0.834
Awareness	0.805
Perceived Risk	0.839

3.11Ethical Issue

This research has taken into consideration certain ethical issues which has guided the study process. Passengers were given informed consent by providing them with sufficient information regarding the aim of the study. Confidentiality was ensured by disclosing information of participant views and comments. Informed consent was achieved by the non-coercing of participants into the research study by allowing voluntary participation.

As social scientists need to be wary how research might be used. The research should benefit a group, organization, the segment of population studied. Therefore, this research is aimed to benefit EAL majorly by finding out the factors that affect the use of online flight booking system to help recommend ideas of better usability for profitability & minimizing cost for the organization. The research will also benefit PAX from the burden of showing up at ticket offices. In this case voluntary participants are neither forced nor are vulnerable and their confidentiality is hundred percent confirmed. Research is conducted with PAX willing to fill out the survey under their own comfort and no pressure. In terms of the organization itself the study is not aimed to be controversial & the subject is not sensitive.

The study involved participants with consent and aware of the survey being taken. The researcher has revealed the true nature of research and the passengers were in a comfortable

situation where they can fill out the survey without fear and without going against their belief and character. The questionnaire did not include too sensitive & personal questions. The researcher will maintain the anonymity of the participants, names will not be revealed where the findings can be published, and the data saved in a file.

3.12 Organizational Context

Due to the economical & political stability of Ethiopia in the past couple of decades, the number of travelers using Ethiopian Airlines has increased in a very fast pace. According to the data on EAL magazine Selamta (Nov/Dec 2018). The number of travelers using EAL has increased by 21% on 2018. As a result, Ethiopian Airlines is currently considered one of the best airlines in Africa and has become very profitable with a worldwide reputation allowing it to increase its destinations. The online booking system of Ethiopian Airlines has not been quite covered enough to address the difficulties that is being faced by the airline due to the non-utilization & slow adoption of the system plus the factors that are affecting passengers not to use the online system. Therefore, the researcher has chosen this title to come up with a finding that can benefit the airline in a way to increase the number of passengers who utilize the online system and on the other hand for them to gain greater convenience, time saving, and faster response.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

As analysis of a research is mainly done to find an answer to the research question raised and to discuss the objective stated in previous sections. This chapter consists of empirical data presentation and discussion presented under the respondents' demographics, the services being offered under E-Ticketing and how frequently they are used by EAL passengers' demographics, factors affecting E-Ticketing usage by passengers of EAL. This chapter presents the descriptive analysis on variables of the study and results of regression analysis that constitute the main findings of this study.

4.1. Results

This study had a sample size of 400 respondents and out of the 420 questionnaires distributed, 399 valid responses were obtained. This represents a 99.75% response rate.

Section I

4.1.0. Respondents' Demographic Results

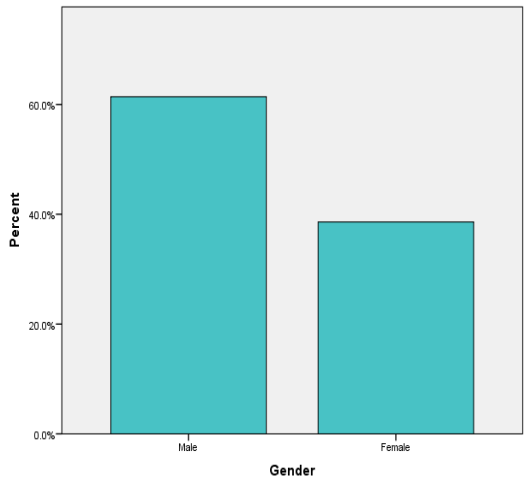
This section describes the respondents" profile which consists of gender, age, occupation, income level, education, Residential Status and Travel Experience. The 399 complete and valid questionnaires were used for the quantitative analysis.

Table 4.1: Gender

Frequency Table for Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	245	61.4	61.4	61.4
	Female	154	38.6	38.6	100.0
	Total	399	100.0	100.0	

Figure: 4.1 Bar Chart for percentage of respondents Based on Gender



Source: Survey results on SPSS

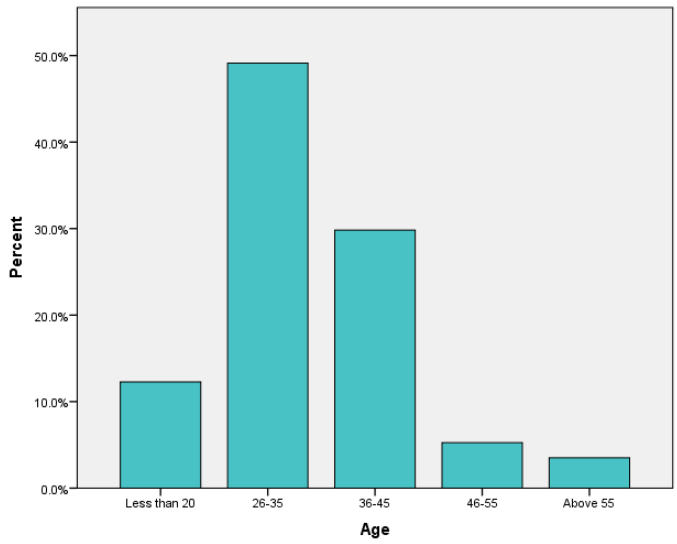
According to the findings 38.6% of the respondents indicated that they were females while 61.4% indicated that they were males. This shows that majority of the traveler respondents were male.

Table 4.2: Age of the respondents

Frequency Table for Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 20	49	12.3	12.3	12.3
	26-35	196	49.1	49.1	61.4
	36-45	119	29.8	29.8	91.2
	46-55	21	5.3	5.3	96.5
	Above 55	14	3.5	3.5	100.0
	Total	399	100.0	100.0	

Figure 4.2 Bar Chart for percentage of respondents based on age



Source: Survey results on SPSS

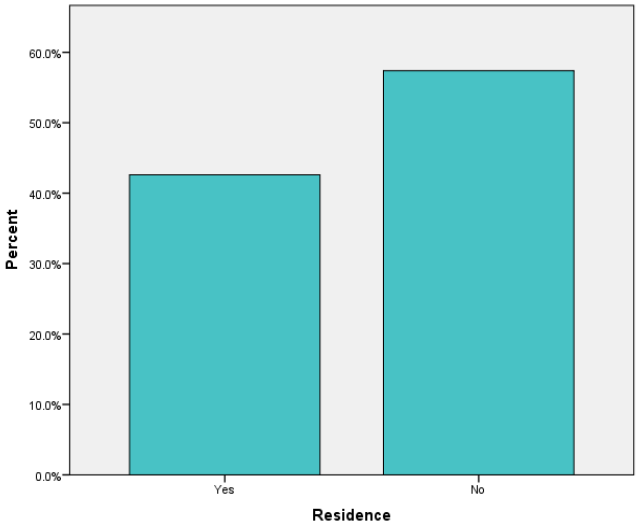
According to the age variable, the highest percentage 49.1% of traveling respondents is between 26- 35years old while age between 36-45 takes the second level and travelers with age less than 20 make 12.3% which leaves those in between 46-55 with 5.3 % and the least of the travelers above age 55 represent 3.5%

Table 4.3 Respondents Residential Status

Frequency Table for Residence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ethiopia	170	42.6	42.6	42.6
	Abroad	229	57.4	57.4	100.0
	Total	399	100.0	100.0	

Figure 4.3 Bar Chart for percentage of respondents based on Residence



Source: Survey results on SPSS

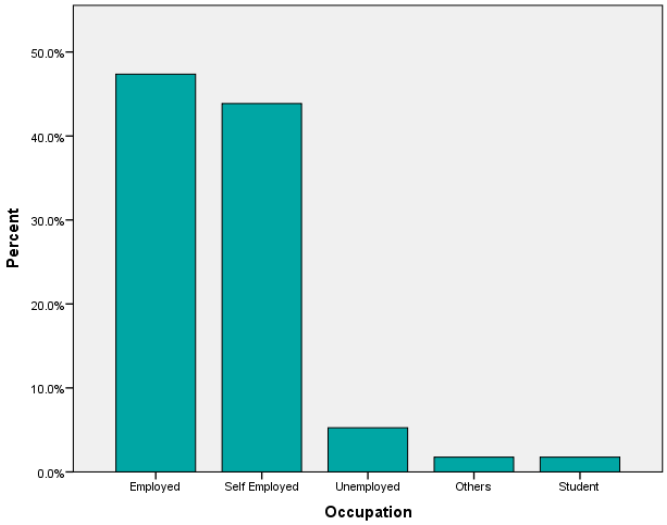
According to the Residence variable, the highest percentage of travelers which are 56.1% live Abroad (Outside Ethiopia) and 42.1% live in Ethiopia.

Table 4.4 Respondents Occupational Status

Frequency Table for Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	7	1.8	1.8	1.8
	Employed	189	47.4	47.4	49.1
	Self Employed	175	43.9	43.9	93.0
	Unemployed	21	5.3	5.3	98.2
	Others	7	1.8	1.8	100.0
	Total	399	100.0	100.0	

Figure 4.4 Bar Chart for percentage of respondents based on Occupation



Source: Survey results on SPSS

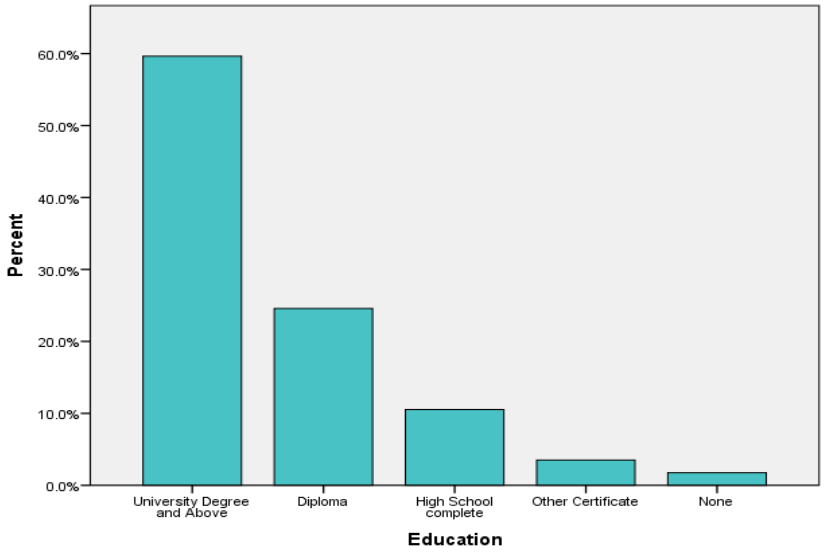
Based on the results in *Table 4.4* regarding occupational status, the highest percentage (47.4%) of respondents are employed, followed by 43.9% of self-employed and 5.3% Unemployed. The remaining respondents of Students and Others represent the percentage of 1.8% each .

Table 4.5: Level of education

Frequency Table for Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School complete	42	10.5	10.5	10.5
	Diploma	98	24.6	24.6	35.1
	University Degree and Above	238	59.6	59.6	94.7
	Other Certificate	14	3.5	3.5	98.2
	None	7	1.8	1.8	100.0
	Total	399	100.0	100.0	

Figure 4.5 Bar Chart for percentage of respondents based on Education Level



Source: Survey results on SPSS

From the 399 respondents, the highest percentage of travelers which is 238 (59.6%) had a university degree and above. This was followed by 98 (24.6%) respondents who have Diploma, 42(10.5%) were high school complete and 14 (3.5%) had other certificates and 7 (1.8%) who specified none.

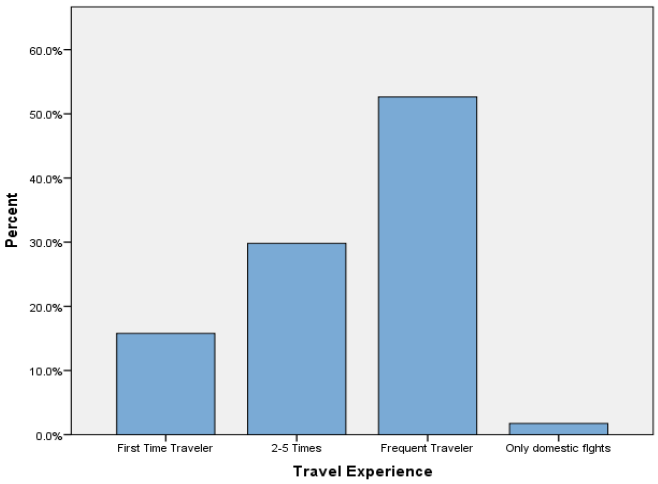
Table 4.6: Travel Experience

Frequency Table for Travel Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First Time Traveler	63	15.8	15.8	15.8
	2-5 Times	119	29.8	29.8	45.6
	Frequent Traveler	210	52.6	52.6	98.2
	Only domestic flights	7	1.8	1.8	100.0
	Total	399	100.0	100.0	

Source: Survey Results on SPSS

Figure 4.6 Bar Chart for percentage of respondents based on Travel Experience



Source: Survey results on SPSS

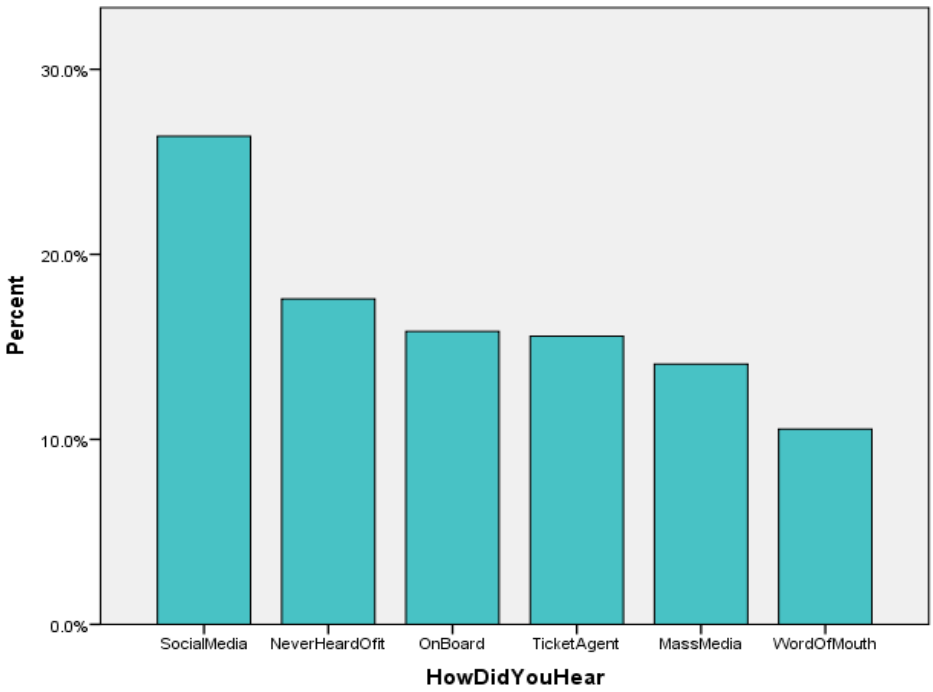
According to the Travel Experience, the highest percentage of traveler respondents are frequent travelers with 52.6% and 29.8% of the passengers have a travel experience of 2-5 times while first time travelers represent 15.8 % and the least of all was with the percentage of 1.8% and they have only traveled domestic routes.

Table 4.7 Respondents source of information about E-Ticketing

Frequency Table on Awareness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mass Media	56	14.0	14.1	14.1
	Social Media	105	26.3	26.4	40.5
	Ticket Agent	62	15.5	15.6	56.0
	On Board	63	15.8	15.8	71.9
	Word of Mouth	42	10.5	10.6	82.4
	Never Heard of it	70	17.5	17.6	100.0
	Total	398	99.7	100.0	
Missing	System	1	.3		
Total		399	100.0		

Figure 4.7 Bar chart for respondents' source of information on E-Ticketing of EAL



Out of the 399 respondents 26.3% of travelers heard about E-Ticketing on social media while 15.5% and 15.8% heard about it from ticket agents and onboard during their travel. The remaining 14.1% from mass media and 10.6% through word of mouth. Eventually 17.6% said they have never heard of it. This information can be used by management to determine the areas that need to be focused on inorder to reach out to its customers.

4.1.1. Descriptive statistics

This section is divided into two parts. The first part presents the descriptive analysis of using E-Ticketing system provided by EAL and the second part of the descriptive analysis investigates the variables of the study.

4.1.1.1. Usage of EAL E-Ticketing services

Understanding the frequency with which certain services provided under E-Ticketing are used by travelers is important and provides useful feedback for management of EAL. This is because it could give an indication whether the service is meeting travelers needs or not, whether travelers know how to use the service and simply whether it adds value providing it or not. To measure frequency of use of E-Ticketing services, passengers were asked to rate how

frequently they used the services ranging from never to always on a numerical scale of 1-5. The results of the respondents rating were as shown in the table below

Table 4.8 Descriptive Statistics for E-Ticket Service

	N	Minimum	Maximum	Mean	Std. Deviation
Booking	399	1	5	3.46	1.614
Purchase	399	1	5	2.51	1.604
Check- In	399	1	5	2.67	1.504
Rebook	399	1	5	2.81	1.596
Valid N (listwise)	399				

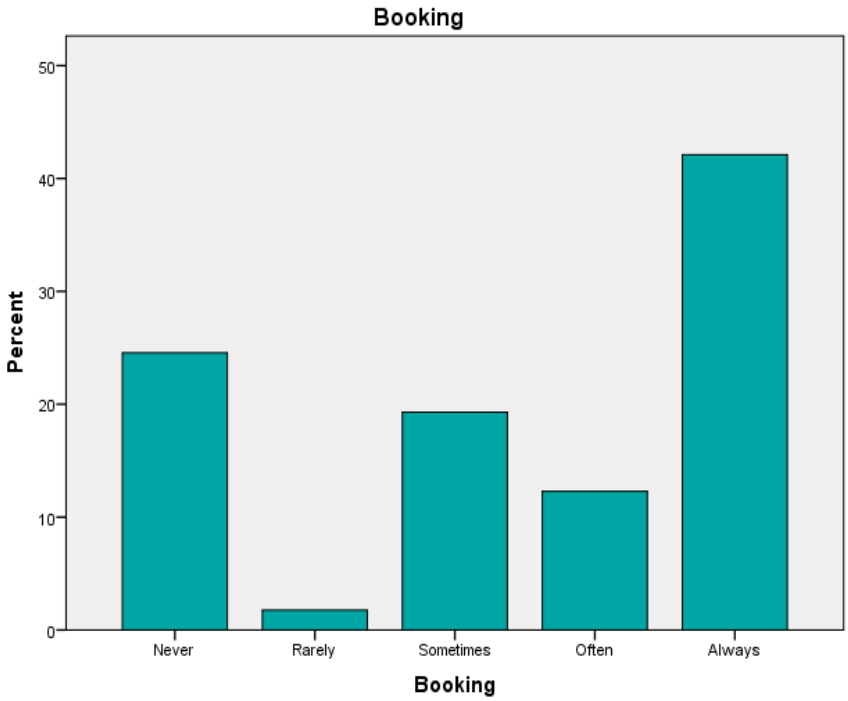
Source: SPSS results

Scale: 1=Never, 2= Rarely, 3=Sometimes, 4=Often, 5= Always

As shown in the above table the means of customers' responses on respective statements ranged between 2.51and 3.46. The highest mean 3.46 dictates that most of the respondents used the service Booking often. The second major service rarely used by the customers' is Rebooking with 2.81 mean and Check-In takes a third place with a mean of 2.51. It is found that the least rarely used E-Ticketing service with a mean of 2.51 is purchase of E-Tickets.

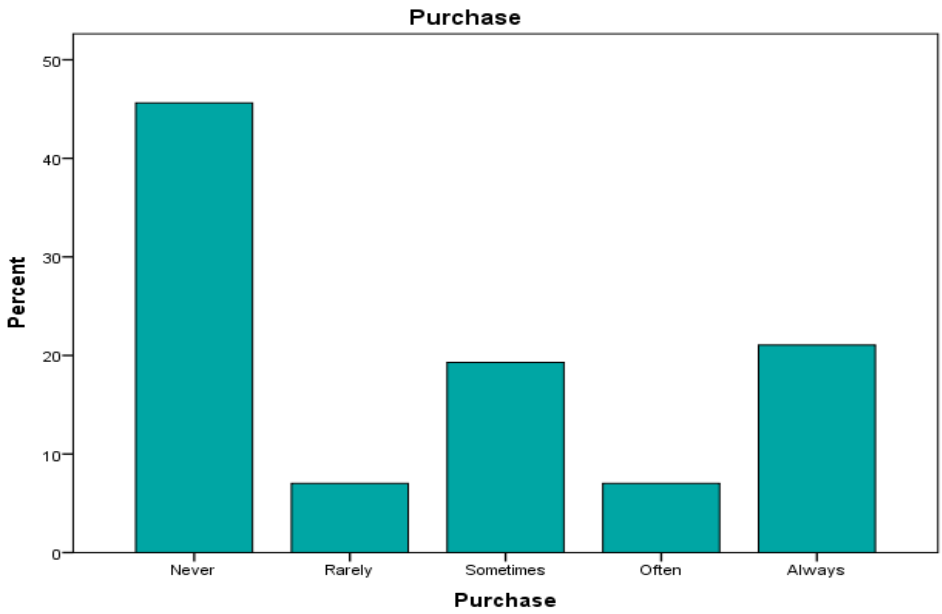
This information is important in that it could be used by EAL management to determine whether the least used services add any value or to embark on a fact-finding mission from travelers on their opinion of the services and make the relevant decisions. As can be seen 'Purchase' is the least used service which the management should give high emphasis because the major aim of E-Ticketing is online flight ticket purchase that should be used highly.

Figure 4.8: Percentage of travelers using E-Ticketing service for Booking



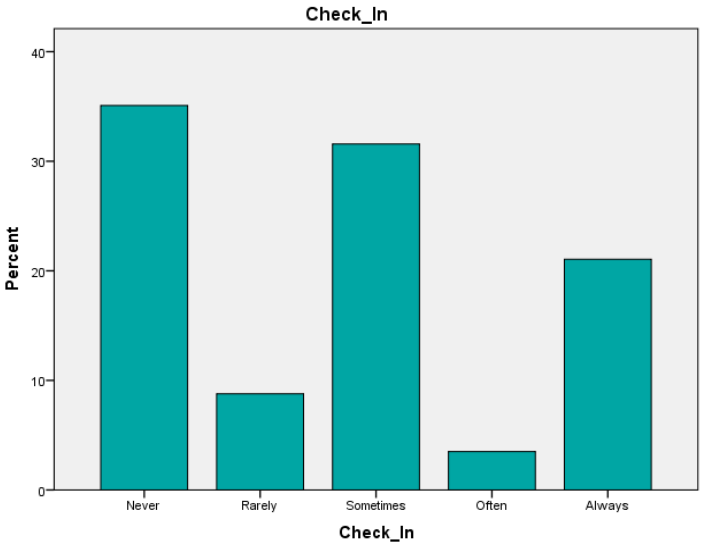
Source: Survey results on SPSS

Figure 4.9: Percentage of travelers using E-Ticketing for Purchase service



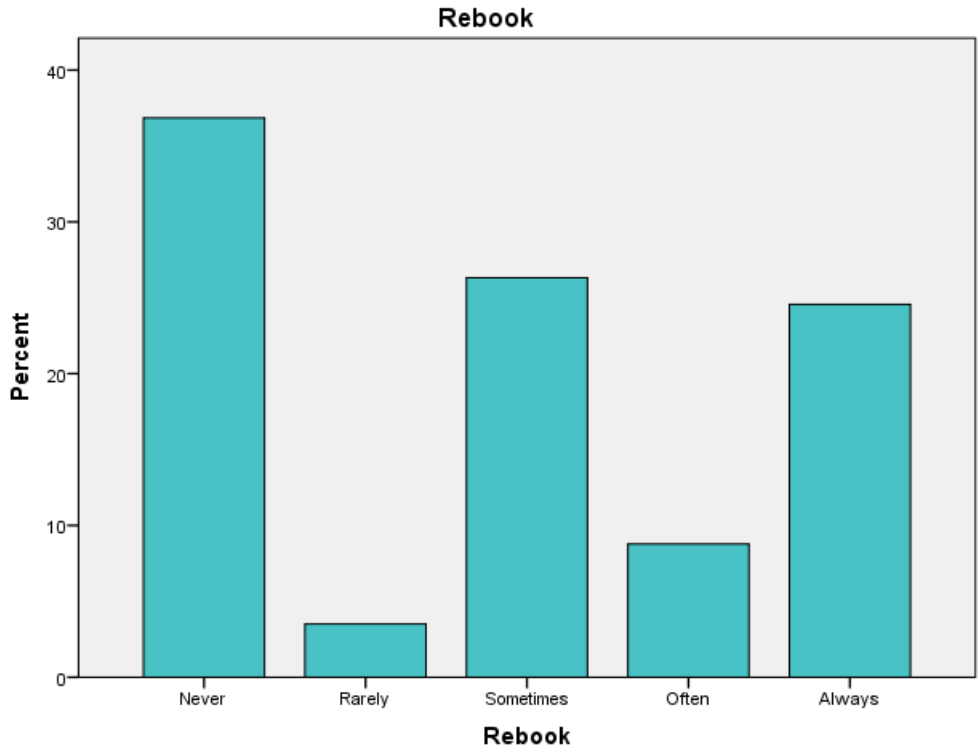
Source: Survey results on SPSS

Figure 4.10: Percentage of travelers using E-Ticketing for Travelers Online Check-In service



Source: Survey results on SPSS

Figure 4.11:Percentage of travelers using online fight status check service



Source: Survey results on SPSS

4.1.1.2. Factors Affecting E-Ticketing system usage in EAL

It is important for Ethiopian Airlines to understand the factors which affect the usage of E-Ticketing in order to be able to provide services which meet the customers' expectations and needs. Passengers were also requested to rate how important the identified factors were in influencing their decision to purchase their tickets online, ranging from ***STRONGLY AGREE to STRONGLY DISAGREE*** on a numerical scale. The results of the responses were as shown in the table below:

Table 4.10 Response of respondents on independent variables of Relative Advantage, Perceived Usefulness, Perceived ease of use, Perceived Behavioral Control, Perceived Trust, Awareness and Perceived Risk.

Table 4.10

	N	Minimum	Maximum	Mean	Std. Deviation
RA	399	1.00	5.00	1.9474	.82387
PU	399	1.00	5.00	2.6249	1.17099
PEOU	399	1.00	5.00	2.2573	.85951
PBC	399	1.00	5.00	2.6249	1.17099
PT	399	1.67	4.00	2.7076	.48856
AW	399	1.00	2.00	1.5848	.26730
PR	399	1.00	5.00	3.3816	1.01011
Valid N (listwise)	399				

Source: Survey results on SPSS

Scale: 1=Strongly Agree, 2=Agree,3=Neutral,4=Disagree,5=Strongly Disagree

From the above table based on the average mean score calculated from the passengers' responses, the respondents agreed that Awareness is the major factor that affects usage of E-Ticketing with a mean of 1.58 where most passengers Strongly Agreed. The second major factor is Relative Advantage with 1.94. Perceived ease of use on the 3rd place while Perceived Behavioral Control has the same value with Perceived Usefulness with 2.62 as 4th rank as per the travelers' responses. The 6th and the 7th factors which influences passenger's usage of E-Ticketing for EAL is perceived Trust and perceived risk. Therefore, in this study Perceived Risk is the least factor that affects E-Ticketing Usage.

Table 4.11: Response of respondents on Travelers intention of using E-Ticketing .

		Response	Frequency	Percent
ETU1	Do you use the E-ticketing system?	YES	186	46.6%
		NO	213	53.4%
ETU2	Did you use the E-ticketing system once you were aware of its existence?	YES	189	47.4%
		NO	210	52.6%
ETU3	Do you have the E-ticketing mobile application on your smart device?	YES	105	26.3%
		NO	294	73.7%
ETU4	Did encounter any risky or security related issue after using the system?	YES	28	7%
		NO	371	93.0%
ETU5	Does your attitude towards change affect your uptake or usage of E-Ticketing system?	YES	105	26.3%
		NO	294	73.7%
ETU6	Do you find the promotion system appealing enough for usage of E-Ticketing system?	YES	161	40.4%
		NO	238	59.6%
ETU7	Does your travel experience influence your usage of E-Ticketing system?	YES	238	59.6%
		NO	161	40.4%

Source: Survey results and own computation Representation:

According to the table above 46.6% of the respondents are using E-Ticketing system and 47.4% started using it regularly after they had the awareness. Only 26.3% of the respondents have the mobile app on their smart devices and 93% of the respondents claimed that they didn't encounter risk related issue after they started using it. 73.7% believed that attitude has an effect on usage of E-ticketing system. 59.6% of travelers felt that the promotion is appealing enough which leaves the rest of the 40.4% thinking the promotion was not good enough. Almost 60% of travelers approved that Travel experience has an effect on usage of the E-Ticketing system.

4.1.2.Regression results

The following sections discuss results of diagnostic test on Multicollinearity and logistic Regression Analysis.

4.1.2.1. Multicollinearity

Multicollinearity occurs when independent variables in a regression model are correlated. Multicollinearity represents the degree to which any variable‘s effect can be predicted or accounted for by the other variables in the analysis.

Correlations

		RA	PU	PEOU	PBC	PT	AW	PR	Do You Use
RA	Pearson Correlation	1							
PU	Pearson Correlation	.013	1						
PEOU	Pearson Correlation	.350**	-.073	1					
PBC	Pearson Correlation	.013	1.000**	-.073	1				
PT	Pearson Correlation	.162**	.059	.007	.059	1			
AW	Pearson Correlation	-.080	.084	.288**	.084	-.094	1		
PR	Pearson Correlation	-.569**	.040	-.412**	.040	.167**	.002	1	
Do You Use E-Ticketing	Pearson Correlation	.259**	.075	.343**	.075	.123*	.291**	-.270**	1

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

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

Table 4.12 Correlation Matrix

The Pearson Correlation Matrix was used to inspect the correlation between the independent variables. The result (Table 4.14) shows that the correlations are all below 0.80 except for PBC & PU that show a high correlation of 1.00 which is greater than 0.8 indicating a multicollinearity in the regression model. Logistic regression does not accept multicollinearity as the high interrelationship of the independent variables can cause the inflation of the standard error of the logit coefficients (Garson, 2010). These means if two independent variables are

correlated then it is difficult to keep the other independent variable constant when one independent variable changes. Therefore PBC will be omitted through the rest of the analysis due to multicollinearity.

4.1.2.2. Logistic Regression Analysis

Table 4.13 Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	444.410[a]	.235	.314

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

R square refers to the percentage of variance in the dependent variables that the independent variables explain. The value of R square shows the percentage of the response variable between the value of 0 and 100%. According to cohen (1992) R-square value .12 or below indicate low, between .13 to .25 values indicate medium, .26 or above values indicate high effect sizes. Therefore, the explained variation in the dependent variable based on the model ranges from 23% to 31%. Since Nagelkerke R Square is a modification of Cox & Snell, it is preferable to report Nagelkerke R2 value equals 31% which means that 31% of the changeability of in usage of E-Ticketing has been explained by the independent variables taken together

Table 4.14: **Logistic Regression Results**

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1[a]	RA	.429	.198	4.718	1	.030	1.536	1.043	2.262
	PU	.128	.101	1.616	1	.204	1.137	.933	1.386
	PEOU	.559	.160	12.210	1	.000	1.748	1.278	2.391
	PT	.841	.244	11.924	1	.001	2.319	1.439	3.738
	AW	2.493	.493	25.566	1	.000	12.102	4.604	31.814
	PR	-.444	.154	8.362	1	.004	.641	.475	.867
	Constant	-6.944	1.275	29.644	1	.000	.001		

a. Variable(s) entered on step 1: RA, PU, PEOU, PT, AW, PR.

Scale: 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree

As table 4.15 Shows that Relative Advantage was found to have statistically significant and positive relation with E-Ticketing usage. Holding other explanatory variables constant, perceived usefulness in this study has emerged to have statistically insignificant influence on customers usage of E-ticketing as its value of significance is greater than 0.05. Perceived Ease of use & Awareness also are found to have a high positive significant relationship while a negative significant relationship between perceived risk and E-Ticketing adoption was created.

4.1.2.3. Discussions of regression results

Section 4.2 presented mainly the outputs of factors affecting E-Ticketing adoption in Ethiopian airlines. Accordingly, the following sub sections discuss the results of the research hypotheses presented in chapter three.

The selected seven factors affecting E-Ticketing Adoption for EAL are Relative Advantage, Perceived usefulness, Perceived ease of use, Perceived Trust, Perceived Behavioral Control, Perceived risk and awareness. Therefore, based on the regression result table above

4.1.3.Relative advantage and E-Ticketing adoption

In this study, Relative Advantage was measured using four indicators of : Better advantage in convenience, Time consumption, expense and less effort. As shown on the results section of Table 4.15 Relative advantage has a positive significant relationship with usage of E-ticketing for EAL.

H0: There is no relationship between Relative Advantage and passengers usage of E-Ticketing method in EAL.

H1: There is a positive relationship between Relative Advantage and passengers usage of E-Ticketing method in EAL.

Reject H0 if $p<0.05$

From table 4.15 The significant value for RA is 0.03 (i.e. $p<0.05$). Therefore, reject H0 which indicates that there is a positive significant relationship between RA and E-Ticketing adoption in EAL.

4.1.4.Perceived usefulness and E-Ticketing adoption

In this study Perceived usefulness was measured by using three indicators. These were accessibility, reduction of visiting ticket office and overall usefulness but this finding shows that for E-Ticketing to be adopted by passengers of EAL, even though it has insignificant relationship it should be perceived as a useful and accessible way of purchasing flight ticket compared with the traditional manual system. It means that respondents believe purchasing airline tickets online provides effectiveness, better performance and productivity (Davis 1989) which are equivalent to Perceived usefulness of TAM (Triandis 1980). Therefore the possible reason for the insignificant positive relationship could help passengers of EAL to choose to adopt online flight ticket services to obtain the benefit and also the convenience of accessibility anytime and anywhere (24hrs/7 days a week).

H0: There is no relationship between Perceived Usefulness and passengers usage of E-Ticketing method in EAL.

H2: There is a positive relationship between Perceived Usefulness and passengers usage of E-Ticketing method in EAL.

Reject H0 if $p<0.05$

From table 4.15 The significant value for PU is 0.204 (i.e. $p>0.05$). Therefore, accept H0 which indicates a value greater than 0.05 and that there is a positive but statistically insignificant relationship between PU and E-Ticketing adoption in EAL.

It means that respondent believe that

purchasing airlines ticket online provides effectiveness, better performance, and productivity (Davis, 1989), which

are equivalent to perceived usefulness of TAM (Triandis, 1980).

It means that respondent believe that

purchasing airlines ticket online provides effectiveness, better performance, and productivity (Davis, 1989), which

are equivalent to perceived usefulness of TAM (Triandis, 1980).

4.1.5.Perceived Ease of Use and E-Ticketing adoption

In this study, Perceived Ease of Use was measured using three indicators: i.e. Simplicity, User Friendliness & booking procedures of the system. As shown in the results section of table 4.15 Perceived ease of use on E-Ticketing usage for EAL was found to have a positive and statistically significant relationship. This finding is consistent with (Davis 1989) that stated, 'internal belief ties to respondents' assessment of the mental effort in using of company website.'

H0: There is no relationship between Perceived Ease of Use and passengers use of E-Ticketing method in EAL.

H3: There is a positive relationship between Perceived Ease of Use and use of E-Ticketing method in EAL.

Reject H0 if $p<0.05$

From table 4.15 The significant value for PEOU is 0.000 (i.e. $p<0.05$). Therefore, reject H0 which indicates that there is a positive HIGH significant relationship between PEOU and E-Ticketing adoption in EAL.

That respondent believes that purchasing airlines ticket online provides effectiveness, better performance, and productivity (Davis, 1989), which are equivalent to perceived usefulness of TAM (Triandis, 1980)

4.1.6.Perceived Trust and E-Ticketing adoption

In this study, Perceived Trust was measured using three manifest variables: Trusting the technology provided by the airline, privacy and proper ticket purchase. This was found to have a positive significant relationship which was consistent with the findings of Mita Kumar (2006) was found trust to have significance on indicating the importance of trust in forming the attitude and intention of passengers to use E-Tickets. McKnight, Choudhury, and Kacmar (2002) mentioned trust beliefs are inclusive of online customers' beliefs and expectations on trust

characteristics of the online retailer. Online customers expect the online retailer in willing to act in according to customers' interest with honesty and capability to deliver products or services as promised. Other literature on trust, such as Quelch and Klein (1996) mentioned that trust is a critical factor in stimulating purchases on the Internet. This suggested that passengers will not use a system unless they are assured of the security of the system in the online transaction process and trustworthiness of the tickets issued. It was suggested that there should be some kind of guarantee for such issues so that customers feel confident about security of the system to trust the online ticketing system to replace the traditional way of buying tickets.

H0: There is no relationship between Perceived Trust and passengers usage of E-Ticketing method in EAL.

H5: There is a positive relationship between Perceived Trust and passengers usage of E-Ticketing method in EAL.

Reject H0 if $p<0.05$

From table 4.15 the significant value for PT is 0.001 (i.e. $p<0.05$). Therefore, reject H0 which indicates that there is a positive significant relationship between PT and E-Ticketing adoption in EAL

4.1.7.Awareness and E-Ticketing adoption

In this study, Awareness was measured using three indicators: knowledge about the existence of the method by EAL, discounts on E-Tickets and availability of E-Payment methods. According to the finding it was found that as awareness increased there was also an increase in adoption of E-Ticketing method. This result was found to be consistent with David Gefen (2000) who studied that trust and familiarity have strong relationship on online customers' intention to purchase or use the system.

H0: There is no relationship between Awareness and passengers usage of E-Ticketing method in EAL.

H6: There is a positive relationship between awareness and passenger's usage of E-Ticketing method in EAL.

Reject H0 if $p<0.05$

From table 4.15 the significant value for Awareness is 0.000 (i.e. $p<0.05$). Therefore, reject H0 which indicates that there is a positive HIGH significant relationship between Awareness and E-Ticketing adoption in EAL

4.1.8. Perceived Risk and usage of E-Ticketing

In this study, Perceived Risk was measured using three indicators of: making transaction mistakes, loss of money and non- refund for any errors. According to the results, PAX of Ethiopian Airlines, believe that it is not safe to use E-Ticketing in which they don't want to take risk. This finding shows that the lower the perceived risks of E-Ticketing the more likely an individual would be prepared to become active users of E-Ticketing. Therefore, Perceived Risk negatively influences consumer behavior with regard to usage of E-Ticketing.

H0: There is no relationship between Perceived Risk and passengers usage of E-Ticketing method in EAL.

H7: There is a negative relationship between Perceived Risk and passengers usage of E-Ticketing method in EAL.

Reject H0 if $p<0.05$

From table 4.15 The significant value for PR is 0.04 ($p<0.05$). Therefore, reject H0 which indicates that there is a significant relationship between PR and E-Ticketing adoption in EAL.This finding is supported by the findings of Bigné, et al. (2010), who has claimed that perceived risk has a negative impact on the consumers attitude towards airlines tickets online shopping because of non-shoppers‟ concerns about the embezzlement and fraud problems. Moreover, Samadi and Yaghoob-Nejadi (2009) indicated that there have a few of the researchers have successfully proved that purchase intention is negatively associated with perceived risk when online purchase. This finding was also found to be consistent with Lawrence F, James H. Gerlach, Michael D Harper, Clifford E.Young.(2005) with the finding which stated that there is a risk premium for internet airline reservation services and the risk premium permeates all stages of the consumer buying process. It is further demonstrated that the internet risk premium does affect usage levels; implying that the internet risk premium is

consequential and warrants the implementation of risk mitigation strategies and if perceived risk increases the intention will decrease and so forth. (Juniwati 2014)

To summarize, this chapter discussed the survey analysis results and then presented the discussions of these results using the appropriate method.

Accordingly, the chapter presents the results of the hypotheses of the independent variables tested on the dependent variable usage of E-Ticketing. Empirical results provide detailed discussions on sample descriptive statistics between Usage of Electronic Ticketing and independent variables (Relative Advantage, Perceived Usefulness, Perceived Ease of Use, Perceived Trust, Awareness & Perceived Risk) followed by correlation analysis to determine the correlation between independent variables. Logistic regression analysis was also used to describe the perceived determinants of using E-Ticket.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATIONS

The purpose of this study is to identify the factors that affect the use of E-ticketing in EAL. This chapter, based on the findings of the study stated on the previous chapter, presents the major conclusions, recommendations and future research of the study

5.1. Conclusion

This study was able to conceptualize how Relative Advantage, Perceived Usefulness, Perceived Ease of Use, Perceived Trust, Awareness & Perceived Risk affect E-Ticketing adoption. In this study a five (5) Likert Scale was used to measure all the variables. Conclusions drawn on the factors that affect usage of E-Ticketing are:

- **Relative advantage:** Was found to have a positive significant effect on customer's usage of E-Ticketing. The study implies that users perceive E-Ticketing as having a significant relative advantage over the traditional system of visiting ticket offices for easy access of finding out flight status , schedule , fare and easier ticket purchase which provides greater control and flexibility of managing the a trip.

- **Perceived usefulness:** Was found to have a positive and yet insignificant influence on usage of E-Ticketing which indicates that even though the sample believes that using E-Ticketing system would enhance their job performance (Flight ticket purchase) but it is not significant enough to make a traveler change their habits of going to the ticket office.

- **Perceived Ease of Use:** Was found to have a positive significant effect on customer's usage of E-Ticketing. The study implies that the higher users perceive E-Ticketing as an easier way to check their flight status, Book, Purchase & Check-in the higher they would adopt the E-Ticketing system.

- **Perceived Trust**: Was found to have a positive relationship with adoption of E-Ticketing. Therefore, the study implies the higher the level of trust by passengers over the system then the higher usage and vice versa.

- **Awareness:** Was found to have a positive effect on usage of E-Ticketing in EAL. Therefore, it can be concluded that if travelers are aware of the system then it has a positive effect on usage of E-Ticketing.

- **Perceived Risk:** Was found to have a negative significant influence on E-Ticketing adoption. This implies that users perceived higher risks in purchasing flight ticket or loss of their money and the consequences for loss of tickets. Therefore, it can be concluded that perceived risk would hinder the adoption of E-Ticketing.

5.2. Recommendations

Based on the above findings, the following suggestions to improve customer's adoption of E-Ticketing are put forward for EAL either in Ethiopia or all over the world.

5.3. Recommendation for Action

- Even though EAL is well known for its continuous promotional culture, E- Ticketing for travelers can be better promoted through Ticket Agents at the ticket office, Station Agents at the terminal & flight attendants on board. It should also be something that people see and hear about everyday. EAL should post advertisement on the airlines' vehicles, In flight entertainments, Bill boards, social & mass media. This will help to create not only awareness but also something that will tempt passengers to download the mobile app on their phones or smart devices to reduce the number of travelers who purchase their tickets using other websites.

- EAL should work on innovative technology to minimize perceived risk. In the list of the E-Ticketing services provided by the E-Ticketing system, 'Purchase' is the least used due to the negative significance of the Risk. EAL should be able to build confidence of PAX in using the system. Things such as how the system works easily and refund policies need to be made very clear. It is important to project a high trust level that give passengers the acquaintance on how their privacy is kept confidential and make PAX believe about having valid tickets.

- Higher level of user-friendliness needs to be met by the E-Ticketing system (website & app) as it is important for decision of buying tickets online. Therefore, 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.

- As it has been found most of the non users are PAX with lower level education , unemployed and older in age. EAL should focus on the non- users of the system.

- Since access to smart device is very important for adoption of E-Ticketing, considering the accessibility of such devices in different countries. The airline should provide a means through which passengers can book their tickets online eventhough there is limited access to internet, smart device and payment systems in their country.

1.1.1. **Recommendation for future Research**

This study may not have exhausted all the factors that affect E-Ticketing adoption It is therefore recommended that:

- Further research can be applied to unveil the other factors.
- Further research could also be done to evaluate how E-Ticketing contributes to the newly paperless movement of EAL that has been commenced recently on 2017.
- Further research could be done to assess the impact of E-Ticketing for the competitiveness of Ethiopian Airlines in the big aviation market and also how it can be used for profitability purposes , considering the objective of taking ticket offices out of the market.

This will help the airline to determine whether it is on the right track of utilizing technological innovation to reach the level of other airlines that have a limited number of ticket offices.

APPENDIX

Addis Ababa University, College of Commerce, & Economics, School of Commerce, MA in Project Management

October 25th ,2018

Dear Sir/Madam

I am a graduate student in Project Management at Addis Ababa University, School of Commerce. I am undertaking a research project on "Factors Affecting the Use of online Flight Booking in Ethiopian Airlines" for the partial fulfillment of the requirements of the degree of Master of Art in Project Management. The purpose of the study is to identify the factors that are responsible for the slow adoption of E-Ticketing in Ethiopian Airlines and the results of the study will have a paramount importance to the travelers, the airline, shareholders and the country in general. To this end, this questionnaire is prepared to gather pertinent information.

The survey will take about 5-10minutes of your time. I sincerely assure you that the information you provide will be used only for academic purposes. Only processed collective results will be presented in my report. Your involvement is regarded as a great input to the quality of the research results. Your honest and thoughtful response is invaluable.

NOTE: Your assistance to this research is strictly voluntary. You do not have to answer any question you wish not to, and the questionnaire is prepared in Amharic and French for your ease of use.

Best Regards,

Rodda Temesgen

Graduate Student, School of Commerce Addis Ababa University

A. Questionnaire for Passengers

SECTION I: DEMOGRAPHIC PROFILE OF RESPONDENTS

Please indicate the following by ticking (√) on the spaces in front of the response options

1. Gender:

Male

Female

2. Age:

Less than 25

26-35

36-45

46-55

Above 55

3. Residence

1 Ethiopia

2. Abroad

4. Occupational Status

Student

Employed

Self – employed

Unemployed

Others Please specify

5. Educational level:

High school Complete

Diploma

University Degree and above

Other Certificates

None

6. **Travel Experience:**

First time traveler
2- 5 times
Frequent traveler
Only domestic flights

SECTION II: E-TICKETIG SERVICES

1. On a scale of 1 to 5 please state how often you use the following services on average in a month, by ticking the appropriate box, where 1- Never, 2 - Rarely, 3 – Sometimes, 4 - Often, 5 – Always.

	Never	Rarely	Sometimes	often	Always
Booking					
Purchase					
Check in					
Rebook and check flight status with fare					

SECTION III: FACTORS AFFECTING E-TICKETING SYSTEM ADOPTION FOR EAL.

A) **<u>Questions related to awareness</u>**

7. **Are you aware that EAL offers E-Ticketing system?**

Yes

No

8. **Did you know that E-ticketing system of EAL offers 10% discount on all flights?**

Yes

No

9. Are you aware EAL uses six E-payment methods for E-ticket purchase?

Yes

No

10. How did you first hear about E-Ticketing system of EAL?

Mass -Media
Social -Media
Ticket Agent
On board Advertisement
Word of mouth
Never heard of it

B) **<u>Questions related to Perceived Behavioral Control</u>**

1. I have the smart devices required to buy E-tickets.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. I have the internet access required to purchase E-Tickets.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. I have the knowledge and ability necessary to purchase E-Tickets.

Strongly Agree Agree Neutral Disagree Strongly Disagree

C) **Questions Related to Perceived ease of use**

1. **The E-Ticketing system requires simple process to purchase a ticket.**

Strongly Agree Agree Neutral=3 Disagree = 4 Strongly Disagree=5

2. **I can learn how to use the E-Ticketing System easily. (It is user friendly)**

Strongly Agree Agree Neutral=3 Disagree = 4 Strongly Disagree=5

3. **It provides guidelines and steps on how to use the system.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

D) **Questions related to Perceived Usefulness:**

1. **I find the E-ticketing system to be useful for my flight ticket purchase needs.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. **E-Ticketing system reduces the number of times I have to visit the ticket office**

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. **There's no time limit to purchase ticket and check my flight status while using the E-Ticket system.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

E) **Questions related to Trust:**

1. **I believe making payments on the internet Is secure.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. **I can trust the E-Ticketing system of EAL to safeguard my privacy.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. **I can trust the online ticketing system to ensure my ticket is properly purchased**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F) **Questions related to Relative Advantage**

1. **I believe the E-ticketing system is more convenient and easily accessible than the manual system**.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. **I believe the E- ticketing system is faster and saves time better than the manual system.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. **I believe the E- ticketing system is cheaper than the manual system.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. **I believe the E-ticketing system saves the effort required for purchase per ticket than the old system**.

Strongly Agree Agree Neutral Disagree Strongly Disagree

G) **Questions related to Perceived Risk**

1. **I believe it is risky to buy the ticket online because I am afraid that my ticket may not be correct.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. **E -ticketing is unreliable because I have concerns that my personal account detail would be leaked during online transaction.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. **I have concerns that I will lose my money, if I lose the transaction or ticket number.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. **I am afraid I will not get a refund, if I make a transaction mistake,**

Strongly Agree Agree Neutral Disagree Strongly Disagree

SECTION IV QUESTIONS RELATED TO E-TICKETING ADOPTION

Please answer the following by ticking the appropriate option:

1. **Do you use the E-ticketing system?**

YES

NO

2. **Did you use the E-ticketing system once you were aware of its existence?**

   YES

   NO

3. **Do you have the E-ticketing software application on your smart device?**

   YES

   NO

4. **Did you encounter any risky or security related issue after using the system?**

   YES

   NO

5. **Does your attitude towards change affect your uptake or usage of E-Ticketing system?**

   YES

   NO

6. **Do you find the promotion system appealing enough for usage of E-Ticketing system?**

   YES

   NO

7. **Does your travel experience influence your usage of E-Ticketing system?**

   YES

   NO

Any other suggestions_____

_____

_____

_____

_____

_____

_____

_____

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_____

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Thank you for your cooperation!

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