ADDIS ABABA UNIVERSITY POST GRADUATE STUDIES
SCHOOL OF BUSINESS AND ECONOMICS
DEPARTMENT OF MANAGEMENT

KEY FACTORS THAT DETERMINE RETURN ON LOYALTY

EVIDENCE FROM ETHIOPIAN AIRLINES LOYAL CUSTOMER BASE

A RESEARCH PROJECT PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR EXECUTIVE MASTER OF BUSINESS ADMINISTRATION (MBA) DEGREE

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MAY 2015
ADDIS ABABA

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DECLARATION

I, the undersigned, declare that this study is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

Declared by:

Name_____

Sign_____

Date_____

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Acknowledgements

I sincerely appreciate my advisor Zewdie Shebire (Dr.) for the unreserved and vital advice without which it would have been difficult, if not impossible, to succeed.

I extend my deepest thanks to all officials of Ethiopian Airlines who have provided data and information mandatory to complete this project especially to the Loyalty Program team leaders: Helina Workalemahu, Yilma Goshu and Fikre Degefie.

My special thanks go to my colleagues for the moral support, especially to my immediate supervisor Busera Awel (Mr.).

It is also my pleasure to express my deepest gratitude for my wife, three children, and family members who have supported me throughout the project on all matters.

Finally, I would like to thank the almighty GOD who made everything possible right from the start up to the end.

ACRONYMS

CRM	Customer Relationship Management
FFP	Frequent Flyer Program
HS	HUB and Spoke System
MRO	Maintenance, Repair and Operations
FQ_FLTS	Frequency of Flights

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ABSTRACT

Full service airlines have frequent flyer programs. They carryout targeted marketing campaigns and provide economic rewards to their registered frequent flyers to induce loyalty towards their brand. Airlines measure returns on their campaigns but do not measure the extent to which their repeated effort has induced loyalty on the customers. The purpose of this research study is therefore to investigate the key factors that determine return on loyalty in the case of Ethiopian Airlines and to determine the degree to which customers have become loyal to the airline. Eleven key factors - safety, punctuality, aircraft, frequency of flights, schedule, frequent flyer program, Alliance, ticket price, airline reputation, in-flight food and drinks, and in-flight staff service were selected as predictive variables that drive loyalty to an airline. Three Loyalty factors (1) loyal customers' satisfaction, (2) loyal customer's intention to repurchase from the same airline, and (3) loyal customers' intentions to recommend the airline to others were used to measure the degree of loyalty of a customer. A total of 2,638 frequent (loyal) customers of Ethiopian Airlines residing in Ethiopia; having made more than one international air travel in the year 2014 were surveyed. 379 usable questionnaires were obtained from the respondents. The respondent's data from the survey and data from the airline frequent flyer database was used in a model to test the degree of loyalty of frequent customer towards Ethiopian Airlines. Statistical regression analysis and two population test were used to reveal the return on the loyalty. The findings of the study show that 56% of the frequent flyers chose Ethiopian Airlines on all their travel indicating 100% loyalty. This implies that airlines can measure the degree of loyalty of their frequent flyers which are the ultimate return on loyalty from a customer.

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Passenger Loyalty is fundamental to any full service airline aiming to strengthen stable market share and competitive position in any market (Sara Dolnicar, 2011). The introduction of low cost airlines following the 1978 deregulation of the airline industry in the USA and the 1990's for Europe has brought about a change in the airline business model. The types of players have increased from just national airlines (full service model) that have enjoyed protection (Meyer/Oster/Morgan/Berman/Strassmann, 1981) from all aspects of industry rivalry to the introduction of low cost carriers and charter airlines (Cento, 2009).

The driving forces of the airline industry have fashioned itself in to competitive environment between and amongst the business models amidst a constantly falling airfare for the services rendered. Full Service Airlines cope with the new market condition aiming for higher cost efficiency, reducing the impact of rise in fuel price, implementing network strategy that confer revenue advantages, Pricing and yield management reducing the risk of perishable seats, building customer retention through their Customer Relationship Management (CRM) programs, and accessing new destinations through airline alliances. The low-cost carriers on the other hand continue to drain market share from full service carrier markets and charter carriers offering very low fares for scheduled services arising out of the lower cost advantage as a result of their business model (Cento, 2009).

This change was the driving force for recognizing the importance of customers and the need to earn their continued support and patronage (Uncles, April 2002). Frequent Flyer Program (FFP), one of the most popular Loyalty programs scheme among airlines was introduced in 1979. The program offered delayed economic benefit to loyal customers with repeat purchase behavior through membership to the program. The scheme was very quickly adopted by all rival industry players with me-too effect (Uncles, April 2002) integrating it into their Customer Relationship Management.

Today almost all airlines operate their own Frequent Flyer program (FFP) or are partners in another carrier program (Shaw, 2007). These programs (FFP) are aimed at increasing the loyalty of customers through marketing induced campaigns and rewards (Dough Grisaffe, 2001 and Uncles 2002 and Sara Dolnicar, 2011). These loyal customers happily support the Airlines whose Frequent Flyer Program they currently support. However, what is uncertain is the extent to which loyal customer actually change their

behavior and accept less convenient option in terms of flight frequency, flight timings and departures in order to stay loyal to the airline they support (Shaw, 2007).

The objective of loyalty is explained by the attitudinal commitment of customers towards single brand loyalty (Dough Grisaffe, 2001) (Valchos & Lin, 2014) (M.Mellens, 1996) which is reinforced by the behavioral demonstration of purchase and repurchase of products from the same brand. This is the ultimate return on customer loyalty for an airline. However, empirical evidence from variety of industries shows that customers are polygamous. They are loyal to a portfolio of brands in a product category and few customers are monogamous (100% loyal).

This problem triggered the researcher to undertake a case study on Ethiopian Airline case to assess the degree to which loyalty programs have built loyalty of these customers towards the airline. The researcher was the project manager for the implementation of Frequent Flyer Program for Ethiopian Airlines in 1999 G.C, subsequently serving as head of the Loyalty Program unit until 2003 G.C and returning back as head of the program between 2010 and 2011 G.C for two years. He has witnessed membership growth from mere 2,000 at the start of the program to over a million in 2015 G.C. Accordingly, the budgets for the program have also grown from Birr 50,000 to Birr 250 Million.

1.2 STATEMENT OF THE PROBLEM

Airlines, especially full service airlines, have frequent flyer programs. The frequent flyer programs have registered members which are regarded as potential registered loyal customers to the airline. Airlines carryout targeted marketing campaigns and provide economic rewards to registered loyal members to induce loyalty to their brand. Airlines measure the response to the campaigns based on the amount or number of actions the loyal customer has taken in the direction of the campaign using various electronic tools. However, airlines do not measure the degree of attitudinal commitment loyal customers have towards the brand with demonstrated purchase behavior.

In response to this problem, this study proposes to focuses on investigating the degree (return) to which customers participating in loyalty programs have loyalty towards the airline to whose loyalty program they currently support. It also focuses on identifying the key factors that contribute to customer's loyalty for full service carrier (airline) loyalty program.

1.3 Research Question

The research question, therefore, is focused on identifying the key measurement factors that determine customer's loyalty, the degree to which loyal customers are affected by the key factor and determining the degree of loyalty for customers participating in the customer loyalty program of Ethiopian Airlines.

1.4 Objective of the Study

1.4.1 General Objective of the Study

The focus of the study is on determining the degree to which loyal customers registered in the database are affected by the key factors.

1.4.2 Specific Objective of the Study

- To identify key factors that determines loyalty in Ethiopian Airlines case.
- To measure the relationship between these key factors and customers loyalty.

1.5 Significance of the Study

The study contributes to a better understanding of the loyal customers that airlines invest to attract and retain as highly profitable travelers. It formulates a model whereby full service airlines, including Ethiopian Airlines, can use to measure loyalty for registered loyal customers. According to the researcher review of study and research in this area, he did not come across a study that has investigated registered loyal customers of an airline. Thus, this may be the first time that such research is made on active and registered loyal customers of an airline.

1.6 Scope of the Study

The research is designed to have sample taken from the active registered loyal customer's database of Ethiopian Airlines. The research has focused on customers residing in Ethiopia and having travelled at least two times in the year 2014 G.C. The scope of the study focuses on loyal customers of whose choice of airline is Ethiopian Airlines and degree to which their loyalty is affected by key factors of loyalty.

1.7 Limitation of the Study

The survey was conducted online and in the English language for a cross section of time (22 days). Sufficient sample data was obtained from the survey. Based on selected one to one engagement of the respondents, the researcher has noted that more response could have been obtained given that more

language choices were availed to the respondents since the selected respondents were from various nations.

The focus of the study was on customers that are registered loyal customers (frequent flyers) of Ethiopian Airlines as loyal customers residing in Ethiopia. The study did not include customers that were frequent flyers of Ethiopian Airlines but were not registered loyal customers of the airline.

1.8 ORGANIZATION OF THE STUDY

The study is organized under five chapters. The first chapter is the introductory part which bears Background of the study, Statement of the problem, Research Questions, Objective of the study, Significance of the Study, Scope of the Study and Limitation of the Study. The second chapter deals with review of related literature and formulation of a model. The third chapter presents the research methodology part discussing the research design, sampling design, method of data collection, and source of data and method of data analysis. The fourth chapter deals with the data presentation of the respondents wherein the data gathered is analyzed and interpreted. Finally, the last chapter attempts to summarize the findings; conclude and recommend based on the findings.

CHAPTER TWO: LITERATURE REVIEW

2.1 THE DRIVING FORCES OF LOYALTY IN AIRLINES

The commercial airline business has had its growth in the 1940's during and after World War II. The infant industry needed protection from industry rivalry in in order to create growth. Thus, fifty two state members, nations, met at the Chicago, USA in 1944. They formed an agreement to regulate the airline business through capacity and frequency; airfares; freight levels and the application of traffic rights or "air traffic freedoms". The agreement is widely known as the Chicago Convention. The convention also established the International Civil Aviation Organization (ICAO) which is an inter-governmental agency responsible for the coordination of worldwide technical and operational standard. The national policies of each country provided a protection to the airline sector under these effective deterrents. Airlines that operated during this time were national carriers ("Flag Carriers") for each nation; as the four regulatory elements effectively reduced entry of new carriers by regulating air fare, frequency of service to one airport, and rights for each operating carrier (Meyer/Oster/Morgan/Berman/Strassmann, 1981).

The industry remained regulated between the 1944 and 1978. However, industry experts – in the USA, had mounting criticism on the model urging their government to deregulate the airline business. The proponents of deregulation strongly suggested that "There was strong sentiment that prices (fares) are higher than the unregulated market would have set" (page 24) (Fred C Allvine, Oct 4, 2007).

"In 1978, the United States domestic market started to be liberalized. Those changes led to entry of low-cost carriers, waves of mergers among the major carriers, rapid growth in the number of travelers, general decline of airfares, increased variability in fares across the market, and the emergence of Hub and Spoke Systems (HS systems)" (Cento, 2009). Europe, in 1990, deregulated the domestic market following the USA experience (Cento, 2009).

According to Cento 2009, the deregulation and new competitive interactions resulted in some adjustment of the player's own business model to that of the competitor. The three main sets of airline models were full service, low-cost and charter carriers. Each has a characteristics described in Table 1.

Table 1: Characteristics of airline business models

CHARACTERISTICS	***FULL SERVICE CARRIERS***	***LOW COST CARRIERS***	***CHARTER AIRLINE***
Core business	*Passenger, Cargo, Maintenance*	*Passenger*	*Passenger (holidaymakers)*
Network	*Hub and spoke (HS) network, which has its major objective of the full coverage of as many demand categories as possible through the optimization of connectivity at the hub.*	*Point to Point (PP) network is developed from one or few airports called base.*	*It operates flights outside of the normal schedules, by hiring arrangement with a particular customer.*
Airports	*Major airports are served*	*Secondary or tertiary airports are served*	*Frequently operate from airports, or dedicated terminals where there is no scheduled service*
Destinations	*Global Player: It covers Domestic, International and Intercontinental markets through short, medium and Long-haul flights from the hub.*	*It is only domestic and continental market.*	*Tourist Destination*
Fleet Mix	*More than one fleet depending on the short, medium and long haul flights requirement*	*Single aircraft fleet with same configuration of seats.*	*Aircraft fleet with 100 or less seat occupancy,*
Network Expansion	*Alliance development helps the network enlargement through interlining with partner carriers and become part of multi-HS systems.*	*Independent expansion*	*Independent expansion*
Product differentiation	*Vertical product differentiation is affected through in-flight, ground services and internet and travel rules to cover all possible market segments.*	*No frills service: the product is not differentiated by offering lounge at airports, choice of seats, inflight service*	*Not differentiated*
Customer relationship management (CRM)	*Loyalty program enable retain most frequent flyers. Frequent Flyer programs have become part of the product differentiation strategy.*	*No frequent flyer programs.*	*No frequent flyer*
Yield Management and pricing	*It is methodology whereby network revenue is maximized using pricing strategy combined with Yield management process*	*Prices (Fares) are point to points and with no restrictions.*	*Charter flights are sold as part of a package holiday in which price includes flights, accommodation and other services.*
Distribution	*Sales channels are divided in to two – Indirect and direct. The indirect uses intermediaries like travel agents or web agents. The direct once are call center, airline online website or sales offices.*	*Sales channels are direct on online website or telephone sales. Confirmation of purchase gets communicated through e-mail or on the website.*	*Tickets are not sold by the charter airline, but by a tour operator company that has chartered the flight.*
Distribution Systems	*The distribution systems are supported by external companies called Global Distribution*	*Website*	*None*

CHARACTERISTICS	*FULL SERVICE CARRIERS*	*LOW COST CARRIERS*	*CHARTER AIRLINE*
	systems (Amadeus, Travel Port, Sabre, Abacus, etc.)		

Source: Cento (2009)

The driving forces of the airline industry have fashioned itself in to competitive environment between and amongst the business models amidst a constantly falling airfare for the services rendered. Full Service Airlines cope with the new market condition aiming for higher cost efficiency, reducing the impact of rise in fuel price, implementing network strategy that confer revenue advantages, Pricing and yield management reducing the risk of perishable seats, building customer retention through their Customer Relationship Management (CRM) programs, and accessing new destinations through airline alliances. The low-cost carriers on the other hand continue to drain market share from full service carrier markets and charter carriers offering very low fares for scheduled services arising out of the lower cost advantage as a result of their business model (Cento, 2009).

The importance of Customer Relationship Management (CRM) was ever magnified among full service carriers. Relationships which are associated with customer loyalty and/or switching costs created barriers to competition for customer (Bolton & Tarasi, 2007), increased "Wallet Share" of airlines from the customer (Witelson, Shira Guil, 2010); increase customer satisfaction and loyalty; and willingness of the customer to recommend the airline to others.

Ethiopian Airlines being one of the largest and leading airlines of Africa and the globe, is state-owned full service airline engaged in transportation of passengers and cargo, operating out of its hub in Addis Ababa, serving over 81 destinations outside of Ethiopia and 20 destination within Ethiopia (Airlines, Vision and Mission, 2015). The airline has a vision which has the customer at its center of the strategy based on its Vision 2025.

> *"To become the most competitive and leading aviation group in Africa by providing safe, market driven and customer focused passenger and cargo transport, aviation training, flight catering, MRO and ground services by 2025." ((Airlines, Vision and Mission, 2015)*

The airline has its competitive landscape with full service airlines: Egypt Air, Emirates Airlines, Gulf Air, Kenya Airways, Lufthansa Airlines, Qatar Airways and Saudi Arabian Airlines that have flights to Ethiopian Airlines Hub-Addis Ababa; and are hub and spoke operators themselves using their hub in

Cairo, Dubai, Bahrain, Nairobi, Frankfurt, Doha and Jeddah/Riyadh respectively offering convenient choice to destinations outside of Ethiopia for the customer base in Ethiopia. Similar to other airlines in the global market, these full service airlines also face challenges such as raise in fuel cost, falling yield (Airlines, Vision and Mission, 2015) and new entrants of low cost airlines. The major battle ground for full service airlines is to invest in their loyal customers by attracting and retaining highly profitable business traveler (Valchos & Lin, 2014).

2.2 CONCEPTUAL FRAMEWORK OF CUSTOMER LOYALTY

Companies are increasingly focused on managing customer relationships, the customer asset or customer equity. CRM principles and systems help organizations to focus on the dual creation of value: the creation of value for shareholders (via long-term firm profitability) and the creation of value or utility for customers. Customer relationship management explicitly recognizes the long-run value of potential and current customer, and seeks to increase revenue, profits and shareholder value through targeted marketing activities directed towards developing, maintaining, and enhancing successful company-customer relationship. The customer base is a market-based asset that is measured, managed and tracked over time. Customer relationships must be carefully managed and customer loyalty must be earned (Bolton & Tarasi, 2007).

Customer loyalty is defined (Oliver, 1997) as "A deeply held commitment to rebuy or patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing despite situational influences and marketing efforts having the potential to cause switching behavior"(p.392)

Customer Loyalty has been defined in a variety of ways. The different definitions of loyalty can be categorized as behavioral approach, the attitudinal approach, and the contingency (good science) (Dough Grisaffe, 2001).

2.2.1 BEHAVIORAL APPROACH

The behavioral approach of loyalty definition focuses on repeat purchase. The model is defined mainly with reference to pattern of past purchase with only regard to underlying consumer motivations or commitment to the brand. Empirical evidence from variety of industries shows that customers are polygamous. They are loyal to a portfolio of brands in a product category and few customers are monogamous (100% loyal). From this perspective, loyalty is defined as an ongoing propensity to buy the brand, usually as one of several (Uncles, April 2002).

These researches tend to adopt a market focus as opposed to an individual focus. The key performance measures are like brand shares, penetration, average purchase frequencies, repeat buying for a definite period. Loyalty to brand is the result of repeated satisfaction that in turn leads to weak commitment. The consumer repurchase the same brand again not because of any strong –held prior or deeply-held commitment, but because it is not worth the time and trouble to search for an alternate. The absence of the brand may cause the customer to substitute for another functionally similar brand from the portfolio. There is little effort to spend much effort weighing up alternatives when all are likely to be satisfactory (M.Mellens, 1996).

2.2.2 ATTITUDINAL APPROACH

The attitudinal approach focuses on strong attitudinal commitment to a brand for true loyalty to exist. The strength of these attitudes is the key predictor of a brand's purchase and repeat patronage. These attitudes are measured by asking how much people say they like the brand, feel committed to it, will recommend it to others and have positive feelings about it relative to competing brands (Uncles, April 2002).

Brand loyalty is a function of psychological (decision making evaluative) process. Brands are chosen according to an internal criteria resulting in a commitment towards the brand which is an essential element of brand loyalty. Consumers do not always seek information actively, but they do receive some information from certain sources that may be used to form certain beliefs about the brand. Based on these prior beliefs, brands are evaluated and some are preferred over others. In time, the consumer may develop a commitment towards a brand and become brand loyal. Hence, brand loyalty implies consistent repurchase of brand, resulting from positive affection of the consumer towards that brand (M.Mellens, 1996).

2.2.3 CONTINGENCY APPROACH

The contingency model approach argue that the best conceptualization of loyalty is to allow the relationship between attitude and behavior to be moderated by contingency variable such as individual current circumstances, their characteristics and/or the purchase situation faced (Uncles, April 2002).

Behavioral measures define the brand loyalty in terms of the actual purchase observed over a certain period time. The advantages of this approach is that measurements are based on actual purchases that are directly linked to performance and existence of the firm; second it is not likely incidental as they are usually based on behavior over a period of time; and thirdly it is relatively easier to collect that attitudinal

data. The most important limitation, however, is that it makes no distinction between brand loyalty and repeat buying. The measures are sensitive to short-run fluctuations and therefore are not good predictors of the future behavior. It is hard to select the right decision unit as no information is collected on the underlying reason for a particular behavior (M.Mellens, 1996).

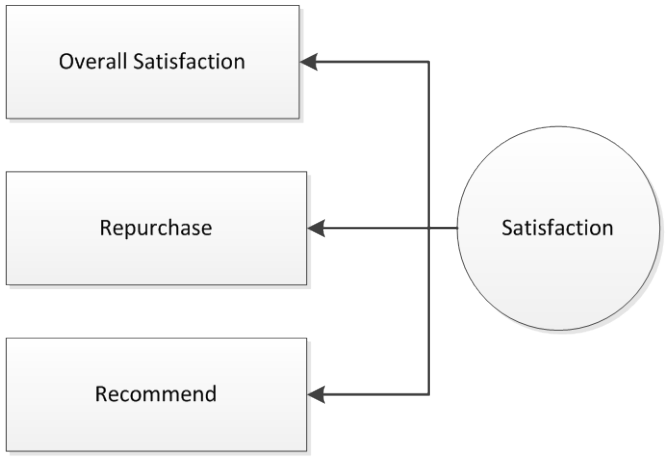
The attitudinal measures are able to distinguish brand loyalty from repeat buying. They are based on stated preferences, commitment or purchase intentions of the consumer thus emphasizing the cognitive element of brand loyalty. Using attitudinal measures, it may be easier to choose the right decision unit. They are usually based on surveys, and it may be possible to get data from the decision maker rather than the purchaser by asking questions to the right individual. Finally, they give insight into the motivations for the consumer's choice behavior, and these motivations are less likely to be influenced by random short-run fluctuations (M.Mellens, 1996).

However, attitudinal measures may not be an accurate representation of reality as they are not based on actual purchase. A consumer may rationalize his choice when questioned by the researcher, and make up an evaluation of brands even when no explicit evaluation is made in real shopping situation; moreover, other variables than attitudes are known to influence actual purchases. For example, a person may have favorable attitude towards Mercedes Benz Car but still not buy it due to budget constraints. Thus, the validity of attitudinal measures depends on the strength of the attitude-behavior relationship--(M.Mellens, 1996).

2.2.4 FORMATIVE MODEL AND REFLECTIVE MODEL

The formative and reflective models argued by Doug 2001 (Dough Grisaffe, 2001) citing two prominent marketing researchers presents an argument on measures of loyalty. One argument is that loyalty is a behavior and therefore overall satisfaction, intention to repurchase and intentions to recommend emanates from customer satisfaction. This model is called reflective model as shown in Figure 1 Reflective Model. The model shows all three measures with a single underlying latent construct- Customer Satisfaction.

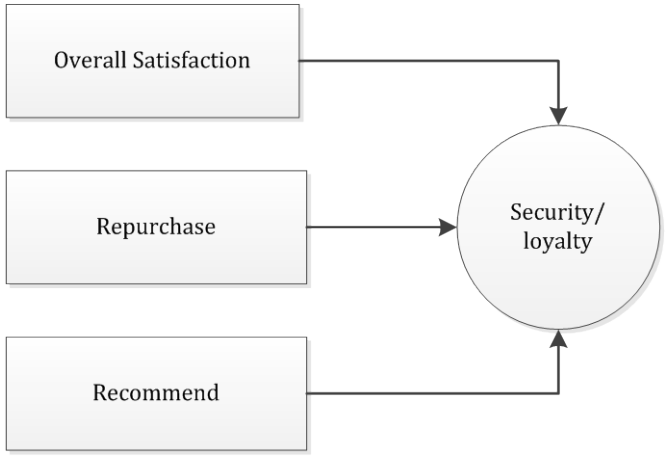
Figure 1 Reflective Model



Source: Dough Grissaffe (2001)

The second argument is that all three work together to capture loyalty. Through application of an algorithm, the pattern on the three items constitutes a degree of loyalty. This view implies a formative measurement model as shown in Figure 2 Formative Model where all three work to form an index (arrows point inward) capturing underlying latent construct: customer loyalty.

Figure 2 Formative Model



Source Dough Grissaffe (2001)

These two views are thoroughly discussed in the research with the researcher asking for more research in the area. However, the application of both arguments could be appropriate at different level of the customers' engagement with the brand. The reflective model may work well for customers who are in the introductory phase to the product. Satisfactory experience of the brand may cause them to continue

purchase and recommend. However, these same customers would progress towards the formative model with time and attitudinal commitment to the brand.

This case study recognizes the importance of both arguments in formulating the measurement for the degree of loyalty but follows the formative approach.

2.2.5 SATISFACTION AND LOYALTY

Customer satisfaction and loyalty are central constructs for consumer research as they are an indicator of the success of a firm in winning and retaining customers in a competitive market. Satisfaction is a direct antecedent to loyalty (Valchos & Lin, 2014).

Overall satisfaction is a function of partial satisfaction with core service elements (Ringle, Sarstedt, & Zimmermann, 2011) (Gupta, Lehmann, & Stuart, 2004).

Illias Vlachos et al 2014 had proposed airlines service attributes as airline service quality dimensions and selection criteria under different categorization frameworks having reviewed previous approaches: core-peripheral attributes, SERVQUAL model and Kano Modeling. The core-peripheral dimension model considers service as bundled of attributes which are classified as core (what is delivered) and peripheral (how it is delivered). The SERVQUAL model group key attributes of service into five dimensions i.e. reliability, assurance, tangibles, empathy and responsiveness. The Kano Model groups service attributes in to 'must-be', 'performance' and 'excitement factors'. Researchers have used both SERVQUAL method and Kano Models on airline study (Valchos & Lin, 2014).

Illias Vlachos et al 2014 have determined three airline service category having ten attributes in total. These are (a) operation factors: safety, punctuality, and aircraft), (b) competitive factors: frequency of flights, schedule, FFP, ticket price, reputation, (c) attractive factors: in-flight food and drinks, and in-flight staff service (Valchos & Lin, 2014). Alliance is considered as 11^{th} attribute in the category of competitive factors. It is a network expansion factor for full service airline (Cento, 2009). The addition will updates the list of attributes to make it contemporary and complete. The description of the attributes is indicated on table 2.

Table 2 Key airline service attributes

Category	*Attributes*	*Description*
Operational Factors ('Must be' attribute under Kano Model)	*Safety*	*Passenger perception of airline's safety record*
	Punctuality	*Passenger perception of on-time departure and arrival of flights*
	Aircraft	*Passenger perception on quality of aircraft. (new, large, modern, comfortable and safe)*
Competitive factors ('Performance' attributes under Kano Model)	*Frequency of flights (FFP)*	*Passenger perception of airline service frequency*
	Schedule	*Perceived convenience of flight schedule*
	Frequent flyer Program	*Perceived generousness of FFP Rewards and convenience of point accumulation and reward perception*
	Alliance	*Perceived satisfaction based on passenger's seamless access of destinations through airline Alliance.*
	Ticket price	*Passenger satisfaction with the fare of air travel charged by the airline*
	Reputation	*Passenger's general impression of the airlines as a whole*
Attractive factors ('Attractive attributes' under Kano Model'	*In-flight food and drinks*	*Passenger perceived quality of food and drinks*
	In-flight staff service	*Passenger perceived courtesy and responsiveness of flight attendants.*

Source: Vlachos & Lin (2014)

2.2.6 Behavioral Approach Measurements

While key airline attributes drive customer satisfaction and retention, the behavioral side of loyalty focuses on repeat purchase. In this approach 'the share of wallet' estimation demonstrates how wallet and share of wallet estimation is widely used in marketing and sales strategy. It calculates internal spending over wallet size to arrive at the share of wallet for specific Industry. The result is a flexible means for estimating the most realistically attainable Wallet of a customer and thereby calculating the customer's Share of Wallet (Witelson, Shira Guil, 2010).

Internal Spend is the dollar amount the customer spends on the company's products and services; e**xternal spend is t**he dollar amount the customer spends on other providers' products and services; and **Wallet t**he Total Spend (Internal and External) made by the customer with the company and other providers, so long as the company provides one of the services purchased.

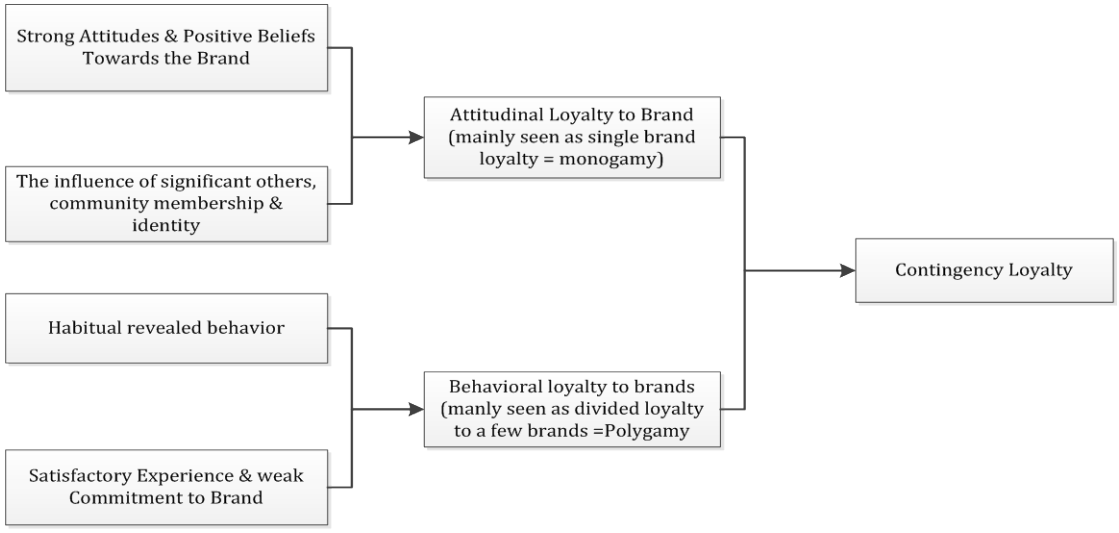
Formulas:
Wallet = Internal Spend + External Spend
Share of Wallet = Internal Spend / Wallet

The contingency side of the drivers of customer loyalty focuses on both the attitudinal and behavioral loyalty. The measures developed so far balance the behavioral aspect (customers which have actually experienced the product repeatedly) and the attitudinal side which measures customers' satisfaction on key airline attributes.

2.3 Model for Measuring Customer's Loyalty

The contingency approach proponents of brand loyalty propose a conceptual framework that balance the behavioral and attitudinal approach to loyalty as depicted in the model below (Figure 3 Conceptual Frame work of Loyalty).

Figure 3 Conceptual Frame work of Loyalty



Source: Uncles (2002)

The model proposes that the combination of satisfactory experience and habitual behavior, to continue repurchase from the same brand so long as it is convenient, form the behavioral loyalty to brand. This

brand loyalty however, depends on the continued availability of the brand to the customer. The customer can switch brand in the same product portfolio should the brand stop being available. The addition of strong attitudes and beliefs towards the brand will cause the customer to have an emotional attachment. This attachment will cause the customer to substitute habitual repurchase behavior by commitment to the brand and further enhancing the customers' commitment through recommending the brand to others. (Sara Dolnicar, 2011)

This case study proposes to measure loyalty based on the attitudinal and behavioral approach to loyalty under a formative model conceptual framework. The loyalty variables can be computed from a combination of customer satisfaction, repurchase intentions and recommending the brand to others. These measures depend on the performance of the brand, which can be measured with the use of key attributes that attracts the customer. These key attributes (identified earlier on *Table 2 Key airline service attributes*) serve as a predictive variable for determination of the degree to which loyalty of customers is affected by performance of the brand on key factors.

1. **Satisfactory Experience**: The key factors that measure satisfactory experience have been discussed under customer loyalty and customer satisfaction section. These key airline attributes will predict the overall perceived satisfaction of the loyal member with the airlines (Ringle, Sarstedt, & Zimmermann, 2011). Therefore, it can be hypothesized:

   H1 Loyal Customers Perception of airline Operational factors is positively related to their satisfactory experience

   H2 Loyal Customers satisfaction of airlines competitive factors is positively related to their satisfactory experience.

   H3 Loyal customer's perception of attractive factors is positively related to their satisfactory experience

2. **Behavior of Repurchase**: The second key measure in determining the degree of loyalty of a registered loyal customer to the airline is that loyal customers intention to repurchase (continue to use) the brand (M.Mellens, 1996). Therefore, it can be hypothesized:

   H4 Loyal Customers Perception of airline Operational factors is positively related to their intention to repurchase

H5 Loyal Customers satisfaction of airline competitive factors is positively related to their intention to repurchase.

H6 Loyal Customers perception of airline attractive factors is positively related to their intention to repurchase

3. **Attitudinal Commitment**: The third key measure in determining the degree of loyalty of a registered loyal customer to the airline is that loyal customers have the intention to recommend the brand to others (friends) (M.Mellens, 1996). Therefore, it can be hypothesized:

H7 Loyal customer's perception of airline operation is positively related to their intentions to recommend

H8 Loyal Customers satisfaction of airline competitive factors is positively related to their intention to recommend

H9 Loyal Customers perception of airline attractive factors is positively related to their intentions to recommend

4. **Loyalty**: The fourth key measure in determining the degree of loyalty is the progressive adaptation of loyalty balancing two approaches- attitudinal and behavioral loyalty. Registered loyal customers satisfactory experience of a brand is strengthened by the intention to repurchase and intentions to recommend the brand to others. The attitudinal commitment of a loyal customer in terms of satisfactory experience, having the intention to repurchase and intention to recommend to others have been discussed under customer loyalty and customer satisfaction section. These key airline attributes will predict the overall perceived satisfaction of the loyal member with the airlines. The attitudinal commitment loyalty of loyal customer is measured by customer experience, the intention of the customer to repurchase the brand and recommend the airline to others (Ringle, Sarstedt, & Zimmermann, 2011). Therefore, it can be hypothesized:

H10 Loyal customer's perception of airline operation is positively related to their airline loyalty

H11 Loyal Customers satisfaction of airline competitive factors is positively related to their airline loyalty

H12 Loyal Customers perception of airline attractive factors is positively related to their airline loyalty

5. **The degree of loyalty**: Based on the behavioral and attitudinal approach to brand loyalty, the return on customer loyalty for an airline can be measured by the extent of share of wallet obtained from the

customer, satisfaction from experiencing the service, the intention to repurchase and the intention to recommend the brand to others. Empirical evidence from variety of industries shows that customers are polygamous. They are loyal to a portfolio of brands in a product category and few customers are monogamous (100% loyal). From this perspective, loyalty is defined as an ongoing propensity to buy the brand, usually as one of several (Uncles, April 2002). We will formulate a hypothesis that will test this monogamous behavior on the loyal customer base of Ethiopian airlines.

The sample and target population of this research are known frequent customer of an airline measured over a period of one year. These frequent customers are known to the airline as loyal customers whose air travel history on the airline and its partners is tracked and recorded.

The customer has allocated full or partial share of his/hers wallet to employ the services of the airline among other possible alternative airlines. Here we would like to measure the share of wallet for Ethiopian Airlines among the list of airlines that have equal probability of being chosen at the time of each decision. The study will use the original data obtained from the airline showing the frequency of air travel for each customer prior to the survey and the data obtained through the survey on "How many times have you traveled by air in the last 12 months".

It will be used to determine the degree of loyalty of a registered loyal customers effecting air travel from the subject airline only by applying the share of wallet method. The hypothesis therefore,

H13 There is no significant difference between the average air travel reported by the airline and average air travel declared by the customers.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter of the study deals with the research design and methodology of the study. It includes the research design, target population, sample and sampling designs, data collection instruments, and methods of data analysis of the study.

3.1 RESEARCH DESIGN

Both Qualitative and Quantitative research methods were used in the study. Survey data was obtained through a questionnaire with one open ended question, level of measurement questionnaire and Likert scale questionnaire. The type of research is case study. The target population of the study comprises of the identified and registered loyal customers of Ethiopian Airlines on its loyalty program database that have traveled international flight by air at least once between January and December of 2014.

3.2 SAMPLING DESIGN

The loyalty registry of the airline segments loyal customers in to three strata based on the frequency of air travel completed by the customer with in one calendar year. This stratification is maintained in the study for sampling purpose as it signifies the degree of loyalty and economic reward for loyalty by the airline. .

- Strata 1 are those customers who have traveled more than 40 times with in one calendar year,
- Strata 2 are those customers who have traveled less than 40 and more than 20 in one calendar year, and
- Strata 3 are those customers who traveled less than 20 and more than 2 times per calendar year.

The total population of the study was the registered loyal customers that have traveled international flights by air in the year 2014 were 24,014 customers. The frame is a list of loyal customers with registered address in Ethiopia, that have travelled at least one time on international route in year 2014 G.C (from December 5, 2013 to December 4, 2014), that have the highest frequency of air travel, must have an e-mail address, and mobile phone number. The percentages of population that meet these requirements were 50.42% of the population.

Simple random sampling is used to identify and invite potential sample respondents from each Stratum for the online survey. Sample statistics – corresponding statistics of the sample, is computed to estimate

the value of a population parameter. The point estimates are close to the target population as in the case of Strata 1 and 2 while Strata 3 has wider gap (Table 3 summary of point estimates from potential respondent's sample). The variability in strata 3 is explained by the population proportion of sample size to population which has wider gap to fill in.

Table 3 summary of point estimates from potential respondent's sample

	Strata 1		*Strata 2*		*Strata 3*	
	Sample 1	*Population 1*	*Sample 2*	*Population 2*	*Sample 3*	*Population 3*
Number of Elements	*658*	*932*	*998*	*2,215*	*982*	*20,866*
Mean	*22.63*	*21.88*	*9.19*	*8.78*	*14.05*	*3.62*
Standard Deviation	*13.72*	*13.40*	*5.93*	*5.83*	*6.28*	*3.76*
Proportion	*1.00*	*0.71*	*1.00*	*0.45*	*1.00*	*0.05*

Source: Primary Data

The sample size, the expected number of respondents sufficient enough 0.05 margin of error, was determined by using planning value of an expected proportion of (ρ)of 50% with 95% confidence interval and 5% margin of error (E) using the following formula (Anderson, Sweeney, & Williams, 2011):

$$n = \left(\frac{Z_{\alpha/2}}{E}\right)^2 p\,q \qquad \text{and,} \qquad n_f = \frac{n}{\left[1+\left(n-\frac{1}{N}\right)\right]}$$

Where n = Sample size

n_f = final sample (Adjusted sample size)

N =Total population

P = 0.5, proportion

Q= 1-p=0.5

Z= the value of standard normal variation corresponding to 95% CI =1.96

$$n = \left(\frac{Z_{\alpha/2}}{E}\right)^2 p\,q = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 385 \qquad \text{and,} \qquad n_f = 379$$

Therefore, the sample size, for the study is 379 respondents.

3.3 METHODS OF DATA COLLECTION

The registered loyal customers profile of Ethiopian Airlines having full name, valid e-mail address, mobile telephone number, and number of international air travel for the year 2014 G.C were obtained from Ethiopian Airlines (Customer Loyalty Department, 2015). The data is a historical data that was

collected and stored by the airline, concurrent to transactions whereby the registered loyal customer purchased (air ticket) and consumed air travel.

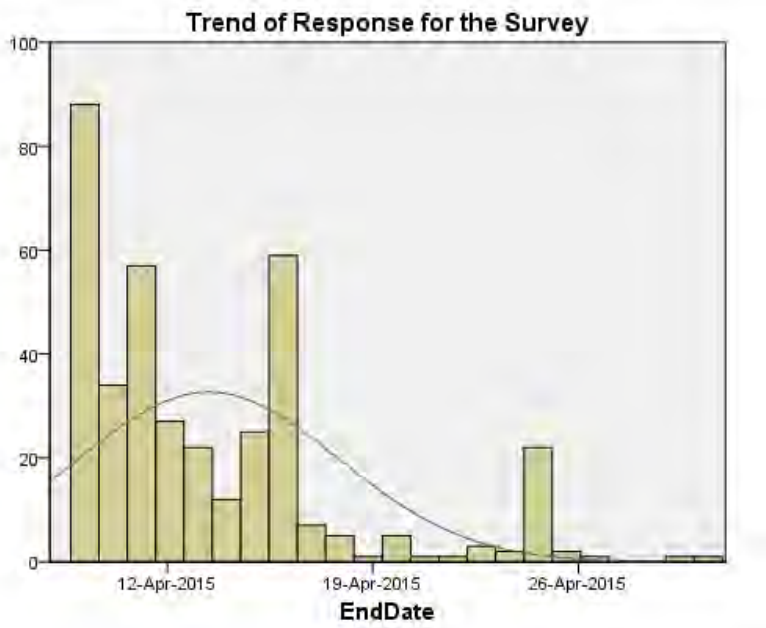
The e-mail addresses of the potential sample respondents were used to invite them to participate in an online survey. An online survey was prepared on a well-known web survey tool called "Survey Monkey". Survey questionnaires were developed adopting research from Illias Vlachos (Valchos & Lin, 2014) on the web. Pretest of the questionnaire was sent to 9 respondents. All nine responses were collected and tested for internal consistency of the scales used in the questionnaires. The Cranbach's alpha reliability for the response was .932. According to George and Mallery (2003) rule of thumb, the scales have excellent internal consistency (reliability) (George & Mallery, 2003). Having obtained positive results, invitations to participate in the research was sent to 658 customers in Strata one, 998 customer in Strata two and 982 customers in Strata three via a web-link to the customer. The survey was open for a period of 23 days to all potential sample respondents. Both the survey questions and responses are stored on the "Survey Monkey" for a year (March 2015-February 2016).

3.4 SOURCE OF DATA

The study used primary and secondary source of data. The first primary data was collected through online questionnaires in the form of one open ended questionnaire, five dichotomies questionnaire and fourteen Likert scale. Accordingly the questionnaires were sent to the respondents personal e-mail address which can be accessed from a desk-top computer and smart mobile phones via the internet. The data entered by the respondent is automatically captured on the web-survey tool. The number of respondents and the trend of response are shown on Table 4: Pattern of respondents.

Table 4: Pattern of respondents

Date	*Starta1*	*Strata2*	*Strata3*	*Total*
4/8/2015	*10*	*16*		*26*
4/9/2015	*24*	*51*	*8*	*83*
4/10/2015	*2*	*7*	*12*	*21*
4/11/2015	*22*	*23*	*27*	*72*
4/12/2015	*3*	*7*	*6*	*16*
4/13/2015	*2*	*6*	*10*	*18*
4/14/2015		*3*	*6*	*9*
4/15/2015	*12*	*31*	*31*	*74*
4/16/2015	*2*	*2*	*11*	*15*
4/17/2015	*2*	*1*		*3*
4/18/2015	*1*	*2*		*3*
4/19/2015		*2*	*1*	*3*
4/20/2015	*1*	*1*	*1*	*3*
4/21/2015	*1*			*1*
4/22/2015	*1*	*1*	*1*	*3*
4/23/2015	*1*	*1*		*2*
4/24/2015			*22*	*22*
4/25/2015			*2*	*2*
4/26/2015			*1*	*1*
4/27/2015			*1*	*1*
4/28/2015			*1*	*1*
4/29/2015	*0*			*0*
4/30/2015	*0*			*0*
Total	*84*	*154*	*141*	*379*



Source: Primary Data

Additional Primary data on individual customer profile and frequency of air travel were obtained from the airline record.

Secondary sources of data for the study included books, published journals, articles and relevant documents.

3.5 Method of Data Analysis

Methods of data analysis used for this study consists of descriptive statistics in terms of mean, percentage, tables, figures, charts and standard deviation with concerned interpretation and representation justification of the data.

In addition, Correlation is used to the determine relationship of key factors to loyalty variable, Linear Regression is used test degree of key factors effect on the loyalty variable and Two sample (paired sample t test) test model is used to check the degree to of loyalty.

The data was analyzed using SPSS, version 20.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 GENERAL

The questionnaire is developed for web-survey. It is organized in a manner where the flow of questions follows a logical sequence in terms of importance for the respondent. The opening question directs the respondent to the purpose of the answering questions on variables, while last questions focus on demographics which are regarded as additional information by respondents.

Accordingly and based on Kano Model the questions on the questionnaire are grouped in to demographic information, operational factors, competitive factors, attractive factors and loyalty factors.

A total of 379 usable questionnaires were received (Table 5: Response to the online questionnaire). The response was sufficient enough to meet the adjusted sample size of 379 (see section 3.2 Sample Design)

Table 5: Response to the online questionnaire

Strata	*Population*	*Potential Sample Respondents*	*Actual Respondents*	*Response Rate*
One	*932*	*658*	*84*	*98.82%*
Two	*2,215*	*998*	*154*	*99.36%*
Three	*20,866*	*982*	*141*	*99.30%*
Total	*24013*	*2,638*	*379*	*99.74%*

Source: Primary Data

4.2 DEMOGRAPHIC INFORMATION OF THE RESPONDENTS

The demographic questionnaire consists of four questions: (a) The Frequency of air travel in 2014, (b) the respondent's age group, (c) The respondent's gender, and (d) the respondent's educational level. The demographics of the sample are presented in Table 6 Demography of the respondents. Accordingly, the data and the researcher's interpretation are summarized as follows.

Table 6 Demography of the respondents

Demographics	*Range*	*Percentage*	*Cumulative*
Travel Frequency	*1-5*	*6.6%*	*6.6%*
	5-10	*27.9%*	*34.6%*
	10-15	*26.3%*	*60.9%*
	16-20	*18.6%*	*79.5%*
	21-25	*8.5%*	*88.0%*
	26-30	*4.5%*	*92.6%*
	31-35	*2.1%*	*94.7%*
	36-40	*2.1%*	*96.8%*
	41-45	*1.3%*	*98.1%*
	46-50	*0.5%*	*98.7%*
	51-55	*0.0%*	*98.7%*
	56-60	*0.3%*	*98.9%*
	60-65	*0.3%*	*99.2%*
	66-70	*0.3%*	*99.5%*
	71-75	*0.0%*	*99.5%*
	76-80	*0.0%*	*99.5%*
	81-85	*0.3%*	*99.7%*
	86-90	*0.0%*	*99.7%*
	91-95	*0.0%*	*99.7%*
	96 +	*0.3%*	*100.0%*
Age	*18-24*	*0*	*0%*
	25-34	*13%*	*13%*
	35-44	*38%*	*51%*
	45-54	*32%*	*82%*
	55-64	*16%*	*97%*
	65-74	*2%*	*99%*
	75+	*1%*	*100%*
Education	*Secondary school and below*	*3%*	*3%*
	Vocational diploma/university degree	*23%*	*26%*
	Postgraduate degree	*74%*	*100%*
Gender	*Female*	*16%*	
	Male	*84%*	
Source: Primary	*Data*		

4.2.1 FREQUENCY OF AIR TRAVEL IN 2014

4.2.1.1 Travel Frequency from Survey

"How many times have you traveled by air in the last 12 months" is the first or opening question on the questionnaire. The respondent is expected to provide the number of times traveled by air on any air transport company independently. The number quantified is expected to be the number of times the respondent has traveled by air regardless of airline choice. Travel is counted by the number of times the respondent has boarded a flight and disembarking from a flight. This assumption, normally, is known as "flight" and is a common understanding among the loyal customers of the airline as the reward associated to loyalty is calculated on frequency of flight basis. (Airlines, Earning Miles Easily, 2015)

Table 7: Frequency of air travel in 2014

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*	*Skewness*
Frequency of air travel-Respondent	*379*	*1.0*	*100.0*	*16.123*	*11.1670*	*2.889*

Source: Primary Data

The frequency of air travel taken from the respondents indicates that the minimum observation is 1 while the maximum observation is 100 flights during the year from the sample size of 379 respondents. The mean for the sample group is 16.123 with a standard deviation of 11.167 (*Table 7: Frequency of air travel in 2014*). The distribution is skewed to the right. The Skewness can be reduced provided that extreme values beyond the 98.1% cumulative frequency are excluded from the study**Error! Reference source not found.**. However, these values are important to include as they indicate the strata being used by the airline is exceeded under this values.

4.2.1.2TRAVEL FREQUENCY FORM AIRLINES

The frequency of air travel taken from the respondents indicates that the minimum observation is 1 while the maximum observation is 60 flights during the year from the sample size of 379 respondents. The mean for the sample group is 12.123 with a standard deviation of 11.1541.

Table 8 Frequency of air travel from airline record

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*	*Skewness*
Frequency of air travel-Airline Record	*379*	*1.0*	*60.0*	*12.521*	*8.3334*	*1.655*

Source: Primary Data

4.2.2 AGE

According to, Table 6 Demography of the respondents, there were no respondents for the age group 18-25, 13%(48) of the respondents are for the age group of 25 -35, 38%(142) of the respondents for the age group of 35-45, 31%(117) of the respondents are for the age group of 45-54, 15%(57) of the respondents are for the age group of 55-65, 2%(8) of the respondents are for the age group of 65-74 and 1% (4) respondents are for the age group of 75 and above. The mean age for this study is 44.311 with standard deviation of 9.9721 as shown on Table 9: Point Estimates of Age Interval.

Table 9: Point Estimates of Age Interval

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
Age	*375*	*29.5*	*79.5*	*44.311*	*9.9721*

Source: Primary Data

97% (364) of the respondents are for the age group of 25-64. This is a representative data for all active age groups with the absence of age group 18-25.

4.2.3 EDUCATIONAL LEVEL

According to, Table, the respondents have their education status as Secondary School and below, 23 %(87) of the respondents have their education status as Vocational diploma/university degree and 74 %(277) of the respondents has their educational status as Postgraduate degree.

The post graduate degree educational level is the dominant respondent in this study.

4.2.4 GENDER

According to the survey data 83% (312) of the respondents is male while 17% (64) of the respondent s are female. The result shows that the results are male dominated. (Table 6 Demography of the respondents)

4.3 RESPONSE ON PURPOSE OF TRAVEL AND CHOICE OF AIRLINE

4.3.1 RESPONSE ON PURPOSE OF TRAVEL

82 % (305) of the respondents have indicated that most of their travel is for the purpose of Business, 5% (20) have indicated that most of their travel is for the purpose of visiting friends and relatives (VFR), 3% (10) have indicated that most of their travel is for the purpose of Tourism and 10% (38) have indicated that most of their travel is for purposes other than the specific once shown.

Table 10: Response on purpose of travel

Observation	*Label*	*Frequency*	*Percentage*	*Cum. Percentage*
1	*Business*	*305*	*82%*	*82%*
2	*Tourism*	*10*	*3%*	*84%*
3	*VFR (Visiting Friends and Relatives)*	*20*	*5%*	*90%*
4	*Others*	*38*	*10%*	*100%*

Source: Primary Data

The question on purpose of travel is a common question on all customer satisfaction surveys as sited in the literature review. It is significant for this survey to identify the proportion of loyal customers to each of the category for the first time for the airline.

4.3.2 Response On Choice of Airline for Most Travel

95.7% (357) of the respondents have indicated that they will use Ethiopian Airlines for most of their travel, 13% (13) indicated Emirates Airlines, 0.8% (3) indicated Yemen Airways, 0.5% (2) indicated Lufthansa Airlines, 0.3% (1) indicated Egypt Air, while there is no response for choice of Gulf Air, Kenya Airways, Qatar Airways, and Saudi Arabian Airlines. (Table 11: Data on response on choice of airline)

Table 11: Data on response on choice of airline

Observation	*Label*	*Frequency*	*Percentage*	*Cum Frequency*	*Cum Percentage*
1	*Egypt Air*	*1*	*0.3%*	*1*	*0.3%*
2	*Ethiopian Airlines*	*357*	*94.9%*	*358*	*95.2%*
3	*Emirates Airlines*	*13*	*3.5%*	*371*	*98.7%*
4	*Gulf Air*	*0*	*0.0%*	*371*	*98.7%*
5	*Kenya Airways*	*0*	*0.0%*	*371*	*98.7%*
6	*Lufthansa Airlines*	*2*	*0.5%*	*373*	*99.2%*
7	*Qatar Airways*	*0*	*0.0%*	*373*	*99.2%*
8	*Saudi Arabian Airlines*	*0*	*0.0%*	*373*	*99.2%*
9	*Yemen Airways*	*3*	*0.8%*	*376*	*100.0%*

Source: Primary Data

The respondents are known registered loyal customers of Ethiopian Airlines. Literature review indicates that most loyal customers are loyal to more than one brand in one product category (Uncles, April 2002). Thus, it was expected to have greater degree of variability in choice of airline. 94.9% of the respondents have indicated that they chose Ethiopian Airlines for most of their travel which is a different result than most research indicate.

4.3.3 Combined Response on Purpose of Travel and choice of travel

The combined results of data on the two responses indicate that 81.7% (305) of the respondents do most of their travel on Business trip on any one airline provided on the questionnaire. 95% (290) of the business traveler or 77.7% (290) of the total respondents are mostly travelling for business and mostly on Ethiopian Airlines.

5% (15) of the business traveler or 4 % (15) of the total respondents are business travelers that mostly travel on Ethiopian Airlines in addition to Egypt Air, Emirates Airlines, Lufthansa and Yemen Airways.

90% (9) of the tourism segment and 2.4% of the total respondents are travelers for the purpose of tourism that mostly travel on Ethiopian 1airlines. 1 respondent indicated that Yemen Airways is being used in addition to Ethiopian Airlines for most air travel.

90% (18) of the VFR segment and 4.8% of the total respondents are travelers for the purpose of Visiting friends and relatives (VFR). This segment mostly flies on Ethiopian Airlines. 2 respondents indicated that Egypt air and Emirates respectively, are being used in addition to Ethiopian airlines for Most Travel.

100% (38) of the respondents whose purpose of travel is other than Business, Tourism, and VFR use Ethiopian Airline for most air travel.

Table 12: Combined response on purpose of travel and choice of travel

Observation	*Label*	*Business*	*Tourism*	*VFR*	*Others*	*Total*
1	*Egypt Air*	*0*	*0*	*1*	*0*	*1*
2	*Ethiopian Airlines*	*290*	*9*	*18*	*38*	*355*
3	*Emirates Airlines*	*12*	*0*	*1*	*0*	*13*
4	*Gulf Air*	*0*	*0*	*0*	*0*	*0*
5	*Kenya Airways*	*0*	*0*	*0*	*0*	*0*
6	*Lufthansa Airlines*	*2*	*0*	*0*	*0*	*2*
7	*Qatar Airways*	*0*	*0*	*0*	*0*	*0*
8	*Saudi Arabian Airlines*	*0*	*0*	*0*	*0*	*0*
9	*Yemen Airways*	*1*	*1*	*0*	*0*	*2*
	Total	*305*	*10*	*20*	*38*	*373*

Source: Primary Data

It is worth concluding that 78% (290) of the registered loyal customers of Ethiopian Airlines travel mostly on Ethiopian Airlines for business purpose.

4.4 Response on Airline Attributes

The airline attributes or predictive factors of loyalty to an airline are elven and are categorized into three groups: (a) Operational factors: Safety, Aircraft, Punctuality, (b) Competitive factors: Ticket price, Schedule, Frequency of flights, Alliance, FFP, and (c) Attractive factors: Inflight Staff and Inflight food and drinks. These factors were placed on a Likert scale ranging from 1 = poor to 5=Excellent.

The results of the survey are shown on Table 13: Descriptive statistics on key Airline Service Attributes. Higher mean for an attribute and larger negative Skewness indicates high positive perception of the loyal customers on the performance of the airline towards the individual attribute. Mean score falling around average score of 3 shows that the positive perception of the loyal customer on the performance of the airline towards the attribute is average. Thus, higher mean and higher negative Skewness are sought by the airline to attain higher customer satisfaction scores. The results are also discussed on subsequent section.

Table 13: Descriptive statistics on key Airline Service Attributes

Factor/Score	***1***	***2***	***3***	***4***	***5***	***N***	***Mean***	***Std. Dev.***	***Skewness***
Safety	*1 (0.3%)*	*5 (1.3%)*	*34 (9.1%)*	*121 (32.3%)*	*206 (54.9%)*	*367*	*4.433*	*.7394*	*-1.257*
Aircraft	*5 (1.3%)*	*17 (4.5%)*	*64 (17.1%)*	*151 (40.3%)*	*117 (31.2%)*	*354*	*4.011*	*.9125*	*-.855*
Punctuality	*9 (2.4%)*	*38 (10.1%)*	*109 (29.1%)*	*139 (37.1%)*	*72 (19.2%)*	*367*	*3.619*	*.9926*	*-.424*
Ticket	*35 (9.3%)*	*75 (20.0%)*	*135 (36.0%)*	*93 (24.8%)*	*33 (8.8%)*	*371*	*3.038*	*1.0898*	*-.100*
Schedule	*5 (1.3%)*	*20 (5.3%)*	*79 (21.1%)*	*157 (41.9%)*	*108 (28.8%)*	*369*	*3.930*	*.9181*	*-.707*
Frequency of Flights	*1 (o.3%)*	*5 (1.3%)*	*54 (14.4%)*	*149 (39.7%)*	*156 (41.6%)*	*365*	*4.244*	*.7726*	*-.774*
Alliance	*7 (1.9%)*	*11 (2.9%)*	*81 (21.6%)*	*149 (39.7%)*	*99 (26.4%)*	*347*	*3.928*	*.9079*	*-.766*
Reputation	*2 (0.5%)*	*5 (1.3%)*	*50 (13.3%)*	*140 (37.3%)*	*165 (44.0%)*	*362*	*4.273*	*.7911*	*-.966*
FFP	*13 (3.5%)*	*18 (4.8%)*	*68 (18.1%)*	*166 (44.3%)*	*98 (26.1%)*	*363*	*3.876*	*.9825*	*-.979*
In-flight-staff	*18 (4.8%)*	*29 (7.7%)*	*0 (0%)*	*99 (26.4%)*	*130 (34.7%)*	*276*	*3.236*	*.8856*	*-1.049*
In-flight food &Drink	*45 (12.0%)*	*49 (13.1%)*	*110 (29.3%)*	*109 (29.1%)*	*58 (15.5%)*	*371*	*3.232*	*1.2193*	*-.335*

Source: Primary Data

4.4.1 OPERATIONAL FACTORS

4.4.1.1 Respondents Perception of Safety

A total of 97.6% (371) respondents answered this question among the total respondents. 33.6% (206) of the respondents have indicated that the airlines that they mostly fly with have a 5 score or excellent safety record, 32.3% (121) of the respondents indicted 4 out of 5 score, 9.1% (34) of the respondents indicated 3 out of 5 score, 1.3% (5) of the respondents indicated 2 out of 5 score and 1(0.3%) respondent indicated 1 out of five score.

The response rate of safety factor is the second highest among all other factors. Safety has a mean score of 4.43 on and standard deviation 0.7394 of showing the list variability among other factors.

The above average (cumulative percentage for 4 and 5 score) on safety score constitutes 87.2 % (327) of the respondents. This indicates that 87.2% of the respondents (registered loyal customers) rate the performance of the airline in the area of safety record more than satisfactory.

4.4.1.2 Respondents Perception of Aircrafts

A total of 94.14% (354) respondents answered this question among the total respondents. 31.2% (117) of the respondents have indicated that the airlines that they mostly fly with have a 5 score or excellent Aircraft quality, 40.3% (151) of the respondents indicted 4 out of 5 score, 17.1% (64) of the respondents indicated 3 out of 5 score, 4.5% (17) of the respondents indicated 2 out of 5 score and 5(1.3%) respondent indicated 1 out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived Aircraft quality score constitutes 71.52 % (268) of the respondents. This indicates that 71.52% of the respondents (registered loyal customers) rate the performance of the airline in providing aircraft quality is more than satisfactory.

Aircraft quality score has a mean score of 4.011 on and standard deviation 0.9125. (Figure 5 Histogram for response on aircraft quality)

4.4.1.3 Respondents Perception on Punctuality

A total of 97.6% (367) respondents answered this question among the total respondents. 19.22% (72) of the respondents have indicated that the airlines that they mostly fly with have a 5 score or excellent record on being punctual, 37.13% (139) of the respondents indicted 4 out of 5 score, 29.1% (109) of the

respondents indicated 3 out of 5 score, 10.1% (38) of the respondents indicated 2 out of 5 score and 9 (2.4%) respondent indicated 1 out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived punctuality of flights score constitutes 56.3% (211) of the respondents. This indicates that 56.3% of the respondents (registered loyal customers) rate the performance of the airline in the area of punctuality (arrival and departure of flights) more than satisfactory.

The airline punctuality score has a mean score of 3.619 and standard deviation of 0. 9926. (Figure 6 Histogram for response on airline punctuality)

4.4.2 COMPETITIVE FACTORS

4.4.2.1 Respondents Perception on Ticket Price

A total of 98.6% (371) respondents answered this question among the total respondents. 8.8% (33) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on ticket prices, 24.8% (93) of the respondents indicted 4 out of 5 score, 36.0% (135) of the respondents indicated 3 out of 5 score, 20.0% (75) of the respondents indicated 2 out of 5 score and 9.3% (35) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived ticket price score constitutes 33.6% (126) of the respondents. This indicates that 33.63% of the respondents (registered loyal customers) rate the performance of the airline in the area of ticket price more than satisfactory.

The airline Ticket Price score has a mean score of 3.038 and standard deviation of 1.0898. (Figure 7 Histogram for response on Ticket Price)

4.4.2.2 Respondents Perception on convenience of Schedule

A total of 98.1% (369) respondents answered this question among the total respondents. 108 (28.8%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on convenience of schedule, 157 (41.9%) of the respondents indicted 4 out of 5 score, 79 (21.1%) of the respondents indicated 3 out of 5 score, 20 (5.3%) of the respondents indicated 2 out of 5 score and 5 (1.3%) of the respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived convenience of schedule score constitutes 70.7% (265) of the respondents. This indicates that 70.7% of the respondents (registered loyal customers) rate the performance of the airline in the area of convenient schedule more than satisfactory.

The airline Schedules has a mean score of 3.930and standard deviation of .9181. (Figure 8 Histogram on response convenience of schedule)

4.4.2.3 Respondents Perception on Frequency of flight

A total of 97.1 % (365) respondents answered this question among the total respondents. 156 (41.6%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on frequency of flights, 149 (39.7%) of the respondents indicted 4 out of 5 score, 54 (14.4%) of the respondents indicated 3 out of 5 score, 5 (1.3%) of the respondents indicated 2 out of 5 score and 1 (o.3%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived frequency of flights score constitutes 81.3% (305) of the respondents. This indicates that 81.3% of the respondents (registered loyal customers) rate the performance of the airline in the area of providing frequency of flights more than satisfactory.

The airline frequency of flight (FQ_FLTS) score has a mean score of 4.244 and standard deviation of .7726. (Figure 9 Histogram on response on frequency of flight)

4.4.2.4 Respondents Perception on Alliance

A total of 92.3% (347) respondents answered this question among the total respondents. 99 (26.4%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on Alliance, 149 (39.7%) of the respondents indicted 4 out of 5 score, 81 (21.6%) of the respondents indicated 3 out of 5 score, 11 (2.9%) of the respondents indicated 2 out of 5 score and 7 (1.9%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived Aircraft quality score constitutes 66.1% (248) of the respondents. This indicates that 66.1% of the respondents (registered loyal customers) rate the performance of the airline in the area of alliance more than satisfactory.

The airline Alliance score has a mean score of 3.928and standard deviation of .9079. (Figure 10 Histogram on response on Alliance)

4.4.2.5 Respondents Perception on Reputation

A total of 96.3% (362) respondents answered this question among the total respondents. 165 (44.0%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on gaining reputation, 140(37.3%) of the respondents indicted 4 out of 5 score, 50 (13.3%) of the respondents indicated 3 out of 5 score, 5 (1.3%)) of the respondents indicated 2 out of 5 score and 2 (0.5%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived gaining and maintaining reputation in the industry score constitutes 81.3% (305) of the respondents. This indicates that 81.3% of the respondents (registered loyal customers) rate the performance of the airline in the area of reputation more than satisfactory.

The airline Reputation score has a mean score of 4.273and standard deviation of .7911. (Figure 11 Histogram on response on reputation of the airline)

4.4.2.6 Respondents Perception on Frequent Flyer Program (FFP)

A total of 96.5% (363) respondents answered this question among the total respondents. 98 (26.1%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on FFP, 166(44.3%) of the respondents indicted 4 out of 5 score, 68 (18.1%) of the respondents indicated 3 out of 5 score, 18 (4.8%)) of the respondents indicated 2 out of 5 score and 13 (3.5%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived generousness of FFP score constitutes 70.4% (264) of the respondents. This indicates that 70.4% of the respondents (registered loyal customers) rate the performance of the airline in the area of being generous in FFP rewards and convenience of point accumulation more than satisfactory.

The airline FFP score has a mean score of 3.876and standard deviation of .9825. (Figure 12 Histogram on response on generousness of FFP)

4.4.3 ATTRACTIVE FACTORS

4.4.3.1 Respondents Perception on InFlight_staff

A total of 73.4% (276) respondents answered this question among the total respondents. 130 (34.7%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on InFlight_staff, 99 (26.4%) of the respondents indicted 4 out of 5 score, 0 (0%) of the respondents indicated 3 out of 5 score, 29 (7.7%) of the respondents indicated 2 out of 5 score and 18 (4.8%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived courtesy and responsiveness of In-flight staff score constitutes 61.1% (229) of the respondents. This indicates that 61.1% of the respondents (registered loyal customers) rate the performance of the airline in the area of ticket price more than satisfactory.

The airline In-flight_staff score has a mean score of 3.236and standard deviation of .8856.

4.4.3.2 Respondent's Perception on Inflight food & Drink

A total of 98.67% (371) respondents answered this question among the total respondents. 58 (15.5%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on Inflight food and Drink, 109 (29.1%) of the respondents indicted 4 out of 5 score, 110 (29.3%) of the respondents indicated 3 out of 5 score, 49 (13.1%)) of the respondents indicated 2 out of 5 score and 45 (12.0%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived quality of food and drinks in-flight score constitutes 44.6% (167) of the respondents. This indicates that 44.6% of the respondents (registered loyal customers) rate the quality of food and drinks served inflight more than satisfactory.

The airline Inflight food and drink score has a mean score of 3.232and standard deviation of 1.2193. (Figure 14 Histogram on response on Inflight food and drinks)

4.4.4 THE LOYALTY MEASUREMENTS

The registered customer of the airline has provided response on the loyalty indicators discussed in the literature review; (a) overall satisfaction based on the airline attributes, (b) intention to repurchase from the airline and (c) intention to recommend the airline to others.

4.4.4.1 Respondents Overall Satisfaction

Respondents were requested to provide their Overall satisfaction of the airline performance on the attributes using a Likert scale (0=extremely dissatisfied, 5=Neutral, 10= extremely satisfied).

A total of 99.7% (375) respondents answered this question among the total respondents. 43 (11.5%) of the respondents have indicated that the airlines that they mostly fly with have a 10 (extremely satisfied) score on overall satisfaction, 52 (13.9%) of the respondents indicted 9 out of 10 score, 106 (28.3%) of the respondents indicated 8 out of 10 score, 67 (17.9%) of the respondents indicated 7 out of 10 score, 45 (12.0%) respondent indicated 6 out of 10 score, 28 (7.5%) respondent indicated 5 out of 10 score, 11 (2.9%) respondents indicated 4 out of 10, 14 (3.0%) respondents indicated 3 out of 10 score, 8 (2.1%) respondents indicated 2 out of 10, 0(0%) respondents indicated 1 out of 10 score, and 1 (0.3%) respondent indicated 0 (extremely dissatisfied).

The above average (cumulative percentage for 7, 8, 9 and 10 score) on overall perceived satisfaction on the performance of the service factors (attributes) constitutes 71.6% (268) of the respondents. This indicates that 71.6% of the respondents (registered loyal customers) rate the overall performance of the airline on service factors as more than satisfactory. The airline Inflight food and drink score has a mean score of 4.445 and standard deviation of .7361. Figure 15 Histogram on response on overall satisfaction)

4.4.4.2 Respondents Intentions to Repurchase

Respondents were requested to provide the likely hood of selecting this airline for their next trip (repurchase intentions) based on a Likert scale (1=definitely no, 2= possibly no, 3=not sure, 4=possibly yes, 5= definitely yes). The question is asked right after the respondent has provided the performance score for each of the attributes presented.

A total of 99.7% (375) respondents answered this question among the total respondents. 213 (56.8%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (definitely yes) score on intention to repurchase, 122 (32.5%)of the respondents indicted 4 (possibly yes), 0 (0%)of the respondents indicated 3 (not sure), 37 (9.9%) of the respondents indicated 2 (possibly no) and 3 (0.8%)respondent indicated 1 (definitely no).

The above average (cumulative percentage for 4 and 5 score) on the likely hood of selecting the airline for their next trip score constitutes 89.3% (335) of the respondents. This indicates that 89.3% of the respondents (registered loyal customers) are more than likely to select the airline for their next flight.

The airline Repurchase score has a mean score of 4.445and standard deviation of .7361. (Figure 16 Histogram on response on intentions to repurchase)

4.4.4.3 Respondents Perception on Recommend

Respondents were requested to provide their ratings on their intentions to recommend the airline to others (friends, acquaintance, family, colleague, etc.) based on the performance of the airline on the attributes using a Likert scale (1=very unlikely, 2= somewhat unlikely, 3=neutral, 4=likely, 5= very likely).

A total of 99.7% (375) respondents answered this question among the total respondents. 231 (61.6%) of the respondents have indicated that the airlines that they mostly fly with have a 5 (excellent) score on Recommend, 114 (30.4%) of the respondents indicted 4 out of 5 score, 0 (0%) of the respondents indicated 3 out of 5 score, 24 (6.4%)) of the respondents indicated 2 out of 5 score and 6 (24%) respondent indicated 1 (poor) out of five score.

The above average (cumulative percentage for 4 and 5 score) on perceived Aircraft quality score constitutes 33.6% (126) of the respondents. This indicates that 33.63% of the respondents (registered loyal customers) rate the performance of the airline in the area of ticket price more than satisfactory. The airline Recommend score has a mean score of 4.440and standard deviation of .9081. (Figure 17 Histogram on response on intention to recommend)

4.4.5 HYPOTHESIS TEST

4.4.5.1 Key measurement factors of Loyalty

The key proposed factors that predict customer satisfaction, intention to repurchase and intentions to recommend the airline are safety, punctuality, aircraft quality, ticket price, frequency of flight, schedule, frequent flyer program, alliance, reputation, inflight staff and inflight food and drinks. These key factors have further been classified in to operational factors, competitive factors and attractive factors.

The following section will test the hypothesis formulated for each of the dependent variables customer satisfaction, intention to repurchase, intentions to recommend and the overall loyalty variable (computed average of dependent variables) using the operational factor computed average, competitive factors computed average and attractive factors computed average. It will also show independent predictive variables association with the dependent variable whenever significant relationship is observed. The computed average of customer satisfaction, intention to repurchase and intention to recommend is the loyalty variable.

The test is completed using the correlation analysis with result of each variable and the computed average as shown on Table 14 Correlation Matrix with Mean and Standard Deviation

Table 14 Correlation Matrix with Mean and Standard Deviation

Variables	Mean	Std. Deviation	Pearson Correlation																					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Control Variables																								
1 Travel Frequency	16.112	11.1541	1	-.004	.026	-.059	-.144**	-.096	-.153**	-.080	-.088	-.074	.004	-.020	-.051	-.010	-.131*	-.195**	-.140*	-.160**	-.089	-.121*	-.111*	.067
p-value				.936	.616	.255	.007	.066	.004	.124	.109	.156	.940	.696	.328	.857	.013	.001	.020	.002	.086	.019	.031	.193
2 Age	45.431	10.2858		1	.028	.064	-.005	-.053	-.010	.050	.017	.088	-.003	-.055	-.003	-.019	.018	.096	.152*	.041	.119*	.117*	.128*	.027
p-value					.590	.218	.923	.316	.850	.335	.752	.092	.949	.293	.959	.730	.735	.112	.011	.432	.021	.024	.013	.598
3 Gender	1.170	.3763			1	-.029	.054	.036	-.141**	-.050	.039	-.049	.098	.032	.078	.068	-.034	-.105	-.030	-.132*	-.125*	-.130*	-.031	-.096
p-value						.581	.313	.488	.008	.341	.482	.349	.060	.539	.139	.206	.514	.082	.625	.011	.015	.012	.546	.064
4 Education	2.705	.5221				1	-.064	-.111*	-.042	.013	-.063	-.075	-.083	.004	-.016	-.061	.035	.015	-.034	-.003	-.031	-.039	.055	-.062
p-value							.234	.034	.435	.807	.253	.149	.110	.941	.765	.255	.505	.799	.573	.952	.545	.453	.284	.231
5 **Operational Factors**	4.0220	.71149					1	.812**	.824**	.775**	.725**	.410**	.509**	.560**	.483**	.487**	.655**	.471**	.362**	.559**	.581**	.589**	.367**	.317**
p-value								.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
6 Punctuality	3.619	.9926						1	.447**	.407**	.600**	.312**	.519**	.439**	.434**	.365**	.409**	.352**	.301**	.407**	.409**	.418**	.250**	.214**
p-value									.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
7 Aircraft	4.011	.9125							1	.527**	.571**	.371**	.286**	.411**	.402**	.401**	.543**	.417**	.311**	.512**	.527**	.532**	.331**	.296**
p-value										.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
8 Safety	4.433	.7394								1	.563**	.288**	.391**	.483**	.296**	.379**	.648**	.326**	.224**	.422**	.442**	.421**	.308**	.258**
p-value											.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
9 ***Competitive Factors***	3.9011	.61902									1	.663**	.736**	.690**	.693**	.695**	.672**	.432**	.400**	.513**	.594**	.590**	.436**	.297**
p-value												.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
10 Ticket	3.038	1.0898										1	.387**	.289**	.302**	.258**	.313**	.228**	.202**	.357**	.411**	.405**	.282**	.220**
p-value													.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000
11 schedule	3.930	.9181											1	.535**	.372**	.381**	.354**	.316**	.288**	.342**	.336**	.338**	.234**	.163**
p-value														.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
12 Frequency of Flights	4.244	.7726												1	.368**	.360**	.438**	.246**	.232**	.324**	.342**	.356**	.267**	.120*
p-value															.000	.000	.000	.000	.000	.000	.000	.000	.000	.022
13 FFP	3.879	.9829													1	.432**	.387**	.336**	.353**	.342**	.470**	.455**	.362**	.237**
p-value																.000	.000	.000	.000	.000	.000	.000	.000	.000
14 Alliance	3.931	.9084														1	.427**	.206**	.149*	.328**	.322**	.313**	.250**	.159**
p-value																	.000	.001	.016	.000	.000	.000	.000	.003
15 Reputation	4.273	.7911															1	.452**	.375**	.499**	.525**	.503**	.389**	.290**
p-value																		.000	.000	.000	.000	.000	.000	.000
16 ***Attractive Factors***	3.0670	.88525																1	.849**	.909**	.569**	.514**	.400**	.377**
p-value																			.000	.000	.000	.000	.000	.000
17 InFlight_staff	3.236	.8856																	1	.552**	.539**	.491**	.371**	.356**
p-value																				.000	.000	.000	.000	.000
18 InFlight_food_Drink	3.232	1.2193																		1	.566**	.536**	.420**	.322**
p-value																					.000	.000	.000	.000
19 **Loyalty Variables**	5.3785	.97496																			1	.932**	.651**	.671**
p-value																						.000	.000	.000
20 Overall	7.253	1.9698																				1	.478**	.443**
p-value																							.000	.000
21 Repurchase	4.441	.7389																					1	.245**
p-value																								.000
22 Recommend	4.441	.9073																						1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: Primary Data

4.4.5.2 Satisfactory Experience

H1. It was hypothesized that the loyal customer perception of airline performance on operational factors is positively related to the satisfactory experience of the loyal customer. Accordingly, the relationship between these two factors is positive and significant ($r=.589$, $p<0.05$). Thus, we accept the hypothesis that operational factors are positively related to customer satisfaction. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Aircraft quality ($r=.532$, $p<.05$), Safety record ($r=421$, $p<.05$) and punctuality of flight arrival and departure ($r=.418$, $p<.05$).

H2 It was hypothesized that the loyal customer satisfaction on airline performance on competitive factor is positively related to the satisfactory experience of the loyal customer. Accordingly, the relationship between these two factors is positive and significant ($r=.590$, $p<0.05$). Thus, we accept the hypothesis that performance on competitive factor is positively related to customer satisfaction. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Airline reputation ($r=.503$, $p<.05$), Frequent Flyer Program-FFP ($r=.455$, $p<.05$), ticket price fairness ($r=.411$, $p<.005$), Frequency of flight ($r=.356$, $p<.05$), convenience of Schedule ($r=.338$, $p<0.05$) and Alliance ($r=.313$, $p<.05$).

H3 It was hypothesized that the loyal customer perception of airline performance on attractive factors is positively related to the satisfactory experience of the loyal customer. Accordingly, the relationship between these two factors is positive and significant ($r=.514$, $p<0.05$). Thus, we accept the hypothesis that performance on attractive factor is positively related to customer satisfaction. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Inflight food and drink ($r=.536$, $p<.05$) and Inflight staff ($r=.491$, $p<.05$).

4.4.5.3 Intentions to repurchase

H4 It was hypothesized that the loyal customer perception of airline performance on operational factor is positively related to the Intentions to repurchase. Accordingly, the relationship between these two factors is positive and significant ($r=.367$, $p<0.05$). Thus, we accept the hypothesis that performance on operational factor is positively related to intentions to repurchase. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Aircraft quality ($r=.331$, $p<.05$), Safety record ($r=.308$, $p<.05$) and punctuality of flight arrival and departure ($r=.250$, $p<.05$).

H5 It was hypothesized that the loyal customer satisfaction on airline performance on competitive factor is positively related to the intention to repurchase of the loyal customer. Accordingly, the relationship between these two factors is positive and significant (r=.436, p<0.05). Thus, we accept the hypothesis that performance on competitive factor is positively related to intentions to repurchase. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Airline reputation (r=.389, p<.05), Frequent Flyer Program- FFP (r=.362, p<.05), ticket price fairness (r=.282, p<.005), Frequency of flight (r=.267, p<.05), Alliance (r=.250, p<.05) and convenience of Schedule (r=.234, p<0.05).

H6 It was hypothesized that the loyal customer perception of airline performance on attractive factors is positively related to the intentions to repurchase of the loyal customer. Accordingly, the relationship between these two factors is positive and significant (r=.400, p<0.05). Thus, we accept the hypothesis that performance on attractive factor is positively related to intentions to repurchase. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Inflight food and drink (r=.420, p<.05) and Inflight staff (r=.371, p<.05).

4.4.5.4 Intentions to recommend to others

H7 It was hypothesized that the loyal customer perception of airline performance on operational factor is positively related to the Intentions to recommend. Accordingly, the relationship between these two factors is positive and significant (r=.317, p<0.05). Thus, we accept the hypothesis that performance on operational factor is positively related to intention to recommend. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Aircraft quality (r=.296, p<.05), Safety record (r=.258, p<.05) and punctuality of flight arrival and departure (r=.214, p<.05).

H8 It was hypothesized that the loyal customer satisfaction on airline performance on competitive factor is positively related to the intention to recommend. Accordingly, the relationship between these two factors is positive and significant (r=.297, p<0.05). Thus, we accept the hypothesis that performance on competitive factor is positively related to intention to recommend. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Airline reputation (r=.290, p<.05), Frequent Flyer Program- FFP (r=.237, p<.05), ticket price fairness (r=.220, p<.05), convenience of Schedule (r=.163, p<0.05), Alliance (r=.159, p<.05) and Frequency of flight (r=.120, p<.05).

H9 It was hypothesized that the loyal customer perception of airline performance on attractive factors is positively related to the intentions to recommend. Accordingly, the relationship between these two factors is positive and significant (r=.377, p<0.05). Thus, we accept the hypothesis that performance on attractive factor is positively related to intention to recommend. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Inflight staff (r=.356, p<.05) and Inflight food and drink (r=.322, p<.05).

4.4.5.5 Loyalty to Airline

H10 It was hypothesized that the loyal customer perception of airline performance on operational factor is positively related to the loyalty (loyalty variable) of the customer to the airline. Accordingly, the relationship between these two factors is positive and significant (r=.581, p<0.05). Thus, we accept the hypothesis that performance on operational factor is positively related to loyalty. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Aircraft quality (r=.527, p<.05), Safety record (r=.442, p<.05) and punctuality of flight arrival and departure (r=.409, p<.05).

H11 It was hypothesized that the loyal customer satisfaction on airline performance on competitive factor is positively related to the loyalty (loyalty variable) of the customer to the airline. Accordingly, the relationship between these two factors is positive and significant (r=.594, p<0.05). Thus, we accept the hypothesis that performance on competitive factor is positively related to loyalty. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Airline reputation (r=.525, p<.05), Frequent Flyer Program- FFP (r=.470, p<.05), ticket price fairness (r=.411, p<.05), convenience of Schedule (r=.336, p<0.05), Alliance (r=.322, p<.05), and Frequency of flight (r=.342, p<.05).

H12 It was hypothesized that the loyal customer perception of airline performance on attractive factors is positively related to the loyalty (loyalty variable) of the customer to the airline. Accordingly, the relationship between these two factors is positive and significant (r=.569, p<0.05). Thus, we accept the hypothesis that performance on attractive factor is positively related to loyalty. In addition, the independent predictive variables have positive association with the overall satisfaction in the order of Inflight food and drink (r=.566, p<.05) and Inflight staff (r=.539 p<.05).

4.4.5.6 Regression Model for key factors test of loyalty

The positive correlation of the key factors to the loyalty factor is checked over a regression model. The Kano model classification of must-be, performance and attractive model that corresponds with the research model of operational factors, competitive factors and attractive factors is used. The regression dependent variable was the computed loyalty variable from satisfaction, repurchase and recommendation. The computed average for each of the attributes was grouped under operational factor, competitive factor and attractive factor as predictors.

Operational factors, competitive factors and attractive factors were used in a linear regression analysis to predict loyalty. The correlations of the variables are shown in correlation matrix Table 14. As can be seen, all correlations, of the four computed average factors were statistically significant.

Table 15 Regression Model Summary

Model Summary									
					Change Statistics				
Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*R Square Change*	*F Change*	*df1*	*df2*	*Sig. F Change*
1	*.700[a]*	*.490*	*.486*	*.69337*	*.490*	*117.442*	*3*	*366*	*.000*
a. Predictors: (Constant), Competitive Factor, Attractive Factor, Operational Factor									

Source: Primary data

Table 16 Regression Coefficients for Computed average

Coefficients[a]										
		Unstandardized Coefficients		*Standardized Coefficients*			*95.0% Confidence Interval for B*		*Collinearity Statistics*	
Model		*B*	*Std. Error*	*Beta*	*T*	*Sig.*	*Lower Bound*	*Upper Bound*	*Tolera -nce*	*VIF*
1	*(Constant)*	*1.392*	*.239*		*5.821*	*.000*	*.922*	*1.863*		
	Operational Factor	*.250*	*.078*	*.180*	*3.227*	*.001*	*.098*	*.403*	*.448*	*2.233*
	Attractive Factor	*.657*	*.078*	*.385*	*8.472*	*.000*	*.505*	*.810*	*.676*	*1.480*
	Competitive Factor	*.404*	*.087*	*.257*	*4.637*	*.000*	*.233*	*.575*	*.452*	*2.210*
a. Dependent Variable: Loyalty Variable										

Source: Primary Data

Linear regression was performed as indicated on Table 16 Regression Coefficients for Computed average. The prediction model contained all three predictor's operational factors, competitive factors and attractive factors. The model was statistically significant and accounted for approximately 49% (R2) of the variance of Loyalty variable (Table 15 Regression Model Summary). Multicollinearity test results indicate that (all VIF values are less than 10 or tolerance values greater than 0.1) there is no multicollinearity problem in the independent variables.

Attractive factors received the strongest weight (B=Beta of .657, $p<0.05$) in the model followed by Competitive Factors (B=Beta of .404, $p<.05$); Operational factor received the lowest (B=Beta of .250, $p<0.05$) of the three weights.

Inspection of the structure of coefficients suggests that attractive factors and competitive factors were very strong indicators of loyalty with positive affect. Operational factor is a moderate indicator of loyalty with positive affect.

4.4.5 Test for Degree of Loyalty

Based on the model of wallet share the paired sample t -statistics is used to test the customer's dedication to a brand. It is performed by comparing frequency of air travel of data obtained from the airline to that of the data obtained from the respondent. The basis for independence of data from the bias of the respondents membership to the loyalty program of Ethiopian Airlines was significantly reduced as the survey was conducted from an independent source; the respondent was provided a range of airline from the list of available airlines in the market, and the respondent is communicated that the purpose of survey is for academic research.

Based on this assumption, it can be hypothesized that customers with monogamous nature will report the same number of air travel frequency as in the airline record, while customers who are polygamous will report air travel in excess of the airline record. Note that the case where customers report less number of flights than the record with the airline is incorrect. This is because that the airline keeps record of the customers air travel on its service. The airlines record is an actual transaction in record that can only create variation with the record of customer because of an error. Thus, data gathered from the respondents is corrected to show the minimum frequency of air travel as in the record of the airline.

Thus, since the empirical evidence proves that larger proportion of customers is polygamous and few are monogamous, a test for monogamy can be opted through comparison of the mean. Therefore, it can be hypothesized that:

H13 There is no significant difference between the average air travel reported by the airline and average air travel declared by the customers.

The analysis plan is to accept or reject the null hypothesis with a significance level of .05. The matched-pairs t-test determines whether the difference between sample means for paired data has significant difference from the hypothesized difference between population means. Hence, t-Distribution table is used to assess the probability associated with the t-score, having the 375 degrees of freedom.

The result of the test was that the mean air travel reported by the airline is 12.521 while that of the customer is 16.11 with standard deviation of 8.33 and 11.15. Standard error for the airline is .43 while that of respondent is .575. The Paired sample mean difference is -3.5904 flights.

Table 17 Paired Sample Test

		Paired Differences					*T*	*df*	*Sig. (2-tailed)*
		Mean	*Std. Deviation*	*Std. Error Mean*	*95% Confidence Interval of the Difference*				
					Lower	*Upper*			
Pair 1	*Travel Frequency in airline record Less Respondent*	*-3.5904*	*9.4768*	*.4887*	*-4.5514*	*-2.6294*	*-7.346*	*375*	*.000*

Source: Primary Data

As the t statistic, (-) 7.346, and its associated significance level ($p = .000 < 0.05$), we reject the null hypothesis and conclude that there is significant difference between the mean air travel reported by the airline and air travel declared by the customers.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY OF FINDINGS AND CONCLUSIONS

1. Identify Key factors that measure customers loyalty

Performance of the airline on operational factors, customer satisfaction on competitive factors and performance of the airline on attractive factors were identified as key factors affecting customer loyalty of registered airline loyal customers. Loyalty was measured using three variables: customer satisfaction, repurchase intention and the intention of a loyal customer to recommend the airline to others. Accordingly, it was hypothesized that the key factors would have positive relationship with the individual loyalty variables and the computed average loyalty variable.

The survey results from the response of registered loyal customers of the airline indicated that a) safety and aircraft from operational factors; and b) frequency of flights, alliances, reputation, frequent flyer programs, schedule from the competitive factors were rated above average (average score of 3.8 and above) satisfaction. Punctuality from among the operational factors, Ticket from Competitive factors; and Inflight staff and Inflight food and drinks from the attractive factors category had an average rating with mean score ranging between 3 and 3.8. The loyalty variables of overall satisfaction repurchase intentions and intentions to recommend had above average mean score. The finding indicates that the registered loyal customers of the airline regard the airline as above average operator. It also indicates that more should be done to improve the mean rating in punctuality, ticket price, inflight staff and inflight food and drinks.

Based on the correlation results we have determined that there is a positive and significant relationship between the key factors and the loyalty variables. The correlations result, using the computed average of key factors in their categories against the computed loyalty factor, indicates that there is a positive relationship between key factors and the loyalty variable. The highest contributing factor was the competitive factors (r=.594), followed by operational factors (r=.581) and attractive factor (r=.569). This, however, is boosted by the higher correlation observed with one loyalty variable – overall satisfaction. All key factors have the highest correlation with overall satisfaction, followed by intention to repurchase and intention to recommend.

The regression model has identified that 49 % of the loyalty variable could be explained by the model using computed loyalty variable as dependent and computed average of key factors as predictors.

- The degree of positive contribution of operational factor is that for every .240 unit change in operational factor for the airline there is a unit increase in Loyalty because of an improved perception.
- The degree of positive contribution of competitive factor is that for every .404 unit change in competitive factors, there is a unit change in loyalty because of an improved satisfaction.
- The degree of positive contribution of attractive factors is that for every .657 unit of change in attractive factors there is a unit change in loyalty because of an improved perception.

2. Investigate the degree to which customers participating in loyalty programs have loyalty towards the airline.

   The survey results from the response of registered loyal customers of the airline indicated that 95 % of them make Ethiopian as their first choice of travel. 5% of the registered loyal customers of Ethiopian have other airlines as their first choice.

   The findings from the paired t-sampled test indicate that there is significance difference between the means of the two paired samples – the number of travels in record with the airline and the number of travel in the record of the registered loyal customers. The test result explains 56% (R) of the data as being monogamous or 100% loyal to Ethiopian Airlines. The other 44% can possibly be explained by multiple loyalties. This is significant indication that registered loyal customers may not be 100% loyal.

   The summed findings of the survey and paired t-sample test indicates that registered loyal customers of Ethiopian Airlines have 95% attitudinal commitment while what can be explained using behavioral measure is 56% only.

The findings of this study show that the customer's loyalty can be measured and the degree of loyalty can also be determined with the use of a mix of the behavioral and attitudinal measurements. It is also possible to determine the key factors that enhance customers' loyalty.

5.2 RECOMMENDATION

The pressure on airline to retain loyal customers is increasing. One of the strategic tasks of airline managers is to constantly improve service quality to drive satisfaction, strategize against competitors and define the role of the airline in the future air industry. The loyal customer is also observant of this constant change in the environment and actively seeks to understand and benefit from it.

It is indicated in the study that dedicated loyal customers are 56% of the loyal customer base. Loyal customers who have the intentions to mostly use the Ethiopian Airlines were 95% of the respondents. This is a comparison pointing in the direction of a wider gap between intentions and actions of the loyal customers that should be worked on by the airline management to gain share of wallet.

Loyal customers have rated the airline very high on operational factors and competitive factors while lower ratings were accorded to attractive factors. It should be indicated here that most of the high rated factors had low incremental contribution to enhancement of loyalty. The airline should maintain or slightly improve the level of performance and corresponding satisfaction on these factors in order to keep the customer from being dissatisfied.

On the other hand, this study indicates that improvement in attractive factors has a highest positive increment on customer loyalty followed by improvement on competitive factors.

5.4 SUGGESTIONS FOR FUTURE RESEARCH

The study has identified four categories of loyal customers Business, Tourism, VFR and Other categories. The highest numbers of respondents were from the business traveler group. This study has only used the categorization as indication of the category only. Future studies should explore the loyalty of each of the groups in order to understand the key factors that determine degree of loyalty.

The study has taken a cross section of time and has evaluated the historical purchase behavior coupled with the attitudinal commitment of the registered loyal customer. It only serves to indicate that such studies become obsolete the time the survey questionnaire was completed. Thus, there has to be a dynamic predictive model that should track and report customer satisfaction, intention to repurchase and intention to recommend in order gain greater wallet share.

The survey is conducted online and in the English language for a cross section of time (22 days). This was done following the airline practice of conducting online survey. The result of the survey could improve given that there are more language choices and that respondents are engaged on one to one bases.

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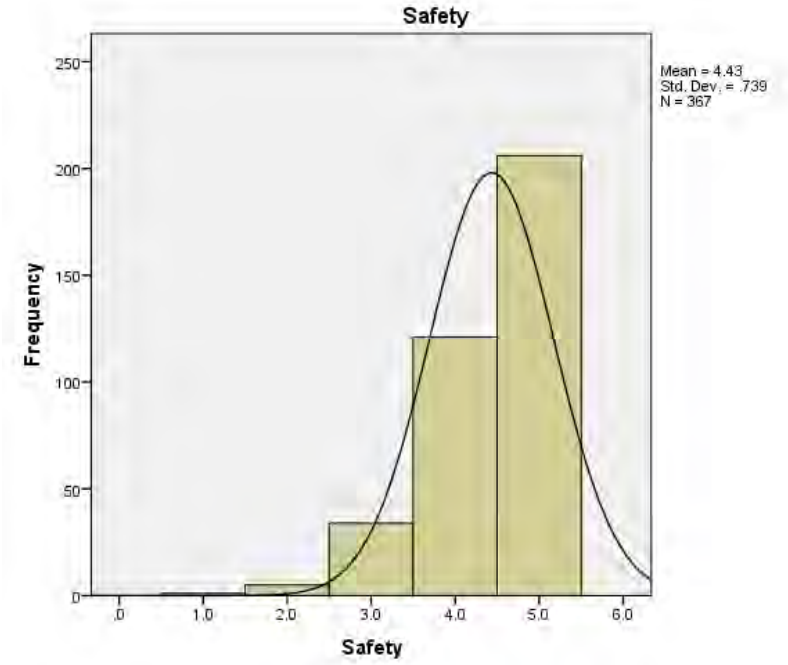
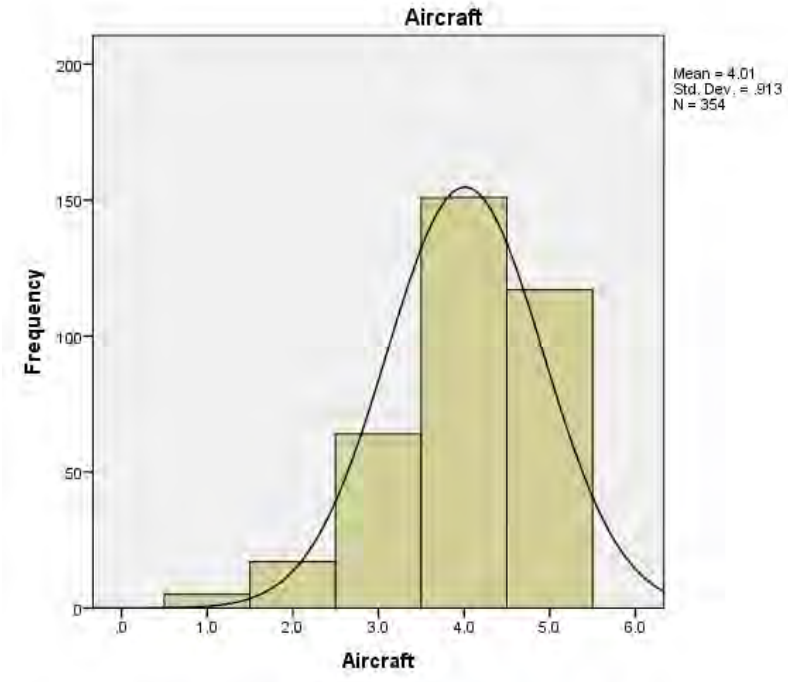
APPENDIX A: FIGURES

Figure 4: Histogram for Respondent on Safety



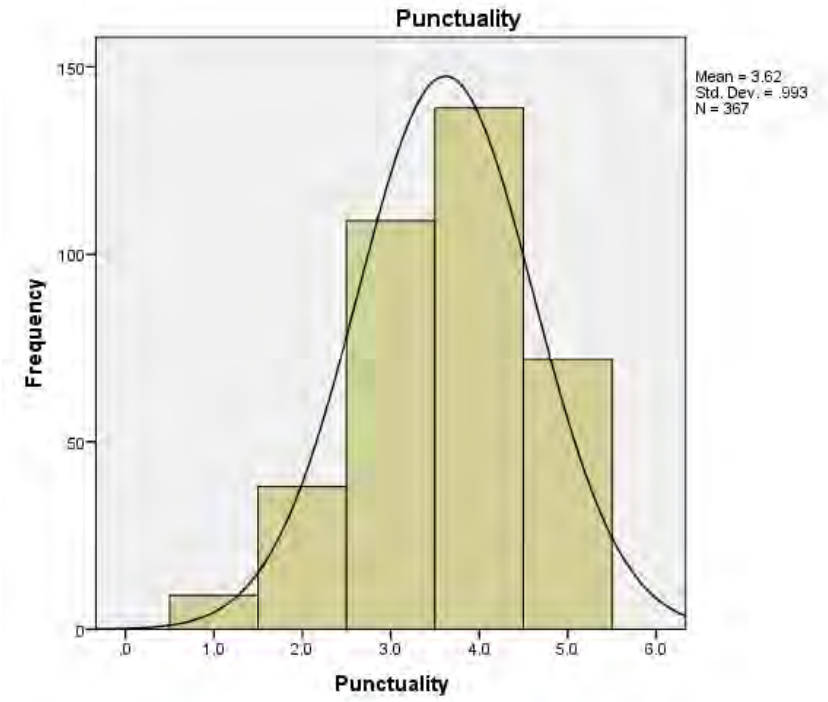
Source: Primary Data

Figure 5 Histogram for response on aircraft quality



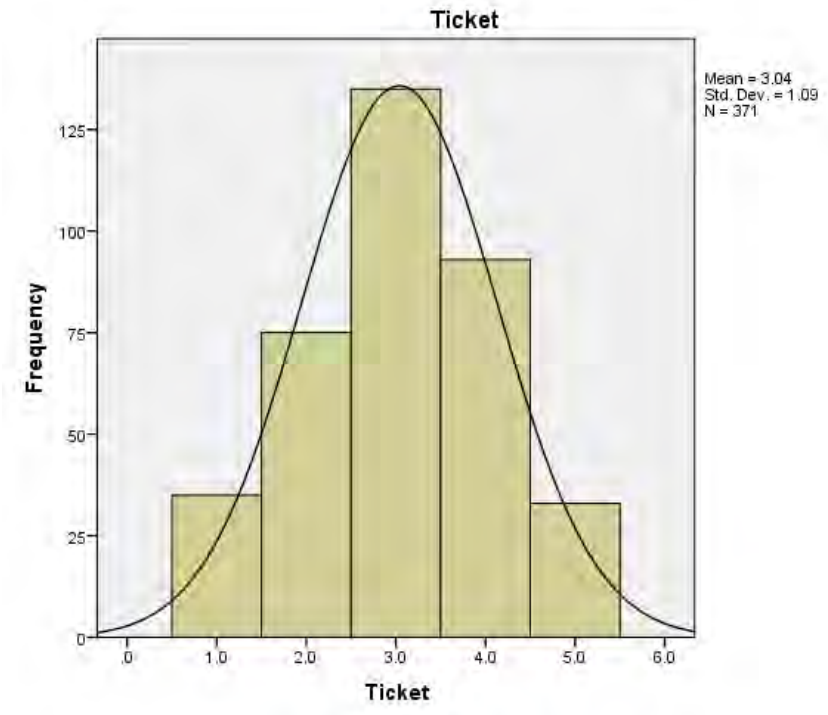
Source: Primary Data

Figure 6 Histogram for response on airline punctuality



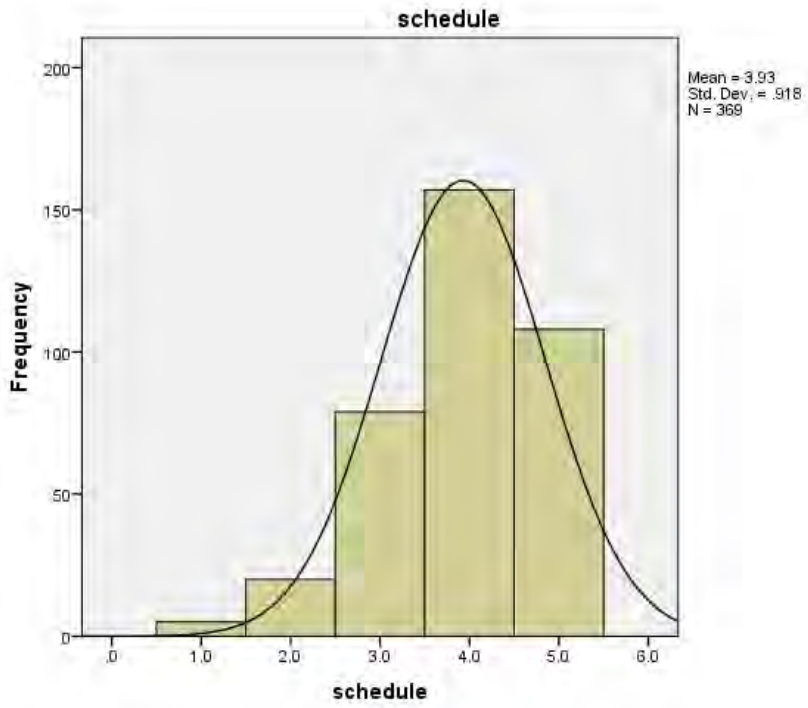
Source: Primary Data

Figure 7 Histogram for response on Ticket Price



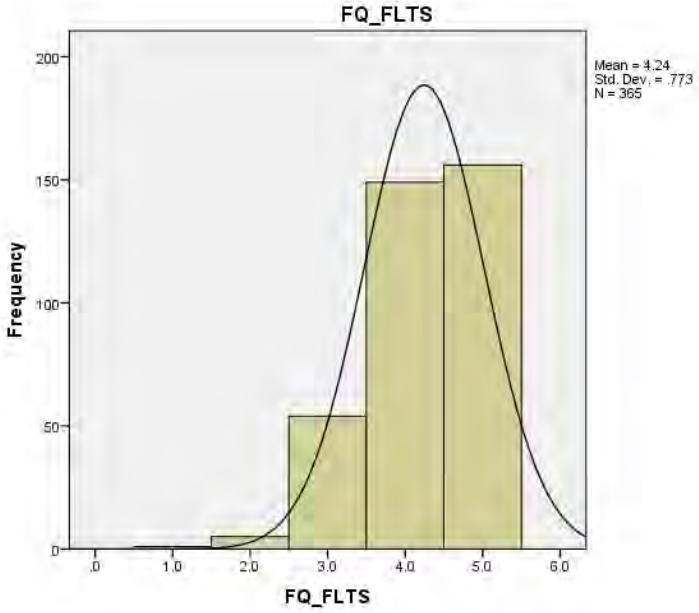
Source: Primary Data

Figure 8 Histogram on response convenience of schedule



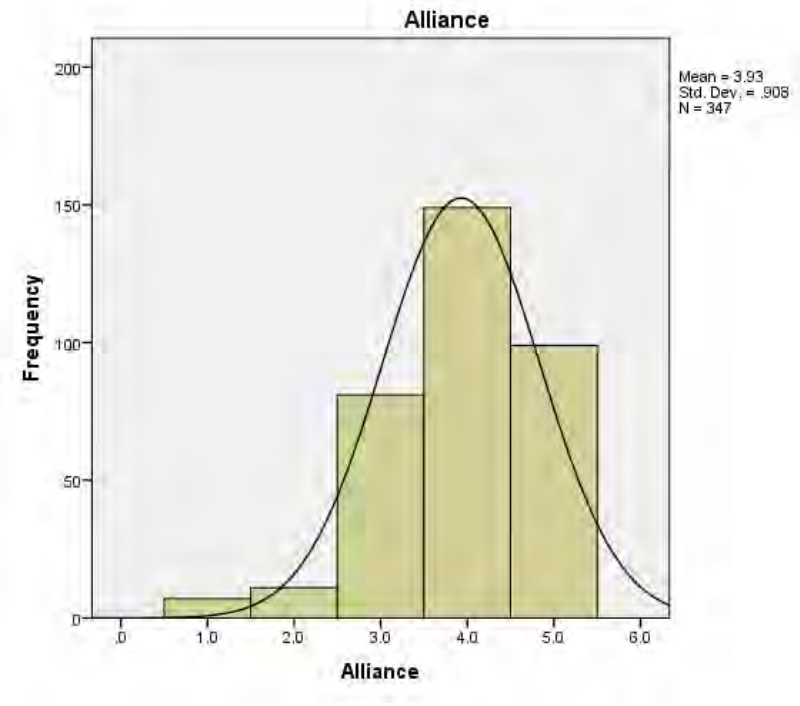
Source: Primary Data

Figure 9 Histogram on response on frequency of flight



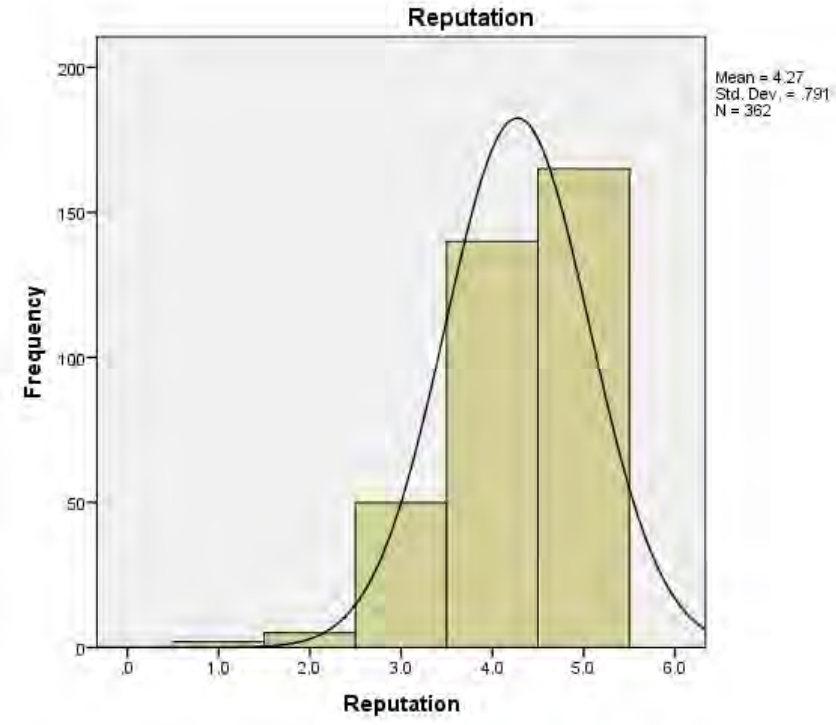
Source: Primary Data

Figure 10 Histogram on response on Alliance



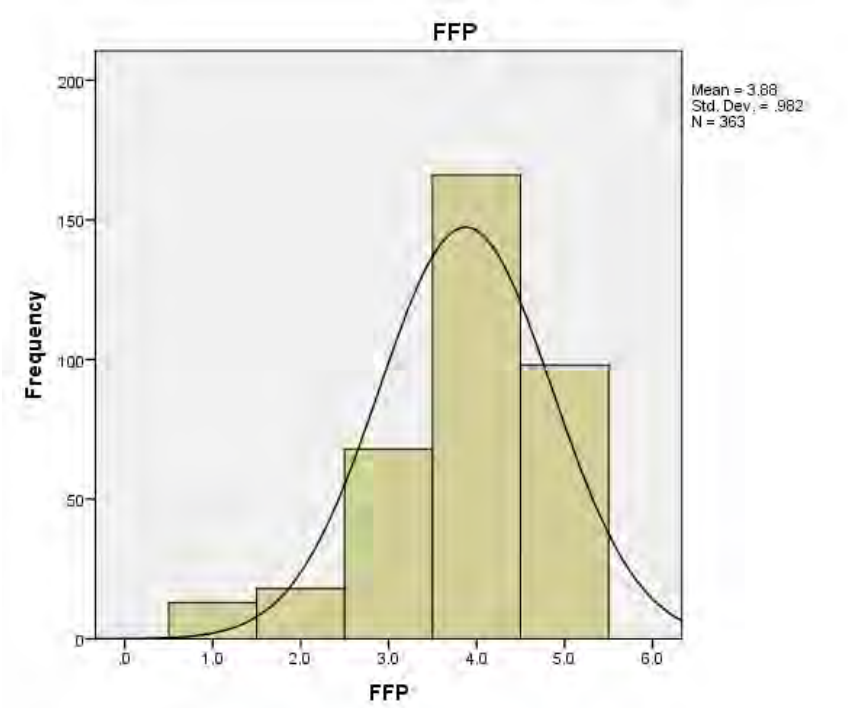
Source: Primary Data

Figure 11 Histogram on response on reputation of the airline



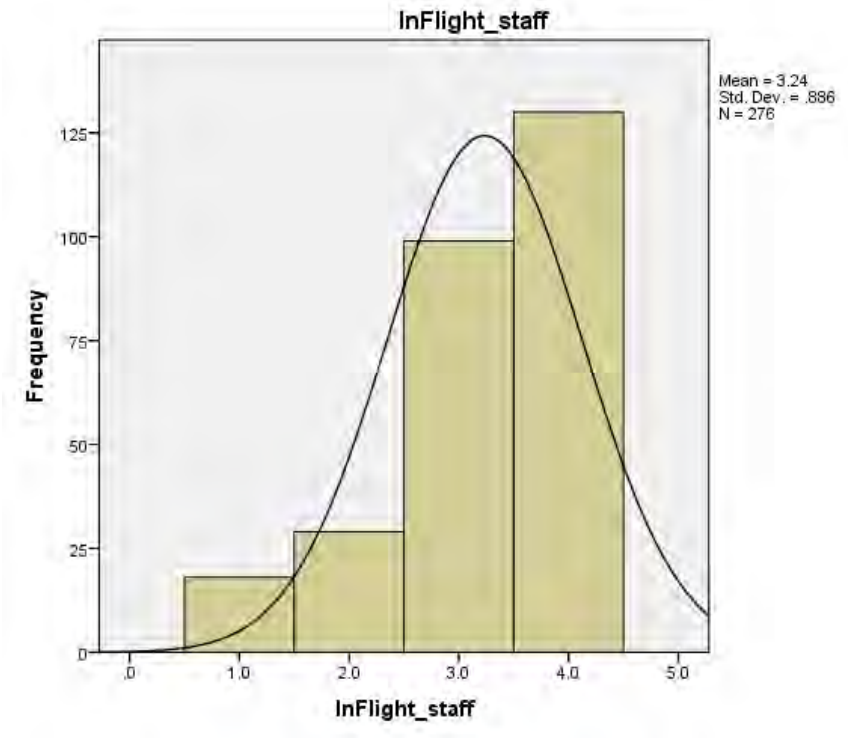
Source: Primary Data

Figure 12 Histogram on response on generousness of FFP



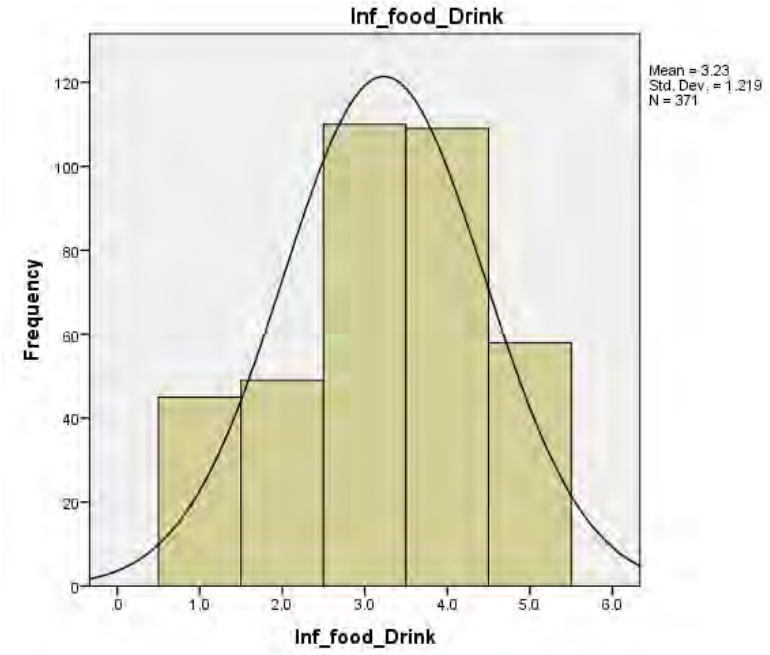
Source: Primary Data

Figure 13 Histogram on response on courtesy and responsiveness of In-flight staff



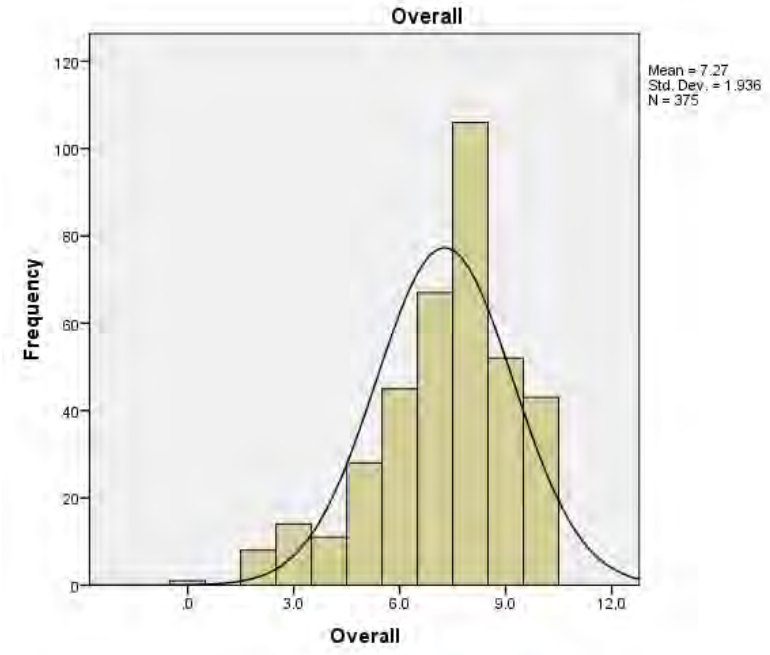
Source: Primary Data

Figure 14 Histogram on response on Inflight food and drinks



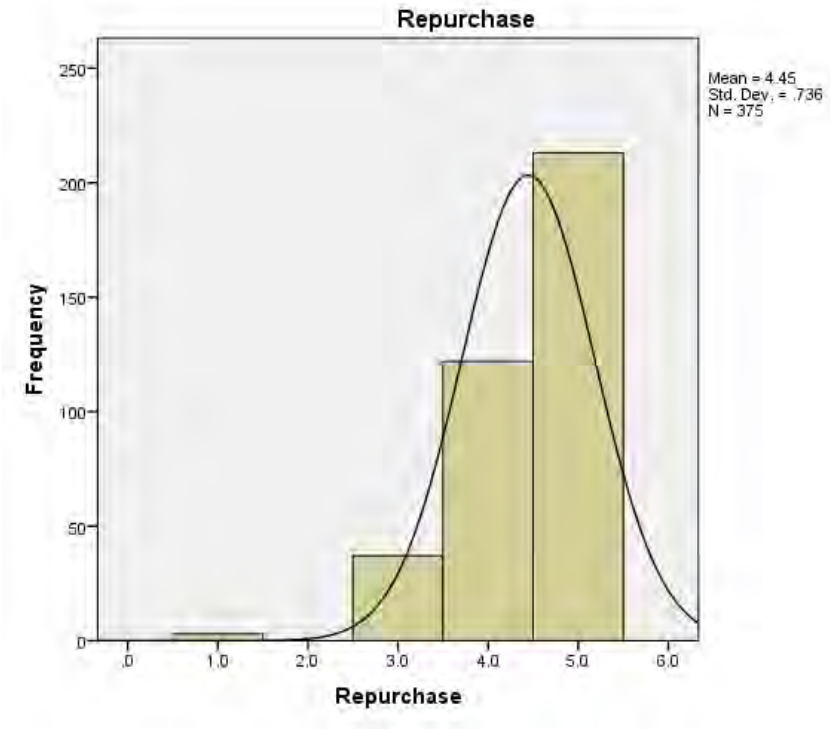
Source: Primary Data

Figure 15 Histogram on response on overall satisfaction



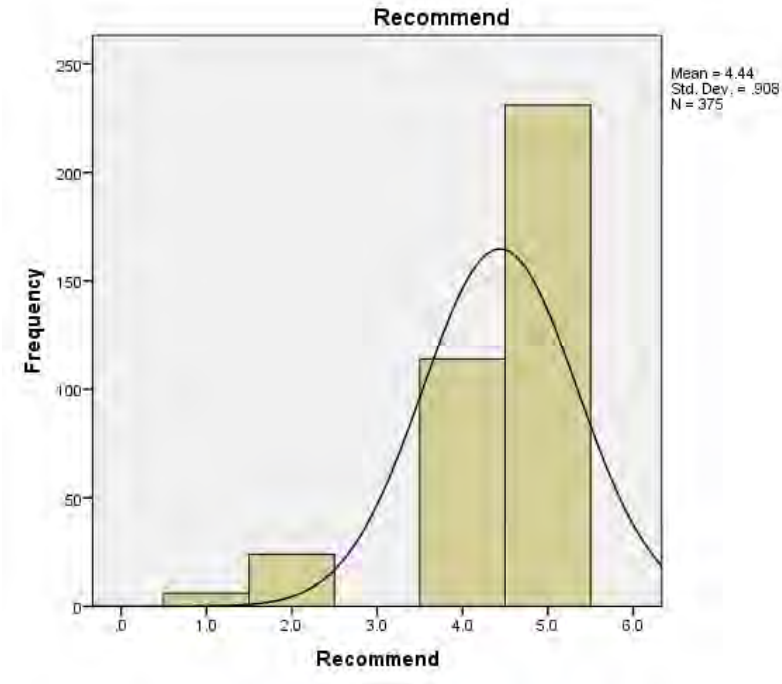
Source: Primary Data

Figure 16 Histogram on response on intentions to repurchase



Source: Primary Data

Figure 17 Histogram on response on intention to recommend



Source: Primary Data

APPENDIX B: SURVEY QUESTIONNAIRE

2. One Minute Survey To Capture Your Personal Air Travel Experience in 2014. You have received this survey simply because you have traveled by air in the year 2014. The survey is independent of any airline business organization.

1. Survey on Airline Passenger Experience

Welcome!

This is an airline passenger survey. You have received this survey simply because you have travelled by air in 2014. The survey is independently conducted by students of Addis Ababa University attending Masters in Business Administration program for educational purpose. Your answers will be kept confidential and no personal identification information is required.

Completing this questionnaire is easy, and will take only 3-4 minutes of your time as what you need to do is just few clicks.

There are no right or wrong answers.

It is your personal experience and true opinions that really matter!

1. How many times have you traveled by air in the last 12 months?

2. Most of your air travel are for the purpose of

- ○ Business
- ○ Tourism
- ○ Visiting friends and relatives
- ○ Other (please specify)

3. What airline do you usually fly with?

- ○ Egypt Air
- ○ Ethiopian Airlines
- ○ Emirates Airlines
- ○ Gulf Air
- ○ Kenya Airways
- ○ Lufthansa Airlines
- ○ Qatar Airways
- ○ Saudi Arabia Airlines
- ○ Yemen Airways

4. Based on your overall travel experience, how would you rate your satisfaction with this airline?

Extremely dissatisfied (0)	1	2	3	4	Neutral (5)	6	7	8	9	Extremely Satisfied (10)
○	○	○	○	○	○	○	○	○	○	○

5. Based on your overall travel experience, how would you rate this airline's performance with respect to the following factors?

	Poor (1)	2	3	4	Excellent (5)
Ticket Price	☐	☐	☐	☐	☐
Convenience of schedule	☐	☐		☐	
Frequency of flights In-	☐	☐	☐	☐	☐
flight staff service	☐	☐	☐		☐
Frequent flyer program	☐	☐	☐	☐	☐
Alliance with other airlines	☐	☐	☐		☐
Flight Punctuality	☐	☐	☐	☐	☐
Aircraft	☐	☐	☐		☐
Safety record	☐	☐	☐	☐	☐
Airline reputation	☐	☐	☐	☐	
In-flight food and drinks	☐	☐	☐	☐	☐

6. How likely are you to select this airline again for your next trip?

Very unlikely	Somewhat unlikely	Neutral	Likely	Very Likely
○	○	○	○	○

7. Would you recommend this airline to your friends?

Definitely no	Possibly no	Not sure	Possibly yes	Definitely yes
○	○	○	○	○

8. What is your age?

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 or older

* 9. What is your gender?

- Female
- Male

10. What is the highest level of education you have completed?

- Secondary school and below
- Vocational diploma/university degree
- Postgraduate degree