

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF COMMERCE**  
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**Customs Clearing Agents & Forwarders' Satisfaction on Ethiopian Cargo Services**

**A Thesis Submitted as a Partial Fulfillment of the Requirements for the Award of Master  
of Arts Degree in Marketing Management**

**By**

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# Declaration

I, Nuru Edriss, declare that this work entitled “Customs Clearing Agents & Forwarders Satisfaction on Ethiopian Cargo Services; The impact of frequency of interaction & experience/tenure in the industry on satisfaction level”, is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the research advisor.

This study has not been submitted for any degree in this or any other University. It is offered for the partial fulfillment of the Masters degree in marketing management.

By: Nuru Edriss

Signature\_\_\_\_\_

Date\_\_\_\_\_

Advisor: Dereje Teklemariam. (Assistant Professor)

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Nuru Edriss

# Abbreviations

ACE	Air Cargo Excellence
ARR	Arrival
AWB	Air Way Bill
AWD	Doc's delivered to forwarder
AWR	Doc's (AWB) received at destination airport
C2K	Cargo2000 (Air cargo quality initiative under IATA sponsorship)
Cargo iQ	New term coined for C2K.
CCA	Custom Clearing Agents
DEP	Departure
DLV	Delivered
ERCA	Ethiopian Revenue & Customs Authority
ET/EAL	Ethiopian Airlines
FAB	Flown As Booked
FFP	Frequent Flyer Program
FW	Forwarder
FWB	Full AWB
IATA	International Air Transport Association
IMF	International Monetary Fund
MP4	Montreal Convention
NFD	Notified
OMS	Output Management System
PLUM	Polytomous Universal Model
RCF	Received from Flt.
RCS	Received from Shipper
SBU	Strategic Business Units
SDR	Special Drawing Right
SERVQUAL	Service Quality
SPSS	Statistical Package for Social Sciences

## Abstract

Customer satisfaction has become a key intermediary objective in service operations due to the benefits it brings to organizations. Moreover the importance of customer satisfaction is derived from the generally accepted philosophy that for a business to be successful and profitable, it must satisfy customers. In this research undertaking Custom Clearing Agents and Forwarders satisfaction on Ethiopian Cargo Services is assessed. 133 CCAs & FWs have participated in the study. Data was collected using a reliable questionnaire developed for the purpose. Data analysis was done using descriptive statistics, chi-square and ordinal regression using SPSS (statistical package for social sciences, version 20) as a statistical tool. The overall satisfaction score of the organization was found to be 61%; with highest score on the queuing system at export counter (75.6%) and lowest on the claim process for damage, pilferage or loss (36.8%).

*N.B. All of the satisfaction and quality ratings are based on data collected on March 2015*

# CHAPTER ONE INTRODUCTION

## ***1.1. Background of the Study***

From seventies, world transportation sector has started to be formed in itself. Especially cargo transportation sector has developed and it has become a sector on its own separately from the transportation sector. This new cargo transportation sector has begun to differentiate from the transportation sector and established its own rules of working since 1980. The cargo companies which have brought together the information and the technology have become a firm in the global world economy. Cargo transportation sector which connects the four points of the world with roads, maritime lines and airlines has taken its place in the world economy as a construction which uses and improves the communication technology (Kursunluoglu, 2011).

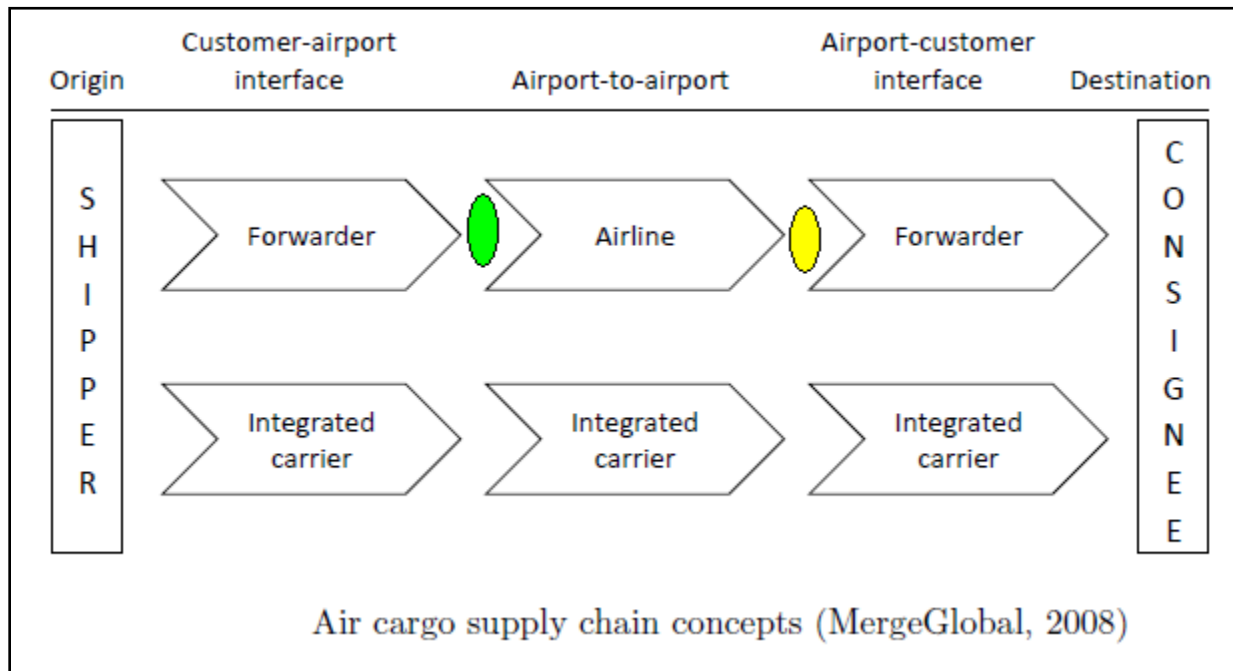
Air travel has always been classified as one of the more intangible service industries (Kloppenborg and Gourdin, 1992; Shostack, 1977). This classification has been attributed to the industry exhibiting the five distinguishing characteristics of services as summarized by Clemes, Mollenkopf, and Burn (2000). The air travel industry is part of a steadily growing service sector (Lovelock, Patterson, and Walker, 2004). The growth of the service sector not only offers business opportunities but also poses competitive threats for many service marketers, and this is particularly the case for the air travel industry (Clemes, Gan, Kao & Choong, 2008).

Air freight has developed very rapidly during the last decades from a pure by-product of passenger airlines to a self-contained business. The air cargo sector can be characterized by short transport times on long distances, as a reliable and safe transport mode, by comparatively little transport capacities (compared to ship, train and road transport) and by high average transport rates (Grin, 1998).

Customer focus is emerging as the key to sustained competitive advantage in both the production and service industry (Manani, Nyaog, Bosire, Ombati & Kongere, 2013)

Delivering excellent service sustains customers' confidence and is essential for a competitive advantage. Delivering quality service requires understanding the needs of our customers, listening to feedback and a commitment to continuous improvement. Key to this is cultivating a motivated workforce to continuously drive service excellence within the organization. The

business environment in which organizations are operating in is highly competitive, and is ever changing courtesy of expansion and use Information Technology and globalization thus organizations have been forced to focus on managing their customer relationships, and in particular customer satisfaction and customer loyalty in order to efficiently maximize revenues. Organizations that offer excellent service improve their profitability margin because it results in more new customers, more business with existing customers, fewer lost customers, and less mistakes committed by the service providers (Manani, Nyaoga, Bosire, Ombati and Kongere, 2013).



The above supply chain concept by MergeGlobal, 2008 shows the value chain in air cargo; the green oval shape indicates custom clearing agents/forwarders interaction with the airline in the export business. Where as the yellow oval shape indicates custom clearing agents/forwarders interaction with the airline in the import business<sup>1</sup>

<sup>1</sup> the ovals in the diagram are researcher’s own representation for ease of elaboration.

Ethiopian aviation group is currently under implementation of Vision 2025, 15yrs strategic road map that was launched after successful implementation of vision 2010. In the ongoing vision i.e. Vision 2025; the aviation group wants to be 4-star airline with 5-star customer service rating. In light of this the Cargo SBU is undertaking many reforms and amendments to stream line its process and give reliable and flawless service to its esteemed customers. (Cargo Terminal expansion feasibility, Ethiopian Cargo Infrastructure Development Project V01, 2013) In lieu of this, this research will enable the Cargo division to know its stand in one parameter of the vision as stated above and suggest some possible solution to be in course. Otherwise appreciate achievements and indicates sustaining tools.

Ethiopian Cargo is one of the SBUs of Ethiopian Aviation Group. It is the second highest revenue generating SBU next to International Passenger Service. Currently the SBU is operating two B757 and six B777F based in its Addis Ababa, Ethiopia hub. (Ethiopian Aviation group Annual Report 2015)

In accordance with the corporate vision the cargo division is under expansion in terms of fleet, new warehouse and apron for aircraft parking. The organization is in the right direction in implementing its vision 2025 from different parameters set. (Ethiopian cargo semi-annual Report Jul, 2015) but the customer satisfaction is not measured objectively and does not enroll systematic data gathering tool. It simply uses customers comments from the suggestion boxes placed at different locations in the premises. Therefore, this paper will help Ethiopian cargo to know its stand vis-à-vis its vision objectively and scientifically.

Custom clearing agents& freight forwarders, commonly known as “Transitors” at Ethiopian premises is perceived by many as the right English word for the Amharic equivalent of የጉምሩክ እቃ አስተላላፊ “Yegumeruke Eka Astellalafi” and/or እቃ አስተላላፊ “Yeeka astelalafi”. Whereas, the language doesn’t know the word “Transitor”, according to my exploratory research on this case I have come across that many [Ethiopian cargo staffs, the “transitor’s” themselves as well as the one who coined the word, Ethiopian Revenue & Customs Authority (ERCA) employees] do think that “transitor” is the right English word. In fact “Yegumeruke Eka Astellalafi” equivalent in English is custom clearing agents while “Yeeka astelalafi” do mean Freight Forwarders as clearly stated in *Council of Ministers Regulation No.1 08/2004 Customs Clearing Agents Council of Ministers Regulation.*

The point to be clear at this point is that “transitors”, as they are called in the compound of Ethiopian Cargo their de facto name used in the industry is “custom clearance agents”&/or “Freight Forwarders”. The reason I want to measure their satisfaction level is that, they interact with Ethiopian cargo more than any other customer (Repetitive customers); in yet it’s presumed that they are not much cared for. Basically customs clearing agents are licensed by Ethiopian Revenue & Customs Authority (ERCA) to properly fill the declaration form and hence to pursue smooth functioning of the process. No company can clear its import as well as export by its own- it should hire transitors/ customs clearing agents to act on its behalf. As indicted under *Council of Ministers Regulation No.1 08/2004 Customs Clearing Agents Council of Ministers Regulation& Council of Ministers Regulations No. 37/1998 Freight Forwarding and Ship Agency License Issuance Council of Ministers*

As to the reach of the researcher’s knowledge there is no thesis prepared on this topic in Ethiopia as well as abroad. This was due to the reasons that from other countries perspective; custom clearing agents only deal with customs authorities only, but in our case they do interact with both customs and airlines.

To achieve high level of customer satisfaction most researchers suggest that high level of service quality should be delivered by the service provider as service quality is normally considered an antecedent of customer satisfaction (Cronin, Brady, & Hult, 2000; Anderson et al., 1994; Cronin & Taylor, 1992). Therefore, the researcher has undertaken perceived SERVQUAL measurement on Ethiopian cargo at its Addis Ababa hub. The researcher has also discussed service quality as based on industry accepted measure called C2K. The researcher has also measured customer’s satisfaction by own developed questionnaire and supported by reliability test using pilot testing and Cronbach’s Alpha as construct reliability measure (0.857/0.849).

## **1.2. Statement of the Problem**

Satisfaction is a post purchase evaluation about the performance of goods or services which meet or exceed customer expectations. In the sense of the customer, the satisfaction is a degree of meeting the needs at the end of a purchase (Oliver, 1997)

Improving service quality using quality function deployment in air cargo sector of China airlines provides information on the freight service quality of China Airlines, building on the service quality model. By making use of a survey that looked at the disparity between expected service and perceived service received by air cargo forwarders. Then, by using data in quality function deployment (QFD), he has systematically determined the service demands of air cargo forwarders on airline cargo shipping and the corresponding organizational aspects of cargo shipping departments. Finally, through quality attribute ranking (QAR), methods to assist management in understanding the voice of outside consumer and better prioritize internal operations are developed. (Wang, 2007)

The values for degree of importance and degree of satisfaction in the service quality model show the variable with the largest gap between the two is “prompt handling of import/export work,” second is “willingness to help solve customer problems,” third is “Standard operating procedures,” fourth is “Clear explanation of service,” and the fifth is “flight punctuality” for analysis of perceptual gaps between these two factors. (Oliver, 1997)

QFD is a planning methodology for product development developed in 1972 at Mitsubishi's Kobe shipyard (Bergman and Klevsjo, 1994) and is a systematic method based on the idea of adapting technology to people (Anderson, 1991).

QAR provides an evaluation of the priority levels of consumer requirement attributes.

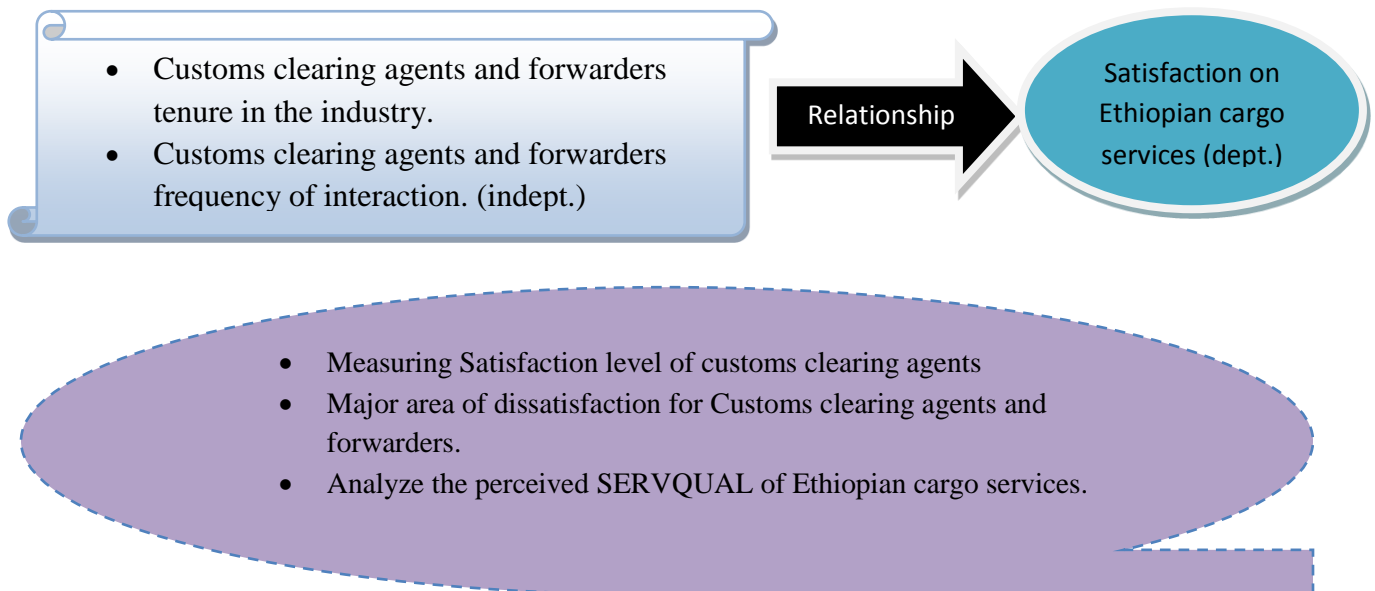
Another article by Kursunluoglu, 2011, uses a model consisting of internal marketing, customer services, personalized marketing, relationship marketing, customer relationship management, frequency marketing, turbo marketing, database marketing, and permission based marketing and one-to-one marketing. The conclusion is that cargo firms must ensure the satisfaction of the employees within the internal marketing, pay attention to the customer services within the pre-purchase, post purchase and encounter stage customer services, offer personalized services within the personalized marketing, try to retain existing customers and establish long-term

relationships with the customers within the relationship marketing, manage customer relationships well within the customer relationship management, separate the loyal customers from the other customers within the frequency marketing, try to pay attention to being fast within the turbo marketing, make personalized marketing communication campaigns by means of databases after getting the permission from the customers within the database, permission based and one to one marketing. So cargo companies can improve the customer satisfaction and customer loyalty.

***The research problem is to check whether there exists relationship between subjects' tenure and their frequency of interaction with their level of satisfaction. Moreover overall satisfaction and Ethiopian cargo service as perceived by customers as well as industry standards are also to be studied.***

Therefore, the paper also aims to undertake perceived SERVQUAL, as service quality is normally considered an antecedent of customer satisfaction (Cronin, Brady, & Hult, 2000; Anderson et al., 1994; Cronin & Taylor, 1992).

As stated above the research title is unique, hence the researcher has come up with the below model.



### **1.3. Research Questions**

The following research questions have been addressed in this thesis.

- Is Ethiopian cargo service up to the industry standard using Cargo2000/C2K/Cargo iQ?
- What is the perceived service quality of Ethiopian cargo?
- Does Ethiopian cargo service satisfy custom clearing agents/forwarders?
- Is subjects (custom clearing agents/forwarders) tenure in the industry related with their level of satisfaction?
- Is subjects' frequency of interaction related to their level of satisfaction? (Frequency of interaction)
- What are the major areas of subjects' dissatisfaction in their experience of Ethiopian cargo services?

### **1.4. Objective of the Study**

#### **1.4.1 General Objective**

The general objective of the study is to measure customs clearing agents/forwarders satisfaction on Ethiopian cargo services and to analyze the relationship between their tenure in the industry and frequency of interaction with their satisfaction levels.

#### **1.4.2 Specific objectives**

- To analyze the perceived SERVQUAL of Ethiopian cargo services.
- To measure custom clearing agents/forwarders satisfaction on Ethiopian cargo services.
- To analyze the relationship between customs clearing agents/forwarders tenure in the industry and their satisfaction on Ethiopian cargo services.
- To analyze the relationship between customs clearing agents/forwarders frequency of interaction and their satisfaction on Ethiopian cargo services.
- To identify major areas of their dissatisfaction with Ethiopian cargo services if any

### **1.5. Significance of the Study**

The researcher believes this study will have paramount significance from different perspectives.

From *Ethiopian cargo perspective* this will enable the company;

- To have objective, systematic, and well-structured measurement of its repetitive customer's satisfaction level.
- To know the actual level of customer satisfaction to be compared against its vision and to take appropriate action.
- Identify major areas of dissatisfaction for custom clearing agents/forwarders and hence improve.

*For other researchers* who want to dig the area further, it will serve as the first senior thesis paper on the title by being one of its kinds. It also aims to develop its own model by adopting similar research frameworks/models.

*From the researcher*, it has helped the researcher to acquire a wide variety of knowledge and skills while conducting this research. This will enhance the self-confidence and ability in conducting other researches in the future. Moreover, it helps to fulfill the master degree in marketing management requirement for the partial fulfillment of post graduate study.

### **1.6. Scope and Limitation of the Study**

The research subjects are only those who are engaged in the air cargo business only, not those who work along shipping companies.

The research subjects include all custom clearing agents/forwarders in the air cargo business i.e. both the export and import sections of Ethiopian cargo. Import section is further divided into personal and company sections; the customers under personal section are not included in the study since individual customers are expected to clear their shipments without third party involvement.

The Limitation of the study is that, it gives all customers satisfaction level equal weight despite volume/frequency difference among subjects of the study. It would be great if other researchers

could distribute questionnaires based on number of clearing agents' staffs in respective organizations rather than distributing it per company level.

### **1.7. Organization of the paper**

This research document is composed of five chapters. The composition and organization of each chapter is presented below.

The first chapter has served as an introduction for the whole document. Back ground information is given followed by statement of the problem. The objectives of the study and the basic research questions are also described here. Moreover, the significance, scope and limitation of the study are presented in this same chapter.

Chapter two is dedicated to provide a comprehensive description of the methodology followed in this research. A detailed description is given on the research design used and sample design utilized. The instrument used to collect the required data; its development and reliability are also dealt. The data collection procedures followed, is also described here. This is then followed by the description of the data analysis and presentation techniques used in the research.

Chapter three is dedicated to provide an in-depth literature review within the scope of this study. Here, important concepts such as customer satisfaction, perceived SERVQUAL, Airline industry with special focus on air freight and subsequent process of export & import are defined and discussed from different perspectives. Measurement issues in customer satisfaction and perceived SERVQUAL are also given reasonable attention. The major SERVQUAL parameters of air cargo are also discussed.

Chapter four is dedicated for data presentation, analysis and interpretation section of this work. Descriptive statistics has been provided first followed by inferential statistics results. The descriptive statistics section focus on describing the relevant variables used in this study. The demographic variables are described first followed by satisfaction levels. The inferential statistics section provides detailed findings on the chi- square, correlation and ordinal regression tests conducted.

The last chapter, chapter five includes the summary and important conclusion of this research undertaking. It also provides the recommendations forwarded.

## CHAPTER TWO REVIEW OF RELATED LITERATURE

### **2.1. Introduction**

#### **2.1.1. Airline Industry**

Air travel has been described by Mukarramah & Sulaimon (2014) it is classified as one of the more intangible service industries. This classification has been attributed to the industry exhibiting the five distinguishing characteristics of services as summarized by Clemes, Mollenkopf, and Burn (2000). The air travel industry is part of a steadily growing service sector (Lovelock, Patterson, and Walker, 2004). Ostrowski, O'Brien, and Gordon (1993) suggest that the growth of the service sector not only offers business opportunities but also poses competitive threats for many service marketers, and this is particularly the case for the air travel industry.

Traditionally, the airline industry was heavily regulated by governments on where and how airlines could operate (Piercy, 2001). However, the 1978 Airline Deregulation Act changed the competitive structure of the airline industry (Levin, 1987; Bailey, Graham, and Kaplan, 1985). Airline companies were allowed to set prices as well as enter and exit the industry upon meeting insurance and safety requirements. This limited revolution in the freedom for airlines to compete led to many new entries to the industry, and some considerable carnage. Mukarramah & Sulaimon (2014)

Customer satisfaction in airline operations has become critically important and Dennet, Ineson, Stone, and Colgate (2000) suggest that as competition created by deregulation has become more intense, service quality in the airline industry has also received more attention. The delivery of a high level of service quality by airline companies became a marketing requisite in the early 1990s, as competitive pressures continued to increase. Clemes, Gan, Kao & Choong, (2008)

Those that accept that the principles of Marketing provide a framework for all they do, and set out to apply these principles as widely and as rigorously as possible are more likely to succeed, Shaw (2007).

### ***2.1.2. Air Cargo Industry***

Air Cargo is any commodity sent by air. The shipper contacts a freight forwarding agent who collects the cargo, arranges for the export customs formalities, books the shipment with an airline, cuts an Air Way Bill, and deliver the cargo to the airline's handling agent at the airport. The handling agents check that the cargo is ready for carriage. After this check the cargo is manifested on the flight advised by the airline, loaded onboard the aircraft and flown to the chosen destination. At the destination, the cargo is cleared by the consignee's assigned customs clearing agent who, after the customs clearance, delivers the cargo to the consignee. Siren, Irmov, Stigaard & Backman (2013)

Generally air cargo is used for commodities of high value, which can absorb the relatively high cost of air transport. Only approximately 5% of all goods transported are transported by air, but the value of these goods represents more than 30% of the total transported goods value. (Siren, Irmov and Et al.)

This includes highly perishable goods which incur a significant decrease in product value if delayed, such as fresh foodstuff, flowers and similar products. Also a product which is urgently required, and for which a delay will result in high costs and losses, is sent by air. These commodities include aviation components, ships spares, machinery spare parts, medical equipment, fashion goods and similar products. Stigaard, Backman & Et al.)

#### ***The advantages of air cargo compared to other means of transport***

The transportation charges by air are generally higher than by surface or sea. However, such charges are only part of the distribution costs. Goods will be forwarded by air if this means of transport offers the customers some advantages. (Siren, Irmov, Stigaard & Backman, 2013).

International air shipping can be divided into three categories

- **Airmail.** The majority of airmail consists of important documents, small packages, and letters or documents, such as passports and gifts.

- **Air express.** Most goods in this category are standardized packages, high-value documents such as bonds and certain mail, and other goods that can be shipped simply using a convenient, comprehensive express service with clear standardized operations.

- **Air freight.** This consists of items that do not qualify under the other categories and includes ordinary items that need to be transported by air, such as live animals, dangerous goods, and sensitive machinery, as well as other goods that cannot be shipped easily or in a standardized form.(Wang, 2007)

The main factors that increase the importance of the cargo transportation sector are: coming into prominence of the transportation sector together with increasing foreign trade volume, increasing the usage of internet together with advancing technology and therefore great improvements in online retailing, being a young sector of the cargo transportation sector and for this reason its achieving quick and dynamic growth, effecting all the sectors positively due to its functioning as a bridge between the manufacturers and the consumers, offering the products to the market more quickly and with less cost.(Kursunluoglu, 2011)

## ***2.2. Players in Air Cargo Market***

Airports, exporting/importing industries, airports' handling companies, freight forwarders and customs clearance agencies, trucking companies and authorities (custom, environmental, security) are major players in air cargo market (Siren, Irmov, & Et al.)

### Airports

The key players for establishing cargo flows for an airport and attracting airlines are firstly the airports themselves as they provide the infrastructure required for the aircrafts, passengers and the cargo movements. This includes also the overall security of aircrafts, passengers and the cargo carried.

### Exporting/Importing Industries

The whole base for establishing a cargo demand is the presence of producers and companies in the vicinity of the airport, or within a relatively short trucking distance, and that these companies have a demand for importing and exporting their products, and that at least part of this is moved by airfreight.

### Airports' handling companies

As most airlines do not perform any handling at the destinations outside their home base and country, the ramp and warehouse handling is contracted to handling companies. In certain airports, the airport themselves provide handling services. In other airports the handling is undertaken by handling companies.

#### Freight forwarders and customs clearance agencies

To arrange for all formalities required for the export of air cargo, the shipper of an air freight shipment contracts a freight forwarding agent for the pick-up of the cargo, selecting and booking to the airline, issuing the Air Way Bill as well as customs documents required.

For the import handling of air freight shipment, consignees contract a customs clearing agent, who on behalf of the consignee, clears the shipment through customs and delivers the cargo to the consignee's premises.

#### Trucking companies

Trucking companies are either contracted by the customs clearing agent or freight forwarder to arrange for the transport to and from the shipper/consignee, or contracted by the airlines to perform distribution of import cargo from their hub to airports in the region and nearby countries as well as picking up cargo from these airport feeding back into the airlines hub.

#### Authorities (custom, environmental, security)

The presence of the customs are required for processing of both import and export cargo. In most countries this is now done by electronic transfer of the required data from the custom clearing agency to the customs authorities. However a physical presence of the customs authorities is in place at most airports to clear international passengers (Siren, Irmov, Stigaard & Backman, 2013). But, from Ethiopian perspective, for the smooth flow of customs clearing activities in Ethiopian customs Authority/House, freight forwarders or Customs Clearing Agents (CCA) play critical roles. Freight forwarding is the representation of a consignor or consignee locally or internationally in fulfilling customs, port and other formalities for import and export cargo. The freight forwarder is a person who is licensed to carryout freight forwarding. In other words, freight forwarder refers to a service provider working from his/her premises and taking care of range of operations relating to his/her clients' goods: transshipment, handling, storage and

various commercial and administrative formalities. He/she is generally also a customs broker (Binyam Zewdie, 2007).

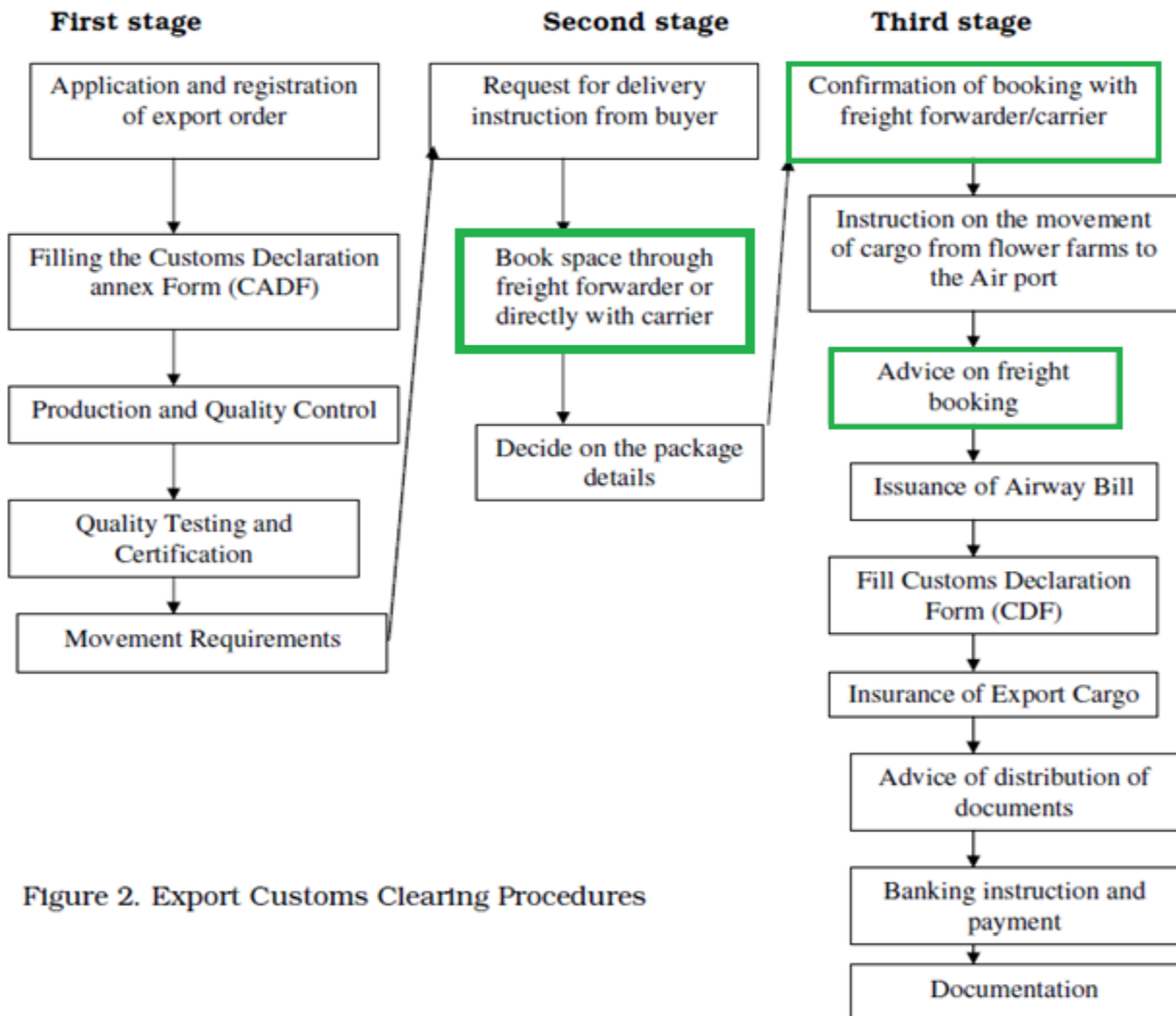
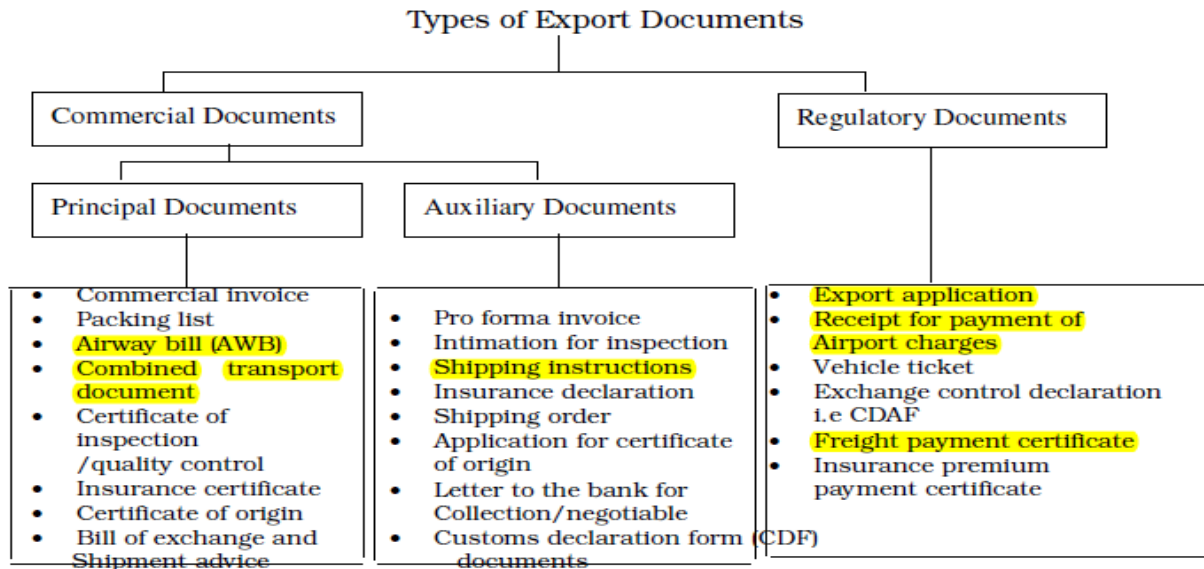


Figure 2. Export Customs Clearing Procedures



Source: Ethiopian Customs Authority

Types of Export Documents

(Binyam Zewdie, 2007).

### Export Customs Clearing Documentation

Export transaction requires many documents to be submitted to various authorities. Export documents facilitate the flow of goods and payment thereof across the national boundaries. The two broad groups of export documents are commercial documents and regulatory documents.

*Commercial documents*, effect physical transfer of goods and their title from an exporter to an importer. They are further classified into principal documents and auxiliary documents.

Regulatory documents are those documents which are prescribed by the Government regulations and hence their presentation is compulsory.

### **2.3. Customer Satisfaction**

Satisfaction is a post purchase evaluation about the performance of goods or services which meet or exceed customer expectations. In the sense of the customer, the satisfaction is a degree of meeting the needs at the end of a purchase (Oliver, 1997). The satisfaction is an evaluation about how much the retailer could meet or exceed customers' expectations (Levy, Weitz, 2007). The comparison of expectation and performance in the post purchase stage determines the satisfaction level of customers.

Customer satisfaction is a result of the comparison process between expectations and perceived service performance. Customer satisfaction is measured by “Disconfirmation Theory”. Disconfirmation theory is the comparison of the performance level which occurs after using the product or service and the expectation level which occurs before using the product or service as better or worse. If the product or service is worse than expected (Expectation>Performance) “negative disconfirmation”, if better (Expectation<Performance) “positive disconfirmation”, and if as expected (Expectation=Performance) “confirmation” must be occurred (Oliver, Rust and Varki, 1997).

Customer satisfaction occurs in the situation of “confirmation” and “positive disconfirmation”. In “negative disconfirmation” situation, there is dissatisfaction. Customer satisfaction will be provided if a product or service meets the customers’ expectations. This is the situation of “positive disconfirmation”. If the perceived performance of a product or service is under the customers’ expectations, a product or service cannot satisfy the customer. This is the situation of “negative disconfirmation”. If the perceived performance of a product or service and the expectations before using a product or service are equal, there is formed customer satisfaction. This is the situation of “confirmation” (Kursunluoglu, 2011).

Customer satisfaction has become a key intermediary objective in service operations due to the benefits it brings to organizations (Ranaweera and Prabhu, 2003). The importance of customer satisfaction is derived from the generally accepted philosophy that for a business to be successful and profitable, it must satisfy customers (Shin and Elliott, 2001). Previous research has demonstrated that satisfaction is strongly associated with re-purchase intentions (Cronin and Taylor, Fornell, 1992). Customer satisfaction also serves as an exit barrier, helping a firm to retain its customers (Fornell, Halstead and Page, 1992). Several studies have concluded that it costs more to gain a new customer than it does to retain an existing one (Blodgett, Wakefield, and Barners, 1995; Gummesson, 1994). In addition, customer satisfaction also leads to favorable word-of-mouth publicity that provides valuable indirect advertising for an organization (Clemes, Gan, Kao & Kao, 2008).

Airline industry has always been famous for its continuous struggle: cutting costs, managing fluctuating demand, keeping up with tight quality requirements while trying to maintain superior services and satisfy needs of various customer groups. Customer

satisfaction has been on very low levels for decades, and e.g. according to American Customer Satisfaction Index, airline industry scores lowest out of 47 other industries (CNN.com, Airlines score lowest in customer satisfaction, 2011). However, the demand for air transportation has been stable and despite current economic crisis and such events as September 11, the growth reached 7.8% in 2011 Tolpa (2012).

### 2.3.1. Air Cargo Customers Satisfaction

There are ten variables constituting customer satisfaction and loyalty (Kursunluoglu, 2011). The model is depicted below.



The Model for Improving Customer Satisfaction and Loyalty for Cargo Firms

#### i. Internal Marketing

Internal marketing emphasizes the importance of the employees who work in the service firms. In internal marketing approach, customer is divided into two parts as internal customer and external customer. Internal customer is the employee of the company whereas external customer is the final customer of the company. In internal marketing approach, employees are seen as a customer of the company. Internal marketing explains that if the internal customer satisfaction is not provided, the external customer satisfaction could not be formed. (Kursunluoglu, 2011)

To create customer satisfaction firstly a cargo company must satisfy the internal customers. The satisfied employees can lead to the satisfied customers. The cargo firms must invest in their employees by raising the motivated applications like rewards, prizes, premiums and giving seminars, courses which increase customer knowledge. (Kursunluoglu, 2011)

ii. Customer Services

Customer service is activities and benefits that directly or additionally related with the products which are sold (Tek, Orel; 2006). The customer satisfaction occurs in the case of the values provided by retailing experience and the customer services meet or exceed the customer expectations (Berman, Evans; 2010). Cargo companies offered customer services about long working hours such as early opening and late closing hours, the stores available in all times (night-stores) and the stores available on Sunday. When the cargo companies are offering these customer services about the working hours to their customers, they must think also their employees. They should not work their employees through long hours and nonstop. Such an application is against with the internal marketing practices already.

Cargo companies must offer informative customer services. For this; they must design their websites in the manner to meet the customer expectations. For example; most cargo companies provide that kind of services through their web sites: finding the closest branch, calculating consignment, showing social responsibility campaigns and advertising. Also cargo firms can deliver some brochure in pre-purchase stage for informing customers.

The most important customer services in the service encounter stage are the services offered by the employees. In the cargo companies, the employees in the branch and the carriers are the personnel who communicate with the customers face-to-face. Being a smiling employee, having kind behaviors towards to the customers, informing customers accurately and giving correct and sufficient answers to the customers are the main customer services offered by the employees in this stage. The other customer services in encounter stage are credit sales and gift wrapping. Most cargo firms have credit sales. And cargo firms must notice gift wrapping because of the customers may choose sending gifts through cargo firms to the far cities or countries.

The customer complaints are the most important customer services in the post purchase stage. It is very important for the cargo companies to change the angry customer into the loyal customer by making the complaint management for the customer satisfaction and loyalty.

iii. Personalized Marketing

The cargo companies' delivery in the time which the customers want is an example for the personalized marketing. The cargo companies are the service retailers and must make some personalization based on the wants and the needs of the consumers when they offer a service which increases the customer satisfaction and loyalty. Within the personalized marketing, the delivery in the time which the customer determined offers a distinctive service for the cargo companies and creates the customer satisfaction and loyalty. (Kursunluoglu, 2011)

iv. Relationship Marketing

The aim of the relationship marketing is to retain customers, to improve long-term customer relationships and thus to provide the customer satisfaction and loyalty. Within the scope of relationship marketing, cargo companies should retain existing customers instead of gaining new customers and establish long-term and permanent relationships with them. For these, relationship marketing must utilize other marketing implementations which will explain below such as customer relationship management, database marketing etc. (Kursunluoglu, 2011)

v. Customer Relationship Management

Within the scope of customer relationship management, customers can be classified according to their profitability. Accordingly, it is enough to form basic relationships with the first group of customers with a big number but low profitability. This basic relationship is formed by means of the activities such as conducting brand advertisement, using the web site effectively, having a free call center which the customers can access to in any time, sales promotion activities such as buy one get one free campaigns, buy four pay three campaigns, giving presents etc. (Kursunluoglu, 2011)

The second group of customers is these with a lower number but higher profitability. Rather than forming basic relationships, it is necessary to establish full membership relations with them. Here, frequency marketing is important.

Cargo companies should manage the customer relationships well in order to improve the customer satisfaction and loyalty, should make a distinction between a profitable customer and a

normal one and should continue its marketing communication and frequency marketing activities in this way. (Kursunluoglu, 2011)

vi. Frequency Marketing

Frequency marketing is a marketing type which gives presents and rewards customers who purchase frequently and regularly from the same retailer. Cargo companies can establish basic relationships by means of advertisings, sales promotions, website, free call center with their customers who are big in number but who provide lower profits and on the other hand they can establish full memberships by means of the frequent buyer program and club marketing program with those customers who are less in number but who provide higher profits. These loyalty program types such as awarding customers who purchase often or in high quantities, creating member communities and presenting special discounts to the members are the tools for frequency marketing. (Kursunluoglu, 2011)

vii. Turbo Marketing

Turbo marketing is a process based on producing and delivering the products or services not only cheaper, different and more qualified but also much more quickly for the satisfaction of time-sensitive consumers. Turbo marketing includes faster production and faster logistics activities to satisfy customers. Within the turbo marketing, cargo companies try to improve customer satisfaction and loyalty by developing applications such as faster delivery and delivery within a day by using the speed factor as base. (Kursunluoglu, 2011)

viii. Database Marketing

Database marketing is used for knowing the customers better and creating customer satisfaction and loyalty. Database marketing ensures to offer better service to the customers by using the information in the databases. The purpose of database marketing is to know the customers better, to determine which customer is interested in which product or service, to maintain the customer relationships and to provide customer relationship management. Cargo companies will be able to know their customers better by storing their information in databases and thus when the customer comes to the branch again, it will be possible to know some information about the customer such as the address, phone number, e-mail address of the customer and to whom the customer made

reference. It means giving service to the customer in a better way and is important for improving customer satisfaction and loyalty. (Kursunluoglu, 2011)

ix. Permission Based Marketing

Permission based marketing is about asking permission before beginning marketing communication activities for communicating with customers. Cargo companies must contact with customers within their expectations, needs and wants in order to improve the customer satisfaction and loyalty. (Kursunluoglu, 2011)

x. One to One Marketing

One to one marketing is about presenting personal marketing communication activities. It communicates with the customers one by one, within their information which is taken through databases and by getting permission beforehand. One to one marketing is a system which uses firstly, database marketing and secondly, permission based marketing and communicates with the customers one-by-one thanks to database and permission based marketing. Cargo companies should perform personalized marketing communication activities with their customers in order to improve customer satisfaction and loyalty. (Kursunluoglu, 2011)

## ***2.4. Service Quality***

Service quality is an attitude or global judgment about the superiority of a service, although the exact nature of this attitude is not agreed (Robinson: 1999). Viewpoints differ regarding the origins, suggesting that it stems from a comparison with ideal standards (Teas: 1993); from perception of performance alone (Cronin & Taylor: 1994), to a comparison of expectations with performance perceptions/disconfirmation (Parasuraman et al: 1998).

Quality is often defined by many scholars as “Conformance to specifications”. However according to (Parasuraman et al, 1988), Quality is conformance to customer specification; it is the customer’s definition of quality, not managements, that counts.

Defining and measuring quality in services might be difficult due to the intangible nature of the service offering (Singh and Khurana, 2011). This is due to Intangibility, heterogeneity, inseparability, and perishability characteristics of service (Bateson 1995, cited in Naik et al, 2010).

According to (Parasuraman et al., 1985) Customers assess service quality by comparing what they want or expect to what they actually get or perceived they are getting. In addition their research stated that customer's expectations cover five dimensions such as Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

There is a close link between the customer's perception on service quality factors and the customer satisfaction (Fatima and Gnanadhas, 2011). On the other hand (Munusamy et al, 2010) concluded that there is a positive relationship between reliability, assurances, tangibles, empathy, and responsiveness with customer's satisfaction.

Service quality is interpreted as perceived quality which means a customer's judgment about a service (Culiberg & Rojsek, 2010). In global and highly competitive market, it is essential for the survival of any firm involved in the service industry to be adaptive, responsive to changes, proactive and has the capability to deliver high quality products according to diverse customer requirements (Singgih & Ardhiyani, 2010).

Previous studies suggest that service quality is an important indicator of customer satisfaction (Spreng and Machoy, 1996). Attention to service quality can make an organization different from other organizations and gain a lasting competitive advantage (Boshoff and Gray, 2004). In particular, consumers prefer service quality when the price and other cost elements are held constant (Turban, 2002). It has become a distinct and important aspect of the product and service offering (Caruana, 2002). The satisfaction a customer gets from quality of service offered is usually evaluated in terms of technical quality and functional quality (Gronroos 1984). Usually, customers do not have much information about the technical aspects of a service; therefore, functional quality becomes the major factor from which to form perceptions of service quality (Donabedian, 1982). Service quality can be measured in terms of customer perception, customer expectation, customer satisfaction, and customer attitude (Sachdev & Verma 2004). Ekinici (2003) indicates that the evaluation of service quality leads to customer satisfaction. Rust and Oliver (1994) define satisfaction as the "customer fulfillment response," which is an evaluation as well as an emotion-based response to a service.

Parasuraman, Zeithaml, and Berry (1988, 1990) projected a service quality model that identified perceived service quality into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy.

1. Tangibles involve the appearance of physical facilities, including the equipment, personnel, and communication materials.
2. Reliability involves the ability to perform the promised service dependably and accurately.
3. Responsiveness involves the willingness to help customers.
4. Assurance involves the knowledge and courtesy of employees and their ability to convey trust and confidence. This assurance includes competence, courtesy, credibility and security.
5. Empathy involves the provision of caring, individualized attention to customers. This empathy includes access, communication, and understanding the customer. (Agyapong, 2010)

#### *2.4.1. Air Cargo Service Quality*

Airline industry has always been famous for its continuous struggle: cutting costs, managing fluctuating demand, keeping up with tight quality requirements. In this struggling environment, airlines are forced to shift their focus towards customer oriented service quality (Chang & Yeh, 2002). In the airline industry, services are composed of very complex mix of intangibles as the airlines sell not physical objects but performances and experiences (Gursoy et al., 2005). Thus, service quality is a key to attract and keep loyal customers. (Tolpa, 2012).

Cargo200 (C2K) defines quality standards for the supply chain, is improving the efficiency of the air cargo industry, improving customer service and reducing costs to all participants by implementing a program of agreed business and automation standards, which are measurable and lead to quality competitive performance. (IATA Cargo2000, 2013)

The Air Cargo Excellence (ACE) Survey was established in 2005 and is carried out and published annually by Air Cargo World. The survey is based upon a rating system that measures airlines and airports on specific criteria and subsequently ranks them to identify above or below average performance. There are two surveys — one for airlines and one for airports — based on their performance during the previous 12 months. (<http://aircargoworld.com/>)

***Airline Survey***

Airlines are rated by freight forwarder subscribers on:

***Customer Service:*** Claims handled with expedience; problems solved in a prompt and courteous manner; professional and knowledgeable sales force

***Performance:*** Fulfills promises and contractual agreements; dependable; accomplishes scheduled transit times

***Value:*** Competitive rates; rates are commensurate with required level of service; value-added programs

***Information Technology:*** Tracking and tracing of shipments; electronic commerce capabilities (<http://aircargoworld.com/>)

## CHAPTER 3 RESEARCH METHODOLOGY

### 3.1 Research Design

A diagnostic research study has been enrolled to determine the frequency with which something occurs or with which it is associated with something else (Kothari, 2004). Similarly Tharenou, Donohue & Donohue, 2007 states co relational field studies (surveys) usually require the measurement of several independent variables and one or more dependent variables, as well as control and other variables (e.g., mediators, moderators).

Unlike an experimental design, a correlation field study (survey) is less able to make strong causal inferences. The interpretation is usually correlated in nature. In other words, the aim of a correlation field study (survey) is to assess the extent of the relationships (correlations) between the independent variables and dependent variable(s). The variables are selected to help answer a research question, to test hypotheses, and are usually chosen based on a theory or theories that underlies the explanation proposed for the phenomenon being examined (Tharenou, Donohue & Donohue, 2007).

The researcher has implemented exploratory research to get insight to the nuances of the process for best selection of research methodology tools that will fit best to the respective stages to be undertaken along the research process. In light of the exploratory research undertaken descriptive and diagnostic designs have been employed. The former has been used to describe custom clearing agents/forwarders level of satisfaction; while the later has been used to analyze the relationship of independent variables with level of satisfaction and to identify major area of dissatisfaction for the subjects of the study.

### 3.2 Data Type & Data Source

#### 3.2.1 Data Type

Customer satisfaction is ordinal type of scale data with less option for statistical analysis as compared with interval & ratio scale types of data. Regarding quality measurement the researcher has used nominal, ordinal as well as ratio scale types of data.

### **3.2.2 Data Source& Instruments**

Structured questionnaire has been used as the main source of data for customer satisfaction & Perceived service quality, while industry accepted measurement tools are used to measure quality like air cargo excellence (ACE) award rating and Cargo2000 (Cargo iQ).

## **3.3 Sample Size and Sampling Method**

### **3.3.1 Sampling Method/Design**

All items in any field of inquiry constitute a ‘Universe’ or ‘Population.’ A complete enumeration of all items in the ‘population’ is known as a census inquiry. It can be presumed that in such an inquiry, when all items are covered, no element of chance is left and highest accuracy is obtained (Kothari, 2004).

Survey studies ask large numbers of people questions about their behaviors, attitudes, and opinions. Some surveys merely describe what people say they think and do. Other survey studies attempt to find relationships between the characteristics of the respondents and their reported behaviors and opinions (Marczyk, DeMatteo & Festinger, 2005).

As per the exploratory research and literatures reviewed census method has been used as the population size is 146 in number and it makes both economic sense as well as increase representativeness of the study. Moreover, service quality has been analyzed using C2K & other industry wide accepted measures of service quality for Addis Ababa hub/airport) only.

## **3.4 Methods of Data Analysis and Presentation**

### **3.4.1 Description of variables/Issues (Dependent versus Independent)**

As described in the model under the section statement of the problem; the independent variables are custom clearing agents/forwarders tenure and their frequency of interaction while the independent variable is custom clearing agents/forwarders satisfaction. The independent variables are ratio scale while customer satisfaction is ordinal scale.

#### **i. Sample Design**

As stated above census method has been used, moreover, service quality has been analyzed using C2K & other industry wide accepted measures of service quality for Addis Ababa hub/airport) only.

## ii. Instrument

The subject's level of satisfaction has been measured using Likert five scale structured questionnaire while the SERVQUAL model along with C2K & other industry wide measurement tools has been used to measure the service quality.

The researcher has a good turn-out of filled questionnaires i.e. 91.10% the questionnaire was distributed to 146 CCAs & FWs, licensed and actively working and 133 of the questionnaires were duly filled and returned.

The structured questionnaire has five parts that are summarized below;

### **Part One Background/Demographic Questions (7Q)**

- Business type (CCA/FW) -Nominal Variable
- Presence of external customers (Yes/No) -Nominal Variable
- Focus Area (Export/Import) -Nominal Variable
- Gender (Male/Female) -Nominal Variable
- Marital status -Nominal Variable
- Educational background -Ordinal Variable
- Age groups -Ordinal Variable

### **Part Two Main Independent Variables (4Q)**

- Experience as an agent (groups) - Continuous Variable
- No of Customers (groups) - Continuous Variable
- No of documents cleared per day by an agent (groups) - Continuous Variable
- No of documents cleared per day by the company (groups) - Continuous Variable

### **Part Three Satisfaction Questions (Ordinal Dependent Variable) (27Q)**

#### ***A. Satisfaction on services at Counter (6Q)***

- ❖ The queuing system for document delivery is satisfactory.
- ❖ The waiting time for document delivery is fair.
- ❖ The overall service at import counter for document delivery is fair.
- ❖ The queuing system at export counter is satisfactory.
- ❖ The payment mode for export freight charge is satisfactory.
- ❖ The claim process for damage, pilferage, loss is satisfactory.

#### ***B. Satisfaction on services at Warehouse (10Q)***

- ✓ The queuing system at warehouse is fair.
- ✓ The waiting time for warehouse is fair.

- ✓ The queuing system at import counter for warehouse charge calculation is satisfactory.
- ✓ The warehouse charge is fair.
- ✓ The warehouse charge calculation is clear.
- ✓ The waiting time at import counter for warehouse charge calculation is fair.
- ✓ The payment mode for warehouse charge (at the bank) is satisfactory.
- ✓ The delivery of shipment at the warehouse is satisfactory.
- ✓ The overall service at warehouse is satisfactory.
- ✓ Ethiopian Cargo acceptance procedure at warehouse is satisfactory?

**C. Satisfaction on Auxiliary services (1Q)**

- ❖ The ancillary services like ground transportation are satisfactory.

**D. Satisfaction on Airline related services (6Q)**

- ✓ Emails are replied timely.
- ✓ Telephone calls are well attended with acceptable standards.

**E. Ethiopian cargo has good record of maintaining schedules (Schedule Integrity).**

- ✓ Shipments are flown on the flights they are booked (Flown as booked)
- ✓ Bookings are timely confirmed through cargo spot/email.
- ✓ Ethiopian Cargo offers competitive freight rates.

**F. Over-all Satisfaction and Respondents view on proposed relationship between satisfaction level and their experience and frequency of interaction (4Q)**

- The overall service provided is satisfactory.
- The longer my tenure with ET the higher will be my satisfaction.
- My satisfaction level is higher now, than when I begin as CCA/Forwarder.
- The more I interact with Ethiopian the higher my satisfaction.

**Part Four SERVQUAL Questions (Ordinal) (22Q)**

**I. Reliability (5Q)**

- ✓ ET Cargo provides services as promised.
- ✓ ET Cargo is dependable in handling customers' service performed.
- ✓ ET Cargo performs the services right the first time.
- ✓ ET Cargo provides services at the promised time.
- ✓ ET Cargo Maintain error-free records.

**II. Responsiveness (4Q)**

- ✓ ET Cargo keeps customers informed about when services will be performed.
- ✓ ET Cargo prompts service to customers.
- ✓ ET Cargo is willing to help customers.
- ✓ ET Cargo is ready to respond to customers' requests.

**III. Assurance (4Q)**

- ✓ ET Cargo Employees instill confidence in customers.
- ✓ ET Cargo makes customers feel safe in their transaction.

- ✓ ET Cargo employees are consistently courteous.
- ✓ ET Cargo employees are knowledgeable to answer customer questions.

**IV. Empathy (5Q)**

- ✓ ET Cargo gives customers individual attention.
- ✓ ET Employees' deal with customers in a caring fashion.
- ✓ ET Cargo has the customer's best interest at heart.
- ✓ ET Cargo employees understand the needs of their customers.
- ✓ ET Cargo business hour is convenient.

**V. Tangibles (4Q)**

- ✓ ET Cargo has modern equipment.
- ✓ ET Cargo has visually appealing facilities.
- ✓ Employees have a neat, professional appearance.
- ✓ ET Cargo has visually appealing materials associated with its service.

**iii. Questionnaire Reliability**

The actual reliability (using Cronbach's alpha) of the questionnaire for all items was checked after the responses of all the respondents (n =133) was entered and was found to be satisfactory (0.857).

A test was also conducted to see if removing any of the items/dimensions would enhance the reliability (scale reliability or internal consistency) of the tool significantly. As a result there was no significant enhancement observed indicating that there is no need to eliminate any item from the tool. Results of the reliability test are annexed.

**iv. Data Collection Procedure**

Questionnaire distribution as described in the proposal the researcher did plan to make it using Ethiopian Revenue & Customs Authorities (ERCA) meeting or recurrent trainings for custom clearing agents/forwarders. But unfortunately the meeting was just half day and could not make it. Alternatively, the researcher has approached each subject of study using their address and offices, since most of them have office at Ethiopian premises.

**v. Method of Data Analysis**

Descriptive statistical methods such as frequency, percentage, and bar graphs have been used to classify and characterize the data. Further analysis including chi-square test of independence, and

correlation analysis have been conducted based on the generated data type. SPSS (statistical package for social sciences) has been used as statistical tool for analysis.

Since the research basically deals with ordinal data derived from Likert scale; the level of analysis that can be carried out was somehow limited.

**vi. Method of Presentation**

The researcher has spent quite significant amount of time in understanding the different statistical tests, their respective assumptions and their draw-backs. Finally the researcher has adopted chi-square, correlation and ordinal regression depending nature of variables analyzed and nature of research question.

The analyzed data has been presented in the form of tables, graphs, chi-square, correlation and ordinal regression tables wherever applicable.

The researcher has taken subject's tenure & their number of customers as major factors affecting their level of satisfaction along with the level of service quality.

In spite of the above mentioned constraints, the researcher has committed his time, energy and other resources to his best capacity to make the study a worthwhile experience.

## CHAPTER 4 – DISCUSSION, DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter is dedicated for presenting the findings of the research followed by the corresponding analysis and discussion. First, the demographic variables are briefly described and summarized. Graphical presentation of the demographic variables is annexed. The demographic variables used in this research are gender, age, marital status, tenure, educational back ground, department and job position.

The Structure of the chapter is firstly, descriptive statistics has been used on all the questions including background/ demographic question, satisfaction and perceived SERVQUAL questions. Secondly, chi-square analysis will follow between nominal independent variables and satisfaction questions. Thirdly, ordered logistic regression between overall satisfaction and independent scale variables (Main research objective). Finally using Parasuraman et al., (1985) argument, that when perceived service quality is high, and then, it will lead to increase in customer satisfaction, has been checked if it works for CCAs/FWs & ET Cargo.

### 4.1. Discussion

As described in the background of the study part, as far as the reach of the researcher's knowledge there is no thesis prepared on this topic in Ethiopia as well as abroad. This was due to the reasons that from other countries perspective; custom clearing agents only deal with customs authorities only, but in our case they do interact with both customs and airlines. As a result the discussion part cannot bring other literatures empirical findings for discussion rather it will focus on the implications of the findings.

### 4.2. Descriptive Statistics

#### 4.2.1. Descriptive statistics on Background/Demographic Questions

Among the 133 respondents, the majority (n=97, 72.9 %) are **males**. 78.9% (n=105) of the respondents are **single** while the remaining are married. With regard to **age**; 42.1% of the respondents are between the age 26-30, while 36.8% of them are between the age 20-25, the remaining subjects age fall between 36-40 and 45-50 at 10.5% for each age group.

**Educational level** was also considered as one of the demographical data to characterize the respondents. Among the respondents 10.5% (n=14) are only 12complete. The majority of the respondents (n=63, 47.4%) have bachelors degree.

The respondents were also classified according to the **business type** they are in. Majority of them i.e. 88.7% (n=118) are CCA while the remaining 11.3% are FWs. Among the CCAs 89% of them **give service to other organizations** while the remaining 11% only clear the goods their company imports only. Among the FWs, for 93% of them forwarding is their primary service, but one FW (6.7%) is acting as forwarder of its own exports only. If we describe the CCAs and FWs in terms of **focus area** we will see that 82.2% of the CCAs are predominantly engaged in clearing imported items, while the remaining 17.8% is predominantly clear export items. Looking for FWs focus area entails that all of them are predominantly engaged in the export sector.

**Case Processing Summary**

		N	Marginal Percentage
Satisfaction on overall service provided	"strongly disagree"	1	0.8%
	"slightly disagree"	28	21.1%
	"neutral"	55	41.4%
	"slightly agree"	49	36.8%
Business Type	"CCA"	118	88.7%
	"FW"	15	11.3%
Presence of external customers	"yes"	106	79.7%
	"no"	27	20.3%
Focus Area	"export"	36	27.1%
	"import"	97	72.9%
Gender	"male"	97	72.9%
	"female"	36	27.1%
Valid		133	100.0%
Missing		0	
<b>Total</b>		<b>133</b>	

#### 4.2.2. Descriptive statistics on Main Independent Variables

The two main independent variables i.e. CCAs/FWs **tenure** in the industry and **frequency of interaction** will affect level of satisfaction. Frequency of interaction is believed to be directly related to number of customers and number of documents cleared per day per person/company.

As can be summarized from the below tables,

- Looking for the age categories 78.9% of them fall in the age range between 20-30 years of age. Most of the respondents (42.9%) that fall between the age group 20-25 slightly agree that overall service provided is satisfactory. Half of the subjects that fall between the age group 25-30 slightly agree that overall service provided is satisfactory.
- From experience perspective, 68.42% of the respondents have below four years of experience, amongst them 53.85% of them slightly agree that overall service provided is satisfactory, 30.77% feel neutral about it and the remaining 15.38% slightly disagree. Analyzing further, the remaining group with experience of 4-8 years and more than 8 years indicate that, the former has half neutral and the remaining half slightly disagree that the overall service provided is satisfactory. The latter group even goes further that 92.9% feel neutral and 7.1% strongly disagree with the idea that the overall service provided is satisfactory.
- Looking for the frequency of interaction as a group that is demonstrated via number of documents cleared (by a CCA/FW or company as a whole) and number of customers. Those who have less than 20 customers, clear less than four documents per day per agent and clear less than 10 documents per day per company are said to be those who have less frequency of interaction. In contrary all the other combinations are said to have more frequency of interaction. Those with less interaction account for 58.1% of subjects of the study. They slightly disagree, feel neutral and slightly agree with percentage of 30.17%, 35.34% and 33.19% respectively, that the overall service provided is satisfactory. Regarding with those with more level of interaction, their level of agreement to the overall service provided is satisfactory is neutral and slightly agree having percentage of 49.7% and 41.92% respectively.
- For details of each parameter and its percentage please refer below descriptive statistics.

<b>Crosstab- Age * Satisfaction on overall service provided</b>							
		Satisfactiononoverallserviceprovided				Total	
		"strongly disagree"	"slightly disagree"	"neutral"	"slightly agree"		
Age	"20-25"	Count	0	14	14	21	49
		% within Age	0.0%	28.6%	28.6%	42.9%	100.0%
		% within Satisfaction on overall service provided	0.0%	50.0%	25.5%	42.9%	36.8%
		% of Total	0.0%	10.5%	10.5%	15.8%	36.8%
	"26-30"	Count	0	14	14	28	56
		% within Age	0.0%	25.0%	25.0%	50.0%	100.0%
		% within Satisfaction on overall service provided	0.0%	50.0%	25.5%	57.1%	42.1%
		% of Total	0.0%	10.5%	10.5%	21.1%	42.1%
	"36-40"	Count	1	0	13	0	14
		% within Age	7.1%	0.0%	92.9%	0.0%	100.0%
		% within Satisfaction on overall service provided	100.0%	0.0%	23.6%	0.0%	10.5%
		% of Total	0.8%	0.0%	9.8%	0.0%	10.5%
	"41-45"	Count	0	0	14	0	14
		% within Age	0.0%	0.0%	100.0%	0.0%	100.0%
		% within Satisfaction on overall service provided	0.0%	0.0%	25.5%	0.0%	10.5%
		% of Total	0.0%	0.0%	10.5%	0.0%	10.5%
Total	Count	1	28	55	49	133	
	% within Age	0.8%	21.1%	41.4%	36.8%	100.0%	
	% within Satisfaction on overall service provided	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	0.8%	21.1%	41.4%	36.8%	100.0%	

<b>Crosstab-Experience as an agent * Satisfaction on overall service provided</b>							
			Satisfaction on overall service provided				Total
			"strongly disagree"	"slightly disagree"	"neutral"	"slightly agree"	
Experience as an agent	"less than one year"	Count	0	14	14	21	49
		% within Experience as an agent	0.0%	28.6%	28.6%	42.9%	100.0%
		% within Satisfaction on overall service provided	0.0%	50.0%	25.5%	42.9%	36.8%
		% of Total	0.0%	10.5%	10.5%	15.8%	36.8%
	"1-4 years"	Count	0	0	14	28	42
		% within Experience as an agent	0.0%	0.0%	33.3%	66.7%	100.0%
		% within Satisfaction on overall service provided	0.0%	0.0%	25.5%	57.1%	31.6%
		% of Total	0.0%	0.0%	10.5%	21.1%	31.6%
	"8-10 years"	Count	0	14	14	0	28
		% within Experience as an agent	0.0%	50.0%	50.0%	0.0%	100.0%
		% within Satisfaction on overall service provided	0.0%	50.0%	25.5%	0.0%	21.1%
		% of Total	0.0%	10.5%	10.5%	0.0%	21.1%
	"more than 10 years"	Count	1	0	13	0	14
		% within Experience as an agent	7.1%	0.0%	92.9%	0.0%	100.0%
		% within Satisfaction on overall service provided	100.0%	0.0%	23.6%	0.0%	10.5%
		% of Total	0.8%	0.0%	9.8%	0.0%	10.5%
Total	Count	1	28	55	49	133	
	% within Experience as an agent	0.8%	21.1%	41.4%	36.8%	100.0%	
	% within Satisfaction on overall service provided	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	0.8%	21.1%	41.4%	36.8%	100.0%	

<b>Crosstab-No of Customers * Satisfaction on overall service provided</b>							
			Satisfactiononoverallserviceprovided				Total
			"strongly disagree"	"slightly disagree"	"neutral"	"slightly agree"	
NoofCusto mers	"2-10"	Count	0	14	0	0	14
		% within NoofCustomers	0.0%	100.0%	0.0%	0.0%	100.0%
		% within Satisfactiononoverallservic eprovided	0.0%	50.0%	0.0%	0.0%	10.5%
		% of Total	0.0%	10.5%	0.0%	0.0%	10.5%
	"11-20"	Count	1	0	28	21	50
		% within NoofCustomers	2.0%	0.0%	56.0%	42.0%	100.0%
		% within Satisfactiononoverallservic eprovided	100.0%	0.0%	50.9%	42.9%	37.6%
		% of Total	0.8%	0.0%	21.1%	15.8%	37.6%
	"21-30"	Count	0	14	14	28	56
		% within NoofCustomers	0.0%	25.0%	25.0%	50.0%	100.0%
		% within Satisfactiononoverallservic eprovided	0.0%	50.0%	25.5%	57.1%	42.1%
		% of Total	0.0%	10.5%	10.5%	21.1%	42.1%
	"41-50"	Count	0	0	13	0	13
		% within NoofCustomers	0.0%	0.0%	100.0%	0.0%	100.0%
		% within Satisfactiononoverallservic eprovided	0.0%	0.0%	23.6%	0.0%	9.8%
		% of Total	0.0%	0.0%	9.8%	0.0%	9.8%
Total	Count	1	28	55	49	133	
	% within NoofCustomers	0.8%	21.1%	41.4%	36.8%	100.0%	
	% within Satisfactiononoverallservic eprovided	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	0.8%	21.1%	41.4%	36.8%	100.0%	

<b>Crosstab-Noofdocumentsclearedperdaybyanagent * Satisfactionoverallserviceprovided</b>							
			Satisfactionoverallserviceprovided				Total
			"strongly disagree"	"slightly disagree"	"neutral"	"slightly agree"	
Noofdocumentsclearedperdaybyanagent	"1"	Count	1	0	0	14	15
		Noofdocumentsclearedperdaybyanagent	6.7%	0.0%	0.0%	93.3%	100.0%
		% within Satisfactionoverallserviceprovided	100.0%	0.0%	0.0%	28.6%	11.3%
		% of Total	0.8%	0.0%	0.0%	10.5%	11.3%
	"2-4"	Count	0	28	27	14	69
		Noofdocumentsclearedperdaybyanagent	0.0%	40.6%	39.1%	20.3%	100.0%
		% within Satisfactionoverallserviceprovided	0.0%	100.0%	49.1%	28.6%	51.9%
		% of Total	0.0%	21.1%	20.3%	10.5%	51.9%
	"5-7"	Count	0	0	0	21	21
		Noofdocumentsclearedperdaybyanagent	0.0%	0.0%	0.0%	100.0%	100.0%
		% within Satisfactionoverallserviceprovided	0.0%	0.0%	0.0%	42.9%	15.8%
		% of Total	0.0%	0.0%	0.0%	15.8%	15.8%
	"8-10"	Count	0	0	14	0	14
		Noofdocumentsclearedperdaybyanagent	0.0%	0.0%	100.0%	0.0%	100.0%
		% within Satisfactionoverallserviceprovided	0.0%	0.0%	25.5%	0.0%	10.5%
		% of Total	0.0%	0.0%	10.5%	0.0%	10.5%
	"more than 10"	Count	0	0	14	0	14
		Noofdocumentsclearedperdaybyanagent	0.0%	0.0%	100.0%	0.0%	100.0%
		% within Satisfactionoverallserviceprovided	0.0%	0.0%	25.5%	0.0%	10.5%
		% of Total	0.0%	0.0%	10.5%	0.0%	10.5%
Total	Count	1	28	55	49	133	
	Noofdocumentsclearedperdaybyanagent	0.8%	21.1%	41.4%	36.8%	100.0%	
	% within Satisfactionoverallserviceprovided	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	0.8%	21.1%	41.4%	36.8%	100.0%	

<b>Crosstab-Noofdocumentsclearedperdaybythecompany * Satisfactiononoverallserviceprovided</b>							
			Satisfactiononoverallserviceprovided				Total
			"strongly disagree"	"slightly disagree"	"neutral"	"slightly agree"	
Noofdocumentsclearedperdaybythecompany	"2-10"	Count	1	28	27	28	84
		% within Noofdocumentsclearedperdaybythecompany	1.2%	33.3%	32.1%	33.3%	100.0%
		% within Satisfactiononoverallserviceprovided	100.0%	100.0%	49.1%	57.1%	63.2%
		% of Total	0.8%	21.1%	20.3%	21.1%	63.2%
	"11-20"	Count	0	0	14	21	35
		% within Noofdocumentsclearedperdaybythecompany	0.0%	0.0%	40.0%	60.0%	100.0%
		% within Satisfactiononoverallserviceprovided	0.0%	0.0%	25.5%	42.9%	26.3%
		% of Total	0.0%	0.0%	10.5%	15.8%	26.3%
	"more than 30"	Count	0	0	14	0	14
		% within Noofdocumentsclearedperdaybythecompany	0.0%	0.0%	100.0%	0.0%	100.0%
		% within Satisfactiononoverallserviceprovided	0.0%	0.0%	25.5%	0.0%	10.5%
		% of Total	0.0%	0.0%	10.5%	0.0%	10.5%
Total	Count	1	28	55	49	133	
	% within Noofdocumentsclearedperdaybythecompany	0.8%	21.1%	41.4%	36.8%	100.0%	
	% within Satisfactiononoverallserviceprovided	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	0.8%	21.1%	41.4%	36.8%	100.0%	

### 4.2.3. Overall Satisfaction Score

When we observe the overall satisfaction of subjects 41.4% of them are neutral, while 36.8% of them slightly agree and 21.1% of them slightly disagree that the overall service is satisfactory. If we further analyze it group wise 93.3% of the FWs feel neutral about the service while majority of the CCAs i.e. 41.5% of them slightly agree. Looking it gender wise shows that majority (56.7%) of the male respondents feel neutral about the satisfactoriness of the overall service; but majority (97.2%) of the female respondents slightly agree that the overall service is satisfactory. When observing marital status as a source of differentiation for satisfaction level, half of the married respondents slightly disagree that the overall service is satisfactory; where as 46.4% of the married feel neutral about it. On the other hand 46.7% of the respondents slightly agree that the overall service provided is satisfactory, and the other majority, 40% feel neutral about it. Looking it from focus area, as import/export wise shows that majority (58.3%) of the respondents engaged in export slightly agree on satisfactoriness of the overall service; the other majority (38.9%) of them feel neutral about the overall service is satisfactory. Whereas 42.3% of those engaged on import business feel neutral about satisfactoriness of the overall service and the remaining 28.9% each believe they slightly agree/disagree with the overall level of service provided. When observing educational background as a source of differentiation for satisfaction level, all of the respondents with 12 complete slightly disagree the overall service provided is satisfactory, while all of certificate holders feel neutral about it and 64.3% of diploma holders also feel neutral about it and those with degree level feel 55.6% slightly agree that the overall service is satisfactory.

Summarizing the important figures generate the below summary;

- Overall CCAs are more satisfied than FWs.
- Those in export are more satisfied than in import.

The below table summarizes major areas of dissatisfaction and areas of satisfaction based on the average rating of the specific question.

No.	Satisfaction questions based on point of encounters	Ave. Rating
1	Satisfaction on claim process for damage, pilferage or loss	1.84
2	Fairness of waiting time for document delivery	2.30
3	Satisfaction on the queuing system at import counter for warehouse charge calculation	2.41
4	Fairness of warehouse charge	2.52
5	Ethiopian cargo has good record of maintaining schedule	2.62
6	The overall service at import counter for document delivery is satisfactory	2.72
7	Emails are replied timely	2.82
8	The warehouse charge calculation is clear	2.83
9	Satisfaction on queuing system for document delivery is satisfactory	2.88
10	Telephone calls are well attended with acceptable standards	2.92
11	The queuing system at warehouse is satisfactory	3.14
12	Bookings are timely confirmed through cargo spot/email	3.14
13	Satisfaction on overall service provided	3.14
14	The delivery of shipment at the warehouse is satisfactory	3.24
15	The overall service at warehouse is satisfactory	3.24
16	The waiting time at warehouse is fair	3.25
17	The ancillary services like ground transportation are satisfactory	3.30
18	Fairness of waiting time at import counter for warehouse charge is satisfactory	3.35
19	The payment mode for warehouse charge at the bank is satisfactory	3.37
20	Ethiopian Cargo offers competitive freight rates	3.47
21	Satisfaction on Ethiopian Cargo acceptance procedure at warehouse is satisfactory	3.56
22	Shipments are flown on the flights they are booked Flown as booked	3.68
23	Satisfaction on payment mode for export freight charge	3.68
24	The queuing system at export counter is satisfactory	3.79

### 4.3. Inferential Statistics

#### 4.3.1. Correlation

##### 4.3.1.1. Business Type and Satisfaction on overall service provided

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.256 <sup>a</sup>	3	.041
Likelihood Ratio	8.198	3	.042
Linear-by-Linear Association	2.220	1	.136
N of Valid Cases	133		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .16.

##### 4.3.1.2. Presence of external Customers and Satisfaction on overall service provided

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.107 <sup>a</sup>	3	.107
Likelihood Ratio	7.013	3	.071
Linear-by-Linear Association	.012	1	.913
N of Valid Cases	133		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .16.

##### 4.3.1.3. Focus Area and Satisfaction on overall service provided

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.454 <sup>a</sup>	3	.216
Likelihood Ratio	5.762	3	.124
Linear-by-Linear Association	.137	1	.711
N of Valid Cases	133		

a. 8 cells (100.0%) have expected count less than 5. The minimum expected count is .32.

**4.3.1.4. Gender and Satisfaction on overall service provided**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.388 <sup>a</sup>	3	.006
Likelihood Ratio	15.323	3	.002
Linear-by-Linear Association	2.113	1	.146
N of Valid Cases	133		

a. 8 cells (100.0%) have expected count less than 5. The minimum expected count is .32.

**4.3.1.5. Marital Status and Satisfaction on overall service provide**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.826 <sup>a</sup>	3	.050
Likelihood Ratio	8.270	3	.041
Linear-by-Linear Association	6.761	1	.009
N of Valid Cases	133		

a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is .21.

**4.3.1.6. Educational Background and Satisfaction on overall service provided**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.833 <sup>a</sup>	9	.070
Likelihood Ratio	16.266	9	.062
Linear-by-Linear Association	3.043	1	.081
N of Valid Cases	133		

a. 16 cells (100.0%) have expected count less than 5. The minimum expected count is .11.

### 4.3.2. Ordinal Regression

There are three major uses for Ordinal Regression Analysis: causal analysis, forecasting an effect and trend forecasting. Other than correlation analysis for ordinal variables (e.g., Spearman), which focuses on the strength of the relationship between two or more variables, ordinal regression analysis assumes a dependence or causal relationship between one or more independent and one dependent variable.

The PLUM procedure in SPSS Statistics produces some of the main results for ordinal regression analysis, including predicted probabilities, amongst other useful statistical measures that are needed for later analysis. Some of this will require using syntax.

One of the major drawbacks of the PLUM procedure, despite being SPSS Statistics' dedicated ordinal regression procedure, is that it does not produce all the statistical output needed; in particular, it does not output "odds ratios" or their "95% confidence intervals". Instead, it produces "log odds". (Statisticslearn.com). However, the researcher has inculcated below syntax, so that SPSS Statistics would convert the differences in log odds into the odds ratios needed;

```
COMPUTE Exp_B = EXP(Estimate) .  
COMPUTE Lower = EXP(LowerBound) .  
COMPUTE Upper = EXP(UpperBound) .  
FORMATS Exp_B Lower Upper (F8.3) .  
EXECUTE .
```

As depicted in the below regression table and figure there is it has been the case with the above correlation analysis, there is no correlation between the variables considered; the findings are given below for reference (only with overall satisfaction for details see annex-1).

**Parameter Estimates**

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Satisfactiononoverallserviceprovided = 1]	16.067	35.384	.206	1	.650	-53.284	85.419
	[Satisfactiononoverallserviceprovided = 2]	89.166	43.402	4.221	1	.040	4.099	174.234
	[Satisfactiononoverallserviceprovided = 3]	118.786	59.301	4.012	1	.045	2.558	235.013
Location	Experienceasanagent	-62.620	28.858	4.709	1	.030	-119.180	-6.060
	NoofCustomers	41.245	18.340	5.058	1	.025	5.299	77.190
	Noofdocumentsclearedperdaybyanagent	-22.723	10.602	4.593	1	.032	-43.503	-1.943
	Noofdocumentsclearedperdaybythecompany	17.581	15.474	1.291	1	.256	-12.747	47.910
	Age	38.169	17.874	4.560	1	.033	3.137	73.201

Link function: Logit.

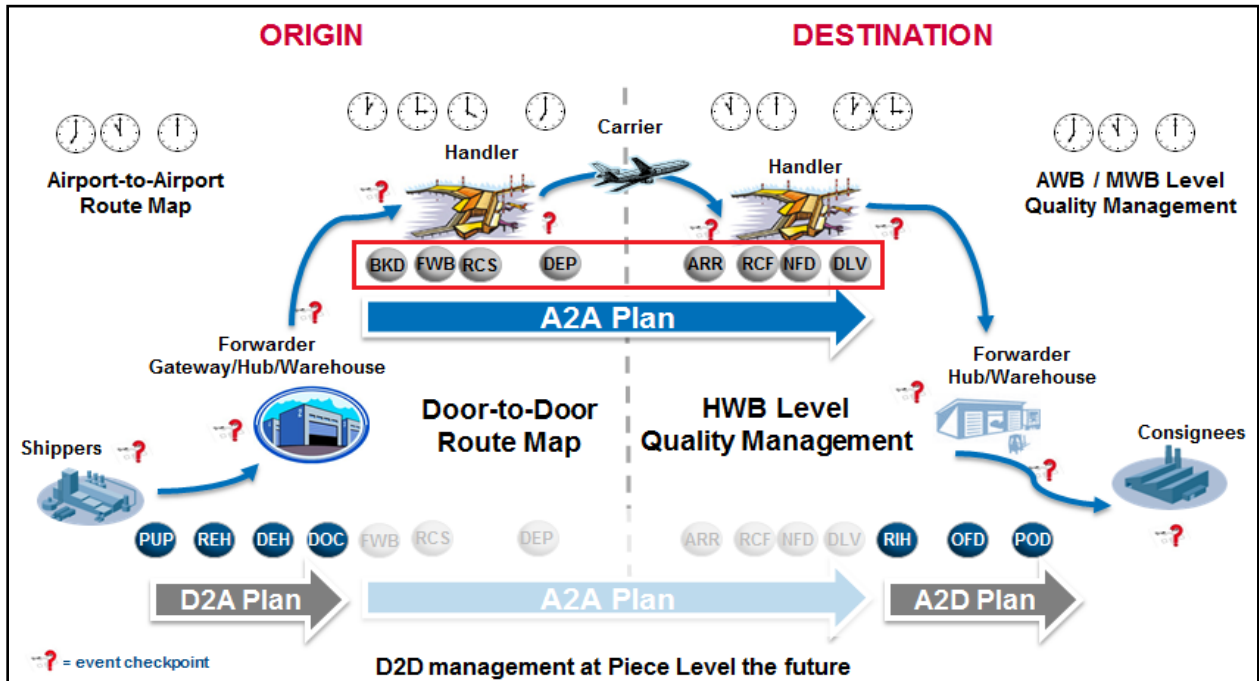
Var1	Var2	Estimate	Std. Error	Wald	df	Sig	LowerBound	UpperBound	Exp_B	Lower	Upper
Threshold	[Satisfactiononoverallserviceprovided = 1]	-8.521	4.854	3.082	1	.079	-18.034	.992	.000	.000	2.698
Threshold	[Satisfactiononoverallserviceprovided = 2]	-3.903	4.638	.708	1	.400	-12.994	5.187	.020	.000	179.017
Threshold	[Satisfactiononoverallserviceprovided = 3]	1.777	4.406	.163	1	.687	-6.860	10.413	5.910	.001	33289.611
Location	Experienceasanagent	.956	.459	4.335	1	.037	.056	1.856	2.601	1.058	6.398
Location	NoofCustomers	-1.275	.789	2.613	1	.106	-2.820	.271	.280	.060	1.311
Location	Noofdocumentsclearedperdaybyanagent	-10.196	1.766	33.335	1	.000	-13.657	-6.735	.000	.000	.001
Location	Noofdocumentsclearedperdaybythecompany	12.020	2.127	31.943	1	.000	7.852	16.189	166078.722	2570.374	10730790.797
Location	[BusinessType=1]	9.824	1.733	32.120	1	.000	6.426	13.221	18464.141	617.901	551745.785
Location	[BusinessType=2]	.000	.	.	0	.	.	.	1.000	.	.
Location	[PresenceofexternalCustomers=1]	-5.944	2.026	8.606	1	.003	-9.915	-1.973	.003	.000	.139
Location	[PresenceofexternalCustomers=2]	.000	.	.	0	.	.	.	1.000	.	.
Location	[FocusArea=1]	17.162	.000	.	1	.	17.162	17.162	28415210.636	28415210.636	28415210.636
Location	[FocusArea=2]	.000	.	.	0	.	.	.	1.000	.	.
Location	[Gender=1]	-10.969	1.901	33.304	1	.000	-14.695	-7.244	.000	.000	.001
Location	[Gender=2]	.000	.	.	0	.	.	.	1.000	.	.

In ordinal regression analysis, the dependent variable is ordinal (statistically it is polytomous ordinal) and the independent variables are ordinal or continuous--level (ratio or interval).

Multinomial regression is the linear regression analysis to conduct when the dependent variable is nominal with more than two levels. Thus it is an extension of logistic regression, which analyzes dichotomous (binary) dependents.

### Summary of Analysis of Research Question

- Is Ethiopian cargo service up to the industry standard using Cargo2000/C2K/Cargo iQ?



*Traxon CDMP, Champ Cargosystems training material*

Month	FWB	RCS	DEP	FAB	ARR	RCF	AWR	NFD	AWD	DLV
August'14	0%	80%	71%	85%	0%	13%	0%	0%	0%	13%
September'14	0%	80%	75%	85%	0%	19%	0%	0%	0%	0%
October'14	0%	84%	79%	85%	0%	37%	0%	0%	0%	0%
November'14	0%	80%	77%	85%	3%	33%	0%	3%	0%	3%
December'14	0%	78%	75%	84%	0%	6%	0%	0%	0%	0%
January'15	0%	77%	78%	85%	2%	6%	0%	2%	0%	0%
February'15	0%	81%	75%	86%	3%	13%	0%	2%	0%	6%
March'15	0%	79%	80%	90%	1%	12%	0%	0%	0%	13%
April'15	0%	73%	74%	79%	2%	11%	0%	2%	8%	38%
<b>Nine Month Total</b>	<b>0%</b>	<b>79%</b>	<b>76%</b>	<b>85%</b>	<b>1%</b>	<b>17%</b>	<b>0%</b>	<b>1%</b>	<b>1%</b>	<b>8%</b>

*BOO/SP Benchmark Operational Performance Report totaled by Station/Partner Traxon CDMP, April 2015 Report.*

**➤ What is the perceived service quality of Ethiopian cargo?**

For better analysis the researcher has analyzed the 22 SERVQUAL questions in to 5 categories of SERVQUAL dimensions i.e. Reliability, Responsiveness, Assurance, Empathy and Tangibles. But the overall perceived service quality is 3.32, indicating that they are about to slightly agree the service is quality or somehow more than feel neutral about the service.

○ **Reliability=3.18**

In terms of reliability ET CGO has overall rating of 3.18 i.e. almost neutral about the reliability of its service. “ET CGO provides the service as promised,” has the highest rating as well as standard deviation. (M=3.46, SD=0.97)

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ET Cargo provides services as promised	133	1	5	3.46	.965
ET Cargo is dependable in handling customer service	133	1	4	2.93	.630
ET Cargo performs the services right the first time	133	1	4	3.14	.897
ET Cargo provides services at the promised time	133	1	4	3.04	.711
ET Cargo Maintain error free records	133	1	5	3.35	.835
Valid N (listwise)	133				

○ **Responsiveness=3.15**

Regarding responsiveness ET CGO, it has overall rating of =3.15 i.e. almost neutral about the responsiveness of its service. “ET Cargo is willing to help customers & ET Cargo is ready to respond to customers’ requests,” has the highest rating (M=3.56, SD=1.06 and M=3.56, SD=0.847 respectively)

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ETCargokeepscustomersinformedaboutwhenserviceswillbepe	133	1	4	2.77	.910
ETCargogivespromptservice tocustomers	133	1	4	2.72	.980
ETCargoiswillingtohelpcustomers	133	1	5	3.56	1.069
ETCargoisreadytorespondto customersrequests	133	1	5	3.56	.847
Valid N (listwise)	133				

○ **Assurance= 3.52**

With respect to assurance dimension of ET CGO, it has overall rating of =3.52 i.e. beyond neutral and below slightly agree about the responsiveness of its service. “ET Cargo employees are knowledgeable to answer customer question,” has the highest rating (M=3.83, SD=1.16)

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ETCargoEmployeesinstillconfidenceincustomers	133	1	4	3.25	1.040
ETCargomakescustomersfeel safeintheirtransaction	133	1	4	3.45	.965
ETCargoemployeesareconsistentlycourteous	133	1	4	3.56	.711
ETCargoemployeesareknowledgeabletoanswer customer question	133	1	5	3.83	1.165
Valid N (listwise)	133				

○ **Empathy=3.07**

In terms of empathy ET CGO has overall rating of =3.07 i.e. as good as neutral about the empathy dimension of its service. “ET Cargo business hour is convenient,” has the highest rating (M=3.95, SD=1.17)

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ETCargogivescustomersindividualattention	133	1	4	2.83	1.151
ETEmployeesdealwithcustomersinacaringfashion	133	1	4	3.04	.848
ETCargohasthecustomersbestinterestatheart	133	1	4	2.72	1.176
ETCargoemployeesunderstandtheneedsoftheircustomers	133	1	5	2.83	1.323
ETCargobusinesshourisconvenient	119	2	5	3.95	1.171
Valid N (listwise)	119				

○ **Tangibles= 3.69**

Regarding tangibles ET CGO has overall rating of 3.69 i.e. beyond slightly agree and below strongly agree about the responsiveness of its service. “Employees have a neat professional appearance,” has the highest rating not only from tangibles dimension only, but also from all dimensions of service quality dimensions (M=4.17, SD=0.99)

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ETCargohasmodernequipment	133	1	4	3.30	.945
ETCargohasvisuallyappealingfacilities	133	1	4	3.77	.471
Employeeeshaveaneatprofessionalappearance	133	2	5	4.17	.989
ETCargohasvisuallyappealingmaterialsassociatedwithservice	119	1	5	3.51	1.007
Valid N (listwise)	119				

➤ **Does Ethiopian cargo service satisfy custom clearing agents/forwarders?**

The overall rating shows that the average satisfaction level is 3.05, which means subjects feel neutral about ET cargo service; and major dissatisfaction areas has also been identified. Looking

at point of interaction/section perspective entails that; Import section has the lowest satisfaction rate, on the other hand Export section has nearly slightly agreed customer satisfaction rate.

No.	Point of Contact	Ave. Rating	Sum	No. of Question
1	Export Counter	3.74	7.47	2
2	Warehouse Export	3.56	3.56	1
3	Ancillary Service	3.30	3.3	1
4	Cargo Marketing	3.23	12.91	4
5	Warehouse Import	3.08	21.59	7
6	Import Counter	2.73	13.66	5
7	General to All	2.68	10.72	4
	<b>Total</b>	<b>3.05</b>	<b>73.21</b>	<b>24</b>

Total number of satisfaction questions for import was 16 i.e. 66% of satisfaction questions. This indicates that there are more number of contacts in import (questions were developed for each point of contact between subjects and ET CGO). Therefore, ET CGO is planning one window service with the completion of its cargo terminal expansion.

➤ **Is subjects (custom clearing agents/forwarders) tenure in the industry related with their level of satisfaction?**

The researcher wants to answer this research question from two dimensions; first, statistically test between their tenure and satisfaction level. Second, to analyze what is subjects' perception of the relationship.

**i. Ordinal Regression finding**

**A. Ordinal regression output generation**

The screenshot shows the SPSS 'Location' output table. The table lists seven variables (Var1) and their corresponding regression coefficients (Estimate), standard errors (Std. Error), Wald statistics, degrees of freedom (df), significance levels (Sig.), and confidence intervals (Lower Bound, Upper Bound, Exp\_B, Lower, Upper).

	Var1	Var2	Estimate	Std. Error	Wald	df	Sig.	Lower Bound	Upper Bound	Exp_B	Lower	Upper
1	Threshold	[Satisfactiononoverallserviceprovided = 1]	16.067	35.384	.206	1	.650	-53.28	85.419	9502529.459	.000	1.250E+37
2	Threshold	[Satisfactiononoverallserviceprovided = 2]	89.166	43.402	4.221	1	.040	4.099	174.23	5.302E+38	60.290	4.663E+75
3	Threshold	[Satisfactiononoverallserviceprovided = 3]	118.786	59.301	4.012	1	.045	2.558	235.01	3.872E+51	12.912	1.161E+102
4	Location	Experienceasanagent	-62.620	28.858	4.709	1	.030	-119.2	-6.060	.000	.000	.002
5	Location	NoofCustomers	41.245	18.340	5.058	1	.025	5.299	77.190	8.173E+17	200.216	3.336E+33
6	Location	Noofdofdocumentsclearedperdaybyanagent	-22.723	10.602	4.593	1	.032	-43.50	-1.943	.000	.000	.143
7	Location	Noofdofdocumentsclearedperdaybythecompany	17.581	15.474	1.291	1	.256	-12.75	47.910	43202032.030	.000	6.412E+20

**B. Ordinal regression assumptions test (Model Fitting)**

The significant chi-square statistic ( $p < .0005$ ) indicates that the Final model gives a significant improvement over the baseline intercept-only model. This tells you that the model gives better predictions than if you just guessed based on the marginal probabilities for the outcome categories.

**Model Fitting Information**

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	46.313			
Final	.000	46.313	5	.000

Link function: Logit.

These statistics are intended to test whether the observed data are consistent with the fitted model.

If we do not reject this hypothesis (i.e. if the p value is large), then we conclude that the data and the model predictions are similar and that we have a good model. However if we reject the assumption of a good fit, conventionally if  $p < .05$ , then the model does not fit the data well.

**Goodness-of-Fit**

	Chi-Square	df	Sig.
Pearson	.731	22	1.000
Deviance	1.416	22	1.000

Link function: Logit.

The results for the analysis suggest the model fit very well ( $p > 1$ )

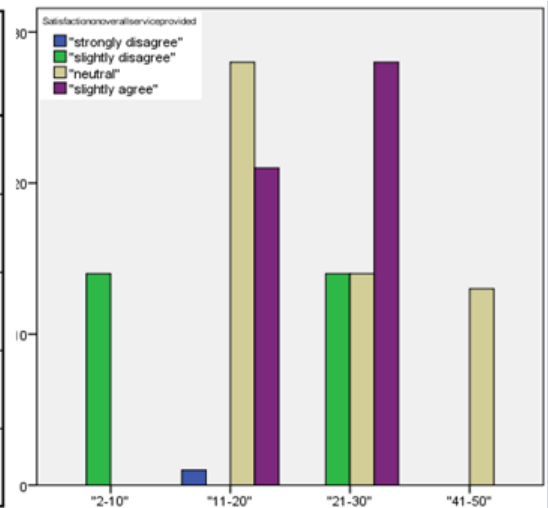
**C. Parameter Estimates & Ordinal Regression outputs.**

Parameter Estimates								
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[Satisfactiononoverallserviceprovided = 1]	16.067	35.384	.206	1	.650	-53.284	85.419
	[Satisfactiononoverallserviceprovided = 2]	89.166	43.402	4.221	1	.040	4.099	174.234
	[Satisfactiononoverallserviceprovided = 3]	118.786	59.301	4.012	1	.045	2.558	235.013
Location	Experienceasanagent	-62.620	28.858	4.709	1	.030	-119.180	-6.060
	NoofCustomers	41.245	18.340	5.058	1	.025	5.299	77.190
	Noofdocumentsclearedperdaybyanagent	-22.723	10.602	4.593	1	.032	-43.503	-1.943
	Noofdocumentsclearedperdaybythecompany	17.581	15.474	1.291	1	.256	-12.747	47.910
	Age	38.169	17.874	4.560	1	.033	3.137	73.201

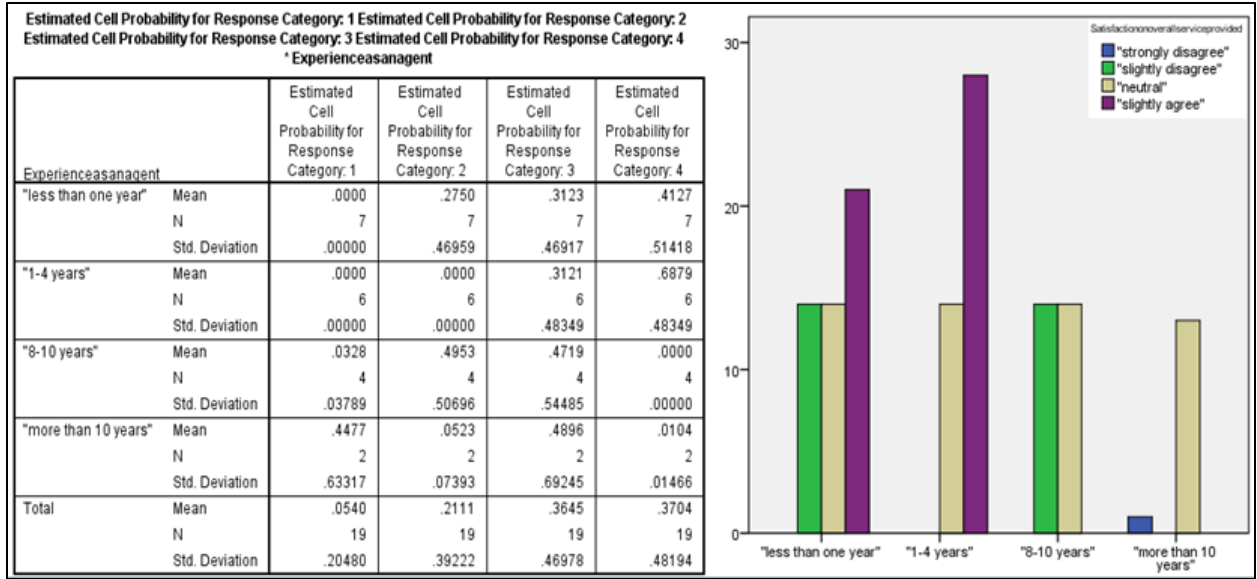
Link function: Logit.

**Ordinal Regression outputs> Number of Customers**

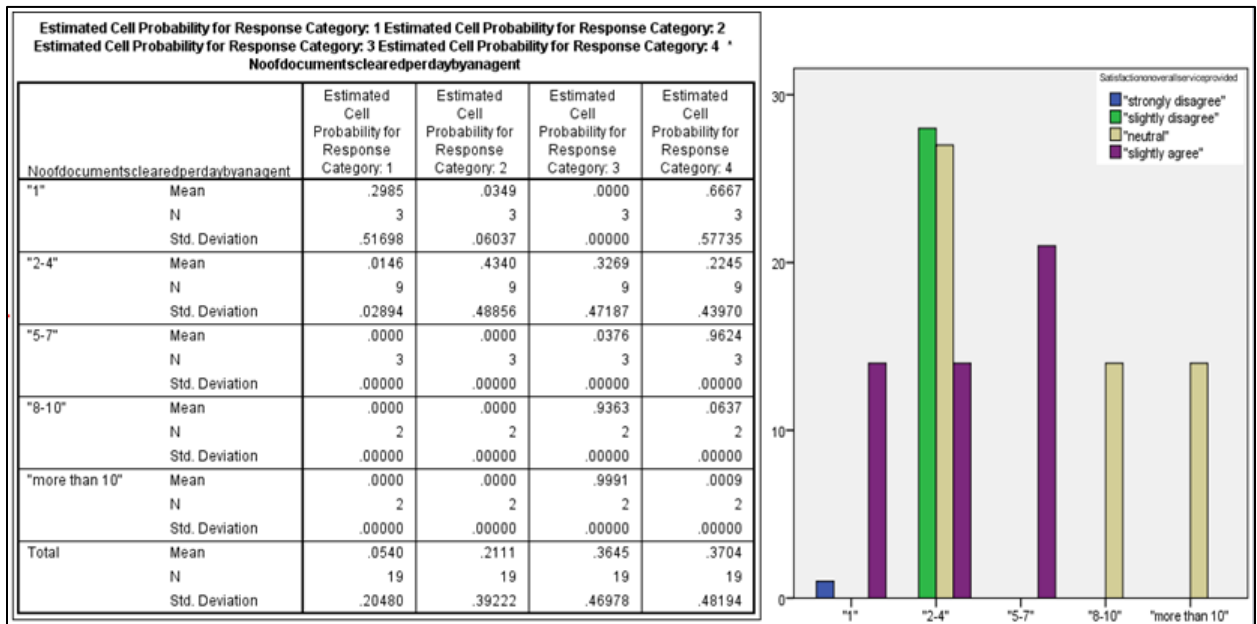
		Estimated Cell Probability for Response Category: 1	Estimated Cell Probability for Response Category: 2	Estimated Cell Probability for Response Category: 3	Estimated Cell Probability for Response Category: 4
NoofCustomers	Mean	.0000	.9624	.0376	.0000
	N	2	2	2	2
	Std. Deviation	.00000	.00000	.00000	.00000
"11-20"	Mean	.1119	.0271	.4998	.3611
	N	8	8	8	8
	Std. Deviation	.31659	.04031	.50475	.49790
"21-30"	Mean	.0164	.2336	.2341	.5159
	N	8	8	8	8
	Std. Deviation	.03038	.43253	.43341	.51805
"41-50"	Mean	.0000	.0000	.9793	.0207
	N	1	1	1	1
	Std. Deviation	.	.	.	.
Total	Mean	.0540	.2111	.3645	.3704
	N	19	19	19	19
	Std. Deviation	.20480	.39222	.46978	.48194



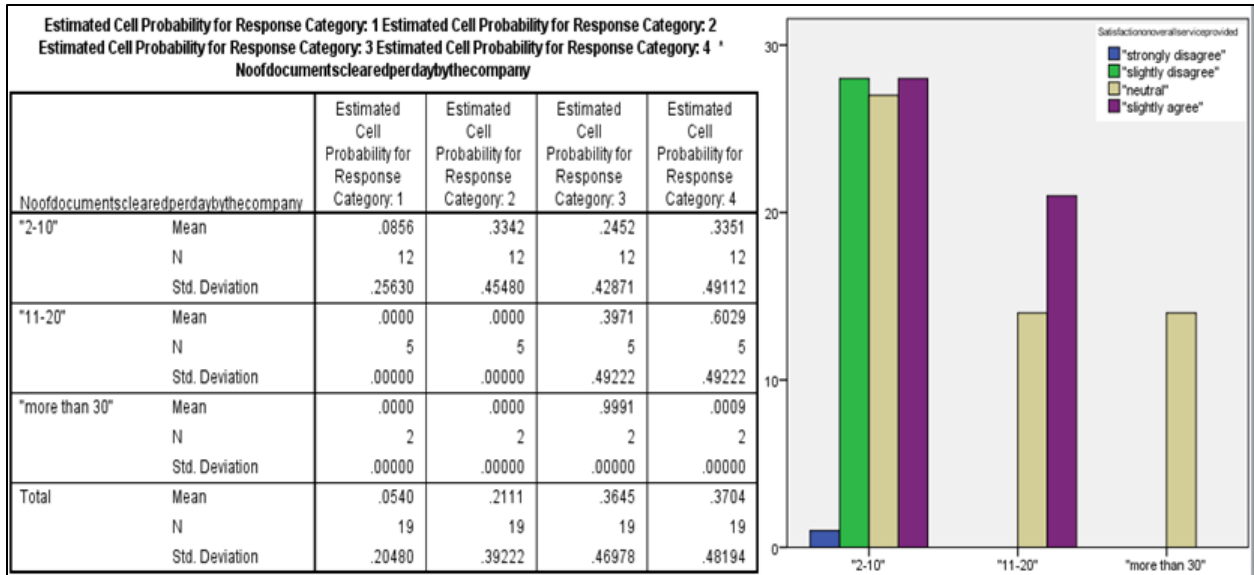
**Ordinal Regression outputs> Experience as an agent**



**Ordinal Regression outputs> Number of documents cleared by agent/day**



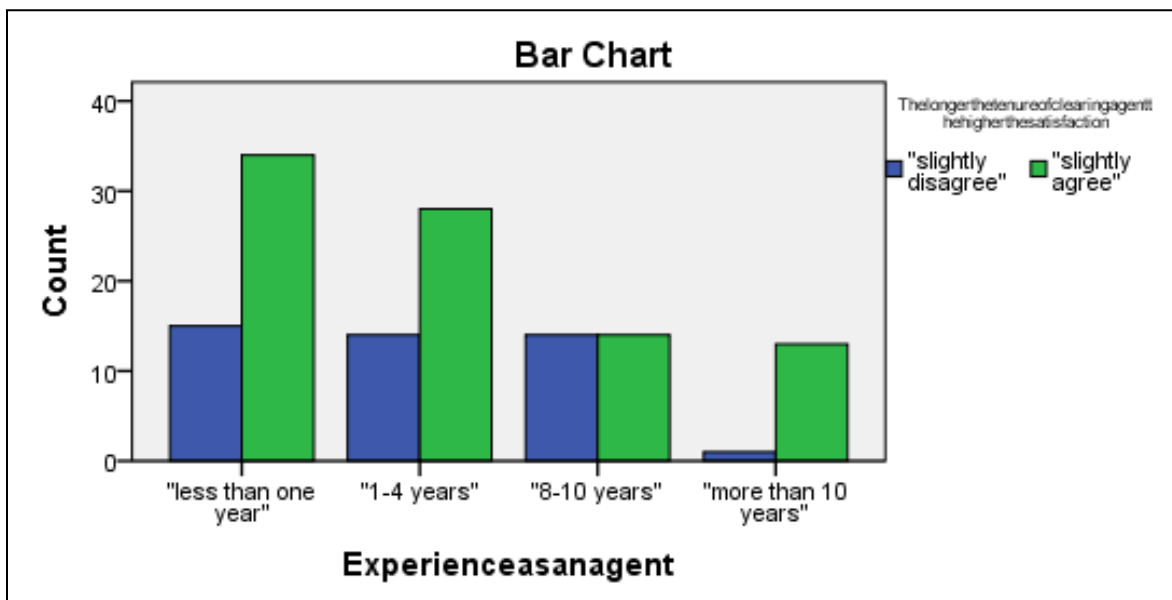
**Ordinal Regression outputs> Number of documents cleared per co. /day**



**ii. Subjects perception of the association**

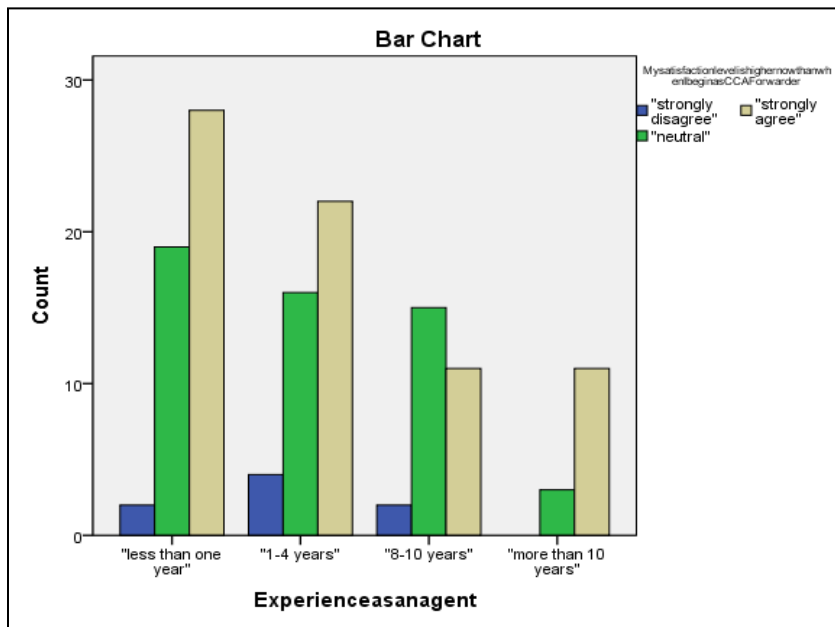
Clustered bar chart below summarizes subjects perception of satisfaction level vis-à-vis their tenure and frequency of interaction (described in terms of number of customers, number of documents cleared per day per person/company).

**a. Tenure and Satisfaction level.**



When the subjects were probed about *longer tenure is associated with better satisfaction*, it has been slightly agreed that, it is associated with their satisfaction level. This has been

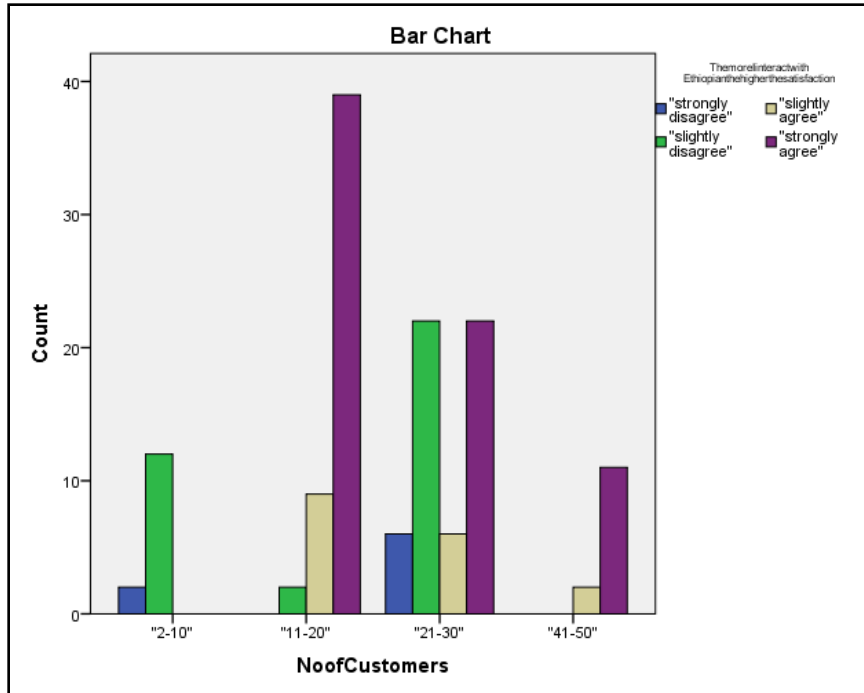
clearly manifested within the *experience (tenure)* groups of “more than 10yrs (92.9%)”, “less than 1yr (69.4%)” and “1-4years (66.7%)”.



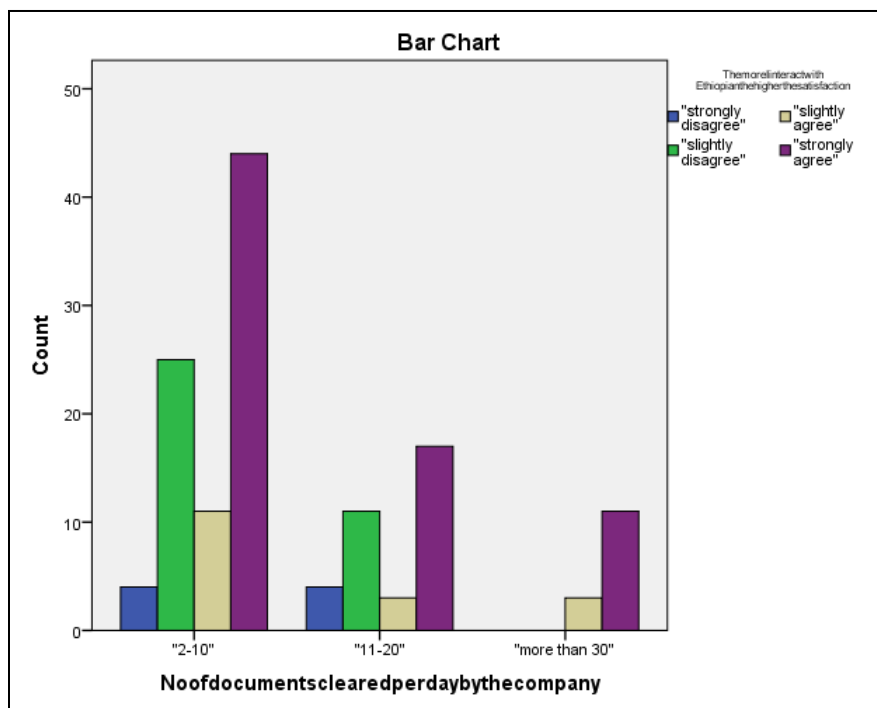
It has been overall strongly agreed that they have *better satisfaction level than they begun the business*. The variance across *experience age (tenure)* group is similar as mentioned above and strengthened the notion of higher experience yields better satisfaction. The experience age groups are “more than 10yrs (78.4%)”, “less than 1yr (57.1%)” and “1-4years (52.4%)”.

**b. Frequency of interaction and satisfaction level.**

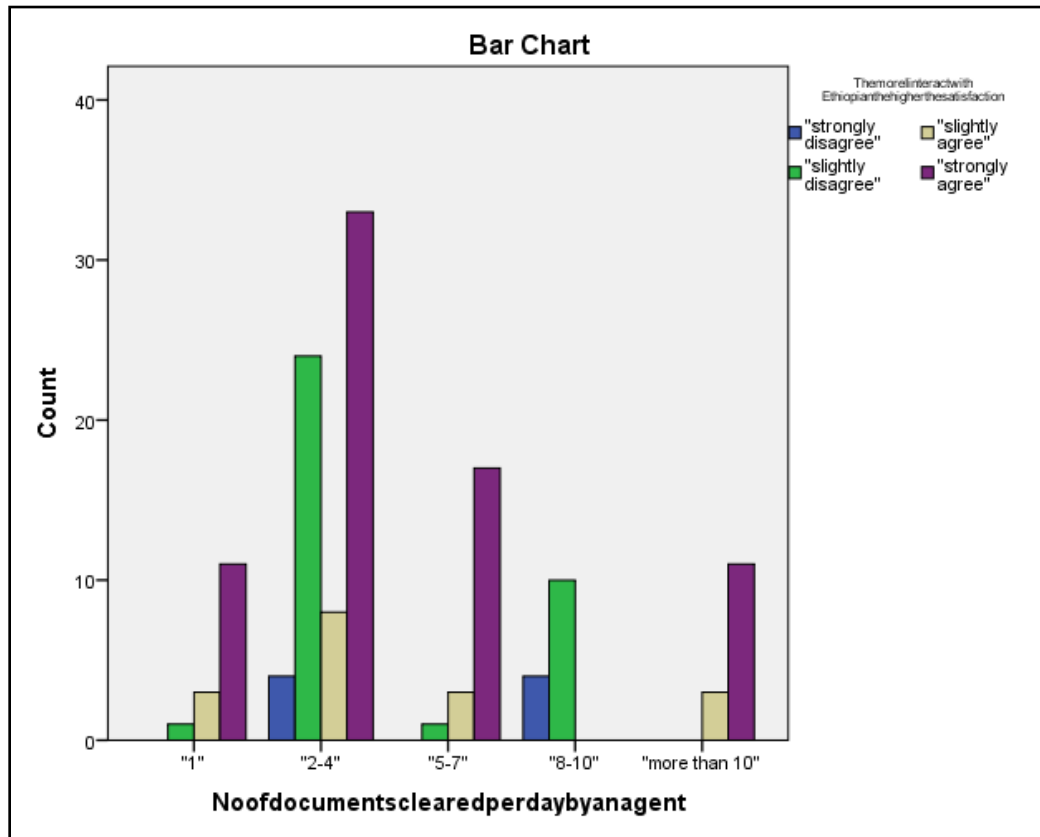
As can be seen from the chart below, across all groups of *number of customers*, the subjects agree that the more *frequency of interaction the better level of satisfaction*. Number of customer group in the range 41-50 indicates that there is 84.6% consensus within the group that, frequency of interaction impact level of satisfaction. Whereas, number of customer group ranging between 11-20 has 78% consensus within the group that, frequency of interaction impact level of satisfaction.



As depicted in the charts below, across all groups of *number of documents cleared/ company* there is consistent response across the different groups. All groups **strongly agree that frequency of interaction is associated with increased level of satisfaction**. Looking further by group entails that those companies who clear “more than 30 documents per day” have 78.6% consensus that there is a relationship.



Regarding the question number of *documents cleared per day/person*, the subjects, except the group 8-10 documents cleared per day, **strongly agree that frequency of interaction is associated with increased level of satisfaction.**



The data analysis shows that the more *frequency of interaction the better level of satisfaction*. Number of customer group in the range 41-50 indicates that there is 84.6% consensus within the group that, frequency of interaction impact level of satisfaction. Whereas, number of customer group ranging between 11-20 has 78% consensus within the group that, frequency of interaction impact level of satisfaction.

➤ **What are the major areas of subjects' dissatisfaction in their experience of Ethiopian cargo services?**

Below is summary of subject are of dissatisfaction for details overall satisfaction score please refer the link [4.1.3. Overall satisfaction score](#). The rating below three indicates that Subjects are on average inclined to slightly disagree that the claim process is satisfactory. There are two

treaties abiding “Notice of Liability Limitation” i.e. Montreal Convention (MP4), entitles the customer affected 100% of the damage incurred as justified by the customer while Warsaw Convention, only compensate per kg rate unless the shipment is declared to have some amount. Ethiopian cargo, Ethiopian Aviation group is signatory of both treaty, each applied with respect to country specific requirements; as far as Ethiopia as country is concerned ET is obliged to recover all amount if value is declared by customer otherwise the carrier will not be reliable to pay more than the KG rate. Overall the liability limit is 100,000 with special drawing right (SDR) as defined by IMF and to be converted into national currency.

No.	Satisfaction questions based on point of encounters	Ave. Rating
1	Satisfaction on claim process for damage, pilferage or loss	1.84
2	Fairness of waiting time for document delivery	2.30
3	Satisfaction on the queuing system at import counter for warehouse charge calculation	2.41
4	Fairness of warehouse charge	2.52
5	Ethiopian cargo has good record of maintaining schedule	2.62
6	The overall service at import counter for document delivery is satisfactory	2.72
7	Emails are replied timely	2.82
8	The warehouse charge calculation is clear	2.83
9	Satisfaction on queuing system for document delivery is satisfactory	2.88
10	Telephone calls are well attended with acceptable standards	2.92

## CHAPTER FIVE CONCLUSION & RECOMMENDATION

### 5.1 Conclusion

Based on the results obtained after the analysis of the responses of the subjects satisfaction level, and perceived service quality; the following conclusions were made.

The researcher has answered the below research questions that are stated at the beginning of the thesis;

- What is the perceived service quality of Ethiopian cargo?

The perceived service quality of Ethiopian Cargo by the subjects of the study is lowest for the claim process (1.48) and highest on the queuing system at export counter (3.79).

If we look at the main encounter points it indicates that at the first point of interaction i.e. the import counter the overall satisfaction is 2.72. While the overall satisfaction at the warehouse is 3.24 and the overall satisfaction at acceptance for export customers is 3.56.

The overall rating for the perceived service is 3.14 (62.8%).

- Does Ethiopian cargo service satisfy custom clearing agents/forwarders?

As clearly indicated in the data analysis part, Ethiopian Cargo has overall satisfaction rate of subjects is 41% feel neutral about our service, 36.8% slightly satisfied and 21.1% slightly dissatisfied. Therefore, Ethiopian cargo is expected to deliver a service for the majority that feel indifferent about our service to make them satisfied.

- Is subjects (custom clearing agents/forwarders) tenure in the industry related with their level of satisfaction?

As can be concluded from the PLUM (ordinal logistic regression) output there is no statistically significant relationship between subjects' tenure in the industry and their level of satisfaction.

- Is subjects' frequency of interaction related to their level of satisfaction? (Frequency of interaction)

As depicted in the PLUM (ordinal logistic regression) output there is no statistically significant relationship between subjects' frequency of interaction and their level of satisfaction.

- What are the major areas of subjects' dissatisfaction in their experience of Ethiopian cargo services?

Whereas the top three dissatisfaction areas are claim process, waiting time for document delivery & queuing system at import counter for warehouse charge calculation are 1.84, 2.30 and 2.41 respectively.

## 5.2 Recommendation

On the basis of the findings and the conclusions reached in this study, the following recommendations were forwarded to improve the satisfaction and perceived service quality of Ethiopian Cargo.

- Having express service to clear goods; by attaching the service with higher terminal/handling charge justifying additional costs. Hence deploy the necessary resource (enough space, agents, forklift, dolly, loaders, express oriented trainings) to provide the service.
- Confirm that Ethiopian Cargo has located all the shipment pieces of the customer before advising them that their shipment has arrived.
- Ethiopian Cargo has to work on queue management, once the customer get the queue number to receive the document, supportive staffs at the counter should make ready all the necessary documents; at the same time the agent at the ware house should make ready all the shipments at one designated area.
- As the warehouse for company shipments is separated from personal shipments, it would also be great if same is adopted at the counters too. To give customers personalized service.
- If there are discrepancies like name changes or the like the counter agent should notify the customer and the agents at ware house to take appropriate action and may forward to message desk at the counter for further communication with the shipper/origin station or escalation.
- As is the case with passenger Sheba miles (FFP) members there shall be some dedicated desks for agents that use the express service or have large volume/revenue to the airline.

- Since the subjects of the study are repeated customers, Ethiopian Cargo has to handle them appropriately; but on the other side they do know the loop holes and control mechanism, therefore, Ethiopian Cargo should be keen to learn from each incidents and do mistake proofing for each errors encountered to provide flawless service in the times ahead. This is the strong side of Ethiopian airlines, sometimes it include policy and procedural changes and make it a robust company. Moreover along with organizational manual it has to keep irregularity logs justifying why each statement in manuals is in place. This will in turn make updating of manuals easy without opening other loop holes.

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Traxon CDMP BOO/SP Benchmark Operational Performance Report totaled by Station/Partner, April 2015 Report.

Traxon CDMP, Champ Cargosystems training material

# Annex-1 SPSS outputs

## A. Reliability of questionnaire

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.857	.849	61

**Item-Total Statistics**

	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Deleted
BusinessType	180.74	373.594	-.171	.	.858
PresenceofexternalCustomers	180.62	368.382	.159	.	.856
FocusArea	180.05	369.327	.135	.	.857
Gender	180.74	374.110	-.208	.	.859
MaritalStatus	180.61	374.797	-.209	.	.859
EducationalBackground	177.76	364.517	.153	.	.857
Age	178.33	333.830	.754	.	.844
Experienceasanagent	179.04	352.205	.338	.	.854
NoofCustomers	178.07	360.974	.216	.	.856
Noofdocumentsclearedperdaybyanagent	179.77	372.718	-.064	.	.860
Noofdocumentsclearedperdaybythecompany	179.76	371.960	-.056	.	.858
Satisfactiononqueuingssystemfordocumentdelivery	178.78	362.980	.306	.	.855
Fairnessofwaitingtimefordocumentdelivery	179.35	334.229	.629	.	.846
Theoverallserviceatimportcounterfordocumentdeliverys	179.06	341.357	.677	.	.847
Thequeuingssystematwarehouseissatisfactory	179.06	363.275	.104	.	.860
Thewaitingtimeatwarehouseisfair	178.92	349.127	.455	.	.851
Satisfactiononthequeuingssystematimportcounterforwarehouse	179.62	373.578	-.078	.	.864
Fairnessofwarehousecharge	179.48	345.159	.742	.	.847
Thewarehousechargecalculationisclear	178.62	364.712	.099	.	.859
Fairnessofwaitingtimeatimportcounterforwarehousecharge	178.78	342.197	.457	.	.851

The payment mode for warehouse charge at the bank is satisfactory	178.04	374.287	-.136	.	.859
The delivery of shipment at the warehouse is satisfactory	179.07	349.593	.661	.	.849
The overall service at warehouse is satisfactory	178.93	342.418	.800	.	.846
The ancillary services like ground transportation are satisfactory	178.63	370.998	-.019	.	.860
Emails are replied timely	178.64	352.995	.643	.	.850
Telephone calls are well attended with acceptable standards	178.64	356.170	.526	.	.852
Ethiopian cargo has good record of maintaining schedules	178.92	379.086	-.362	.	.861
Shipments are flown on the flights they are booked	178.34	359.793	.597	.	.853
Bookings are timely confirmed through cargo spot email	178.63	366.771	.243	.	.856
The queuing system at export counter is satisfactory	178.33	369.542	.044	.	.858
Ethiopian Cargo offers competitive freight rates	178.48	369.448	.086	.	.857
Satisfaction on payment mode for export freight charge	178.34	375.545	-.167	.	.860
Satisfaction on Ethiopian Cargo acceptance procedure at warehouse	178.49	364.149	.181	.	.856
The shipments frequently arrive safely at intended airport destinations	178.49	355.819	.358	.	.853
Satisfaction on claim process for damage pilferage or loss	179.76	386.146	-.311	.	.868
Satisfaction on overall service provided	178.92	356.983	.462	.	.852
The longer the tenure of clearing agent the higher the satisfaction	178.78	345.166	.679	.	.848
My satisfaction level is higher now than when I began as CCA/Forwarder	178.16	345.726	.510	.	.850
The more I interact with Ethiopian the higher the satisfaction	178.41	332.945	.640	.	.846
ET Cargo provides services as promised	178.63	364.255	.147	.	.857
ET Cargo is dependable in handling customer service	179.20	361.999	.493	.	.854
ET Cargo performs the services right the first time	179.06	370.450	.004	.	.859
ET Cargo provides services at the promised time	179.06	365.543	.209	.	.856
ET Cargo maintains error-free records	178.64	362.005	.245	.	.855
ET Cargo keeps customers informed about when services will be provided	179.35	353.631	.487	.	.851
ET Cargo gives prompt service to customers	179.49	345.263	.740	.	.847
ET Cargo is willing to help customers	178.64	343.304	.686	.	.847
ET Cargo is ready to respond to customer requests	178.63	352.544	.656	.	.850
ET Cargo employees instill confidence in customers	178.92	366.962	.076	.	.858
ET Cargo makes customers feel safe in their transaction	178.50	350.438	.487	.	.851

Customs Clearing Agents/Forwarders satisfaction on Ethiopian Cargo Services

ETCargoemployeesareconsistentlycourteous	178.49	367.118	.122	.	.857
ETCargoemployeesareknowledgeabletoanswercustomerquestion	178.49	375.139	-.119	.	.862
ETCargogivescustomersindividualattention	179.35	349.590	.455	.	.851
ETEmployeesdealwithcustomersinacaringfashion	179.06	353.769	.521	.	.851
ETCargohasthecustomersbestinterestatheart	179.35	347.280	.508	.	.850
ETCargoemployeesunderstandtheneedsoftheircustomers	179.06	346.264	.498	.	.850
ETCargobusinesshourisconvenient	178.17	355.609	.324	.	.854
ETCargohasmodernequipment	178.20	369.875	.058	.	.857
ETCargohasvisuallyappealingfacilities	178.06	370.305	.048	.	.857
Employeeeshaveaneatprofessionalappearance	177.88	370.933	-.018	.	.860
ETCargohasvisuallyappealingmaterialsassociatedwithitsservice	178.49	377.964	-.185	.	.863

*B. Subjects perception of Tenure \* Satisfaction level*

**Experienceasanagent \* Thelongerthetenureofclearingagentthehigherthesatisfaction Crosstabulation**

			Thelongerthetenureofclearingagentt hehigherthesatisfaction		Total
			"slightly disagree"	"slightly agree"	
Experience asanagent	"less than one year"	Count	15	34	49
		% within Experienceasanagent	30.6%	69.4%	100.0%
		% within Thelongerthetenureofclearinga gentthehigherthesatisfaction	34.1%	38.2%	36.8%
	"1-4 years"	Count	14	28	42
		% within Experienceasanagent	33.3%	66.7%	100.0%
		% within Thelongerthetenureofclearinga gentthehigherthesatisfaction	31.8%	31.5%	31.6%
	"8-10 years"	Count	14	14	28
		% within Experienceasanagent	50.0%	50.0%	100.0%
		% within Thelongerthetenureofclearinga gentthehigherthesatisfaction	31.8%	15.7%	21.1%
	"more than 10 years"	Count	1	13	14
		% within Experienceasanagent	7.1%	92.9%	100.0%
		% within Thelongerthetenureofclearinga gentthehigherthesatisfaction	2.3%	14.6%	10.5%
Total	Count	44	89	133	
	% within Experienceasanagent	33.1%	66.9%	100.0%	
	% within Thelongerthetenureofclearinga gentthehigherthesatisfaction	100.0%	100.0%	100.0%	

**Experienceasanagent \* MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder**

**Crosstabulation**

			MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder			Total
			"strongly disagree"	"neutral"	"strongly agree"	
Experienceasanagent	"less than one year"	Count	2	19	28	49
		% within Experienceasanagent	4.1%	38.8%	57.1%	100.0%
		% within MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder	25.0%	35.8%	38.9%	36.8%
	"1-4 years"	Count	4	16	22	42
		% within Experienceasanagent	9.5%	38.1%	52.4%	100.0%
		% within MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder	50.0%	30.2%	30.6%	31.6%
	"8-10 years"	Count	2	15	11	28
		% within Experienceasanagent	7.1%	53.6%	39.3%	100.0%
		% within MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder	25.0%	28.3%	15.3%	21.1%
	"more than 10 years"	Count	0	3	11	14
		% within Experienceasanagent	0.0%	21.4%	78.6%	100.0%
		% within MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder	0.0%	5.7%	15.3%	10.5%
Total	Count	8	53	72	133	
	% within Experienceasanagent	6.0%	39.8%	54.1%	100.0%	
	% within MysatisfactionlevelishighernowthanwhenlbeginasCCAForwarder	100.0%	100.0%	100.0%	100.0%	

*C. Subjects perception of Frequency of interaction \* Satisfaction level*

**Noofdocumentsclearedperdaybyanagent \* ThemoreinteractwithEthiopianthehigherthesatisfaction**

**Crosstabulation**

			ThemoreinteractwithEthiopianthehigherthesatisfaction				Total
			"strongly disagree"	"slightly disagree"	"slightly agree"	"strongly agree"	
Noofdocumentsclearedperdaybyanagent	"1"	Count	0	1	3	11	15
		% within Noofdocumentsclearedperdaybyanagent	0.0%	6.7%	20.0%	73.3%	100.0%
		% within ThemoreinteractwithEthiopianthehigherthesatisfaction	0.0%	2.8%	17.6%	15.3%	11.3%
		Count	4	24	8	33	69
	"2-4"	% within Noofdocumentsclearedperdaybyanagent	5.8%	34.8%	11.6%	47.8%	100.0%
		% within ThemoreinteractwithEthiopianthehigherthesatisfaction	50.0%	66.7%	47.1%	45.8%	51.9%
		Count	0	1	3	17	21
		"5-7"	% within Noofdocumentsclearedperdaybyanagent	0.0%	4.8%	14.3%	81.0%
	% within ThemoreinteractwithEthiopianthehigherthesatisfaction		0.0%	2.8%	17.6%	23.6%	15.8%
	Count		4	10	0	0	14
	"8-10"		% within Noofdocumentsclearedperdaybyanagent	28.6%	71.4%	0.0%	0.0%
		% within ThemoreinteractwithEthiopianthehigherthesatisfaction	50.0%	27.8%	0.0%	0.0%	10.5%
		Count	0	0	3	11	14
		"more than"	Count	0	0	3	11

	10"	% within Noofdocumentsclearedperdayb yanagent	0.0%	0.0%	21.4%	78.6%	100.0%
		% within ThemorelinteractwithEthiopian hehigherthesatisfaction	0.0%	0.0%	17.6%	15.3%	10.5%
Total		Count	8	36	17	72	133
		% within Noofdocumentsclearedperdayb yanagent	6.0%	27.1%	12.8%	54.1%	100.0%
		% within ThemorelinteractwithEthiopian hehigherthesatisfaction	100.0%	100.0%	100.0%	100.0%	100.0%

*D. Subjects perception of Frequency of interaction\* Satisfaction level*

**Noofdocumentsclearedperdaybythecompany \* ThemorelinteractwithEthiopianthehigherthesatisfaction**

**Crosstabulation**

			ThemorelinteractwithEthiopianthehigherthe satisfaction				Total
			"strongly disagree"	"slightly disagree"	"slightly agree"	"strongly agree"	
Noofdocum entscleare dperdaybyt hecompan y	"2-10"	Count	4	25	11	44	84
		% within Noofdocumentsclearedperdayb ythecompany	4.8%	29.8%	13.1%	52.4%	100.0%
		% within ThemorelinteractwithEthiopian hehigherthesatisfaction	50.0%	69.4%	64.7%	61.1%	63.2%
	"11-20"	Count	4	11	3	17	35
% within Noofdocumentsclearedperdayb ythecompany		11.4%	31.4%	8.6%	48.6%	100.0%	
% within ThemorelinteractwithEthiopian hehigherthesatisfaction		50.0%	30.6%	17.6%	23.6%	26.3%	
"more than	Count	0	0	3	11	14	

Customs Clearing Agents/Forwarders satisfaction on Ethiopian Cargo Services

	30"	% within Noofdocumentsclearedperdayb ythecompany	0.0%	0.0%	21.4%	78.6%	100.0%
		% within ThemorelinteractwithEthiopian hehigherthesatisfaction	0.0%	0.0%	17.6%	15.3%	10.5%
Total		Count	8	36	17	72	133
		% within Noofdocumentsclearedperdayb ythecompany	6.0%	27.1%	12.8%	54.1%	100.0%
		% within ThemorelinteractwithEthiopian hehigherthesatisfaction	100.0%	100.0%	100.0%	100.0%	100.0%

# Annex-2 Selecting Appropriate Statistics

Number of Dependent* Variables	Number of Independent** Variables	Type of Dependent Variable(s)	Type of Independent	Measure	Test(s)
ONE	0 (1 population)	continuous normal	not applicable (none)	mean	one-sample t-test
		continuous non-normal		median	one-sample median
		categorical		proportions	Chi Square goodness-of-fit, binomial test
	1 (2 independent populations)	normal	2 categories	mean	2 independent sample t-test
		non-normal		medians	Mann Whitney, Wilcoxon rank sum test
		categorical		proportions	Chi square test Fisher's Exact test
	0 (1 population measured twice) or 1 (2 matched populations)	normal	categorical	means	paired t-test
		non-normal		medians	Wilcoxon signed ranks test
		categorical		proportions	McNemar, Chi-square test
	1 (3 or more populations)	normal	categorical	means	one-way ANOVA
		non-normal		medians	Kruskal Wallis
		categorical		proportions	Chi square test
	2 or more (e.g., 2-way ANOVA)	normal	categorical	means	Factorial ANOVA
		non-normal		medians	Friedman test
		categorical		proportions	log-linear, logistic regression
	0 (1 population measured 3 or more times)	normal	not applicable	means	Repeated measures ANOVA
					correlation
					simple linear regression
		non-normal	continuous	non-parametric correlation	
				categorical or continuous	logistic regression
continuous				discriminant analysis	
1		normal	continuous	multiple linear regression	
		non-normal		logistic regression	
		categorical		Analysis of Covariance General Linear Models (regression)	
		normal		logistic regression	
2 or more	non-normal	mixed categorical and continuous	logistic regression		
	categorical		MANOVA		
2	2 or more	normal	categorical	MANOVA	
2 or more	2 or more	normal	continuous	multivariate multiple linear regression	
2 sets of	2 or more	normal	not applicable	canonical correlation	
2 or more	0	normal	not applicable	factor analysis	

categorical data	ordinal level or
	nominal level
continuous	Ratio level or
	Scale level

## Annex-3 *questionnaire used*

### **Addis Ababa University School of Commerce**

*To be filled by Custom Clearing Agents/Forwarders (transitors)*

This survey is used as a first hand data collection tool for the fulfillment of Master of Arts in Marketing Management from Addis Ababa University School of Commerce. The data you provide is purely for academic purpose and it will be unanimous, therefore, feel free to express your true feeling and experience. Try to use companywide perspectives than single incidents, personal views and/or recent events.

N.B. No need to write your name.

Please indicate your response by putting (✓) mark in the boxes provided

**Please circle the question if the question is not related to you (Not Applicable).**

Business Type Custom Clearing Agent (CCA) (የጉምሩክ ዕቃ አስተላላፊ)  Forwarder (ዕቃ አስተላላፊ)



If you are (CCA) do you provide service to other organization? Yes  No

Your focus area Export  Import

Gender Male  Female

Age Category 16-19  20-25  26-30  31-35  36-40  41-45  46-50  Above 50

Marital Status Single  Married  Divorced  Widowed

Qualification Below 12  12 Complete  Certificate  Diploma  Degree  Masters

Total experience as agent Below 1Yr  2-4Yrs  5-7Yrs  8-10Yrs  More than 10Yrs

No. of Customers One  2-10  11-20  21-30  31-40  41-50  More than 50

Average Number of documents cleared per day by a single agent- One  2-4  5-7  8-10  More than 10

Average Number of Documents cleared per day by your organization as a whole- One  2-10  11-20  21-30  More than 30

S/N	Items	Degree of Agreement				
1	The queuing system for document delivery is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
2	The waiting time for document delivery is fair.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
3	The overall service at import counter for document delivery is fair.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
4	The queuing system at warehouse is fair.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
5	The waiting time for warehouse is fair.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
6	The queuing system at import counter for warehouse charge calculation is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
7	The warehouse charge is fair.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
8	The warehouse charge calculation is clear.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
9	The waiting time at import counter for warehouse charge calculation is fair.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
10	The payment mode for warehouse charge (at the bank) is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>

11	The delivery of shipment at the warehouse is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
12	The overall service at warehouse is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
13	The ancillary services like ground transportation are satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
14	Emails are replied timely.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
15	Telephone calls are well attended with acceptable standards.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
16	Ethiopian cargo has good record of maintaining schedules (Schedule Integrity).	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
17	Shipments are flown on the flights they are booked (Flown as booked)	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
18	Bookings are timely confirmed through cargo spot/email.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
19	The queuing system at export counter is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
20	Ethiopian Cargo offers competitive freight rates.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>

21	The payment mode for export freight charge is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
22	Ethiopian Cargo acceptance procedure at warehouse is satisfactory	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
23	The claim process for damage, pilferage, loss is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
24	The overall service provided is satisfactory.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
26	The longer the tenure of clearing agent the higher the satisfaction	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
27	My satisfaction level is higher now, than when I begin as CCA/Forwarder.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>
28	The more I interact with Ethiopian the higher the satisfaction.	Strongly Disagree <input type="checkbox"/>	Slightly Disagree <input type="checkbox"/>	Neutral <input type="checkbox"/>	Slightly Agree <input type="checkbox"/>	Strongly Agree <input type="checkbox"/>

<b>29. Reliability</b>		<b>Strongly Agree</b>	<b>Slightly Agree</b>	<b>Neutral</b>	<b>Slightly Disagree</b>	<b>Strongly Disagree</b>
29.1	ET Cargo provides services as promised.					
29.2	ET Cargo is dependable in handling customers' service performed.					
29.3	ET Cargo performs the services right the first time.					
29.4	ET Cargo provides services at the promised time.					
29.5	ET Cargo Maintain error-free records.					

<b>30. Responsiveness</b>		<b>Strongly Agree</b>	<b>Slightly Agree</b>	<b>Neutral</b>	<b>Slightly Disagree</b>	<b>Strongly Disagree</b>
30.1	ET Cargo keeps customers informed about when services will be performed.					
30.2	ET Cargo prompts service to customers.					
30.3	ET Cargo is willing to help customers.					
30.4	ET Cargo is ready to respond to customers' requests.					

<b>31. Assurance</b>		<b>Strongly Agree</b>	<b>Slightly Agree</b>	<b>Neutral</b>	<b>Slightly Disagree</b>	<b>Strongly Disagree</b>
31.1	ET Cargo Employees instill confidence in customers.					
31.2	ET Cargo makes customers feel safe in their transaction.					
31.3	ET Cargo employees are consistently courteous.					
31.4	ET Cargo employees are knowledgeable to answer customer questions.					

<b>32. Empathy</b>		<b>Strongly Agree</b>	<b>Slightly Agree</b>	<b>Neutral</b>	<b>Slightly Disagree</b>	<b>Strongly Disagree</b>
32.1	ET Cargo gives customers individual attention.					
32.2	ET Employees' deal with customers in a caring fashion.					
32.3	ET Cargo has the customer's best interest at heart.					
32.4	ET Cargo employees understand the needs of their customers.					
32.5	ET Cargo business hour is convenient.					

<b>33. Tangibles</b>		<b>Strongly Agree</b>	<b>Slightly Agree</b>	<b>Neutral</b>	<b>Slightly Disagree</b>	<b>Strongly Disagree</b>
33.1	ET Cargo has modern equipment.					
33.2	ET Cargo has visually appealing facilities.					
33.3	Employees have a neat, professional appearance.					
33.4	ET Cargo has visually appealing materials associated with its service.					

*Thank you for taking time to fill the questionnaire!!!*