SAINT MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF AIRPORT CUSTOMER SATISFACTION AND PASSENGER TERMINAL EXPANSION THE CASE OF ADDISABABA BOLE INTERNATIONAL AIRPORT

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ADDIS ABEBA, ETHIOPIA.

ASSESSMENT OF AIRPORT CUSTOMER SATISFACTION AND PASSENGER TERMINAL EXPANSION (THE CASE OF ADDISA BABA BOLE INTERNATIONAL AIRPORT)

BY

ASCHALEW AWOKE

A THESIS SUBMITED TO SAINT MARY'S UNIVERSITY, SCHOOL OF GRADUAT STUDIES IN PARTIAL FULFILMENT OF THE REQUIRE-MENTS FOR DEGREE OF MASTER OF BUSINESS ADMINISTRATION (GENERAL MBA CONCENTRATION)

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STATEMENT OF DECLARETION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Tiruneh Legesse (Asst. Professor). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other learning institution for earning any degree.

Aschalew Awoke ----------

Signature

St. Mary's University, Addis Ababa. December 2019

STATEMENT OF CERTIFICATION

Thu is to certify that the thesis presented by **Aschalew Awoke** entitled" Assessment of Airport Customer satisfaction and Passenger Terminal expansion in the case of Addis Ababa Bole International Airport'' in partial fulfillments of the requirement for degree of Masters of Art in General MBA complies with the regulation of University and meets the accepted standards with respects to originality and quality.

Name Tiruneh Legesse (Asst. Professor)

Signature----------

Date----------

St. Mary's University, Addis Ababa

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Acronyms

AABIA- Addis Ababa Bole International Airport

ACI - Airport Council International

IATA - International Air Transport Association

ICAO -International Civil Aviation Organization

ET- Ethiopian Airlines

NIS- National Intelligence Service

EAE - Ethiopian Airports Enterprise,

ETAG - Ethiopian Airlines Group

CAC - Changi Airport Group

ASQ – Airport Service Quality

GDP - Growth Domestic Products

AIDA - IATA Training & Development Institute

VIP- A person who is accorded special privileges due to their status or importance.

Examples include celebrities, heads of state

PHP- Peak hour passenger

Abstract

The airport services are operating through international competition with high expectation of customer satisfaction. The customers at airport have different and widespread character and anticipations. To satisfy such customers in airport services need investment in different aspects as availability of facilities, access for smooth passenger flow and customer handling skill with close follow-up for abrupt correction. This research is aimed at ascertaining the significance of investment for customer satisfaction by targeting Addis Ababa Bole International Airport Passenger Terminal. For this review of literature and theories of customer service at airport, customer satisfaction was surveyed to assess required facilities and customer satisfaction at the airport with the supports of performance indicators, airport services. The result indicated that Addis Ababa Bole International Airport customer satisfaction level is not as expected. Based on the findings the level of satisfaction and dissatisfaction were introduced and assess the significance of airport expansion to realize customer satisfaction. On this basis it is recommended that the expansion of AABIA passenger terminal with required facilities should be finalized.

Key Terms:-

Airport- Airfield, airdrome, airstrip, landing field

Aircraft- Airplane, plane, jet.

1. Runway- Airport surface, Aircraft movement area, Aircraft Landing space. Where aircraft take off and land.
2. Taxiway- Road to terminal, Aircraft parking, a path for aircraft at an airport connecting runways with aprons.
3. Airside- the side of an airport terminal beyond passport and customs control.
4. Landside- Terminal, Parking, Passenger movement area.
5. Aeronautical Revenue- Airplane landing fee, parking fee, refueling fee.
6. Non-Aeronautical Revenue- Airport income, Terminal revenue, parking fee, Airport rental fee.
7. Business Lounge- Airport hotel, Restaurant, Coffee room. .
8. Carousers- rotating platform, Baggage handling, and Baggage delivery.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Businesses compete to serve customer needs. The beginning of the discipline of marketing is to understand the needs and wants of customers in which their need might vary. In brief, a market represents a dynamic phenomenon that, influenced by customer needs, evolves over time. Satisfaction of customer need is the ultimate test of a business unit's success. Thus, an effective marketing strategy should aim at serving customer needs and wants better than competitors do.

Airport, as a service sector its service is mainly divided into land side and airside with number of main service points for outgoing and incoming passengers. Therefore, airport services can be summarized into four categories: access to and waiting time improvements in service reliability & predictability, reduction in operating costs, and finally increases in traffic. Investment at airport is also reduced customer satisfaction, delays at the airport, lower unit operating costs at the airport from the application of new technologies.

Considering the expanding air transport sector and along with the overall national economic growth in the country Ethiopian Airports has providing services through international and domestic airports with provision of modern air service facilities.

Addis Ababa Bole International Airport (AABIA) has captured a large share of connecting traffic, which appears to account for around 60-70% of the passenger throughput at the airport. AABIA perform the highest rates of traffic growth of any leading African airports over the last decade. The extensive route network from Addis is more comprehensive than other airports on the continent, and growing faster than most others. This is due primarily to Ethiopian Airlines (ET) route initiatives.

Expansion at the airport is vital to satisfy customer needs as well as to be competent in global market. The investment will not only for one time but needs to continuous that fol-

low the future growth of aircraft and passenger movements. Therefore, this thesis is being conducted on the assessment of customer satisfaction at AABIA Passenger Terminal.

Case studies and published and unpublished researches in regards of customer satisfaction, airport customer satisfaction, and importance of investment for customer satisfaction at Addis Ababa Bole International Airport were thoroughly assessed. It is identified that the same case study had been not conducted and the physical discussion with colleagues derived me to this research area and testified as no other research in similar area was conducted. The research presents the review of various views and perspectives of different scholars on airport services that can support to assess the questions raised by researcher. The preliminary review is presented with four sections just to give insight for the proposed study. The first sections focus on overview of airport customer service; the second section discusses the characteristics of service quality while the third and last section discusses assessment result of customer satisfaction and of investment. The last section is concluding remarks and recommendations.

1.2. Background of the Organization

Ethiopian Airports Enterprise currently administers over 20 airports. The main user of these airports is the leading carrier Ethiopian Airlines (ET) that render both domestic and international air transport services, which runs a fleet of over 100 aircraft. At present, apart from the four international airports of Addis Ababa, Dire Dawa, Bahir Dar and Mekelle, 16 other major domestic airports are served regularly by ET flights.

Considering the expanding air transport sector and along with the overall national economic growth in the country the Federal Government has been investing invested in the provision of modern airport service facilities at Addis Ababa and regional airports. As a part of this development program AABIA owns a reasonably sized of modern passenger terminal building, expanded aircraft parking, apron, runway and modern air navigation systems.

Due to the unforeseen traffic growth the passenger terminal is not sufficient to handle the existing 10 million passengers to be served annually. In light of this a terminal expansion wok costing more than 350 million dollars is undertaking to expand the existing terminal facilities to provide services with international standards and thereby satisfy custom-

ers/passengers in order to sustain in the airport business through a strong competition with other international Airports.

1.3. Statements of the Problem

Customer satisfaction is the result of business enterprise that meets the customer requirement/expectation and the actual services delivered. Airport as a business entity has functioning within international competition, its services need to be focused on customer satisfaction to survive in the business or to be the preferred airport service provider by customer. Apart from all these Airports need to provide its services as per customer expectation based on internationally accepted norms and principles.

As physical dimensions of passenger terminals must be directly related to the volumes of traffic to be handled, the actual configurations or arrangements of the passenger terminals must be integrated with other elements of the airport, i.e. runway, taxiway, etc. It is therefore necessary to carry out an evaluation of the advantages and disadvantages of different concepts in relation to the total airport plan before preparing specific terminal and related facilities plan.

The passenger terminal building of AABIA is having separate access for certain, incoming and transit passenger with five contact gates. It renovated including installation of four new aero bridges, fourteen new checks in counters and new baggage handling and security system as well as interior refreshment and building renovation. Current improvement works of new apron with extra 25 Aircraft standing position and new taxi way. Rehabilitation was also performed on existing stand by runway with all investment performed so fare the passenger satisfaction couldn't exceeding 70% with the measurement of selected key performance indicators. On the other hand, the aircraft and passenger movement of AABIA have been continuously and dramatically increasing for the past couple of years.

AABIA Passenger terminal built with the design capacity of 6,000,000 Passengers per year, and starts providing service 2000 ec however currently it serves more than 11,000,000 passengers per year with excess capacity of 5,000,000 a year. The statistical data of passenger movement show that it will be exceeded the capacity to serve 20,000,000 passengers a year that will be more than the capacity accommodate by the

newly constructing passenger terminal building while it will complete. With this capacity the airport could not meet the customer requirement and therefore impacted by the ongoing investment to expand and fulfill facilities to satisfy the fast-growing traffic movement.

Moreover, airport business service excellence is essential for customer satisfaction that demands adequate and reliable infrastructure and facilities. However, Airport Council International ASQ survey has shown that the average customer satisfaction has been 70% that indicates the need to improve customer service with required facilities and infrastructure. Regarding the waiting time measurement, the ICAO recommended practice to serve the departing and arriving passengers is 60 minutes and 45 minutes for international travelers respectively. The waiting time measurement at Bole International Airport, however, show that 93/54 minutes respectively which is lagging from the international practice and standards. To solve the problem with the users of the airport related to the flight operations, the corrective measures need to be taken during peak hours by having short- and medium-term plans but it is proved in practice that the peak hour capacities of these terminals requires intensive improvements that required investment. Therefore, the above-mentioned performance gaps require additional investment on critical infrastructure, facilities and customer service management to improve service delivery to meet customer expectation.

The supply and utility of information technology contributes to efficient and quality of service and it is expected to use recent technologies parallel to the expansion and development of airports. Thus, all the above stated circumstances urge in depth study in this capacity. Therefore, this study focuses on the assessment of customer satisfaction at AABIA and investment requirement.

1.4. Research Questions

In light of the above statements of the problem, the study answers the following basic research questions.

1. To what extent does the service offered by the airport satisfy existing customers?

2. What are infrastructure and facilities requirement to provide expected service to passengers so that meet their satisfaction level?
3. What are the service delivery gaps creating customer dissatisfaction?
4. What measures should be taken to fill the service delivery gaps?

1.5. Objectives of the Study

1.5.1. General Objective

The general objective of the study is to examine customer satisfaction.

1.5.2 Specific Objective

Based on the above general objective, this study aims to address the following basic objectives.

1. To find out if the service offered by the airport by existing Infrastructure and facilities satisfy customers.
2 To identify the infrastructure and facilities requirement to provide expected ser vices to passengers to meet their satisfaction level.
3 To examine the service delivery gaps creating customer dissatisfaction that requires investment.
4 To provide possible measures to be taken to fill the service delivery gaps.

1.6 Significance of the Study

Clear understanding the level of customer satisfactions at AABIA and investment on airport passenger terminal expansion. It also assesses basic customer dissatisfaction areas and gaps and how to overcome causes of dissatisfaction from the recommendations and the findings.

As no sufficient research work have been done on this area of airport passenger satisfaction, **t**he experiences in making this research enhance and enrich the knowledge of researcher and encourage other researchers who have an interest on the subject to do further research. In addition, it may serve as additional reference on of investment of airport expansion and customer satisfaction.

1.7 Scope of the Study

The research study has been focused the assessment of customer satisfaction of land side and passenger terminal at AABIA. Even though there is a need to study the impact of investment on customer satisfaction for all 25 airports in Ethiopia administered by Ethiopian Airports Enterprise, the research is limited to AABIA passenger terminal expansion in which assumed to be critical for the time being due to the strategic importance of the airport service and the largest share of international passengers are served by AABIA. Therefore, scope of the study will focus on the land side and terminal area/building of airport services of international PAXs.

1.8 Organization of the Study

The research organized in sequential manner beginning from understanding of the airport service delivery and facility required with the actors involved therein. The literature review helped to understand theoretical concepts of airport service delivery and the international norms thoroughly incorporated for better understanding and assessment in regards of reason for performance gap. It was also organized based on the specified scope of the research and collect the necessary information through different means and methodology identified gap in the service delivery and required investment. Through the process customer satisfaction, it was evaluated based on the collected data and its analysis. The available infrastructure and facilities also ascertained in comparison with the capacity of service delivery and analysis on the assessment of expansion at AABIA Passenger terminal on customer satisfaction clearly stated. Finally, recommendation provided based on the data analysis in order to fill up the gap caused dissatisfaction of customers through investment for customer satisfaction.

Therefore, the research paper organized in to five chapters. The first chapter is composed of background of the research, statement of the problem, research questions, objectives, methodology, significance and scope of the study. The second chapter presented review of related literature. The third chapter described methodology of the study. The forth chapter showed the result and discussion. Finally, the last chapter incorporated concluding remarks and recommendations.

CHAPTER TWO

2. LITERATURE REVIEW

Theoretical Literature Review

2.1. Customer Service

Business organizations establish and operational for customers whether it is manufacturing or service sector. Transactions aimed at meeting the needs and expectations of the customer, as defined by the customer. Customer satisfaction includes but not limited to evaluations of service quality. Customer satisfaction is an attitude, the preference of an organization over other acceptable products or services, conveniently available. Customer loyalty includes but is not limited to evaluations of service quality and customer satisfaction. Customer loyalty is behavior. (Fogli, 2006)

Because of their diversity, services have traditionally been difficult to define. The way in which services are created and delivered to customers is often difficult to grasp since many inputs and outputs are intangible. Most people have found difficulty defining manufacturing or agriculture, but defining service is more difficult too. Here are two approaches that capture the essence of the word. A service is an act or performance offered by one party to another. Although the process may be tied to a physical product, the performance is essentially intangible and does not normally result in ownership of any of the factors of production.

Services are economic activities that create value and provide benefits for customers at specific times and places, as a result of bringing about a desired change in or on behalf of the recipient of the service. More amusingly, service has also been described as "something that may be bought and sold, but which cannot be dropped in business processes.

Service Products as Intangible Performances although services often include tangible elements such as sitting in an airline seat, eating a meal, or getting damaged equipment repaired the service performance itself is basically an intangible. The benefits of owning and using a manufactured product come from its physical characteristics (although brand image may convey benefits, too). In services, the benefits come from the nature of the

performance. The notion of service as a performance that cannot be wrapped up and taken away leads to the use of a theatrical metaphor for service management, visualizing service delivery as similar to the staging of a play with service personnel as the actors and customers as the audience. (Christopher Lovelock & Lauren Wright, `2000)

A truly customer focused organization appreciates things through the ‘‘lens of the customer.’’ This approach asks, ‘‘How does the customer see us?’’ Looking at the operation from the customer’s perspective is one of the performance elements that separates outstanding organizations from others. Customers appreciate the difference. If we have ever tried to navigate the corridors of most hospitals, we know that the signage doesn’t usually offer much help. It doesn’t help because staff members who already know their way around the hospital designed the signs. Arrows pointing in 40 different directions make sense to people working in the hospital every day. Those of us who only visit the hospital in stressful times find that these directional signs only add to the stress. (Dennis Snow &Teri Yanovitch, 2010)

Perfect product now requires caring, friendly people to deliver it. Let’s visualize just how a product and its delivery work together to determine satisfaction. Let’s make the setting Hartsfield-Jackson International Airport in Atlanta. Picture featureless corridors, long ticket counters, and the reason you wish you didn’t have to exchange your ticket a few days before Thanks giving amaze of people waiting behind a roped line to speak with any of five agents. Eventually, you make it to the front of the arrangement. Now you’re first in line, waiting politely for an agent at the counter to help you.

A perfect product delivered late by friendly, caring people is the equivalent of a defective one. Customer experiences guide their expectations; so on-time delivery standards continue to get tougher all the time. What your customer today thinks of as on-time delivery is not only stricter than what her parents would have tolerated; it’s stricter than what even her older sister would have tolerated.

Service breakdowns and other problems experienced by customers are crucial emotional moments in a business relationship. Therefore, solving problems will have an outsized impact on business success. That’s why organizations need an effective problem resolution process. Effective problem resolution sounds like a modest goal. Resolve a service

problem effectively and your customer is more likely to become loyal than if she'd never run into a problem in the first place. (On this point, our studies and practical experience are 100 percent conclusive.) Of course, we would never recommend that you make mistakes on purpose so you can engineer a splendid recovery and win yourself some client love in the process. But it is a silver lining to keep in mind when you're watching down a problem. (Leonardo Inghilleri and Micah Solomon, 2010)

2.2. Service Quality

Service has historically been an important and integral way for service providers to differentiate themselves in a crowded marketplace. The power of service, as described by Parasuraman, Zeithaml and Berry (1985) has often been the core factor which distinguished successful organizations from unsuccessful organizations it has therefore been the responsibility of business owners and management to ensure that their operation is functioning at a high level of service. Although service quality is crucial, many entities still struggle to adequately measure and understand the concept of service quality. Parasuraman et al. (1985) proposed a service model called SERVQUAL. The main purpose of SERVQUAL was to measure the level of discrepancy between customer expectations and customer perceptions of an entity's level of service. Since then, many entities and business organizations have modified and applied the SERVQUAL model to their own business enterprise and industry.

According to International Air Transport Association (IATA) Training and Development Institute ATDI (2007) quality ''is a series of attributes and characteristics of a product, service or entity, which gives them the capacity to satisfy specific or implicit needs''.

In an intermediate management course by ATDI (2000), quality of service is described as the transaction and outcomes of the service. It can be judged subjectively (the perceived quality) and objectively through the assessment of indicators (the actual quality).

The quality of service or product is determined by the user's perception it is the degree to which the bundle of service attributes as a whole satisfies the user. The primary task of organization is to identify, deliver and continuously enhance the features or characteristics of service or product that can meet the needs of customers. (Murdick et. al, 1990)

In light of this, many organizations are working in the area of quality improvement. Quality implies the consistency and reliabilities in delivering of product and services; this exceeds customer expectations of all steps in the process. People with high concern of quality are people who believe there is always a better way.

The quality improvement and design should consider consumer/user perception in mind. Even though, quality is more difficult for consumer the attributes of service than goods, that few characteristics the consumer bear in mind they use as abases for comparison among alternatives.

Customers assess service quality in terms of reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the consumer and tangible. (Berry, Zeithaml and Parasuraman, 1990.)

According to ATDI (2000), service quality includes dimension such as access, appearance and practicality of facilities, waiting time, clarity of communication materials, courtesy, competence and empathy of in contact personnel, appropriateness to need and speed of results.

2.3. Airport Service

Airports are complex industrial enterprise act as an environment in which disparate elements and activities are brought together to facilitate, for passengers and freight, the interchange between air and surface transport. (Rigas, 1992). Airport is an operational system comprising of a framework of infrastructure, facilities, equipment, systems and personnel which collectively provide a service to a customer. The users of airport services are passengers, freight and aircraft operators. The airlines transport passengers and freight, and operate the aircraft, and are therefore, direct customers of airport services. The functions of an airport are also, processing facilities for passengers, baggage and freight, servicing facilities for aircraft. Port of entry and exit for clearance of international aircraft, passengers, baggage and freight.

The operational efficiency at an airport can have a direct impact on safety, user and customer satisfaction and the financial performance of the airport, airlines and other service

providers such as government inspection; passenger, baggage and freight handling; and aircraft ground servicing agencies.

International Civil Aviation Organization (ICAO) requires that states shall take all the necessary steps to secure the cooperation of airport administrations, airlines and airport service providers in ensuring that satisfactory facilities and services are provided for rapid handling and clearance of passengers, crew, baggage, cargo and mail at their international airports. Such facilities and services shall be flexible to accommodate changes in traffic characteristics, passenger & aircraft movements and capable of expansion to meet anticipated growth in traffic volume.

To achieve this objective, States should monitor and have measures to directly or indirectly influence the performance of airport operators, airlines, air navigation agencies, government inspection agencies and other airport service providers. The operational efficiency at an airport is driven by air traffic volumes and characteristics, operating procedures and performance, and facilities capacity. Traffic characteristics which can influence the demand on airport facilities and services include peaking, international/domestic passenger ratio, aircraft type mix, etc. Facility capacity, given compliance with standards for adequacy and safety, relates to the accommodation of traffic through put and therefore airport operators expected to be alert and working towards all those aspects.

Over provision of capacity results in underutilization of facilities, and therefore result in financial inefficiencies. Under provision of capacity results in operational efficiency deficiencies, which can also cause financial inefficiencies in tern result in weak investment capacity to fulfill necessary facilities to serve for customer satisfaction.

Operational efficiency can be measured against defined user level of service criteria and performance standards. Level of service can also be measured by surveying users' subjective perceived level of service. Level of service is a function of space and time, and to a lesser extent distance, resulting in a level of comfort and convenience experienced by users. Performance standards for equipment relate to reliability and effectiveness. Individual incidents, accidents and equipment non-performance usually results in an interruption to a service and this also reflects on the overall operational efficiency.

As an airport is an intermodal transfer facility with multiple transportation system elements, the objective should be that the efficiency of processing users in each element and transfer between elements should be balanced to provide a constant perception of level of service. Under provision in the level of service in one element will reduce the perceived level of service for the whole system. Overprovision in the level of service in one element will not distract from the overall perceived level of service for the system. (Michiel C L Vreedenburgh, 1999)

Empirical literature Review

2.3 Airport Investment

The industry experience has demonstrated that operational efficiency at airports can be enhanced by a competitive environment formed between multiple ground handling and service providers at airports. The presence of too many providers of the same service can however result in the reduction of economies of scale with duplication in the provision of space, facility, equipment and personnel requirements that cause congestion and higher operational costs. It also has an effect on safety and security and therefore such facilities expected to be provided by Airport operators that require investment.

A study carried out by Time trice's Construction Intelligence Center (CIC), entitled 'Global Airports Construction Projects' has revealed growing investment in new airports and expansions continues to rise despite ongoing global consequences from the financial crisis in 2008-2009. Opposed to other industries, airports have experienced an average five percent growth in passenger traffic since that time. In particular, construction activity remains high in fast-growing regions of Asia-Pacific and the Middle East and Africa. The two regions outpace other global regions, with total planned investment in airport mega-projects worth US$224.1 billion and US$172.0 billion respectively.

Local airport owners and operators try to adopt physical designs and operational configurations for processing passengers, crew, aircraft and supporting services in an effective manner. They commonly recognize that the time spent by airport users is ultimately determined by the "weakest link" in the flow process. So, whether a delay is associated with the access route or airport parking or airline check-in or security screening or getting to gates, in the end the occurrence of bottlenecks or delays anywhere in the passenger

process can be viewed as an added time cost of using that airport. In areas where there is a choice of airports that can be used, the occurrence of delays can also make a difference in passenger decisions about which airports to fly through.

In some areas, there is competition among airlines serving multiple airports in a region. In those cases, commercial airline passengers may have a choice of airport as well as airline and consider overall terminal access and processing time along with price as factors in their choice decisions. General aviation aircraft owners and a range of other air service providers (as well as aviation-related businesses, such as freight consolidators) may similarly view delays associated with airport access, aircraft handling, and takeoff or landing processes as a factor in their decisions regarding the airport at which to base their aircraft or use for their activities. This study focuses specifically on value of time factors relating to passenger delays at commercial airports, though many of the same factors may apply for general aviation (including corporate jets) and air cargo.

Singaporean, Changi Airport Group (CAG) plans ahead to ensure sufficient capacity to meet future demand in air travel. It invested in Changi Air port's infrastructure, terminal facilities and airport processes to enhance the Changi Experience for passengers and visitors alike. Examples include building a new Terminal 4, renewing Terminal 1 and establishing a new integrated airport operations center to serves as the airport's nerve center.

CAG develops the essential talents of its employees to realize their full potential so as to allow them to grow together with the company. At the frontline, Changi Air port raised the bar of its customer service with the introduction of uniform droving Changi Experience Agents who are deployed airport wide to proactively assist passengers with their travel and special needs.

CAG invested in cutting-edge technologies to enhance the passenger experience, transformed improve airport processes as well as enhance safety. Real-time flight information is readily available for passengers on the move on their mobile devices, while instant feedback from airport users at various Changi Airport touch points helps improve service standards that made the best airport of the world witnessed by passengers as below.

Majority of airports in Africa are undergoing expansion in a bid to cater for rapidly growing passenger and cargo traffic volumes. Booming tourism and renewed interest in in-

vesting in Africa by foreign companies has left many countries struggling to boost the capacity of their airports. For instance, between 2011 and 2012 business activities at African airports rose from 45% to 80%. This path has largely been attributed to the growth of the continents GDP growth of 6.1% contrary to the global estimation of 5.8%.

Key projects include the construction of new terminals at Algeria, Algiers Houari Boumediene and Oran's Es-Sénia Ahmed Ben Bella airports. Designed by UK architects Llewelyn Davies and Algerian company BREA, the new terminal at Algiers Houari Boumediene International Airport will raise the gateway's capacity from 6 million to 10 million passengers per annum when it opens in late 2014/early 2015.

Cairo International Airport's Terminal 2 is currently being refurbished and expanded by Turkish construction firm Limak Holding. The $387 million project financed by the World Bank started in January 2012 and is scheduled for completion in 2015, when the complex will be equipped to handle 8. 5mppa.

An extended Metro Line linking Cairo Airport with Giza is expected to become fully operational by 2019. Fraport claims its nine-year management contract at Cairo International Airport was a great success in terms of customer satisfaction positively impacted by investment. In February 2014, Fraport's chief financial officer, Dr Matthias Zieschang, said it had been "a win-win project for both Cairo and Fraport". Elsewhere in Egypt, Hurghada is set to get a new 91,500sqm terminal capable of handling 7.5mppa and a second 4,000m runway, the latter which will be built by local company Orascom Construction Industries (OCI). Plans are also on the table for a capacity doubling, $350 million third terminal at Sharm El Sheikh and terminal extensions at Abu Simbel, Marsa Matrouh and Taba.

The impact of 2011 uprising that led to the fall of the Ghadaffi regime continues to be felt in Libya today in terms of the uncertainty over whether a host of previously planned projects at a number of gateways will either commence or be completed. Work on the $825 million upgrade of Benghazi Benina International Airport, for example, was interrupted by the uprising and has yet to resume. It included plans for a new Aéroports de Paris Ingénerie (ADPI) designed terminal, runway and apron. The airport now plans to fill the

void by opening a new “temporary” passenger terminal, being built by Korea’s Nemo Partners, in the same year.

Nemo Partners also began work on a new terminal at Misrata Airport in 2013 and there is positive news elsewhere as work has begun on a new $450 million terminal at Sebha. The 3mppa capacity terminal at Sebha has also been designed by ADPI and the Libyan Civil Aviation Authority responsible for the development, management and operation of the country’s 25 airports says that work has also restarted on the $2.5 billion expansion of Tripoli International Airport.

Many projects have either recently been completed or are underway at the country’s smaller airports in Moroco. They include terminal facilities at Agadir and Dhakla; runway upgrades at Bengueric and Benslimane; new lounges, equipment and infrastructure at Al oceima, Laayoune and Oarzazate and Tangier; construction of a new 1,200sqm terminal at Errachidia; a new terminal building and take-off runway at Oujda; and a new terminal at Tan Tan. The projects come with a combined price tag of €320 million, Elsewhere, projects to expand the terminal building at Casablanca.

2.4. Airport Customer Satisfaction

In the last decade, the continuous growing trend recorded of air transport demand often resulted in airport congestion with significant consequences on passengers’ satisfaction. This phenomenon is now considered a priority in the agenda of airport managing directors. Air traffic forecasts show that growth will continue in the next years, consequently congestion problems will continue to raise (Czerny, 2010).

Different methodologies were developed to measure airport performance by using a variety of input and output variables (Oum et al. 2003; Francis and Humphreys, 2002; Humphreys and Francis, 2002). Very often, such approaches showed to be in contrast each other. (Gillen and Lall, 1997) suggested dividing airport operations into landside and airside. This is considered an important step as different performance measurement models may result. Airports are complex aviation sector that act as a forum in which disparate elements and activities are brought together to facilitate passengers and operators (Airlines) and the interchanging between air and surface transport *(Doganis, 1992).*

There are many actors involved in airport service delivery that includes airports operators (either public or private administration), airline companies and ground handling firms, tenants, customs authorities, immigration, security and other businesses such as catering and aviation fuel suppliers. However, all this player serves to achieve one common goal; passenger satisfaction. During their time at the airport, passengers are served by various service providers at security control; check in counter, passport control, and during baggage access and boarding processes. Therefore, passenger satisfaction is impacted by several factors during all these stages.

The Airport operators are responsible to coordinate and monitor the service delivery performance of various airport service providers. In all the processes of service delivery, airport infrastructure and facilities expected to be fulfilled customers need. Therefore, airport management need to make business decision and investment to upgrade or improve key drivers that directly affect customer satisfaction based on demand for fast growing aircraft and passenger movements.

The major airport infrastructure includes terminal, runways, aprons parking and movement areas which require huge investment. The facilities include electromechanical, baggage handling systems, x-rays, communication equipment which are important for passenger handlings to be supplied reliably and promptly so that provide services that witnessed to be satisfied the customer. Therefore, to satisfy airport customers, the first requirement that lead to provide quality service is availability of necessary facilities based on traffic forecast that provide information on volume of traffic expressed in aircraft movement, passengers and cargo movements that will be inputs for investment decision. *(IATA, 1999).*

One enterprise that lacked the application of this widely popular model has been the airport industry. The airport industry, while traditionally limited to public infrastructure, has been growing in importance due to its facilitation of the rise of global travel demand and the tourism industry (Samadi, 2012). As airplanes became more efficient, increasing passenger capacity and the ability to travel longer distances to far away destinations, an increase in the number of passengers and their expectations of services within the airport was inevitable.

Airports to stand out from the competition would be through differentiation in airport services. While service had always been a focus among air transport analysts and academics, the study of how they measure their service was still limited to spatial and temporal scale measurement (Correia& Wirasinghe, 2004). While most researchers focused on temporal and spatial effects of airport services on customer perceptions, (Fodness and Murray,2007) proposed a different airport service measurement construct which included other service dimensions and the passengers' individual attitude toward the airport services in evaluating changes in the overall airport service quality. In "Passengers Expectation of Airport Service Quality," they proposed a framework of airport service quality with three major service dimensions: Services and Service Personnel. For each individual dimension, additional sub dimensions followed. The combination of the passengers' perception of these service dimensions along with their sub-dimension affected their overall perception of airport service quality for customer satisfaction.

The major customers of airport services are Airlines, Passengers, Concessionaires, Meters, Greeters, Visitors and Personnel, and other non-travelers inline of this Airport Council International (ACI) (2000) has listed the services which are found in an airport, by type of customer. These services are not necessarily provided by the airport operator/authority. Some services which are provided throughout the airport have been put together under the heading "common elements".

Common elements to all stages of processes that consist of: -

- Signage and guidance, and wayfinding
- Announcements
- Information (including flight information)
- Comfort (architecture, volumes, temperature, visual environment, smoking areas, etc.…)
- Provision of washrooms and toilets
- Cleanliness

- Staff courtesy, empathy, contact, accuracy (appropriate staff) and efficiency
- Walking times (connecting flight flow, embarkation or disembarkation flow)
- Availability of lifts, escalators, moving walkways, people-movers…
- Provision for the disabled
- Special services (business lounge, VIP, facilities for religious observance, emergency medical services.

An airport terminal can be defined as a set of interacting subsystems, allowing the realization of modal transfer: from land to air and vice-versa. Around these movements, ie, the incoming and outgoing of passengers, a number of different components are installed and services are produced, in order to ensure customer expectations in relation to the terminal. In other words, in addition to meeting the satisfaction with the result of the service (meet the scheduled times of departure and arrival, for example), there is still satisfaction during the generation process itself, with which the client has direct contact (comfort, security, etc.).

The importance of ensuring safety and security in an airport cannot be over-emphasized especially in providing passengers with a safe and seamless experience. The airport management must also ensure that a wide array of safety and security considerations of the passenger are met by working closely with the wider airport community. Large numbers of people pass through airports every day; therefore, airport security serves to prevent any threats or potentially dangerous situations from arising or entering the country. Passengers' expectations of airport security are related to waiting time required for security check, the professionalism of the security staff and the ability of the security process to make them feel safe that need investment and thereby satisfy customers.

Creating a great customer experience is an important task of service providers to enhance the level of customer satisfaction. A good architecture, interior design, facilitation and staff service are an important consideration to enhance airport customer experience which all requires investment.

To enhance the level of service, Ethiopian airports have invested substantial amount money for airport infrastructure and facilities. From year 2001-2006 E.C, EAE earn total revenue of Birr 4,223,829,505 out of which Birr 1,579,918,211 spent for infrastructure expansion and development and Birr 83,549,764 consumed for fulfilling airport facilities. However of all these investment the airport service demand contentious to be unsatisfied that need more and more investment to meet customer expectation. During this period a major assessment of the airport facilities was made and consequently a rehabilitation and Expansion study including design of a new passenger terminal and a new runway was conducted. (Ethiopian Airports Report, 2014)

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design

The research was conducted based on descriptive research design due to it is an appropriate method to assess the attitude and opinion of the customers towards the service (Calderon, 1993). Furthermore, the study was employed using quantitative approach based on primary and secondary data gathered from the passengers who passed through AABIA while connecting to their destination. In line with quantitative approach the study incorporated qualitative approach by employing open ended question during the survey and information obtained from the discussion with airport manager. Descriptive design, observation and measurement of the characteristics utilized in a scientific manner in the research. The researcher then draws conclusions based on the results of the study to answer the questions of the study (research questions). The method is an efficient way to obtain information needed to describe opinions and views of managers, stakeholders and customers to be included in the survey.

3.2 Population and Sampling

The study population includes those passengers that had been served by AABIA. Since the difficulty to address all passengers in the survey, sample passengers were selected based on purposive sampling method. Here, the researcher had a judgment that the sample passengers represent the population. This kind of sampling is purposefully used because the probabilities that the sample unit to be selected is unknown due to different passengers are traveling through the airport. The researcher approached the respondent in person at the airport to fill up the questionnaires with the supports of airport facilitation employees at the time of late night (after midnight) and early morning to fill the questionnaires.

The researcher selected target population of 8,882,951 annual international passengers served in AABIA in 2017/18. From this target population, 385 sample adult passengers been selected as a sample size based on the solved formula derived by *Daniel WW (1999)*.

$$= N*X / (X + N - 1),$$

Where,

$$X = Z\alpha/2^2 *p*(1-p) / MOE^2,$$

And Zα/2 is the critical value of the Normal distribution at α/2 (e.g. for a confidence level of 95%, α is 0.05 and the critical value is 1.96), MOE is the margin of error, p is the sample proportion, and N is the population size.

n=1+N(e2)

Where

n is sample

N is total population

E is 0.05 or allowance of random error

Therefore, to find the sample size of the passenger for the study;

N=8,882,951

1+8,882,951 (.052)

n=8,885,951 (.052)2 =385

3.3 Types of Data Collected

Pertinent traffic (passenger and aircraft) and other operational statistics and the best possible forecasts are the basic data had been collected and analyzed in the research. The required facilities that based on the traffic movement had been collected to understand the investment requirement and thereby meet customer satisfaction. The passenger satisfaction survey data also collected and evaluated to assess investment and customer satisfaction.

The data collection performed trough use of mix of primary and secondary data sources. The primary data collected from the facilities fulfill by EAE investment, department heads and employees and opinion also collected in regards of customer satisfaction from passengers had been passed through AABIA passenger Terminal. The secondary data used as an input that collected for service standards and customs satisfaction survey performed by Airport Council International (ACI) with selected and acceptable performance indicators that rank comparably the airport service with other competitive world class airports. Study conducted so far by different consultants in regards of airport business also used as a data sources for this research.

3.4 Methods of Data Collection

Data had been collected through questionnaires from passengers. Observations also applied to collect data for the purpose of the research. Secondary data collected and organized particularly from ACI customer satisfaction survey from respective department of Ethiopian Airports. Apart from all, interview had been made to fill up the information gap that is required to understand the assessment results of investment on customer satisfaction at AABIA. Therefore, the data collection method had been mainly questionnaires, observation and interview.

Data from different related materials of the company had been gathered for input as a secondary source of data such as books, annexes, journals, company reports, regulations, research and working papers, internets and other published and un- published sources

Manuals of international aviation sector organizations on airport service as International Air Transport Association (IATA), Airport Council International (ACI) and International Civil Aviation Organization (ICAO) had been used for analysis of international norms and actual performance and customer expectation.

3.5 Methods of Data Analysis

The data collected using different methods were classified and grouped to make it suitable for analysis. The study involved both qualitative and quantitative methods of data collection and analysis. Quantitative analysis had been done through editing and coding completed questionnaires, data entry then cleaning of the data and finally analysis made. The researcher adopted descriptive statistics to analyze the quantitative data. Qualitative analysis also applied in the case of data collected, through open ended questionnaires and interviews, from customers to understand the customer satisfaction level in comparison with global trained airport business. Therefore, the data analysis methods have been mixed approach of both quantitative and qualitative. As the research has described the existing situation and investment requirement for customer satisfaction descriptive statistical tools had been applied, International Air Transport Association (IATA) standardized methodology for airport service forecasted with the components of passenger and aircraft movement. It had been done with the consideration of capacity of existing and planned

airport facilities and future estimation in order to establish their current adequacy together with the ability to accommodate the forecasted traffic growth.

3.6 Reliability

Reliability can be defined as the extent to which content was accurately measured. It relates to the consistency of a measure. A participant completing an instrument to measure motivation should have approximately the same responses each time the test is completed. Although it is not possible to give an exact calculation of reliability, an estimate of reliability can be achieved through different measures (Heale and Twycross, 2015)

In measuring reliability of this specific questionnaire, Cronbach's alpha coefficient of reliability was used. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. Hence, according to Lombard (2010), Coefficients of .90 or greater are nearly always acceptable, .80 or greater is acceptable in most situations, and .70 may be appropriate in some exploratory studies. The researcher developed items for respondents and tested the reliability in five issues, characteristics of the respondents to test the instrument used in each item was reliable and each item was checked that it was reliable since the alpha coefficient is above 70 for all items, which is .82

3.7 Validity

Campbell and Stanley (1963) coined the phrases "inner" and "exterior" validity. Inner validity subjects to the integrity of the study through which we can infer the relationships among the variables under study while exterior legitimacy subjects to how generalize the outcomes of the learning are to other samples, settings, and so forth.

For this research, dimensions such as: relevance (applicability and helpfulness of data), accuracy (correctness, reliability and acceptable margin of error), credibility (distance from bias and truthfulness and trust worthiness in terms of their source and content), timeliness (the age of the data are appropriate for the task at hand data delayed is data denied), accessibility (data are available, or easily and quickly retrievable), interpretability (data are clear and unambiguous so that users can understand and properly use them), and integrity (data are mutually consistent and reconcilable) were given close attention all

the way to ensure validity and reliability (McGilvray 2008). Above all the design and convergence of data which were collected by means of different tools were guards to validity and reliability. Some explanations given by interviewees were directly quoted in the document. Even though it would be difficult to generalize based on these explanations, I believe they can tell the existing phenomenon, which can also facilitate the triangulation of data obtained from different sources.

3.8. Ethical Considerations

Efforts were made to make the research process professional and ethical. To this end, clarifications were made by the researcher to inform the respondents about the purpose of the study that is purely for academic purpose. In addition, informants were informed that their participation in the study was willingly based on their consents. The researcher also took care not to personalize any of the response of the respondents during data presentations, analysis, and interpretation. Furthermore, all the materials that were used for this research were fully acknowledge. In addition, the researcher tolled the respondents that the existence of anonymity and confidentiality.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1 Data Presentation and Analysis

This chapter holds an analysis, presentation and interpretation of the results found from collected data. To address the research question (s) and objective (s) data was collected through questionnaires based on the literature review assessment of investment on customer satisfaction at AABIA. The data was collected through interviews with Passengers at the gate hold rooms/boarding area and collection was done through filled up questionnaires and subsequently inputted into excel template. Questionnaire and survey was administered in English and length to fill up the questionnaire took approximately 15 minutes each.

These results were exhibited using tables by guidance of the study objective and each presentation explained with internationally accepted airport customer satisfaction performance indicators that assure corrective measurement of customer satisfaction. The arguments were related to the theoretical literature and empirical studies. The study findings are presented to establish the assessment of Investment and Customer Satisfaction at AABIA.

4.2 Response Rate

Table 1: Response Rate

Passengers		
	Number of questioners	Percentage
Completed	371	96.36%
Not Completed	14	3.63%
Total	385	

Source: Own survey data (2018)

For this research, questionnaires managed to collect data from 385 randomly selected passengers had been passed through the passenger terminal of AABIA. As the passenger behavior differ from flight to fight and timing, the survey was conducted

across various flight &timings. Accordingly, questionnaires distributed to selected 385 passengers and 371 were filled up and return the questionnaires. No responses obtained from remaining 14 passengers due to tardiness of their journey that excluded from the survey. This response rate had been 96.36% of totally randomly selected 385 passengers that believed to be enough for analysis.

4.3 Characteristics of respondents

Table-2 Reason of respondents to travel through AABIA

Reason of respondent travel through AABIA		Number of passengers	Percent
	Business	196	52.8.4
	Conferences	66	17.78
	Vacation	55	14.8
	Visiting	27	7.27
	Others	27	7.27
	Total	371	100.0

Source: Own Survey Data, 2018

The respondent passed through AABIA for different purposes. Among 196 respondent, 52.8% of the total Arrive/ depart through the airport predominantly for the purpose/reason of business out of which 66 in number and 17.78% of the total came to the airport/ depart from for participation of conferences. These passengers expected to have experiences of different airports and provide valuable comments in comparison with other similar international Airports of AABIA. From the total respondent 55 in number and 14.8% visited the airport for the purpose of vacation. Out of which the total 27 in number of respondent 7.27% of the total Arrive/ Depart through the airport for the purpose of visiting that can be categorized as tourists and exercise that able to comment in comparison with the experiences of other similar airports. The remaining respondent came to airport for other different purpose. Therefore, the combination of respondent had multidisciplinary experiences of airport business that able to comment the customer satisfaction in comparison with different global airports.

4.4 Duration of Stay

Table-3 Time of Stay at Airport

Time stay at airport		Number of passengers	Percent
	Hours	187	49.59.
	Days	142	38.27
	weeks	42	11.32
	Total	371	100.0

Source: Own survey data (2018)

As shown in the above table 187 in number, 49.59% of the total respondent had been served in the terminal for hours. Connecting passengers, travel from one destination to the other passing through the airport that change only aircraft, have an average of 2.78 hours while departing passengers, coming outside of the airport, spend an average of 1.41 hours in the airside. This revealed that predominantly the respondent were connection or transfer passenger, not came out from the Airport passenger terminal and spent all their time by visiting the airport and have access to visualize or evaluate the service provided at the airport. Among all the respondent 42 that constitute 11.32% of the total stayed for weeks that expected to comment the services with enough time apprehend all the processes of service delivery. These respondents have not spent all the time at terminal building, and they came out to the land side and returned through all the services starting from gate, land side and passed through airport terminal that expected to have wider capacity to evaluate the service provided crossways the process. Therefore, the combined responses of the respondent cover all the services of the airport that help the researcher to go through all the concerns or issues of customer dissatisfaction in related with implication on airport investment.

4.5. Satisfaction Level of Passengers

4.5.1. Getting to the Airport

Table-4 Satisfaction Level of Passengers (Getting to the Airport)

Getting to the Airport	Not used	Very Dis-satisfied	Dissatisfied	Fair	Satisfied	Very Satisfied
Airport roadway signs	25%	0%	0%	45%	20%	10%
Distance from parking to terminal building	30%	0%	5%	40%	21%	5%
parking cost	30%	0%	0%	45%	15%	5%
Drop of space in front of terminal	25%	5%	0%	41%	25%	5%
Signs in parking facili-ties	30%	0%	5%	41%	20%	5%
Safety/Security in park-ing facilities	30%	0%	11%	40%	15%	5%
Availability of separate parking for customers	35%	0%	0%	40%	21%	5%

Source: Own survey data (2018)

The Airport services begin from the way getting to the airport vicinity for departing passengers (outgoing passengers). Passengers coming from the city to airport for their flight to Addis Ababa to other destination. Therefore, number of facilities should be available as proper car parking with appropriate signage so that the passengers move in without interruption with the support of consistent services. In this regards the survey result indicated that 25% of the respondent did not use the roadway signage, this implies that number of passengers not able to pass with no interruption through car parking area to the airport with the support of the signage. 45% of the responses showed fairness and 20% of them conveyed their satisfaction on roadway signage that indicates large number of dissatisfied passengers. These exhibited that 25% the signage is not fascinating the passenger to use it which needs attention to improvements in comparison with other best experienced international airports. 45% of the respond disclosed that the sign is fair but not help

satisfactorily to the passenger in regards of facilitate the way to getting to the airport. The respond of incoming passenger exposed that 5% dissatisfaction, 41% fair and 25% satisfied to the extreme 5% response very satisfied that exhibited similar result with outgoing passengers.

The satisfaction level of the incoming passengers on distance from parking to terminal building showed that 5% dissatisfied and 21% fair indicated that formation of access to passengers went through parking to terminal building reasonably quicker but need further improvements.

The respond of the survey of parking cost exhibited that 45% fair, 15% satisfied and 5% very satisfied. The satisfaction level of drop of space in front of terminal was 41% fair, 25% satisfied and 5% very satisfied and can be considered as it is not the issue of customer dissatisfaction need expanded facilities with the consideration of continuous increase in number of passenger/users.

One of the very important indicators to ensure customer satisfaction at the airport business is safe and secure services. The survey responds in terms of safety and security in parking facilities indicated 11% dissatisfied, 40% fair and only 26% satisfied and very satisfied that revealed passenger are not fully safe on the way to airport through care parking area, job need to be done to enhance the expected satisfaction level of safety and security.

The passengers coming to the airport need separate designated parking area to attain customer satisfaction and resolve the problem of delay in flight time. In this regards the satisfaction rate of the respondent was 40% fair, which indicate that number of passengers delay due to the irregularity of parking services.

To reaches the customer satisfaction level higher and minimize the customer dissatisfaction the parking facilities should be improved at large. Enough space expected to be designated with appropriate number of employees is crucial. The parking areas also need management to rectify the problem of conjunction at the airport. Ethiopian airports also should think of multi-store car parking for those stay more than half a day at the vicinity of airport parking area. Proper signage is also important for smooth flow of vehicle and passenger to the terminal building. Create secured movement at airport parking area im-

portant for customer satisfaction. All the above initiatives to make the parking area facilitate and smooth the passenger movement to the terminal for making the passenger pass to the airport faster with no irregularities, apart from all passenger expected to serve in the parking area in a safest way that makes satisfaction and preferred airport with other competitive airport of the world that need investment for better service.

4.4.1 Airport Passenger Screening Service

Table -5 Screening Service at the Check in Points

Check in	Not Used	Very Dissatisfied	Dissatisfied	Fair	Satisfied	Very satisfied
Easy Finding check line	20%	0%	10%	40%	25%	5%
Counter availability	20%	0%	14%	25%	30%	10%
Signage clarity	15%	0%	10%	41%	20%	15%
Waiting time for airline check in	10%	5%	10%	25%	35%	15%
Order lines of check in area	10%	5%	40%	20%	24%	0%
Cleanliness of check in area	10%	5%	10%	30%	30%	15%
Overall check in service at airport	14%	2%	16%	30%	27%	10%

Source: Own survey data (2018)

Airport passenger screening services affect the satisfaction level of passengers. They expect efficient, effective and hassle-free passenger security screening services. These services need strategic leadership and attitude as it is providing in collaboration with National Intelligence Services (NIS), i.e., other federal government organizations not accountable for airport authority. The overall survey with the support of selected performance indicators exhibited that 2% very dissatisfied, 16% dissatisfied, 30% fair. In the contrary 27% of the respondent satisfied and only 10% of highly satisfied by the security

screening services at AABIA. It is well understood from the respondent of 14% of dissatisfaction accounted for counter availability to provide services to the passengers. From the respondent of 40% the dissatisfaction of passenger screening services caused by long queue (order line) of check in area and easy finding of check line, signage ambiguity, waiting time for airline check in and cleanliness of check in area accounted 10 % respond for customer dissatisfaction of screening services This indicated that customer dissatisfaction impacted negatively on the competitiveness of the airport that likely to be improved through availing sufficient facilities and assure better customer handling mechanism need investment.

The implication of passenger screening services in regards of airport customer satisfaction has multi directional. Airport services foreseeable to be secured and safe that is one of the performance indicators for customer satisfaction too. However, the process should not be time taking and with complex hassle caused customer dissatisfaction. Not only the slow-moving low standard service provide on passenger screening services result in delay in passenger flow and thereby caused delay in aircraft departing time and thereby dissatisfaction and need investment for better services.

4.4.2 Airport Emigration Service

Table - 6 Emigration inspection

Emigration inspection	Not used	Very dissatisfied	Dissatisfied	Fair	Satisfied	Very Satisfied
Ease of Finding migration check location	20%	0%	10%	40%	25%	5%
Waiting time	25%	0%	10%	35%	25%	5%
Professionalism	25%	0%	10%	30%	20%	15%
Confidence	25%	0%	15%	20%	25%	15%
Condition	25%	5%	10%	30%	15%	15%
Cleanliness	25%	0%	10%	30%	20%	15%

Source: Own survey data (2018)

The departing passengers pass through airport emigration and it is the services used to provide at the airport even it is standardizing requirement of an international airport.

Therefore, passengers expected to easily identify the emigration check points and the service should provide with a minimum waiting time and professionalism that not caused delay and dissatisfaction. The survey replies in this regard exhibited 10% dissatisfied accounted to ease of finding emigration check location, waiting time, professionalism in customer handling, confidence and cleanliness that impact delay and dissatisfaction. The response of the survey displayed 30% fair, 25% satisfied and 15% very satisfied. Considering by the ratings, the respondents were most satisfied and had confidence with immigration inspection service with 45%; 30% passengers were believed that the service is fair and the remaining 35 were dissatisfied. Overall, about 34% of the respondents were satisfied with their experience at the emigration inspection service, 31% rated the experience as "fair", while the remaining 36% rated their experience as "dissatisfied, very dissatisfied" and "not used that indicated improvement needed to provide service that leads to customer satisfaction. This dissatisfaction rate could not be acceptable in airport business that impacted delay in flight, making the airport not preferred by the customers and thereby result in challenges of competitiveness of the airport at large. To improve the satisfaction level clear signage should be placed appropriately that convenient to customer, training to employees for service excellence and fulfilling facilities that all need investment to correct irregularities caused dissatisfaction due to tiredness and delay of flight time.

5.1.3. Airport Facilities/Service

Table-7 **Airport facilities**

Airport facilities	Not used	Very Dissatisfied	Dissatisfied	Fair	Satisfied	Very Satisfied
Cleanliness of terminal	0%	0%	10%	40%	26%	25%
Terminal inside light	0%	0%	10%	35%	36%	20%
Terminal ventilation system	0%	0%	5%	45%	35%	15%
Public address system	0%	10%	0%	59%	16%	15%
Availability of restroom	0%	14%	30%	25%	10%	20%
Cleanliness of Washing room	0%	5%	20%	25%	40%	10%
Courtesy and helpfulness of staff	0%	15%	21%	30%	30%	5%

Passenger seat	0%	5%	10%	25%	35%	25%
Availability of food and retail	5%	5%	10%	25%	30%	25%
Accessibility of post office	5%	0%	15%	14%	41%	25%
Guidance signage	10%	0%	10%	20%	40%	20%
Reliability of escalator	20%	0%	5%	30%	30%	15%
Baggage claim	25%	0%	10%	20%	25%	20%
Availability of trolley	25%	0%	10%	20%	25%	20%
Availability ATM	30%	0%	10%	20%	20%	20%
passenger's satisfaction with air-port service and facility	8%	4%	12%	29%	29%	19%

Source: Own survey data (2018)

The satisfaction rate of passengers at air ports is highly determined by availability and helpfulness of facilities to provide satisfactory services to customers. The survey result indicated passengers were generally "satisfied" and "very satisfied" with the Cleanliness of the airport, accessibility of post office, guidance signage, terminal inside light, availability of food and retail and passenger seat at 51%, 66%, 60% ,56%, 55% and 55% respectively. Whereas, 40%, 14%, 20%, 35%, 25% and 25% of the respondents rated as it was fair. However, a lower percentage, 30%, indicated that they were "satisfied" and "very satisfied" with the viability of rest room. It is exhibited relatively higher percentage of dissatisfaction rate with 44%. On the contrary 14%, and 30% respond is very dissatisfied and dissatisfied respectively on the availability of rest room. Cleanliness of washing room, terminal ventilation system and quality, baggage claim service was received high satisfaction ratings from passengers. For instance, 50% of passengers indicated that they were "satisfied" and "very satisfied" with the cleanliness of washing room. On the other hand, 5% and 20% respond showed that very dissatisfied and dissatisfied.

Overall satisfaction with each of the attributes pertaining to facilities and/or at Addis Ababa Bole International Airport remained average (42.9%). 29.21% rated as "fair", and the remaining 18.85% rated as "dissatisfied and very dissatisfied". And also 9.85% were not applicable. The exhibited result indicated that fulfilling facilities with the consideration of

continuous increase in number of passengers should be given priority and due attention by airport authority.

Airport facilities are vital issues to be considered for the customer satisfaction. Customer need clear ventilated terminal with good lighting comparing as other international competitive airports. Washing and rest room are also expected to be neat and clean. Passenger need to have appropriate place/designated places for taking rest. Of course, passengers particularly transit and transfer passengers have waiting time at the terminal need to have food and drinks as per their preferences. All this impact customer satisfaction and the service should comply standards of international airports that the passengers comparing with. Therefore, satisfying, customers in this regard need investment. The facilities at the airport not only caused dissatisfaction but also impact that passengers prefer other competitive airport with better facilities, this intern result in losing number of passengers. Therefore, satisfying, customers in this regard impact retaining the existing passenger and attract new and survive in the global competition, to be preferred airport that need investment.

5.1.4. Shopping Service

Table -8 **Shopping services**

Shopping services	Not used	Very Dis-satisfied	Dissatis-fied	Fair	Satis-fied	Very satis-fied
Shop location	15%	--	5%	30%	30%	20%
Quality of product in the shops	5%	--	5%	30%	50%	10%
Product choices	5%	--	10%	30%	40%	15%
Shop staff courtesy	5%	--	10%	39%	25%	20%

Source: Own survey data (2018)

Ethiopian Airports Statistics shows at about 80% of the passenger's passes through AABIA passenger terminal are Transit or Transfer passengers. This means the highest proportions of the passengers have no access to leave immigration counter on the way of downtown. They need different types of supplies and it is also one of the requirements to

function as international airport. Therefore, Airport passenger terminal is a small city due to number of passengers coming from different part of the world. Ethiopian airports avail these services by outsourcing to concessioners through open BID process. Due to one of the areas considered to be focused on customer satisfaction data had been collected from passengers. The data collected pertaining to shopping services specifically from those more than 70% of AABIA passengers are transfer and transit that not coming out from the terminal and served inside the airport passenger terminal. In regards of shopping service 60 % of participants of the study indicated that they were "satisfied" and "very satisfied" with the quality of product supplied in the shop, and less than 10% of passengers rated this criterion as "dissatisfied and very dissatisfied" or "not used".

In addition, about 50% respond indicated that they were "satisfied" and "very satisfied" with appropriate shop location. Additionally, 55% respondent passengers were "satisfied" and "very satisfied" with product choices in the airport that means "acceptable".

Overall, 52% of passengers were "satisfied" and "very satisfied" with their shopping service experience, 32% rated the experience as "fair", while the remaining 8% rated their experience as "dissatisfied and very dissatisfied" which "acceptable". And also 8% were not applicable.

The responses indicated that work expected to be done towards customer satisfaction in services provide at the shops of AABIA to attract more and become preferred airport service provider. The location, product mix and quality are among the issues need improvement as per customer preferences that need investment to avail terminal building spaces.

5.1.5. Restaurant Services

Table- 9 Restaurant Service

Restaurant Service	Not used	very Dissatisfied	Dissatisfied	Fair	Satisfied	Very satisfied
Restaurant food quality	10%	0%	10%	41%	24%	15%
Restaurant food price	10%	5%	11%	35%	29%	10%
Restaurant number of	5%	0%	10%	56%	19%	10%

outlets						
Restaurant staff courtesy and helpfulness	5%	5%	10%	36%	29%	15%
Restaurant cleanliness	5%	0%	0%	36%	35%	24%

Source: Own survey data (2018)

For highest number of Transit/Transfer passenger's food and beverages are necessary supplies at the airport passenger terminal. Therefore, the customer's satisfaction of restaurants services incorporated separately in the survey.

Restaurant cleanliness is amongst the performance indicator for competitive airport services comparing with international airports around the globe. The respondents were generally satisfied with the restaurant cleanliness, with 59% indicating that they were "satisfied" and "very satisfied", 36% rated the experience as "fair", and about 0% of passengers rating this criterion as "dissatisfied and very dissatisfied.

Overall, 42% of passengers were "satisfied" and "very satisfied" with their restaurant service experience, 41% rated the experience as "fair", while the remaining 10% rated their experience as "dissatisfied and very dissatisfied" or "unacceptable". And also 7% were not used. These indicated that improvement should be made with priority of quality services and availability of internationally accepted restaurant mix with detail passenger preferences survey. Pricing also one of the sources of dissatisfaction and expected to be given priority for investment to establish controlling mechanism and availability of international branded services at the airport. If not, the airport competitiveness will be in question.

5.1.6. Overall Satisfaction

Table 10- Overall satisfaction level of Passenger at AABIA

Overall satisfaction level of Passenger at AABIA	Not used	Very Dissatisfied	Dissatisfied	Fair	Satisfied	Very Satisfied
Getting to airport	30%	0%	10%	46%	10%	5%
Security check in	0%	4%	11%	21%	35%	28%
Check in service	14%	2%	16%	30%	27%	10%

Emigration inspection	24%	1%	11%	31%	22%	12%
Airport Service and Facility	8%	4%	12%	29%	29%	19%
Shopping Service	8%	0%	8%	32%	36%	16%
Restaurant Service	7%	2%	8%	41%	27%	15%
Over all	13%	2%	11%	33%	27%	15%

Source: Own survey data (2018)

Airport service starts from the entrance of parking area to passenger terminal gate for checking. This is the area that serve meters and greeters, taxi service, parking, loading and unloading of luggage, portal services and therefore the most congested area need appropriate management. The weakening of customer service at this capacity obstruct passenger flow through the terminal, thereby departure and result in delay in flight. Therefore, the survey result indicated that passengers were generally "satisfied" and "very satisfied" with the security check service in the airport (63%). whereas, 21% of the respondents rated as it was fair and the remaining 15% of passengers rating this criterion as "dissatisfied and very dissatisfied that need improvement on the service provision particularly on availability of security screening machine (Machine that screen out those items not allowed to enter into airport or pass to aircraft). Among the respondent, a lower percentage, 15%, indicated that they were "satisfied" and "very satisfied" with airport service. It is relatively higher percentage of not used the service rate with 30% and 46% of rated as reasonable.

Shopping service and airport service and facilities were acknowledged high satisfaction ratings from passengers. For instance, 52% of passengers indicated that they were "satisfied" and "very satisfied" by the shopping service.

Overall satisfaction with each of the attributes pertaining to facilities and/or at AABIA remain average (42%). 33% rated as "fair", and the remaining 13% rated as "dissatisfied and very dissatisfied". And also 13% were not used the service. The response indicated that fulfilling facilities, that makes the airport capable to provide services and thereby achieve customer satisfaction need to be given due consideration to become chosen air-

port by the customers among competitors airport, impact losing passengers and thereby result in fail in global competition.

5.1.7. Aircraft & Passenger Movement

Table- 11 Total Traffic at AABIA

AABIA Total traffic				
Year	No of Aircraft Movement	growth Rate	No of Pax	Growth rate
2011	48,854		5,081,750	
2012	53,725	9.97	5,653,555	11.25
2013	60,928	13.41	6,562,023	16.07
2014	63,597	4.38	6,931,044	5.62
2015	72,953	14.71	7,731,262	11.55
Avg.of 5 years	60,011	10.6	6,391,927	11.12

Source Ethiopian Airports Statistics Bulletin, 2006.

Table-12 Aircraft and passenger Movement Projection

Year	*No of Aircraft Movement*	*Growth rate*	*Total No of Pax*	*Growth rate*
2019	*106,822*	*7.14*	*11,448,037*	*10.07*
2020	*114,280*	*6.98*	*12,550,958*	*9.63*
Avg. of 2 years	*110551*	*7.06*	*11,999,497*	*9.85*

Source- Ethiopian Airports Statistics Bulletin, 2006.

The data from the above table indicated that the aircraft movement at Addis Ababa Bole International Airport increases from 48,854 to 59,772 within five year. Its growth rate recorded minimum 9.87 and maximum of 14.71. The average growth rate is 10.6%. In the same way the number of passengers had been served at Addis Ababa Bole International Airport upswing from 5,081,750 to 9,391,927 within five years. The growth rate recorded maximum of 16.07% and minimum of 5.62% and the average of five years was 11.1 that indicated the trained of increasing through the years.

The aircraft and passenger movement projection revealed in the above table indicated that aircraft movement increases to the maximum rate of 7.14% and average of 6.3%. In parallel the numbers of passenger projected to be increasing from 11,448,037 in 2019 to 12,550,958 in 2020 and the growth rate with the average of 10% increment a year.

The facts/data's of aircraft and passenger movements exposed in the above table indicated that expansion in infrastructure, additional facilities and resources needed for efficient and effective services provide at the airport that need investment to accommodate additional aircraft and passengers movement for efficient and effective services provide at the airport that need investment.

5.1.8. Assessment of Space Requirement

The available space at the passenger terminal is critical for effective and efficient customer service at airport. The existed and future space requirements further confirm the necessity of expansion works at AABIA. The experience has shown that the minimum total foot print area of a terminal building per peak hour passenger (m2/PHP) for domestic and international use shall be 25 m2 and 30 m2 respectively.

The data recorded during the base year 2010 has revealed that AABIA is functioning slightly higher, 1736 PHP served by area of 60, 684m2 passenger terminal area that is 35m2 area per PHP instead of the expected level of 30m2 per PHP, what airport experience has dictated to achieve level of service and hence putting the airport close to its fullest capacity. The following table illustrates the total foot print area requirement of the terminal building corresponding to the traffic projection extending up to the year 2025.

. **Table 13- Space requirement**

Year	2010	2015	2020	2025
Area	60,684 m2	76,950 m2	116, 580 m2	164, 220 m2
PHP	1736	2565	3886	5474
Area/PHP	35 m2	30 m2	30 m2	30 m2

Minimum Foot Print Floor Area /IATA Recommendation/

The above table showed that number of PHP increases from 2565, 3886 and 5474 from 2015 to 2025, respectively that need incremental area of passenger terminal from 60,684m2 to 76,950m2, 116,580m2 and 164220m2 respectively in the year 2015 to 2025.

Whatever problem and facility congestion is reported under the existing operation of the airport and for the incumbent traffic flow, it could be addressed through terminal optimization and maximizing the efficiency of the sub-systems within the existing foot print area of the building,

However, the future year's traffic movement cannot be accommodated through the terminal optimization concept alone. The terminal building should necessarily undergo modular expansion with investment of more than USD 260 million by at least a quarter of the existing floor area to achieve an area of 30m2/PHP. The expansion may reach double and triple by the year 2020 and 2025 respectively. This indicated that investment on terminal expansion needed to serve continuous raise in number of passengers.

The international passenger terminal expansion was designed to accommodate the forecast traffic volume up to 2017. Its maximum capacity in terms of passenger handling is estimated to be about 6 million passengers per year. Current observations show that the design capacity will be exceeded in less than a year. This will make it a necessity to consider medium to long term expansion works at the existing airport.

Observations carried out at the airport have also shown that there is a serious congestion at peak hours and hence a strain in existing services. Therefore, it is imperative that the terminal facilities be expanded and integrated to give enhanced service to the rapidly expanding passenger traffic. Given the scenario this growth is expected to be significantly enhanced specially in the coming 5 years.

The new terminal will be expanded at both the east and west sides, where the check-in and arrivals sections will be expanded to accommodate more facilities. At least an additional 14 counters will be provided on the check-in area with about 3 more baggage carousels to be provided at the arrivals section that rectify the conjunction at the terminal and meet customer expectation and achieve satisfaction.

The walls will also be made of similar material to the existing structure, which comprises of steel framing with aluminum cladding, glass panels and louvers as required. The panels will be securely joined to the steel frame and will also be sealed with appropriate silicon sealant.

The expansion area will be of two and three floors in line with particular area of the terminal. Wherever the expansion work is over the arrivals section the floors will include a mezzanine arrivals floors while over all other areas, it will be an extension of the departures/ public area floor expansion that creates possibility of spaces allocated for different uses (Commercial, Passenger waiting areas and the likes) The commercial area increases from 3561 sqm to 14148 sqm that expect to solve the customers dissatisfaction of shop location, availability and services.

Appropriate areas of offices and rest rooms, mechanical rooms and other necessary facilities will also be included that will expect to rectify the problems hinder to provide satisfactory services to passengers. In addition to these facilities, immigration/emigrations, banking rest rooms and other facilities will also be provided. This will be accommodated in the reserved space on the east and west sides. The provisions will also be in two floors where the arrivals mezzanine and the departures floors will also be expanded to accommodate the increase in traffic flow.

The circulation space reserved on the east side for concessionaires to access the departure floors will also be maintained with the provision of access stairs, lifts, loading docks and security screening provisions.

In order to boost the capacity of both terminals as well as maintain a unified operation, the two terminals will be connected by a structure of two floors, with an arrival's mezzanine included. This will be a two-floor structure, made from steel structures and side walls covered with aluminum and glass façade. This will maintain the architectural unity and aesthetics of the two terminals.

As in the connection works between the two terminals this work will also need to be integrated with the existing structure, both in terms of structural integrity as well as ease of operation. The front side of this new expansion works will have to be made of glass facade while the rest of the structure may be made of concrete structures. At least 5 passenger bridges will need to be fitted. Furthermore, other requirements, facilities for immigration and security processing will also be included. Security and immigration /emigration facilities will also be provided. The objective of this provision will be to adhere both terminals and produce a safe, unified and smooth operation.

In order to maintain a safe and secure operation, it will also be necessary to provide passenger and visitors screening x-ray units as well as surveillance cameras. Therefore at least 10 x-ray units with 30 security cameras will need to be provided and to make the airport safe and secured. The security cameras will be harmonized with the existing system for a smooth operation.

The new expansion works will increase the number of vehicles accessing the airport. This will increase the required parking area in addition to the existing car park areas. Therefore, a new car park to the north east of the expansion works accommodating at least about 250 cars will be required. The parking areas will necessitate the provision of high mast lighting, access control and ticketing facilities and at least two control booths. In addition to these a unified and suitable landscaping work will also need to be provided.

CHAPTER FIVE

5. LIMITATION, CONCLUSION AND RECOMMENDATIONS

5.1 Limitation of the Study

The probable limitation of the study was some sort of lack of willingness to fill questionnaire due to tiredness of the passengers at the airport, time and resource limitation. Moreover, updated statistical data was not easy due to lack of inaccessibility of organized statistical data. Hence, to overcome these limitations the researcher convinced the respondents with patience and gave elaboration on questionnaires to facilitate the understanding of respondents, so that to select those respondent who filled up the questionnaires willingness with due understanding of the purpose of the research. In addition the researchers used the support of facilitation employees to convince the respondent particularly at early morning and let night to solve the limitation. The researcher also actively and proactively starts its work in order to have enough time to compile data.

Lack of formally published books on the airport services was also one of the limitations to organize the literature review and tried to fix such problem with international policies & procedures of aviation sectors. Published Articles, writings and sources from internet are used to fill the gap result in by the shortage of formally published books for literature.

5.2 Gap Analysis

No	Particulars	Actual	Expected	Gap	Mitigation measure to fill up the gap
1	Passenger serving capacity	6,000,000million /year	8,000,000million /year	2,000,000 million/year	Expand terminal building to accommodate 2000000million passenger a year
2	Space Requirement	116,580m2	164,220m2	47,640m2	Passenger terminal with additional 47640 m2 space.
3	Commercial area	3561m2	14148m2	10,587m2	Additional commercial area with shopping mix
4	ICAO Recommended practice for departing and arriving PAX	93/54 mini	60/45mini	33/9mini	Minimize the time taken for departing and arriving passengers

5.3 Summary of Findings

The overall satisfaction measured from the survey data by those who are very satisfied and satisfied has rebounded for 42%, which is not promising as the airport services is comparing with international competition within airports around the globe. This indicated that the airport passenger terminal services/facilities need improvement as rest room cleanliness and availability, efficiency and effectiveness of facilities of escalator, customer care, cleanness of the passenger terminal, supply of foods/beverages in terms of quality

& prices, announcement and courtesy of staff (specially security and immigration officers), communication skill, …etc.

To provide competitive airport services at most first requirement is enough space with necessary facilities to accommodate the passenger movement. The international passenger terminal at AABIA was designed to accommodate the forecasted traffic volume up to 2017. Its maximum capacity in terms of passenger handling is estimated to be about 6 million passengers per year. However, the current observations indicated that the design capacity exceeded current customer handling. This makes a necessity to consider medium to long term expansion works at the airport that need huge amount of investment to provide standardize airport services.

Observations carried out at the airport have also shown that there is a serious congestion at peak hours and hence a strain in existing services. This congestion is observed not only in the passenger traffic but also in aircraft parking facilities and services. It is imperative therefore that the terminal facilities be expanded and integrated to give enhanced service to the rapidly expanding passenger traffic. Given the scenario this growth is expected to be significantly improved specially in the coming years. It is in this context that all infrastructure provision needs to be evaluated in due time so that and appropriate steps will be taken. These steps should be taken in an integrated manner in order to address the demand in a more efficient and effective way. In view of the above analysis the facilities at AABIA need to be expanded to accommodate the rapid growth of forecasted passenger traffic for the coming years. The expansion scale has been determined, taking the potential of the airport site and the traffic forecast in line with the long-term alternative site development.

To this end the expansion project need to be finalized at the passenger terminal of AABIA to avail required spaces for different services to satisfy customer need. Moreover, it indicates tremendously rise in number of passenger's service by the same size of terminal facilities. Further result in the dissatisfaction of passengers by the service provided. Therefore, Investment in expansion project impact positively the improvement of the service and they're by enhance the satisfaction of customers at large.

5.4 Conclusion

As literature on airport service reveals the major airport infrastructure includes terminal, runways, aprons parking and movement areas which require investment. The facilities include electromechanical, baggage handling systems, x-rays, communication equipment which are important for passenger handlings to be supplied reliably and promptly so that provide services that witnessed to be satisfied the customer.

The findings of the survey show satisfied customers with the services provided are less than 50%. Considering this fact, therefore, it is possible to conclude that AABIA level of service, is low which needs improvement.

The findings in this paper indicated that the congestion starting from the gate of the airport affects the overall airport service quality and passengers' satisfaction. The effect of security checks up and immigration services at the airport requires substantial improvements that need investment on facilities. Expenditure on training of security and immigration personnel on customer handling is required for efficient and effective services delivery.

The passenger at AABIA broadly can be categorized into departing, transit and transfer passengers out of whom more than 80% are transit and transfer that are not flow out to downtown and spend all their time at the passenger terminal of the airport. While the level and extent of service delivery in the airport is low that supplies as food & beverages, and other retail as duty free etc. couldn't meet the needs of passengers. The facts in this regard indicated that improvement is essential in compliance of international airports benchmarking.

The number of passengers passing through the airport has been increasing by 11% to the average for the last couple of years that required enough space and facilities to serve additional passengers to satisfy customers at the airport. The study conducted with the support of all related data and its analysis assure that customer satisfaction at the airport need investment to meet internationally accepted standard services. In line with this satisfaction will be assure at AABIA with the support of efficient and effective working process and skill of managerial and operational personnel. All issues result in customer dissatisfaction need investment and therefore it impacts the airport competitiveness at large.

The findings of the survey show major gaps and inefficiencies are observable which affects customer satisfaction level at AABIA. Such dissatisfaction rates could not be acceptable in airport business that impacted delay in flight, making the airport not preferred by the customers and thereby result in challenges of competitiveness of the airport at large. To improve the satisfaction level clear signage should be placed appropriately that convenient to customer, training to employees for service excellence and fulfilling facilities that all need investment.

The survey results also indicated that the available facilities should be harmonized with the volume of service provided. It is observed that unavailability/inaccessibility of facilities are the basic problems that require improvement. The responses indicated that work expected to be done towards customer satisfaction by services provide at the shops of AABIA. The location, product mix and quality are among the issues need improvement.

An airport terminal is a complex subsystem where various critical activities are integrated with the facilitation of highly trained and skilled professionals including management. Allowing the realization of modal transfer: from land to air and vice-versa. A number of different components are installed, and services are produced, in order to ensure customer expectations in relation to the terminal. Addressing the identification of service quality in passenger terminals, in order to reduce costs, redirect investment and increase the level of customer satisfaction, Security considerations are also issuing which need emphasis.

5.5 Recommendations

Based on the finding of the study and conclusion drawn above, the following recommendations have been made to overcome the existing service delivery and performance problems and improve the level of service and thereby achieve sustainable expected level of customer satisfaction i.e., impacted by investment.

There is a need for strong coordination and cooperation with partners and stakeholders to enhance the level of service. It is highly recommended to perform tasks will include; implement customer service strategy, service standard in coordination with stakeholders based on the assessment of customers' expectations and international standards; Communicate these service standards to employees, customers, stakeholders/partners who are involved in service provision/consumption so as to influence customer expectations; con-

tinuously monitor or measure the performance of service delivery over time and; Develop and improve services based on the change in customer expectation through continuous improvement program. All service providers shall get enough training so as to enhance their efficiency and customer handling. It is important for EA to introduce new services which are not currently available in the airports. Service providers/ stakeholders should discharge its responsibilities and show high level commitment to mitigate basic service problems and deficiencies to improve customer experience.

The new terminal passenger expansion under construction both the east and west sides, need to accommodate enough facilities and service that can address the existing congestion and customer dissatisfaction

Appropriate areas of additional; 47640m2 spaces of passenger terminal with security x ray, immigration counters, sufficient rest rooms, ventilation system, public address system, banking, commercial areas of 10587m2 and other necessary facilities to satisfy customer expectation.

The circulation space reserved on the east side for concessionaires to access the departure floors will also be maintained with the provision of access stairs, lifts, loading docks and security screening provisions.

As in the connection works between the two terminals this work will also need to be integrated with the existing structure, both in terms of structural integrity as well as ease of operation. The front side of expansion works need to have glass facade while the rest of the structure may be made of concrete structures. At least 5 passenger bridges will need to be fitted. In addition to other requirements, facilities for immigration and security processing will also be included.

In order to maintain a safe and secure operation, it will also be necessary to provide passenger and visitors screening x-ray units as well as surveillance cameras. The security cameras will be synchronized with the existing system for a smooth operation.

A new car park to the north east of the expansion works accommodating at least about 250 cars will be required. The parking areas will necessitate the provision of high mast lighting, access control and ticketing facilities and at least two control booths. In addition to these a unified and suitable landscaping work will also need to be provided.

To satisfy customer expectation of Infrastructure and fulfilling facilities is not enough to secure service excellence. The skill modern process, internationally acceptable norms need to be developed to provide by the infrastructure and facilities fulfilled at the airport. Therefore, AABIA need to design a project to improve all the working process at the airport or repositioning the working culture of the airport towards efficiency and effectiveness at the cost of investment required significantly impact customer satisfaction, so that to meet the time taken for departing and arriving passengers from 93 to 60 min & from 54 to 45 min respectively.

The investment described above leads to avail necessary spaces and facilities to serve the current number of passengers at AABIA which investment impacted the customer satisfaction at airport. The infrastructure development and fulfilling facilities alone could not ensure the customer satisfaction unless the way providing services with a system that makes the services internationally accepted standards and norms. To these end appropriate measures is required to improve the working system with the consideration of global airports benchmarking.

It is recommended to finalize the passenger terminal expansion at AABIA with no delay. The facilities starting from signage at the gate through the process, parking facilities, security check in, and enough screening machine, internationally acceptable standardize shopping & restaurant services, efficiency and effectiveness of service delivery at the airport are required due attention for high level improvement. In addition, investment in cooperation of external partner as BOOT modality to build and operate multistory car parking so that to solve the problem of congestion at the parking area and thereby smooth passenger flow to the airport.

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Appendix
St. Mary's University

School of Business Studies

Customer Satisfaction Survey

To Be Filled By Passengers

This questionnaire is designed to conduct a customer satisfaction survey on the services of Addis Ababa Bole International Airport to evaluate the effect of investment of airport passenger terminal expansion and on customer satisfaction. It aims at to measure the level of service quality of the airport. The questionnaire will help to study whether the services you require are adequately provided at Addis Ababa Bole International Airport. Accordingly, we request your assistance in answering the following questions. Your responses will be anonymous and confidential and will be used solely for the purpose of the research.

Thank you in advance for your cooperation.

Please circle or fill in the best response for each of the following questions

1. What flight are you taking?

Airline _____ flight number_____

2. Have you made a connection/transfer at this airport?

1-Yes 2-No 3-Go to No.4

3. How would you rate the ease of connection to the Flight?

1-very dissatisfied 2-desatisfied 3-Fair 4-Satisfied 5-Very satisfied

4. What is your main reason for taking this trip?

1-Business 3-Pleasure/vacation

2- Conference 4-conference

5-others (specify) _____

5. How long was your trip? Please specify.

1-#of Hours_____ 3-#of days

2-#of Weeks_____

Please rate your experience at Bole International Airport using the following scale:

Very dissatisfied	dissatisfied	Fair	Satisfied	Very satisfied
1	2	3	4	5

If not applicable, please circle N/A

6. Getting to the Airport	***Very dissatisfied***				***Very satisfied***	
6A-Airport roadway signs	N/A	1	2	3	4	5
6B-Drop of space in front of terminal	N/A	1	2	3	4	5
6C-Signs in parking facilities	N/A	1	2	3	4	5
6D-Safety/security in parking facilities	N/A	1	2	3	4	5
6E-Availability of separate parking for customers	N/A	1	2	3	4	5
6F-Distance from parking to terminal building	N/A	1	2	3	4	5
6G-Parking cost	N/A	1	2	3	4	5
6H-Overall getting to airport	N/A	1	2	3	4	5

7. Security check	***Very dissatisfied***				***Very satisfied***	
7A-Ease of finding security check location	N/A	1	2	3	4	5
7B-Waiting time in security check line	N/A	1	2	3	4	5
7C-Professinalism of security staff	N/A	1	2	3	4	5
7D-Confidence with security process	N/A	1	2	3	4	5
7E-Condition of security check areas	N/A	1	2	3	4	5
7F-Cleanliness of security check areas	N/A	1	2	3	4	5
7G-Overall security check	N/A	1	2	3	4	5

8. Airport emigration	***Very dissatisfied***			→		***Very satisfied***
8A-Ease of finding emigration check location	N/A	1	2	3	4	5
8B-Waiting time at emigration counters	N/A	1	2	3	4	5
8C-Professionalism of emigration staff	N/A	1	2	3	4	5
8D-Confidence with Passport and visa inspection	N/A	1	2	3	4	5
8E-Condition of emigration clarity area	N/A	1	2	3	4	5
8F-Cleanliness of emigration area	N/A	1	2	3	4	5
8G-Overall emigration inspection service	N/A	1	2	3	4	5

9. Checking-in at Airport	***Very dissatisfied***			→		***Very satisfied***
9A-Availablity of counters	N/A	1	2	3	4	5
9B-Clarity of check-in signage/procedure	N/A	1	2	3	4	5
9C-Waiting time for airline check-in	N/A	1	2	3	4	5
9D-Courtesy/helpfulness of airline staff	N/A	1	2	3	4	5
9E-Orderliness of check-in area	N/A	1	2	3	4	5
9F-Cleanliness of check-in area	N/A	1	2	3	4	5
9G-Overall check-in service at airport	N/A	1	2	3	4	5

10. Airport service/Facilities

	Very dissatisfied			→		***Very satisfied***
10A-Condition/cleanliness of terminals	N/A	1	2	3	4	5
10B-Lighting inside terminal	N/A	1	2	3	4	5
10C-Ventilation system	N/A	1	2	3	4	5
10D-Public address system	N/A	1	2	3	4	5
10E-Availability of rest rooms	N/A	1	2	3	4	5
10F-Cleanliness of wash rooms	N/A	1	2	3	4	5
10G-Courtesy and helpfulness of airport staff	N/A	1	2	3	4	5
10H-Adequate number of seats in gate areas	N/A	1	2	3	4	5
10I-Availablity of food/retail near gates	N/A	1	2	3	4	5
10J-Accessibility of post office	N/A	1	2	3	4	5
10K-Guidance signage	N/A	1	2	3	4	5
10L-Reliability of escalator/lifts	N/A	1	2	3	4	5

10M-Baggage claim	N/A	1	2	3	4	5
10N-Trolly availability and quality	N/A	1	2	3	4	5
10O-Availability of services-ATM/bank,	N/A	1	2	3	4	5

11. Could you please rate the following aspect of shopping?	***Very dissatisfied***				***Very satisfied***	
11A-Location of shops	N/A	1	2	→ 3	4	5
11B-Quality of products	N/A	1	2	3	4	5
11C-Product choices in the airport	N/A	1	2	3	4	5
11D-Courtesy/helpfulness of airline staff	N/A	1	2	3	4	5
11E-Overall check-in service at airport	N/A	1	2	3	4	5

12. Considering your experience could you please rate the following aspects of restaurant service?

	Very dissatisfied			→	***very satisfied***	
12A-Qualities of food	N/A	1	2	3	4	5
12B-Price of food	N/A	1	2	3	4	5
12C-Number of outlets	N/A	1	2	3	4	5
12D-Courtesy/helpfulness of restaurant service providers	N/A	1	2	3	4	5
12E-Cleanliness of restaurants	N/A	1	2	3	4	5
12F-Overall restaurants service at airport	N/A	1	2	3	4	5

13. Please name facilities/services not presently available at the airport, but if available that enhance performance level.

1._____ 4. _____

2._____5. _____

3._____6._____

14. Would you please explain the problems you encountered with regard to airport facilities and services (if any?)

_____

_____

15. What improvement would you most like to seat at Bole International Airport?

_____

_____

_____

16. Help us serve you better. Please share any other comments about Bole International airport

_____

_____

_____-.

THANK YOU FOR PARTICIPATING IN THIS SERVEY. HAVE A SAFE FLIGHT!!