



Addis Ababa University
College of Technology and Built Environment
School of Built Environment
Department of Urban and Regional Planning

**Assessment of Factors Influencing Customer Satisfaction in Anbessa Public
Bus Transport Enterprise (Apte): The Case of Three Routes in Addis Ababa**

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Addis Ababa, Ethiopia.

May, 2025



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**A Thesis Submitted to the School of Graduate Studies of Addis Ababa University, College
of Technology and Built Environment (CTBE), in Partial Fulfillment for Master Degree in
Urban Planning.**

Addis Ababa, Ethiopia.

May, 2025

Declaration

I, Tsegereda Tilahun, do here by declare that this research work entitled “**Assessment of Factors Influencing Customer Satisfaction in Anbessa Public Bus Transport Enterprise: the case of three routes in Addis Ababa**” is my original work, and it has not been submitted to any other university, organization or institutions for any degree, diploma and for other purposes. Material and information used in this study other than me owe appropriately acknowledged and cited.

Name Tsegereda Tilahun

Signature -----

Date -----

Approval

As a member of the examiners board of the final Master's thesis open defense Tsegereda Tilahun, we have read and evaluated the thesis prepared by Tsegereda Tilahun entitled **“Assessment of Factors Influencing Customer Satisfaction in Anbessa Public Bus Transport Enterprise: the case of three routes in Addis Ababa”** and recommended to College of Technology and Built Environment (CTBE), Addis Ababa University to accept the Thesis for the Fulfillment of Requirements for the award of Degree of Masters of Science in Urban Planning.

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Abstract

This study was conducted with the main objective of assessment of factors influencing customer satisfaction in Anbessa public bus transport enterprise: by taking example on three routes in Addis Ababa. In order to address the stated objective, the researcher applied mixed research approach. And also, the researcher used descriptive research design. The main data collection instruments were both primary and secondary sources. The researcher was taken 91 of the 102 people from the 17 sample vehicles traveled through three routes (number 03, 51 &90) for data collection and some respondents through purposive sampling methods for interview. Based on the study findings, it is concluded that a significant and a positive relationship exists between the bus reliability, frequency, affordability, safety and customer satisfaction in the three routes. In the study area, the customers Anbessa public transport was not satisfied as they expected with the bus reliability, frequency, affordability, safety and the buses condition. This means customers perceived that service delivery of Anbessa bus transport did not meet their expectations. Finally, to make the Anbessa public bus transport service more reliable, improve bus service frequency city, increase the safety and to enhance its customer satisfaction, the researcher recommended that the Enterprise (city transport authority) should increase the frequency of the vehicles, introduce of dedicated bus lanes, increased seating capacity, to make the service more affordable and satisfy the authority should be implemented for all routes at different distances, the government should monitor the fare prices of Anbessa public bus, enhance the condition of the Anbessa public bus transport, the bus physical facilities, equipment, and cleanness of buses and appearance of personnel, improve modern technology should be improved.

Key Words: Anbassa Bus, Customer Satisfaction, Public Transport, reliability, frequency, Affordability, Safety.

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List of Acronyms and Abbreviations

APC	Automatic Passengers Counting
BRT	Bus Rapid Transport
ERA	Ethiopian Road Authority
GOE	Government of Ethiopia
GPS	Geographical Positioning Systems
NTSA	National Transport Safety Authority
PSV	Public Service Vehicle
RSDP	Ethiopia's Road Sector Development Programs
SPSS	Statistical Package for Social Sciences
TLB	Transport Licensing Board
TPB	Theory of Planned Behavior

CHAPTER ONE: INTRODUCTION

1. Background of the study

Transportation is a crucial component for the development any country in the world. In this modern era, it is an integral part of the socioeconomic and political structure of the country's economy (Rodrigue et al. 2006 cited in Mekuria, 2019). The growth of economic opportunities related to the mobility of people, goods, and information. When transport systems are efficient, they provide economic and social opportunities and benefits that result in positive multiplier effects such as better accessibility to markets, employment, and additional investments (Rodrigue, 2017 and Belayneh and Eskedar,2021). Transportation is one of the basic sectors supporting people's daily activities for conducting activities in different places due to biological needs, social obligations, and personal desires (Vilhelmson, 2007).

World bank (2001) draft document report stated that transport is an essential element of city development and it is a major source of national economic growth. The developed world competitive advantage, all rounded growth, sustainability of the growth and its actual multi-dimensional growth development has been derived from the strength of the transportation infrastructure and its transportation service. Therefore, because of the way transportation influence the healthiness and vitality of national economy, developing the infrastructure of transportation and improving its service provision require dues attention from the government and the society large. It becomes governments' responsibility to ensure that the transportation sector would operate fairly and without unfair discrimination against its users (Mekuria, 2019).).

Public transportation is a critical component of the country's economic, because of it have numerous benefits like improved personal and economic prospects, reduced congestion and fuel consumption, and reduced carbon dioxide emissions energy, and environmental challenges, as well as a means of enhancing the quality of life (Girma and Woldetensae, 2022). Good public transportation pays a vital role for successful growth of urban areas, by enabling people to access jobs and services, employers to access labor markets and businesses

to reach the customers for their services (International Association of Public Transport, 2009 cited in Mekuria, 2019).

The provision of sustainable public transport is a challenging task for the Sub-Saharan Africa, where success in transport and traffic planning in the post-independence era has been negligible and urban population is growing at a rapid rate than in any other continent (Kanyama, 2009). Weakened public transportation services are caused by the increased urbanization, increased operational costs, poor infrastructure and poor institutions (Beirao & Cabral, 2007). Surveys conducted reveal that users are dissatisfied with most of the public transport services offered in many of the African countries. Poor maintenance of both the vehicles and terminals is one of the major distastes expressed as well as concern over the increased emission.

Public transportation is a transportation service that carries passengers and goods to destinations. In Addis Ababa, it is an important element in day-to-day activities the city. Because it relatively affordable means of transportation. Infrastructure is not sufficient to promote private vehicle ownership, and also it promotes reduction of environmental pollutions. Even though the role of public transportation is very high, the service provision is not

good enough as the demand is much greater than the supply (Addis Ababa City Transport Authority, 2005). Addis Ababa right now facing huge challenges emanating from years of poor coordination in its existing urban systems. Transportation, one of these components of the urban system, which is responsible for bridging the gap between areas of production and consumption, as well as creating a medium for spatial interaction, continues to be in these challenges (Mekuria, 2019).

Public transportation in Addis Ababa includes shared Minibus, Anbessa bus, Sheger bus, public bus, Higer bus, Star alliance bus and the newly introduced Light rail that bring a better quality of life (Addis Ababa City Transport Authority, 2005). In Addis Ababa City Anbessa public bus transport enterprise was one of the public transports that gives transportation service. The bus was founded as a shared company in 1945 and owned by Emperor Haile Selassie and the members of the royal family before it nationalized in 1974. Since 1994 it was reestablished as a public enterprise. Through time Anbessa bus was incorporated under Metal

& Engineering Corporation and has recently begun to acquire buses assembled locally by the Metal & Engineering Corporation, a newly established military industrial complex of the Ethiopian government. It has included in its fleet more than 500 of these locally assembled buses known as Bishoftu Buses. The enterprise also operates 112 routes in and around the capital Addis Ababa (Addi's fortune, 2013).

1.1. Statement of the problem

Transportation is the backbone for economic growth and development. Suitable urban public transport needs to satisfy the demand of transport users (Getu, 2021). Customer satisfaction is the consumer's response to fulfillment and the degree to which the amount of fulfillment is pleasant or unpleasant (Oliver, 1997). Customer satisfaction is defined by Tse and Wilton (1988) as the assessment of the perceived discrepancy between expectations and the actual performance of the good or service as perceived by its users. According to Shiau and Luo (2012), consumer satisfaction helps companies to establish long-term relationships with consumers.

Since the demand of customers is always increasing, service providers should apply their ultimate potential to make their customers satisfied. However, in the absence of quality urban transport service affects customer's satisfaction (Getu, 2021). According to Hart (2012) studies, public transport services is the main aspects of the customer satisfaction system, because they are evaluated by travelers. Therefore, the quality of service provided in public transport industry will also be discussed in terms of customer/passenger satisfaction. So, customer satisfaction with public transport is the degree to which an individual positively evaluates the overall quality of a public transport service delivered by a public transport operator and authority.

This research focuses on service quality and customers satisfaction on public transport service in transport sector. The end product of public transport providers is the transportation service it offers to its customers and the main performance indicator of a public transport is its Service Quality. Service Quality is a means to all the chain of activities that must take place efficiently and effectively to transport the passenger from origin bus station to the destination bus station (Mersha, 2004). Therefore, Service quality improvement is key issue that determines the very survival of the transport sector itself, the utilization of the huge investment and above to all to

safeguarded the wellbeing of the society by minimizing car accident. The main key remains with standardizing and improving the service quality.

Various studies like Mersha, (2004), Kanyama, (2009), Illes (2005) and others showed that people in both developing & developed countries use public transport to move from one place to the other for their social, economic and administrative issues. The public transport also takes three forms: Road, air and water. In Africa, road transport is the most dominant mode of motorized transport that accounts for 80% of the goods traffic and 90% of the passengers' traffic in the continent (Kassa, 2013). The remaining almost 20% of goods transport and 10% of the passenger transports are carried out by either air or water transport. The Public transportation services vitalize economies of nations (Deneke Dana, 2016).

However, most of the sub-Saharan countries depend on the road transportation. Particularly the land locked countries lead on the road transportation as the water transportation is impossible and the air transportation is expensive or inaccessible. For example, according to Ethiopian Road Authority 2005 and Ethiopian Federal Transport Authority 2011, about 99.31% of the total passengers use road transport for their mobility, and only 0.65% use airline and 0.04% use railway transport. This indicates that the mobility trend of the society highly depends more on road transport industry than other modes (ERA, 2005). This shows road transportation is almost the only means of movement from place to place in Africa in general and in Ethiopia in particular. The mobility of people in the country plays paramount role in mobilizing others resources and in assuring the integration of woredas, zones, regions among each other's. From the onset when the vehicle industry began as an informal public transport service, there has been no formal regulation to control the affairs of the industry, resulting into a chaotic industry difficult to regulate and systemize. This study was therefore sought to unveil the factors that influence customer satisfaction in public transport in three routes.

Various, the (in)accessibility of the city buses in Addis Ababa has been characterized by problems such as excessive transit times, poor infrastructure, unreliability and/or inadequacy of vehicles, financial constraints on operational upgrades, an ineffective regulatory system with role confusions, and increasing accident rates throughout the city (Kumar and Barrett, 2008; Litman, 2015; Yilak et al., 2011; Yilma, 2014).

Availability of Anbessa public bus transport in Addis Ababa has been inaccessible and it is characterized by problems such as excessive transit times, poor infrastructure, unreliability and/or inadequacy of vehicles, financial constraints on operational upgrades, an ineffective regulatory system with role confusions, and increasing accident rates throughout the city (Kumar and Barrett, 2008, Littman, 2015, Yilak et al., 2011, Yilma, 2014 and Kelbesa, 2018). This research therefore, developed to make deeper assessment of factors influencing customer satisfaction in Anbessa Public Bus Transport Enterprise: A case of three routes in Addis Ababa. This research study will seek to fill this knowledge gap.

1.2. Objective of the study

1.2.1. General objective

The general objective of the study is to assess factors influencing customer satisfaction in Anbessa public bus enterprise in Addis Ababa, by taking the examples of three routes.

1.2.2. Specific objectives

The specific objectives of the study are:

- To determine reliability of the Anbessa public bus transport enterprise influences customer satisfaction in the three routes in Addis Ababa;
- To assess the frequency of the Anbessa public bus transport enterprise service influence customer satisfaction in the three routes in Addis Ababa Ethiopia
- To evaluate the affordability of the Anbessa public bus as a means of transport in influencing customer satisfaction in the three routes in Addis Ababa Ethiopia
- To examine the safety of the Anbassa public bus industry in relation to customer satisfaction in the three routes in Addis Ababa Ethiopia;
- To determines the condition of the vehicle (Anbessa public bus) influences customer satisfaction in the three routes in Addis Ababa Ethiopia.

1.3. Research questions

This study was guided by the following research questions:

- How does reliability of the Anbessa public bus transport enterprise influence customer satisfaction in the three routes in Addis Ababa Ethiopia?

- To what extent does the frequency of the Anbessa public bus transport enterprise services influence customer satisfaction in the three routes in Addis Ababa Ethiopia?
- What is the relationship between the affordability of vehicles and customer satisfaction in the three routes in Addis Ababa Ethiopia?
- How is the safety of the transport industry related to customer satisfaction in the three routes in Addis Ababa Ethiopia?
- To what extent does the condition of the vehicle influence customer satisfaction in the three routes in Addis Ababa Ethiopia?

1.4. Scope of the study

The scope of this study is seen from a geographical and thematic point of view. Geographically, the study is focused on Addis Ababa city. The thematic area of the study goes to analyze the operational performance of Anbessa Public Bus Transport Enterprise. The reason that the researcher selected three routes (Bus number 03: with travel road route Ayer Tena to Menelik Square, Bus number 51: route Betel Hospital to Marcato and Bus number 90: Betel Hospital to Leghari Bus Station) was that the stations at Ayer Tena, Mercato and Leghar were many customers are observed to be waiting with long lines than other routes and since factor affecting customer satisfactions on public transport service are broad concepts and touch many issues, in order to make the investigation manageable this study has given special emphasis to issues related to factor affecting customer satisfaction on public transport service sector using the three routs as an example. Besides, the scope of the study was limited at selected transport provision and distribution lines inside Addis Ababa due to limited availability of resources to undertake the study on a wider scale.

1.5. Significance of the study

The significance of the study is to identify the factor which affects customer satisfaction which will lead policy design and service standardization by different stakeholders. It is envisaged that the findings from this study will contribute to the body of knowledge on the role play by public transport workers and stakeholders in customer satisfaction. For policy makers, it contributes to use the generated information as a baseline data to develop a working transport rules and policies of the study area. For officials, it would enable them to consider the quality and customer satisfaction dimensions and its effect citizens in the study area. For researchers, it would serve as a basis of reference for further study and enhance knowledge in

the area. For service providers it would signal to make possible arrangements in order to improve the service quality and customer satisfaction in line with national rules, regulations, economic growth and development plans.

These days to mitigate climate change many commuters are to be encouraged to use public transport rather than personal vehicles. Lastly, it was also hoped that the findings would add to the existing documents on efficiency of Anbessa Public Bus Transport Enterprise and customer satisfaction in the Three Routes in Addis Ababa Ethiopia. So as to improve service quality and leadership the result of the study would benefit future researchers, officials working on transportation sector and policy makers to understand the factors and its effect on customer satisfaction in public transportation of the country in general and the study area in particular.

1.6. Limitations of the study

Time to reach out to all the classes of respondents was a challenge but was overcome by having research assistants to administer the questionnaires as well as emailing them. Some of the respondents, the transport workers in particular, were illiterate, and the researcher had to interpret some of the questions on the questionnaires into Amharic and have face to face interviews to get a clear picture from most of them. This researcher overcame this by travelling both ways, to get information from the passengers enroute to their destination and staying at the bus station during off peak hours when the vehicles take longer to fill to capacity. The findings are limited to three routes and the findings may not necessarily be applicable to other routes of Anbessa bus.

1.7. Organizational of the document

This study is organized in five main chapters with sections and sub sections as follows: chapter one, contains the introduction comprising of the background of the study, statement of the problem, delimitations of the study, limitations of the study as well as the organization of the study. Chapter two, contains the literature review comprising the empirical, theoretical, conceptual framework of the study and a summary of the chapter. Chapter three, contains the research methodology, which has the introduction, research design, target population, sampling design and procedures, methods of data collection, collection instruments, validity and reliability of the instruments, data analysis techniques, operationalization of the variables,

ethical issues. Chapter four, comprises the data analysis, presentation and interpretation of the findings and includes the sub-sections: the introduction, questionnaire response rate, demographic characteristics, presentation and interpretation. Chapter five, covers the summary of the findings, discussion, conclusions and recommendation.

CHAPTER TWO: LITERATURE REVIEW

2. Introduction

In this chapter, the reviewed literature was related to the factors influencing customer satisfaction in Anbessa public bus transport enterprise: A case of three routes in Addis Ababa. The chapter contains empirical, theoretical reviews. The review was conceptualized under the objectives of the study and focused mainly on the factors influencing customer satisfaction in Anbessa public bus transport enterprise identified such as reliability, frequency, affordability, comfort and condition of the vehicle.

2.1. Empirical Literature Review

Almost all cities throughout the world struggle with providing adequate, acceptable transportation services. Cities will constantly face fresh issues, most of which are caused by subpar transportation systems. Large cities in developing nations typically rely heavily on road transportation (Samuel, 2013).

According to the Addis Ababa City Road and Transport, the city's current public transportation infrastructure is severely insufficient to meet the city's current travel demand (AACRTB, 2016). The equipment and infrastructure that are currently in place cannot accommodate the growing demand for urban mobility. Even worse, there is a growing gap between the limited resources and the rising demand for mass transportation brought on by urban expansion (WB, 2015).

In Africa, the urban transportation industry has long been ignored. Policies governing urban growth are relatively new. In sub-Saharan Africa, transportation is increasingly a crucial piece of information when analysing urban growth. It is also seen as a significant obstacle to sustainable development, growth, and the battle against poverty (Clelie, 2018). Growing mobility needs resulting from significant demographic shifts have been the primary driver of this gradual interest.

Cities in Africa are changing quickly and drastically, becoming more numerous and dispersed. At the same time, nations in the region strive to make their capitals symbols of their purported modernity and economic vitality (Antonio and Andres, 2012). There are significant issues brought on by urban sprawl and population density. The requirement for urban mobility is

growing, and this is due to social-longer distances and defaults in entering the city-, economic-congestion, which has a detrimental effect on business and attractiveness (Clelie, 2018).

Temporary changes in mobility, urbanization, and urban sprawl result in both expanding and new demands for mass transit with lengthier trip times. However, the responses given in terms of service quality are woefully insufficient, which is made worse by the unmet, continuously rising demand for urban mobility. While each city is distinct, most difficulties that cities face are universal. Despite this, no one solution applies to all cities because local conditions differ between cities (DIMTS, 2014).

2.2. Conceptual overview

2.2.1. Service quality

According to Kenneth & Douglas (1993), quality drives client loyalty, creates a competitive edge, and boosts long-term profitability for service delivery companies. Services, according to Grönroos (1982), are continuous contacts between the client and the service provider.

Despite the fact that these services are superior non-touchable services, they nevertheless need physical resources and any essential tools that will make it easier to help consumers with their difficulties. According to Zeithaml (1988), service quality is the process through which customers evaluate all of the services being offered on a comparable basis. While Sarachchandra, Rajendran, and Anantharaman (2002) claimed that high service quality can give service delivery businesses a successful competitive edge over rivals. But a good administration that prioritizes a worthwhile program offering, well-trained personnel, and its impact on customers are also aspects of quality dimensions (Naidoo, 2011). According to top management, keeping staff members sensitive and customer-focused requires time, effort, the right training, and resources (Khan & Fash, 2014; Naidoo, 2011; Schneider, et al., 2005).

2.2.2. Dimensions of service quality tangibles

According to Khan and Fasih (2014, following Blery, Batistatos, Papastratou, Perifanos, Remoundaki & Retsina, 2009), tangibles are perceived as having a physical existence or being discernible through touch. The tangible aspect of service quality is made up of tools, sites, personnel of the organization, and any amenities that are readily apparent. However, these tangibles are used in diverse ways by the service providers, and end users perceive and experience them on distinct levels. For service delivery companies, tangibles are especially

crucial since they play a key role in creating strong, motivating, and good consumer associations and experiences through their proprietary assets (Naidoo, 2014).

2.2.3. Reliability

The reliability dimension of service quality can be thought of as the method by which a service provider continues to be dependable in providing services to its clients (Khan & Fasih, 2014, following Blery et al., 2009). The ability of a service provider to continuously deliver a perceived level of service is guaranteed by reliability. Trust and the overall image a consumer have after using a service are both impacted by reliability (Abd-El-Salam et al., 2013). According to Kaura et al. (2012), the reliability component of service quality is crucial and is seen through the people aspect of service quality.

2.2.4. Assurance

According to Khan & Fasih (2014, following Blery et al., 2009), clients can feel very secure when staff members demonstrate their newly learned knowledge by carrying out their stated preferences while providing services. Customers can feel confident that the service delivery representative will carry out his or her duties in a professional and ethical manner as a result. According to Naidoo (2014), not all customers have the knowledge to evaluate the Caliber of the service and the value they obtained, and as a result, they could need excellent communication or personal justifications to comprehend the value they receive. The people aspect of service quality is responsible for carrying out this service quality dimension (Kaura, et al., 2012).

2.2.5. Empathy

According to Khan & Fasih (2014, following Blery et al., 2009), is the capacity of service delivery companies to pay attention to and successfully solve the needs and concerns of specific clients. According to Khan and Fasih (2014, following Blery et al., 2009), empathy refers to the way a business accepts responsibility for resolving issues faced by its clients on an individual or group level. The people component of service quality is how this dimension of service quality is viewed (Kaura, et al., 2012).

2.2.6. Responsiveness

According to Blery et al., (2009), responsiveness is the process through which service providers act rapidly to positively handle client problems within a set amount of time. The

people component of service quality is how this part of service quality is perceived. The timeliness of service delivery firms is improved by information technology advancements like emails, websites, and customer support interfaces, according to Kaura et al. (2012).

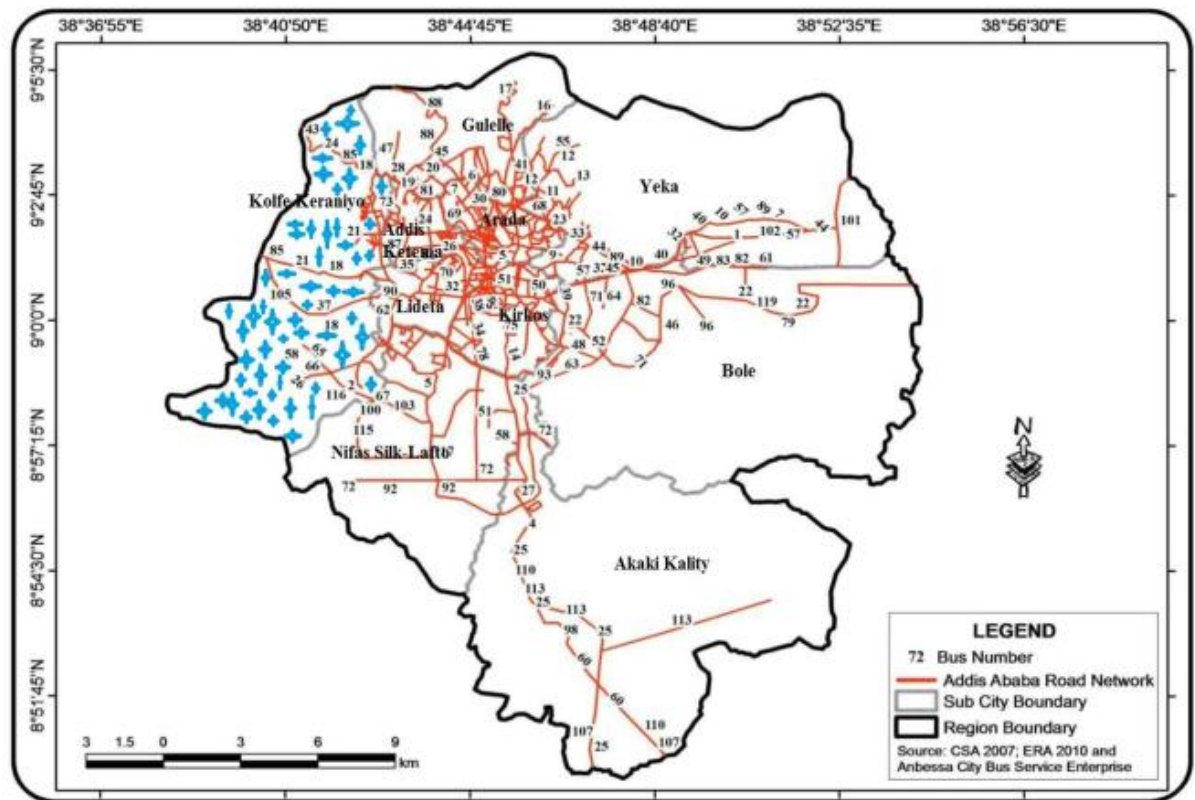


Figure 2.1: Anbessa public bus transport routes in Addis Ababa

Source: Modified from Eshete (2015) cited in Kelbesa, 2018

2.3. Factors Influencing Customer Satisfaction in Public Transport Sector

Studies exploring factors affecting the use of public transport have been well published previously. A study in Makassar was performing Analytical Hierarchy Process (AHP) method to understand the causes of the decline of interest in microbus. The dominant factor that affects the decrease in the interest of microbus public transport users in Makassar City is the tangible factor, where cleanliness, comfort and comfortable public transport facilities during the trip are still considered by the public to use public transportation. Based on research, the root of transportation problems in Medan City where the existing condition of public transportation in Medan City is still inadequate in terms of quality and quantity so that public

transportation is starting to be abandoned by the community and switch to private vehicles which use a lot of road space. This section focused on the empirical aspect of this study. Focus was on the factors influencing customer satisfaction which include: frequency, affordability and condition of the vehicle in relation to customer satisfaction.

Enhancing the quality of service of public transport is often positioned as a strategy which can pull passengers towards using bus transit. It is agreeable that high consumer satisfaction rate contributes significantly to consume loyalty to the service provider. Thus, service providers need to strive to achieve the maximum user satisfaction with services, products, and purchases. According to Shiao and Luo (2012), consumer satisfaction helps companies to establish long-term relationships with consumers. Also, the success of public transport system hugely depends on the number of passengers which the system is able to attract and retain (panlasova pavlina, 2014). To this view, the quality of offered services becomes the basic of maximum importance.

Public transport operations may be affected by the overall service quality. Services like frequency, punctuality, cleanliness of vehicles, proximity, speed, fare, accessibility and safety of transport, information, and other factors can influence users' satisfaction (Jonson and Clark, 2005).

Antonucci, (2014) applied in his study an explorative factorial analysis and a structural equation model and found out that passengers are too sensitive to the level of service organization and to the way the service is delivered. It means that punctuality, regularity and short waiting time are very important factors determining customers' satisfaction. George Botzoris (2012) also asserts that the safety and reliability of buses, the level of comfort and cleanliness, the professionalism and courtesy of staff, and safe driving also had a big weight to determine the level of customer satisfaction.

Moreover, Mouwen (2015) focused on customer view on public transport and also on the drivers of customer satisfaction with public transport service. And it was found that the overall satisfaction with public city transport service is influenced the most by service attributes such as on time performance, travel speed and service frequency, followed by personnel attributes (drivers' behaviour) and vehicle cleanliness.

Quality of service represents an important concept in understanding the ways in which customers appraise service provision. This appraisal can interact with other concepts relating

to service provision such as customer satisfaction, retention and behavioural intention. The quest for service quality has been an essential component in service providing firms like transportation. Service quality and customer satisfaction nowadays received considerable attention and is widely applied by mass transportation service enterprises. This attention is primarily driven by marketing sciences, aimed at understanding how the desires and choices of the customers could be fulfilled and be catered for through the application of efficient management processes (Ramaswamy, 2014).

This understanding was considered to represent an important issue in developing policies to improve customer satisfaction and retention to implement strategies aimed at producing competitive advantage in the service industry. Efforts to generate such understanding of quality service tended to focus on how this concept is perceived by customers, with these perceptions covering both the functional delivery of the service, such as interactions with personnel, the technical outcomes of the service, such as transit times in the transport sector (Yorgos Voukas, 2013).

As a whole, the provision of personal mobility by transport service providers represents a substantial aspect of the transport sector. In Ethiopia, the principal modes of public transport include buses, mini-bus taxis, midi-buses, cabins, and motorized tricycles. Thus, understanding the perceptions of transit customers to quality of service can be of paramount importance to service providers in both retaining the already existing customers and attracting new customers from other providers or transport modes. Schrage, (1995) explains that the customer-focused service providers assign resources and has a constant commitment to being responsive to internal and external customers. The key to moving from providing good customer service to an outstanding customer service is to understand what customers want and need. Customers need to be understood, feel that their opinions, wants and needs are worth hastening to and acting upon. In situations where it is not possible to provide your customers with what they want how you treat them in trying to solve their issue will go a long way toward how they perceive customer service at your workplace (Joshi, 2014).

2.3.1. Co-creation in value creation

Co-creation is defined as a function of interaction between customer and organization. These interactions are direct and essential to succeed in managing value creation (Grönroos & Voima 2012, 1-2). Co-creation as a dialogical interaction, which creates something new or

unique. Where else, co-production is communicational interaction and is based on exchange of knowledge or resources. Customers' role has changed in service innovation. Customer role has shifted towards co-producer. These views see importance in direct interaction between customer and organization and further, customer participation in service production process. Customers who are deeply involved with co-production are more likely to address service failures but at the same time co- production could led to higher customer satisfaction and adds value to the production. (Chen et al.2011, 1333.) Organizations are able to implement these innovations rapidly to their product lines or service offerings because innovations are not tied to geographical nor time constraints (Desouza & et al. 2008). Payne and colleagues (2008) define co-creation as strategic options for creating value. Co-creation could arise from joint inventiveness, co-design or shared production. Co-creation opportunities are related to nature of the industry firm is operating in.

2.3.2. Customers perception of service quality

Enhancing the quality of service of public transport is often positioned as a strategy which can pull passengers towards using bus transit on a regular basis. Perceptions of quality of service tend to vary across socio economic cohorts. George Botzoris (2012) explained that perceptions of service convenience are central in evaluations of overall customer satisfaction with the service. Public transport users often associate quality service issues relating to convenience, cabin environment and ease of use to perceived quality of service (Joshi, 2014). Scharge, (1995) argues that the overall quality of public transport service very much depends on the economy and state of development of the city and/or the country. Often a traveller has to take a combination of transport modes to combination of transport modes to complete a journey. Connection and smooth transfer between modes through the use of integrated stations is an important factor for the customers to regard as an efficient transport system.

Measuring and monitoring the quality of supplied services is fundamental for guaranteeing to the service users' good levels of quality service and a continuous improvement of the service characteristics. It is considered that the customer's points of view to be the most relevant for transit service quality, being the customers are real users of the service (Prahalad, Ramaswamy, 2014). In most cases, service quality has been generally evaluated based on customers' perception and expectations about the service.

While service quality is measured from the customer perspective, recognizing the perception of the clients about each factor characterizing the nature of service provision is important

2.4. Customer satisfaction

Customer satisfaction Customer happiness is a difficult notion to define and measure, similar to service quality [Oliver, 1980, p. 460]. Oliver (1997) defines satisfaction as the consumer's response to fulfillment and the degree to which the amount of fulfillment is pleasant or unpleasant. Customer satisfaction is defined by Tse and Wilton (1988, p. 204) as the assessment of the perceived discrepancy between expectations and the actual performance of the good or service as perceived by its users. According to Boulding et al. (1993, pp. 7-8), the perception captures the general impression of a service or product. Negi (2015) found a negative correlation for all service quality dimensions, ranging from the lowest for the dimension of tangibles to the highest for the additional dimension of Network Quality, in a study to determine the role of service quality and customer value as perceived by mobile users in Ethiopia in determining their overall satisfaction using service quality gaps (Perception-Expectation).

Customer satisfaction is defined as how products and services can fulfill customer expectations (Zarifah et al., 2020). In other words, unsatisfied customers would return the products or make complaints about the services. Customer satisfaction is linked to service quality, where customer complaint reflects service failure (Shamsudin, Johari, et al., 2020). Organizations must focus on succeeding in the modern economies to achieve their long-term operation goals (Rosli & Nayan, 2020). For an organization's marketing activities, a leader plays an essential role in creating, delivering, and communicating values to customers. Employees also play similar roles in executing the organization's strategies and services. Customer satisfaction reflects revenues and brand loyalty (Shamsudin, Azmi, et al., 2020). For example, through customer satisfaction, an organization can quickly analyze the average risk of unhappy customers and the need to improve (Shamsudin, et al., 2020).

Differentiation in the competitive market today helps organizations to maintain their existing customers and attract new customers. As part of an organization, customers contribute efforts and other services, where convincing customers can increase business needs and develop effective promotional strategies. Customers help an organization run its business for profits

(Hassan, et al. 2020). Apart from increasing employees' morale and attitude, customers play a significant role in motivating the leadership to plan improved operating processes and business activities. For instance, products can be improved based on the outcomes of customer survey on product quality improvement. After all, customers are informing the organization of the market expectations (Shamsudin, Johari, et al., 2020).

In this case, a market researcher's appointment is necessary for an organization to study its target niche, the primary segment, to sell its products and services effectively. Through ratings and surveys for marketing analysis, organizations can collect valuable data of strategic interests and product branding from customers (Rosli & Nayan, 2020). Customers may also ask questions and have a specific understanding of their roles. As customers deal with the organization, they would ensure that they receive the services according to the promised standards (Shamsudin, Nayan, et al., 2020d). Moreover, some customers have strong opinions that allow the organization to make the right, effective decisions. Hence, organizations need to execute effective communication strategies and build long-term relationships with their customers for a smooth and consistent business operation. After all, customers are the reasons for an organization's success (Shamsudin, et al., 2020).

Building strong relationships with customers helps organizations to create more effective marketing products in the future. Customer satisfaction provides valuable insights into the organization's improvements (Hassan, et al., 2020). Through customer satisfaction, regardless of whether the feedback is positive or negative, the influence of its service quality can be determined based on customer satisfaction. With that, organizations can effectively determine how to improve or change their products and services virtually effectively (Shamsudin and Nayan, et al., 2020b). Meeting customers' needs and expectations should be one of the long-term goals of business and marketing strategies, including promoting products and services.

Based on to be attentive to the customers' needs, instead of forcing them to purchase the products or services. Besides that, as customers often expect quick service, there must be a specific internal deadline for employees to promptly complete the required task and promptly deliver good standard service (Afif et al., 2020). All employees must be well understood and promoted to the customers for a smooth business operation. An effective salesperson should

approach customers confidently and communicate effectively with the customers to determine their needs.

Employees must be adequately trained and competent to use their talent and skills to effectively deliver the required services to prevent any unexpected problem or unpleasant situation and satisfy the customers (Shafiq et al., 2019). Besides improving customers' products and services, organizations can gain customer trust, as satisfied customers are typically loyal customers. Such customers are valuable assets for an organization (Hamzah et al., 2017). For that, an organization's marketing team should be adequately train.

Abd-El-Salam, et al. (2013) and Chen (2010) suggest that customer satisfaction is the result of a customer's comparison of perceived quality and actual service performance. This comparison may lead to customer satisfaction or dissatisfaction. Kaura, et al. (2012, after, Rust & Oliver, 1994) suggest that customer satisfaction reflects the degree to which a consumer believes that the use or possession of a specific service will evoke positive feelings. Hence customer satisfaction is the physiological state of emotion associated with the conformity or nonconformity of a consumer's perceived quality of service during and after service experience (Kaura, et al., 2012, after, Oliver, Rust & Varki, 1997:13 and Chen, 2010). While Caruana (2002, after, Mohr, 1982) likened customer satisfaction to an expectancy/disconfirmation paradigm, this paradigm is the background for most studies on customer satisfaction. It encompasses four constructs namely; Expectations, performance, disconfirmation and satisfaction the confirmation or disconfirmation that may arise from the difference between the service quality expectation and the actual service performance during or after service consumption (Caruana, 2002 and Chen, 2010). Customer satisfaction is of two different conceptualizations; transaction Specific satisfaction (satisfaction based on a specific purchase occasion) and cumulative satisfaction (satisfaction based on overall evaluation of multiple purchases and purchase experience of a service over an extended period) (Abd-El-Salam, et al, 2013).

Customer satisfaction is based upon the common judgment of products or services that provide the maximum rate of satisfaction for the customers (Oliver, et al., 1997). Customer satisfaction can either be considered as contentment, pleasure, or ambivalence based upon the kind of service being rendered to the customer at a specific purchase occasion (Zeithaml, 1988). Customer satisfaction can also be impacted by price, service features, product

perceptions, and service quality. However, customer perception has a direct impact on how customers evaluate the service (Liu & Jang, 2009).

Impact of empathy on customer satisfaction: According to Ganguli & Roy (2011), a positive correlation does exist between empathy and customer satisfaction. He also realized that without empathy customers will remain dissatisfied with service quality. Therefore, empathy greatly impacts customer satisfaction (Al-Marri, Ahmed & Zairi, 2007). This dimension will immensely contribute toward customer long-term relationship with the company. Wieseke, et al. (2012) research proves that empathy creates a condition of emotional relationship with customer and the service providers and motivates customer to do business with the company.

According to Karatepe (2011) there is a positive relationship between empathy and customer satisfaction. He noted that customer loyalty could be easily captured through empathy. The importance of empathy can be felt through service quality, customer loyalty as well as satisfaction. Therefore, empathy and reliability of service are significantly influenced by service environment (Karatepe, 2011). This dimension is also facilitated through the people aspect of service quality (Kaura, et al., 2012).

Impact of reliability on customer satisfaction: Results from Ibáñez, Hartmann & Calvo (2006) test on reliability of service and customer satisfaction suggest that a positive correlation does exist between the reliability of service, service quality, performance (i.e. financial and nonfinancial) and customer's satisfaction. This is made possible through the interactional activities between employees and customers. This dimension is facilitated through the people aspect of service quality (Kaura, et al., 2012).

Impact of assurance on customer satisfaction: Results from Parasuraman, et al. (1988) found that assurance is one of the core dimensions of service quality that impacts customer satisfaction because it implants a favourable perception of an organization in the mind of a customer. Thus, encouraging the likelihood of word-of-mouth activity especially in financial institutions. A reliable financial service provider implants a high level of confidence in the mind of its customers (Khan & Fasih, 2014, after, Ndubisi, 2006 and Ndubisi & Wah, 2005). This dimension is facilitated through the people aspect of service quality (Kaura, et al., 2012).

Impact of price: Relative to customer satisfaction, the price of service is not avoidable. Price and quality cannot be separated either. According to measurement variables used in the ACSI (American Customer Satisfaction Index) model, rating of quality given price or rating of price

given quality equals perceived value, and price tolerance given repurchase (Fornell, et al. 1996).

The American Customer Satisfaction Index model is a cause-and-effect model. It states outcomes components of satisfaction. Service price is an objective that consumers perceive as a stimulus. Price can be an indicator of consumer need to purchase a product and can be an indicator of the quality level (Rao & Monroe, 1989). Researchers have tested if price and quality have a positive relationship, results of these tests gave mixed evidence (Rao & Monroe, 1989) indicating that there is a relationship between price- and perceived quality, but this is not always this case.

In accordance to Bei & Chiao (2001, p133) there are different concepts of prices, namely; objective price, which is the actual price of a product; perceived price which is defined as “what is given up or sacrificed to acquire a service or product. Researchers found that consumers do not always remember the actual prices of service/ products, but they remember the general price level for themselves, such as expensive or cheap (Zeithaml, 1988). Customer satisfaction is a central concept in marketing and it is affected by different variables. The prices of service/products are one of these variables, thus price of service/produce influences customer behaviour (Han & Ryu, 2009).

Service quality has been the focus of many studies on customer satisfaction (Chen & Hu, 2010; Hamzah et al., 2017; Kim & Lee, 2017). Apart from knowledge and skills, service quality is essential for the expansion of business globally. There are five dimensions of service quality ("SERVQUAL") that are often related to customer satisfaction (Berry et al., 1985; Oliver, 1993). Overall service quality with the emphasis on the needs of customers is essential for customer satisfaction. Organizations in any industry of products and services cannot focus on only one dimension of service quality. Firstly, tangibles are related to physical appearances, such as product presentation, employees' appearance, uniform, equipment, and work areas (A.A. Parasuraman et al., 1991). Considering the importance of the first impression, employees need to look sharp and demonstrate high reliability or responsiveness.

2.4.1. Frequency and customer satisfaction

In recent times all organization has increasingly come to understand the importance of customer satisfaction. It is widely understood that it is far less costly to keep existing customers than it is to wind new ones. For many organizations in the public sector, customer

satisfaction will itself be the measure of success. According to Oliver (1997), satisfaction is defined as the customer's fulfillment. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment. Need fulfillment is a comparative process giving rise to the satisfaction responses. Any gaps lead to disconfirmation; i.e., Positive disconfirmations increase or maintain satisfaction and negative disconfirmation create dissatisfaction.

2.4.2. Service quality (safety) and customer satisfaction

Service excellence and client satisfaction since it affects customer satisfaction, commuter preferences, passenger demand, investment choices, and revenue, service quality is becoming increasingly important for all enterprises, including public transportation organizations (Anderson et al., 2013). According to Dragu et al. (2013), the success and market share growth of public passenger transport providers depend on the caliber of the services offered as well as the passengers' impression of that caliber.

Customer satisfaction towards rapid bus services can be a unique selling point. Rapid bus services must offer excellent service quality through good physical facilities and competent employees to gain competitive advantages and attract new customers. Next, as another dimension of service quality, reliability is related to delivering the products and services accurately (Berry et al., 1985), as promised. Organizations perform and achieve the quality standard for their products and services. For employees to perform and complete their job on time, organizations can provide training on assisting customers with relevant and timely information (Berry & Parasuraman, 1992).

Through reliability, organizations can attain customer loyalty and customer satisfaction and plan and implement improved service quality (Shamsudin, et al., 2020d). Similarly, as for the case of rapid bus services, the bus operator should display the ability to deliver the promised services through improved technology, upgraded equipment, or proper uniform for the bus drivers. This can also be part of the target audiences (A. Parasuraman et al., 1993; A. A. Parasuraman et al., 1991). Besides that, responsiveness means providing first-class service quality swiftly.

This dimension offers significant service quality for customers b, which is associated with unusual risks or circumstances. Customer satisfaction affects almost all business operators (Amirul et al.,2020; Zamry & Nayan, 2020). As customers are unwilling to wait and do not stay loyal to inefficient services, responsiveness is essential in creating the best impression towards products that are guaranteed service quality, such as establishing internal services (e.g., return phone calls, emails, and online responses). Organizations that are responsive to customers' requests and employees who are willing to assist and respond to customers promptly under all circumstances can instantly satisfy customers (Shamsudin et al., 2021). Customer satisfaction is an asset that should be monitored and managed by employees. Similarly, quick and punctual My rapid bus services provide customer satisfaction (Zulkifli et al., 2020). Service quality is focusing on flexibility and responsiveness. This dimension guides MyRapid bus employees in addressing customer complaints that require return phone calls or emails.

Moreover, customers have high expectations of assurance as well. Employees communicate with their customers directly or indirectly. This dimension is associated with customer satisfaction in terms of the level of quality (Hamzah et al., 2017). It can influence the service quality provided to the customers. Employees who know to convey trust and display confidence through their appearance, attitude, and work performance can increase customer satisfaction (Chen & Hu, 2010).

In customer service, it is essential to communicate this particular ability to the customers. After all, service providers are expected to be the service offered experts (Izarul et al., 2020). Thus, in MyRapid bus services, apart from facilities and time routing, the bus operator requires the skills and knowledge to attract customers and ensure their comfort. Employees must communicate their expertise and competencies in order to manage customer expectations. This can be done in many ways that customers can repeatedly see, such as the uniform's bus logo (Nur et al., 2020).

The final and most challenging dimension of service quality is empathy. Empathy is a concept that involves customers' decision-making process (Kim & Lee, 2017). Employees should have the ability to put themselves in the customers' position. Service quality is entirely performed when the customers' preferences are recognized and appropriately responded to. Empathy

helps organizations understand the impact of service quality on customer satisfaction (Shafiq et al., 2019). Empathetic service quality makes the customers feel extremely good as their needs are carefully taken care of at the point of the service delivered (Hamzah et al., 2017).

Organizations should make an effort to provide personalized services according to customers' needs and requirements and improve communication among the employees and train them to interact with customers and end-users. Organizations can consider giving a brief session on the job scope during the orientation for employees. Services for various types of products should be continuously improved (Shafiq et al., 2019). Likewise, MyRapid bus services must take care of the services provided as well as their customers. Apart from daily cleaning for the buses, customers should feel that the bus drivers care about them during the bus routing. MyRapid bus services need to consider improving the long-term experience for customers.

In developing countries, most trips are carried out using some form of public transport or on foot (Armstrong Wright, 1993). In most developing countries conventional buses and small buses supplemented by a mass of Paratransit vehicles such as taxis and converted pickups are very common modes of public transport (Armstrong-Wright, 1993). According to Johnson and Tengstron (2005), bus services are flexible, cost effective and equitable mode of transport that can satisfy the needs of middle income and low-income groups (Armstrong-Wright, 1993)

When there is increased frequency of transport services there will be increase commuter satisfaction and urban transport support (Taylor et al., 2008). Frequent services ensure continuous commuter service that is available on regular basis. Govender (2014), mentions that if services are available during off peak times such as evening and public holidays, the commuters' view on service quality will be majorly influenced. Commuters are generally satisfied with transport services that are available on weekdays, weekends, public holidays and if possible until late in the night.

The public transport in Addis Ababa particularly the vehicles have no fixed arrival and departure time, the fare change can change anytime as well as the routes to and from the commuters' destination which sometimes could be in unsafe areas. Public transport is one of the critical elements in determining the sustainability of a city. It Can be considered one of the effective transportation networks that enables people to Commute from one place to another. One of the reasons why public transport remains popular Among the people is the connectivity

from one place to another, affordability in terms of Fares, and easy access. Public transport provides economic benefits to the user as well as to the community.

The services rendered are subsidized by the governments, and therefore the Fares are reasonable with reliable services (bachok et al., 2014). A recent study conducted in significant cities highlighted that public transport reduces road congestion. It helps passengers to reach their destinations within a reasonable time. Furthermore, most major cities provide a special lane for public transport to avoid traffic jams (Khoo & Ong, 2015).

A recent survey related to public transport indicates that many reasons lead to public transport. Among the reason is the ability to meet new people (Chee & Fernandez, 2013). Simultaneously, it is also because of the service providers' convenience and comfort that they meet the expectations. It was also recorded that using public transport enables a user to save money and cut transportation costs (Kaffashi et al., 2016). It is also essential to highlight that among the reason for using is public transport is because of the opportunity to do little exercises by walking from the bus station to the locations. On the other side, using public transport is also safer compared to individual transport.

The debate about the benefits of taking public transport seems to be never-ending. Some say that Malaysia's public transport is not up to the standard of other major cities in the world. Some claimed that taking public transport caused them to wake up early not to miss the schedule. There are also complaints that public transport was never to follow their schedule. The fact is that public transport is always ready and available to put their services regardless of what people say. The service has been very much improved from time to time. It is about when service provider needs to understand their customer's expectations to provide excellent services (Shamsudin, Rasol, et al., 2020). Good services that meet customer expectations will lead to customer satisfaction.

2.4.3. Affordability and customer satisfaction

The term "affordability" describes how much it costs to travel and how much it means that a person or household can afford to travel when they want to without having to make sacrifices. Therefore, affordability can be defined as the capacity to engage in necessary travel for purposes such as going to work, school, the doctor, or other social services, as well as visiting other family members or making urgent travel arrangements, all without compromising other

vital pursuits. The definition of affordability employed in this context is based on the definition provided above: the capacity to carry out transport operations without materially limiting the capacity to carry out other crucial activities.

Customer satisfaction is defined as how products and services can fulfill customer expectations (Zarifah et al., 2020). In other words, unsatisfied customers would return the products or make complaints about the services. Customer satisfaction is linked to service quality, where customer complaint reflects service failure (Shamsudin, et al., 2020).

Organizations must focus on succeeding in the modern economies to achieve their long-term operation goals (Rosli & Nayan, 2020). For an organization's marketing activities, a leader plays an essential role in creating, delivering, and communicating values to customers. Employees also play similar roles in executing the organization's strategies and services. Customer satisfaction reflects revenues and brand loyalty (Shamsudin, Azmi, et al., 2020). Litman (2009), states that affordability, refers to people's capacity to get essential goods and services. Transportation affordability therefore refers to people's financial capacity to acquire essential goods and services such as medical care, household items, education, access to work and socializing. Access to basic facilities varies, with poor areas generally at a disadvantage. In many cities a substantial proportion of the poor live in suburban areas. They face long and expensive journeys to work. Travel times to and from work vary greatly from city to city, averaging about one hour or more per day.

In the year 2003, the I trans (Institute for Development and Information on Transport) and the IPEA (Institute of Applied Economic Research), conducted a number of surveys to delve deeper into the issues on urban mobility and lack of access to public transport by the low-income people in the densely populated urban areas of Sao Paulo, Rio de Janeiro and Recife. The results showed that low-income populations who live in the big Brazilian metropolis are denied access to public transport. The low rate of urban mobility by the poor was noted, they face serious problems in their journey to work and access to employment opportunities. Denying these people access to public transport is one of the factors that cause social segregation (Gomide 2003).

Transportation unaffordability leads to significant economic and social problem. From casually collect information from a number of resources, it is confirmed that increase transport

fares lead to a sharp drop in ridership but it often rebounds after a few months. The use of private cars and motorcycles by the middle-class city dwellers has increased particularly in Ouagadougou leading to congestion in the city center by private cars and motorcycles. Increase of fare for any justified reason or not, the passengers who cannot afford it may pull out. The available options if any that they could use are few and inferior, the infrastructure might not be suitable for use thus rendering them inaccessible to jobs and services and their social gatherings will be affected. These series of events may lead to side lining of those people at the bottom of the financial ladder both socially and economically. When doing the household budget, among other budget items to be considered, transport is seen as essential budget item.

An affordability index is used to look at fare expenditure against the income of the household. This index is defined as the transport expenses incurred by a family as a percentage of the family's earnings.

$$\text{Affordability Index} = \frac{\text{Number of trips} \times \text{Average cost per trip}}{\text{Per capita income}}$$

The result of the above is then expressed as a percentage, Alan (1987) states that travel expenditure are viewed as the most important factor to consider when choosing mode of transport by the commuters having low income. If the mode of transport is too expensive for them, they may opt to travel on foot. He further explains that the extent of affordability depends on the earning level of the commuters.

Public transport fare in Ethiopia is largely unregulated. Occasional hikes are common and commuters have to conform or risk being strand either to or from their destinations. Some of the reasons given for such fare hikes can be that, it is raining, there is traffic police operation and they are expect to part with some money, it is festive season, so there is a high demand against a constant supply, the fuel prices are expect to go up, there is traffic snarl up, it is a rush hour or institutions such as schools and colleges have close or open for the semester or there is graduation of the students.

2.4.4. Impact of quality of service on the modal share of public transport

It is not easy to define quality of transport in a simple and brief definition, due to the fact that it is a relative term which depends on the correlation between the following three elements:

objectives means and results. Particularly on the subject of public transport, the objectives are not always clear, hence the results depend on the user's perception and the service provision can be considered in a satisfactory level only few of the times. George (2012) in this regard pointed out that users form their perspective having regular or periodic contact with the urban public transport area shape and evolve on a daily basis their opinion regarding the delivered services.

They often fail to prioritize in order to importance the difference between the offered, on the part of urban transport service providers, and perceived, from a user-customer's perspective, service quality is important.

Despite the absence of a clear identification of individual components that compose the concept of "service quality of urban transport", such as the quality of services involve different dynamics and possess different interpretation, as it may express either the existing or the desired condition both from the user's perspective and from the perspective of urban transport service providers. Thus, the following concepts are distinguished in terms of quality of service (Barabino and Dieana, 2013).

- **Expected service Quality** which is defined as the level of quality expected by the customer and can be defined in terms of anticipated expectations.
- **Targeted service Quality**, which regards the level of quality that the provider aims to provide to passengers. It depends on the level of quality expected by the passengers, the internal and external dependencies (internal and external environment), the financial constraints and the competitors' performance.
- **Delivered service quality**: which expresses the level of quality that is offered on a daily basis to users?
- **Perceived service quality**, which refers to the level of quality as perceived by the passengers during their movements. However, the way passengers perceive service quality depends on their previous personal experience with the service or with relevant services and of all information received for the service.

2.4.5. Condition of the vehicle and customer satisfaction

Islam, et al. & Ahmed, (2014), state that comfort is one of the factors that influence customer satisfaction. This can only be achieving when the condition of the vehicle is as per the

commuters' expectation. Commuters will want to have comfortable seats to sit on, clean vehicles as well as clean drivers and turn boys. Elobi & Mazzulla, (2009) research on air passengers and realize that they not only value comfort ability but also cleanliness which also has an impact on their satisfaction level. From the beginning, the public positively view the use of public vehicles as a means of public transport. In the 1980s, the rich capitalize on the lack of regulation in the transport sector and change it to benefit them. The increase competition changes the drivers' behavior to become more aggressive and changing the public perception from positive to negative view.

Edvardsson (1998) reveals the driver as the contact person with the passengers and therefore has a greater impact in the satisfaction of the passengers. However, the driver does not seem to know the customers' preferences on what will satisfy them most, he appears to be indifferent most of the time. It is expected that the driver having full information regarding the availability or lack of transport on any particular day. The driver and availability of information is important for the satisfaction of the passengers. Although these traits lack, the passengers have no choice but to continue using the public transport even when price are hike and they are not satisfying to their expectations.

Friendliness of the personnel especially driver behavior in relation to service frequency has an impact on customer satisfaction. Friendliness behavior of the driver can satisfy customers by developing better communication and knowledge of its customers' needs (Disney, 1998).

The perception that has been held for a long time is that the vehicle crew does not only participate in gang-like activities but also rough handling of the passengers. Some of the chaotic traits of the vehicles include: gross language, playing loud music, overcrowding the vehicles and over speeding (Mutongi 2006, waMungai& Samper 2006, Rasmussen 2012)

2.4.6. Urban transport challenges in meeting service quality

Urban transportation service provision is complex in order to evolve an effective and the nature of complexity. The complexity exists both within the organization and the environment in which the service provider operates. As the external environment impacts the transport system to a longer extent, it is imperative for the external environment to be examined properly. (Parahalad, Ramaswamy, 2014). Likewise, the internal sub-system needs to be fully appreciated. For this reason, adopting an appropriate and well-informed approach turns out to be a pre-requisite for improving the mass transport system service quality.

Samuel, (2009) pointed out that providing mass transportation service which is adequate and appropriate is an eminent challenge almost all cities of the world encounter. Cities will always have a new problem which arises from the nature of the transport system. Obviously, cities in developing countries are strictly dependent on the road transport, system, and the ever-increasing number of population (rural-urban migration) and motorized vehicles, along with poor and inadequate road transport infra-structures has caused a tremendous social and economic problems.

Private owned buses, minibus taxis, and motorized tricycles, and government owned public bus services are the predominant modes of urban mass transport systems in Addis Ababa city. Private operators dominated the public transport market. Improvements made over the past decades in road structure, deregulation of tariffs, removal of restrictions in the importation of motor vehicles, and the elimination of transport related barriers have provided an incentive for private sector involvement in the public transport business (ERA, 2010).

This has increased the level of competition among mass transport service providers and hence, reduced earnings. On the other side of the coin, there arises a challenge among them towards seeking and improving other dimensions regarding quality public transport service aimed at attracting public transport users. Besides, despite the progresses made on the public transport sector over the past years, the city's public transport system is typically characterized by high density urban areas, inadequate and poor public transport system, as well as lack of proper roads, parking facilities, road user discipline control of land use, environmental pollution, congestion, accidents, and a host of urban transport related factors (AACG, 2015). Land transportation is the principal means of transit mode in large cities of the developing world and the needs are increasing. One of the problems of urban transport system is the uncontrolled number of private vehicles. Buses as urban public transportation is become the right choice to overcome the problem. Bus rapid transit is a fast, convenient, secure and punctual, urban population continues to increase enormously in line with the increase in the economy. This resulted in the transportation need. Road transport in town's cities is increasing, and this has caused the movement of vehicular traffic to increase rapidly, resulting in a web of urban transport related problems (Antono Damayanto and Faizal Kenedy, 2018).

One of the major problems the urban transport system faces is traffic congestion. Shiall and Luo (2012), the significant increase of private vehicles is among the major causes of urban traffic congestion. In urban areas, nowadays, many consider private cars not as a matter of option, but as a matter of necessity. This is due to aspects of time schedule, comfort, and security (mouwen, 2015). Thus, in order to overcome such newly emerging challenges, there is an urgent need for improving the quantity and quality of urban public transport system.

To make urban public transport service more attractive and thereby reduce car use, cities as well as public transport companies should be keen to ensure a highly quality of service on the public transport system, amongst others, by implementing the following measures.

- Widening and simplifying the urban public transport network, e.g. by:
 - Redesigning the network layout,
 - Enhancing the frequency and operating hours,
 - Introducing demand-responsive transport service, etc...
- Modernizing the road transport infrastructures (especially at intermodal interchanges) and making the entire voyage by public transport more comfortable, e.g. by:
 - installing high quality waiting facilities (seats, shelters, convenient services)
 - Easing access to stations (e.g. pedestrian and bicycle paths, signs, redesigning of surrounding space)
- Modernizing rolling stock to adjust it to requirements of potential customers by enhancing accessibility.
- Improving driver training for smooth and energy efficient driving.
- Enhancing the accessibility for all persons, especially for people with special needs, e.g. by: Implementing different information tools and
- Ensuring the physical accessibility of waiting facilities and vehicles.
- Improving safety and security of stations, at stops, and on the vehicles for passengers and drivers, as well as for infrastructural equipment, e.g. by Creating safer conditions at stations and their surroundings Safety and security trainings, as well as awareness raising for drivers and passengers.

2.5. Theoretical framework

Barsky, (1992), elaborates on the expectancy disconfirmation theory as the most acceptable theory used to explain the concept of customer satisfaction. In this study, it will be used as a lens of analysis. Szymanski & Henard (2001) point out that it is the best to be used to predict customer satisfaction. It is developed in the field of marketing and later became popular in other scholarly domains such as information systems and electronic commerce. The theory is developed by Oliver (1980), who propose that satisfaction level is a result of the difference between expect and perceive or actual performance. This theory suggests that consumers form satisfaction judgments by evaluating actual product or service.

The Expectancy Disconfirmation theory posits that ‘satisfaction is related to the size and direction of the disconfirmation experience that occurs as a result of comparing service performance against expectations (Mattila & O’Neill, 2003). Spreng & Page (2003), explain the difference between two concepts, that is, the pre- purchasing standard such as expectations or desires and the actual performance results to disconfirmation. The disconfirmation, according to studies in the areas of consumer satisfaction is viewed as the difference between a standard and the level of any service (Jiang, Klein &Crompton, 2000); (Parasuraman et al. 1988).

In Expectation Disconfirmation Theory, consumers look forward to a particular level of service before buying any goods or services. They then form positive or negative views regarding the service or goods bought. The consumers then compare their pre- and post-purchase expectations to have an outcome of the overall satisfaction. It may be positive if the level of what they expected before buying the goods or services is lower than the actual service. On the flip side, a negative disconfirmation occurs when service performance does not match up to the standard of service that was originally expected leading to lower satisfaction.

The Disconfirmation may be measured by looking at difference between the expected (desired or ideal) satisfaction by the goods and services looked at before and after using them. The situation can be represented by the algebraic expression: $\sum (P_i - S_i)$ where, P_i is the expected performance delivered/desired, S_i is what is looked forward and i is the attribute, then the differences are all summed up. Parasuraman, Zenithal& Berry (1994) believe the main advantage of this method is that it is efficient in that only two scales are used to measure each

attribute. Positive disconfirmation takes place when the service provided is better than what the consumer expected or desired. Dissatisfaction also referred to as negative disconfirmation, occurs when actual performance has less than expected results. In a nutshell, satisfaction is the result of direct experiences with products or services, and it occurs by comparing perceptions against a standard, such as expectations.

The main debate regarding this method is that disconfirmation is measured indirectly from other bases and that expectation before purchasing any goods or services is different with after purchase expectations (Halstead & Page, 1992). Further, within the marketing literature, there are discussions concerning the nature of the effect of disconfirmation on satisfaction. There is great debate in the use of predictive expectations as the comparison standard for perceived performance. Santos and Boot (2003), the confirmation of negative expectations is not likely to lead to satisfaction. To counter this problem, researchers such as Halstead (1999), Spring et al. (1996) Tse and Wilton (1988), Woodruff et al (1983) and Yi (1990), have proposed other comparison standards such as desires, ideals, equity, or past product and brand experience.

2.6. Gaps of the Literature Reviewed

A number of studies including Kelbesa (2018), Tebebu (2019) and others saw in their literature review in relation to factors influencing customer satisfaction in the public transport sector was general and covers broader areas. They show the factors that affected customer's satisfaction in compressive way (i.e. Kelbesa take Kolfeo keranyo sub city and Tebebu take Adiss Ababa whole as study area) due to the broadness of their study area. This causes hasty generalization. This study will try to find a unique and specific factor like the public bus reliability, frequency of the bus, affordability, safety and conditions of the buses that have greater influence in customer satisfaction in the three routes three Anbassa road travel routes (Bus number 03: with travel road route Ayer Tena to Menelik Square, Bus number 51: route Betel Hospital to Marcato and Bus number 90: Betel Hospital to Leghari Bus Station) in detail. This research therefore, developed to make deeper assessment of factors influencing customer satisfaction in Anbessa Public Bus Transport Enterprise: A case of three routes in Addis Ababa. This research study will seek to fill this practical knowledge gap which is a gap of practical understanding and application of theoretical knowledge in real world context.

CHAPTER THREE: RESEARCH METHODOLOGY

3. Introduction

Research methodology is the science and philosophy behind all research. It goes into the heart of how we know, what we know and allow us to understand the very strict constraints placed up on our concept of what knowledge actually is. Moreover, it allows us to understand the different ways in which knowledge is created. Whereas, research method is a way of conducting and implementing research (Jayatan and Priyanka, 2015). This Chapter deals, with description of the study area and research methodology mainly with research design, data collection, sampling techniques and sample size determination, data processing and analyzing methods, software's used to process the research and ethical considerations. Validity was discussed in line with the quality standard of the research.

3.1. Description of the study area

Addis Ababa city has a special administrative status that differs from other municipalities in Ethiopia. The city is divided in to eleven administrative sub-cities, namely Arada, Kirkos, Bole, Addis Ketema, Gulela, Nifas Silk-Lafto, Lideta, Akaki-Kaity, Yeka, Kolfe Keranyo and Lemi Kura. Each sub-city is accountable to the Addis Ababa city administration. The study was conducted in Addis Ababa city administration's at Anbessa public bus transport enterprise particularly in three routes in Addis Ababa. Those road routes were listed in the below table 3.1 and figure 3.1 and 3.2.

Table 3.1: bus number with its travel road routes

bus number	travel road route
03	Ayer Tena to Menelik Square
51	Betel Hospital to Marcato
90	Betel Hospital – Tor Haiyloch to Leghari Bus Station

Source: computed by the researcher, 2024

The above table 3.1, shows the selected routes of Anbassa bus routes. The selected three routes geographically pass through the sub cities Addis Ketema, Arada, Lideta, Nifas Silk, and

Kolfe Keranyo. The buses road routes are clearly showed in the below figure map 3.1 and figure3.2.

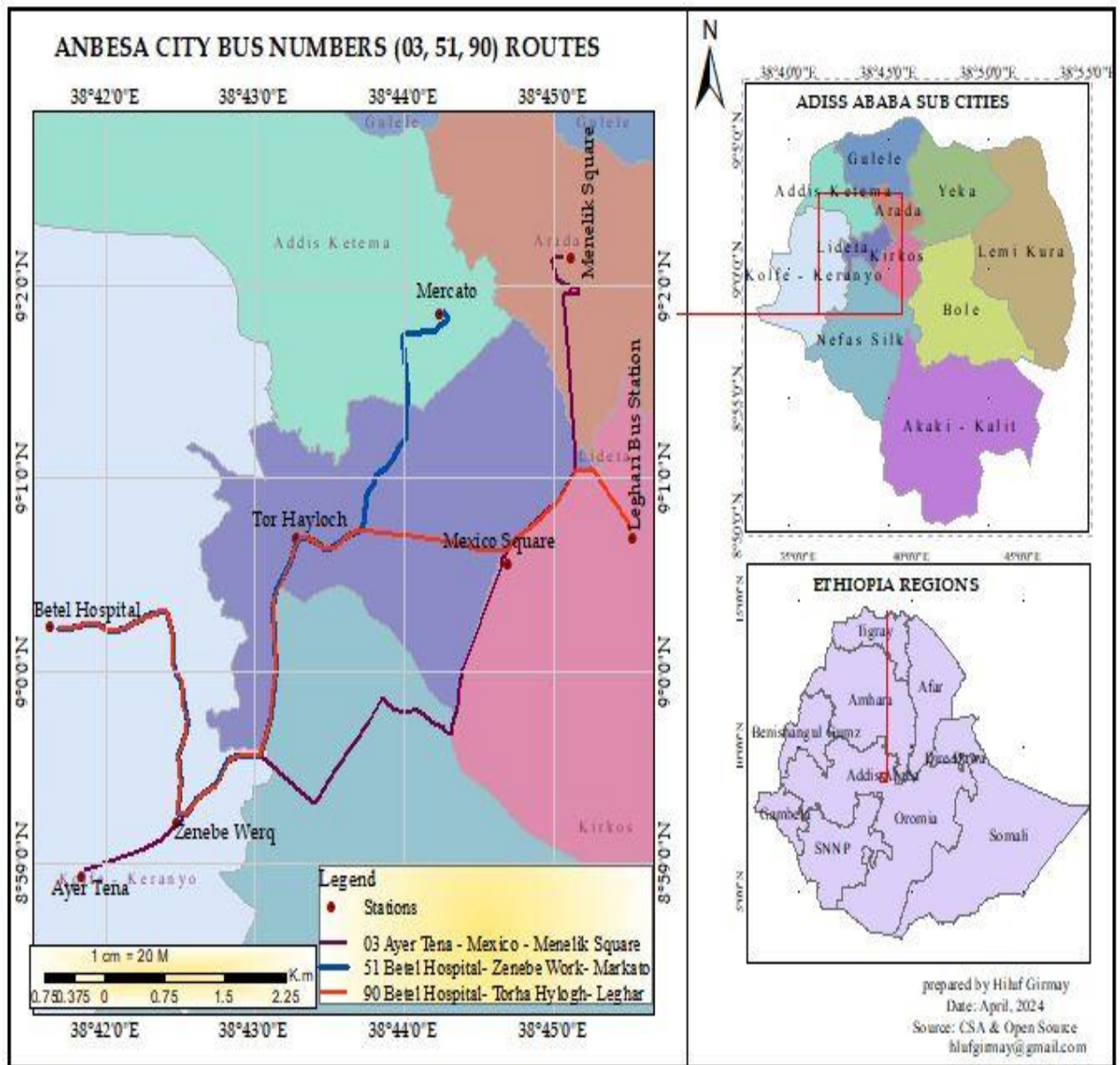


Figure 3.1: Map of Anbessa public bus transport enterprise road route

Source: Prepared by the researcher, 2024

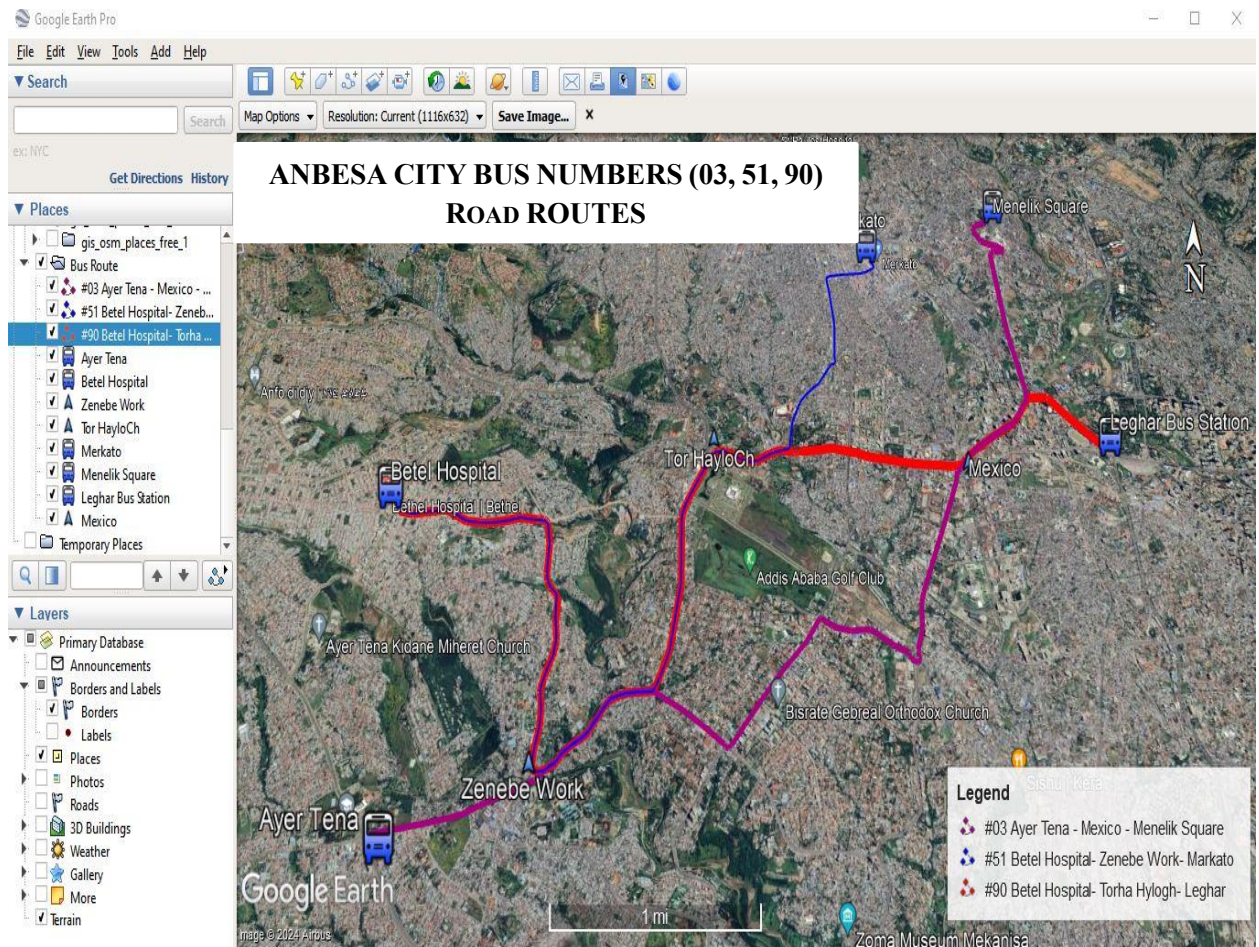


Figure 3.2: Satellite image of Anbessa public bus transport road route

Source: Open-source Google Earth Prepared by the researcher, 2024

3.2. Addis Ababa city profile in relation to public transport

Addis Ababa the administrative and financial capital of Ethiopia continues to develop and change. Economically, the city is changing from primarily being an administrative and service center to being a financial and industrial hub (Mintesnot, and Takano, 2007). According to Eshetie, et al. (2013), Addis Ababa city, Ethiopia's federal capital, is establishing itself as an international metropolis and a hub of economic growth. It also serves as a showcase and a major contributor to the nation's economic success. To maintain their competitiveness and to ensure that local communities have a healthy environment, a thriving urban economy, and an equitable high quality of life for all citizens, rapidly expanding metropolitan cities need strong coverage of rapid transit networks.

However, many cities have not yet developed rapid transit at the scale and rate required to address mobility needs, particularly those with expanding populations, incomes, and/or significant infrastructure shortfalls (Walter Hook and Collin Hughes, 2012). Despite this, research in these area shows that Addis Ababa could not be able to build rapid, high-quality transit at the scale and rate required to meet the transportation needs of expanding populations, despite advancements made over the past few decades in the service sector. The city is typically characterized by high urban density, inadequate public transportation, inadequate roads, parking lots, poor road user behavior, and uncontrolled land use, which leads to pollution, traffic jams, accidents, and a variety of other transportation-related issues (DIMTS, 2014).

3.2.1. Anbessa public bus transport enterprise

The beginning of the city of Addis Abeba's mass transit system may be traced to the end of the colonial Italian invasion. This company was founded in 1935 by gathering the captured vehicles and spare parts after the invading Italian army was routed and forced out of Ethiopia, according to the recorded records acquired by the corporation. The company was officially recognized as a share company in 1952, and it started operating in a new style with ten buses overall, spread across four primary routes, each with two buses.

The government owned the share corporation in 1952. According to B. Eshetie (2013), it is currently known as Anbessa City Bus Service Enterprise (ACBSE). Additionally, the AACGA provides financial support for its activities. The company has a monopolistic exclusive right to properly supply transportation services to the public by enhancing/upgrading its performance efficiency capacity throughout time. Until the federal government intervened to include privately owned mass transit vehicles in the sector, ACBSE was the only method of providing public transportation services and was regarded as the industry pioneer.

Despite the financial and operational improvements, the business faces to scale up its service, the enterprise is hampered by a number of challenges that prevent it from meeting demand expectations and meeting the needs of its customers (Fekady, 2013). At the moment, the business has extensive coverage in and around the city. The business is far from perfect and still has a long way to go.

The results of the study on the overall operational performance of the solely government-owned firm indicate that its performance is subpar. The company runs in accordance with international standards in all operational performance indicators; however, it was unable to recoup its operational costs from traffic income (Eshete, 2013). Additionally, despite continual efforts made to assure the company's ability to provide the desired level of quality transportation services in order to retain its clients and draw in more passengers each quarter, this goal has not been achieved (AACG, 2014). Despite the efforts made, the short-term interventions did not successfully manage the increased demand but rather exacerbated the mixed traffic system's congestion (Africa-Trans, 2010).

3.3. Research approach

In this study, to address the objective of the study the researcher applied mixed (qualitative and quantitative) methods research approach. According to (Johnson & Christensen 2008), Mixed approach enables researcher to get deeper information by triangulating data gathered through questionnaires and interviews. Triangulation is a basic tool to justify and to confirm the result, which will be obtained from different methods that were studying similar events.

3.4. Research design

The method of research for this study was descriptive survey research design. It is because of that; it enabled to describe the intended study for assessment factors influencing customer satisfaction in Anbassa public bus enterprise transport: a case of three routes in Addis Ababa. In order to address the stated objectives, the researcher used both qualitative and quantitative types. This is because of the proposed study needs the collection of statistical (numerical) data for the quantitative approach. qualitative method applied to assess and describe the influencing factors for the customer satisfaction in Anbassa public bus enterprise transport customers.

3.5. Data type and sources

For this study the necessary data for this investigation were collected from both primary and secondary sources.

3.5.1. Primary data sources

Primary sources are original information and not ready-made sources of data and can provide current and factual information about the study and they are fresh and collect for the first time and also these sources are original both in time and in their space. The primary sources of the study gathered through questionnaires, observations and interview from customers of Anbassa public bus enterprise transport and management members. Primary sources are original information and not ready-made sources of data and can provide current and factual information about the study and they are fresh and collected through questionnaire, interview and field observation for the first time and also these sources are original both in time and in their space.

3.5.2. Secondary data sources

For this study, the secondary sources of data were collected from statistical report of Anbassa public bus enterprise, reviews of relevant books, journals, articles, official reports, websites, legal documents, proceeding reports, published and un-published documents of the enterprise and previous study documents were used.

3.6. Data collection methods

In this study both primary and secondary data were used as methods of data collection. Primary data were data that collected for the first time such as questionnaire while secondary data are those data that has been collected by someone else and exist somewhere (Kothari 2004).

3.6.1. Data collection instruments

The main data gathering instruments for this study were both primary sources includes (questionnaires, field observation and face to face interviews) and secondary sources.

3.6.1.1. Primary data collection instruments

3.6.1.1.1. Questionnaires

According to Kothari (2004), a questionnaire is a method of collecting data which uses a set of questions for collecting data. In this method data are collected with the help of questions. Through this method, selected respondents of this study had to answer questions on their own and bring back to the researcher. Both open ended and close ended questions were used in helping the researcher to get answers and relevant information from respondent. The

questionnaire for the measurement of customer-perceived service quality required the respondent to indicate the extent to which the particular fitness center possesses the characteristics described on a five - point (1-strongly agree to 5-strongly disagree) scale.

3.6.1.1.2. Field observation

For this study, field observation was used in order to assess factors influencing customer satisfaction in Anbassa public bus transport enterprise: a case of three routes in Addis Ababa. The observation helped to collect nonverbal responses from the respondents.

3.6.1.1.3. Interview

In this study personal interview was used which required a person known as interviewer (researcher) by asking questions in face-to-face contact to the interviewee(respondents). The reason for using interview as a method of collecting data was that, more depth information can be obtained. Interview used open ended questions from which respondents (customers of Anbassa public bus enterprise) were able to discuss issues of interests in details.

3.6.1.2. Secondary Data Collection Instruments

For this research, the essential secondary data were collected from statistical report of Anbassa public bus enterprise, reviews of relevant books, journals, articles, official reports, websites, legal documents, proceeding reports, published and un-published documents that the research carefully reviewed and analyzed.

3.7. Sampling techniques

The researcher used random and purposive sampling technique) to collect data from the population of the study.

3.7.1. Sampling method

In the process of realization this study, the researcher used purposive sampling technique were employed to assure the representativeness of samples on-target customers of Anbassa public bus enterprise transport, a case of three routes in Addis Ababa. In this regard, the researcher was purposively selected three Anbassa road travel routes (Bus number 03: with travel road route Ayer Tena – Mexico to Marcato, Bus number 51: with travel road route Betel Hospital – Zenebe Werq to Menelik Square and Bus number 51: with travel road Betel Hospital – Tor Haiyloch to Leghari Bus Station). And I hand-me-down purposive random sampling method

was used for the in-depth interview and questionnaire survey. The reason that the researcher used purposive three Anbassa road travel routes and random sampling method for interviewing and questioning was the idea behind purposive sampling is to concentrate on people with particular characteristics who will better to assist with the relevant data on quality service and customer satisfaction of the transport services.

The distribution of the samples among the three route terminals was done via proportional allocation. The sampling proportion n/N for this method is the same across all strata, according to Bowley's (1926) proposal. Where N is the size of the population and n is the sample size. Vehicles from each of the three terminals make up the stratum in this area. After the strata have been identified, six passengers from each sample vehicle will be chosen from each of the three routes using non-probability convenient sampling.

Only 91 of the 102 people from the 17 sample vehicles could actually be accommodated. In convenient sampling, we take samples of the travelers whenever they present themselves at the study site. The researcher can swiftly reach the desired sample by using this method of sampling.

Additionally, the researcher used purposely sampling to choose six respondents from each of the three routes one cashier, one route manager, three passengers, and one driver for interviews. These respondents helped the researcher to gather broad details about how vehicle operators conduct their daily operations, when they begin and end their operations, how many days a week they work, the institutions in charge of managing the overall allocation of vehicle routes, how different industry players interact with one another, any additional services provided, and comments made regarding the services provided by the transportation sector.

3.7.2. Sampling frame and sample size determination

The study used both purposive and random sampling methods to select the sample from the available population. Accordingly, a total of 102 customers were selected. Different numbers of customers, different respondents from each bus were asked to fill the questionnaire. In this section, the researches look at how to get the sample size for this study using the Yamane's formula as the sampling procedure use.

This study used Yamane's formula in determining the sample size as outline by

$$\text{Yamane (1967): } n = \frac{N}{1+N(e)^2}$$

Where: - n= they require Sample Size

N= Total population of House Hold heads

e = Expectation of error = 0.05 i.e., 95% confidence level

N= 137 e = 5% N =137

Therefore,

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{137}{1 + 137(0.05)^2}$$

$$\underline{\underline{n = 102}}$$

Therefore, the study used 102 sample units. The 17 vehicles were distributed using proportional allocation and summarized in table 3.3.

Table 3.2: Target population and sample sizes for the three stations

Routes	Study Population
Betel Hospital to Leghari Bus Station (No 90)	4
Betel Hospital to Marcato (No 51)	8
Ayer Tena to Menelik Square (No 03)	5
Total	17

Source: computed by the researcher, 2024

3.8. Study variables

3.8.1. Types of variables and measuring techniques

Table 3.3: Depiction of the study variables

Variables	Measuring methods
Gender, age, level of academic qualification frequently travelled and reason to travel	Descriptive statistics graphs, pia charts were used.
Transport & customer satisfaction, frequency of the Anbessa public bus transport enterprise services and customer satisfaction,	Using five-point Likert scales from strongly agree to strongly

affordability of the bus on customer satisfaction, safety & customer satisfaction, nature of influence of politics on customer satisfaction, influence of government policies on customer satisfaction	disagree, ranked data were used, & descriptive statistics were applied to the findings.
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Source: prepared by the researcher 2024.

3.9. Data processing and analysis methods

3.9.1. Data processing

The study area was selected from Ethio- GIS using arc map and export as a shape file. The satellite image was taken from open-source United States Geological Survey (USGS) Google Earth Pro.

3.9.2. Data analysis

The primary data obtained from interview of the customers of Anbassa public bus enterprise transport informant interview and field observations were analyzed qualitatively. With regard to the data gathered from questionnaires, field supervisor checks every completed questionnaire, the pre-coded questionnaires were processed, managed and analyzed quantitatively using the Statistical Package for Social Sciences (SPSS) software and Micro-soft excel program. The analyzed output was displayed using tables, figures, charts and reports.

3.10. Tools and software's

Table 3.4: software's that the researcher used to process the collected data

Software	Function
ArcGIS 10.5	To prepare map of the study area.
Google Earth Pro	To navigate and view the three bus road routes
Micro-soft word	To write the research paper.
Micro-soft excel	To perform different statistical calculations
SPSS 23	To process, manage and analyze the socioeconomic data collected

3.11. Validity and reliability

3.11.1. Validity of the instruments

Validity has three distinct aspects, such as content validity, criterion validity and constructs validity. Numbers of different steps are taken to ensure the validity of the study. An extensive search of the literature on the concept that was measure is due to achieve content validity. Content

validity was attained by thoroughly covering all the target information area by ensuring data is collect within two weeks to minimize major event that would change content in relation to the study topic. Data was collected from the credible sources, for instance experience commuters particularly on public transport. Interview guide and questionnaire was based on literature review and research objectives to ensure result attain was valid. Criterion validity was attaining by conducting analysis that measures correlation between dependent and independent variables.

3.11.2. Validity and reliability

In this section, the aspects of validity and reliability of the data collection instruments was look at and it is an important element of service quality, which determines the level of passengers' satisfaction. Provision of reliable service enables service providers to retain passengers for a long period. Passengers may be lost and may not be regained if the service is unreliable. Those passengers who use urban bus transportation services are increasingly sensitive to waiting time and they are more satisfied with scheduled service, which habitually operates exactly according to scheduled departure and arrival times by operating at the appropriate frequency. The primary determinant of service reliability is the reliability of the vehicle itself (Iles, 2005).

3.12. Ethical considerations

Before administering the questionnaire on the potential respondents, prior arrangement was made. The purpose of the study was explained to the respondents and they were not forced to give their responses but were allowed to participate voluntarily in the study. An explanation of the objectives of the research was done before and after undertaking the research for clarity purposes on the direction of the study. Utmost confidentiality about the respondent's responses was assured by way of keeping all responses secure and using them only for academic purposes.

3.13. Research operationalization framework

Table 3.5: Research operationalization framework

No	Research Question	Methodology			
		Indicators/ Variables	Data Source	Analysis Method	Presentation

1	How does reliability of the Anbessa public bus transport enterprise influence customer satisfaction in the three routes in Addis Ababa Ethiopia?	Vehicles, availability, time, bus routes	interview, questionnaires & field observation	Descriptive statical analysis using SPSS	Using tables (five-point Likert scales strongly agree to strongly disagree)
2	What extent does the frequency of the Anbessa public bus transport enterprise services influence customer satisfaction in the three routes in Addis Ababa Ethiopia?	Hour's sufficiency, commandability, effectiveness	interview, questionnaires & field observation	Descriptive statical analysis using SPSS	Using tables (five-point Likert scales strongly agree to strongly disagree)
3	What is the relationship between the affordability of vehicles and customer satisfaction in the three routes in Addis Ababa Ethiopia?	fare off peak hours, passengers stop easiness, station distance	interview, questionnaires & field observation	Descriptive statical analysis using SPSS	Using tables (five-point Likert scales strongly agree to strongly disagree)
4	How is the safety of the transport industry related to customer satisfaction in the Three Routes in Addis Ababa Ethiopia?	Bus convenience, road safety, bus operating speed, service quality	interview, questionnaires & field observation	Descriptive statical analysis using SPSS	Using tables (five-point Likert scales strongly agree to strongly disagree)
5	To what extent does the condition of the vehicle influence customer satisfaction in the Three Routes in Addis Ababa Ethiopia?	Bus seats, ventilation, maintenance, crowding	interview, questionnaires & field observation	Descriptive statical analysis using SPSS	Using tables (five-point Likert scales strongly agree to strongly disagree)

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4. Introduction

This chapter presents the data analysis, presentation and interpretation of the main findings of the study concerning assessment factors influencing customer satisfaction in Anbassa public bus enterprise transport: a case of three routes in Addis Ababa. The results presented in this chapter seek to achieve objective of the study, which is to assess factors influencing customer satisfaction in Anbassa public bus enterprise in Addis Ababa. This part of the research deals with the description of general characteristics of sample respondents who were customers of Anbassa public bus enterprise transport in the three routes in the purposively selected three Anbassa road travel routes (Bus number 03: with travel road route Ayer Tena to Menelik Square, Bus number 51: route Betel Hospital to Marcato and Bus number 90: Betel Hospital to Leghari Bus Station), from key informants of Anbassa public bus enterprise employees who are interviewed and official documents through conducting questionnaires, interviews and document analysis. The descriptive analysis was conducted to describe the profile of respondents which includes such as gender, age, Level of academic qualification frequently travelled and reason to travel. Similarly descriptive analysis was conducted to compare reliability of Anbassa public bus transport enterprise & customer satisfaction, frequency of the Anbassa public bus transport enterprise services and customer satisfaction, affordability of the bus on customer satisfaction, safety & customer satisfaction based on the expectations and perceptions of respondents.

4.1. Demographic characteristics and response rate of respondents

4.1.1. Demographic characteristics of the respondents

This section presents gender, age, Level of academic qualification frequently travelled and reason to travel of the respondents. This information is important for the study as it helped to evaluate the credibility of the respondents in answering the questionnaires posed to them regarding the factors influencing customer satisfaction in Anbassa public bus enterprise transport: a case of the selected three routes in Addis Ababa Ethiopia.

4.1.1.1. Gender ratio

The result of the study implies that both sexes were significantly represented in the study and the data were collected from both sexes to make the data from the perspectives of male and female respondents. From my filed observation of the three routes females were more clients of Anbassa public bus than males. So, Gender ratio is an important variable for assessment the factors influencing customer satisfaction in Anbassa public bus enterprise transport. Because both sexes were not equally satisfied by the Anbassa public bus enterprise transport services. Females were more determinant factors to assess the satisfaction of the Anbassa public bus transports than males. So, this study sought to establish the gender of the respondents. Based on figure 4.1 below the majority (61.53%) of the respondents were female and 38.47% male. This shows women were more users of Anbassa public bus enterprise for transporting than men.

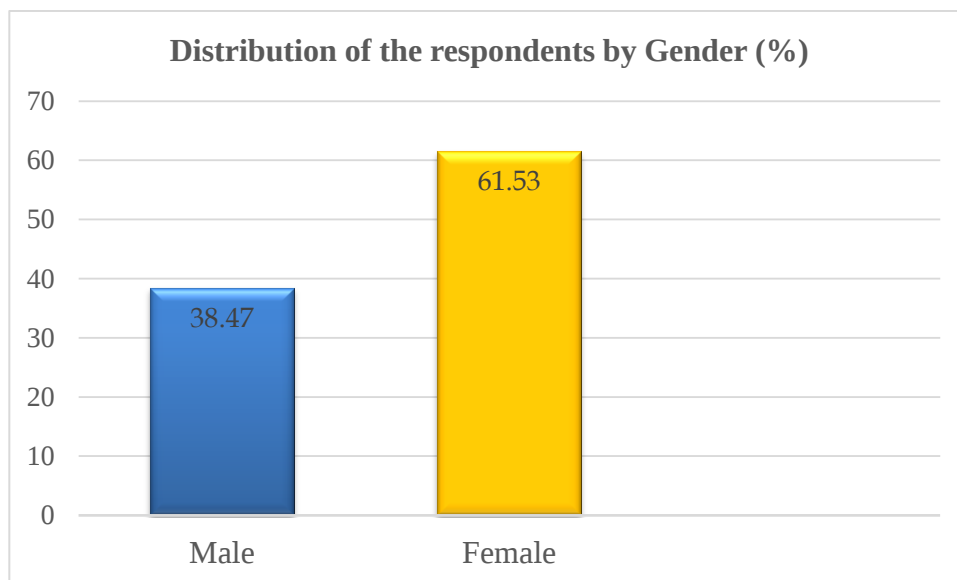


Figure 4.1: Distribution of the respondents by Gender Source: Own survey, 2024

4.1.1.2. Age of the respondents

In the study area different age groups were users of Anbassa public bus transport. For example, youths were preferring to walk by their foot instead of using vehicles, while peoples above 30 years or above use buses for transport. So, different age groups customers of Anbessa public bus transport had different influence on their satisfaction. As we can see from the (figure 4.1.) below indicates that majority (34%) of the respondents were aged between 26 and 35 years, 31.9% between 21 and 25 years, 15.8% aged below 20 years and 3.3% were aged over 45 years. The age of the respondents was important as different age groups have different perception and experience

in public transport sector. The age group above 25 years, have routine commute pattern and enriched the data collected.

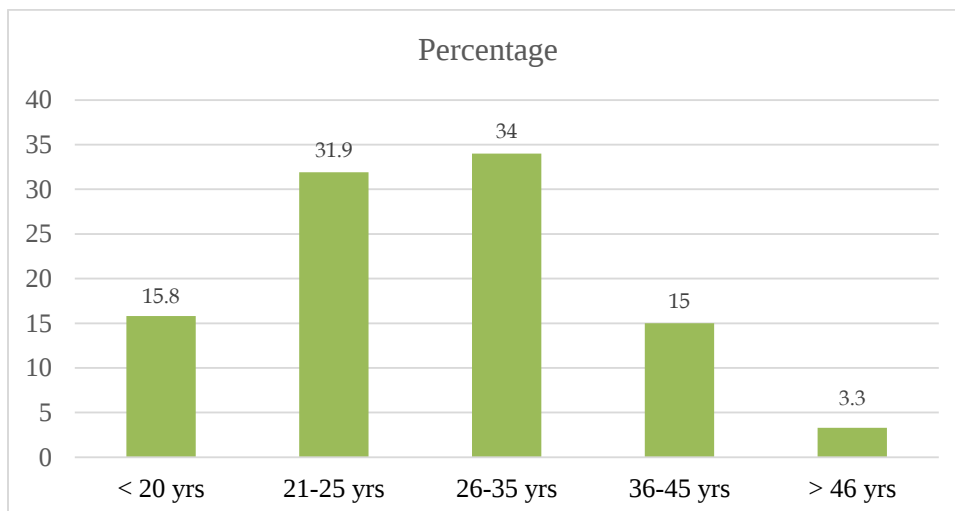


Figure 4.2: Age of the respondents (%) Source: Own survey, 2024

4.1.1.3. Level of Academic Qualification of the Respondents

Level of academic qualification of the respondents play important role in participating to cope up the challenges factors influencing customer satisfaction in Anbassa public bus enterprise transport in the study area. The study sought to establish the highest level of academic qualifications of the respondents. The research findings were indicated in figure 4.3 below.

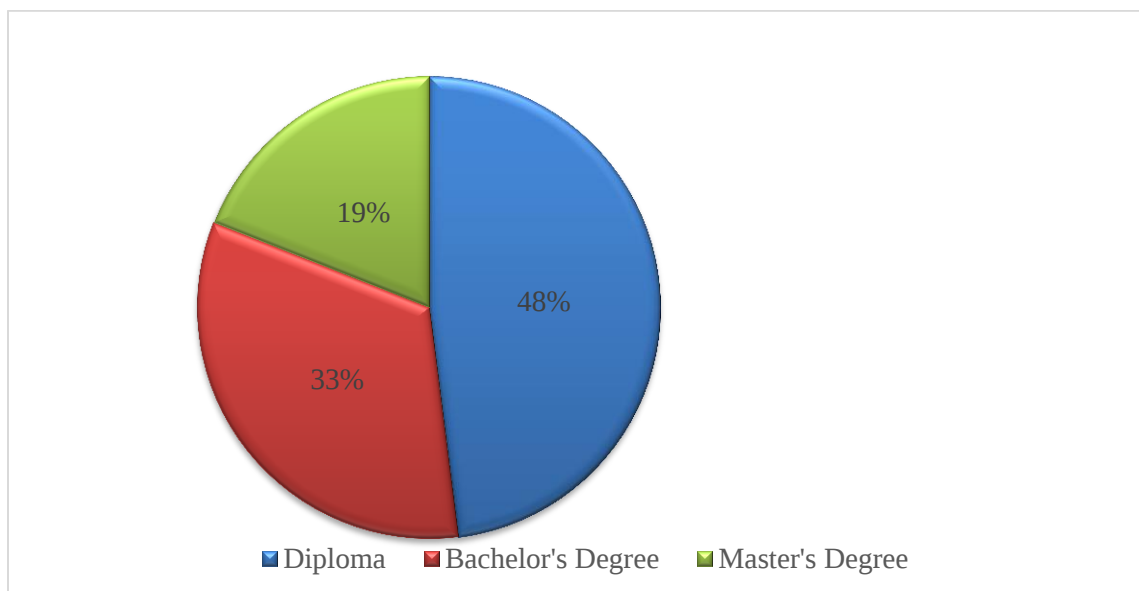


Figure 4. 3: Level of Academic Qualification of Respondents Source: Own survey, 2024

Figure 4.3, shows that majority 48% of the respondents had attained Diploma, 33% Bachelor's degree and 19% Master's degree. The findings of the study implies that the respondents were all

levels of education were represented in the study and respondents were able to explain the service delivery process of Anbassa public bus enterprise transport and their level of satisfaction on the service provided by the enterprise.

4.1.1.4. Frequency of travel

This study sought to get information on how frequent the respondents use the Anbassa public bus a means of transport. To collect data the researcher was asked respondents to indicate their opinion on the statement that says” For how many times have you a customer of Anbassa public bus enterprise transport in a week”? The findings presented-on figure 4.4 below shows that majority 50.4% travel daily, 24.1% travel occasionally, 15% rarely travel with 10.5% claimed not to travel at all. This confirms that since majority travelled, they had the requisite experience on Anbassa public bus enterprise travel and were the best target group for this research.

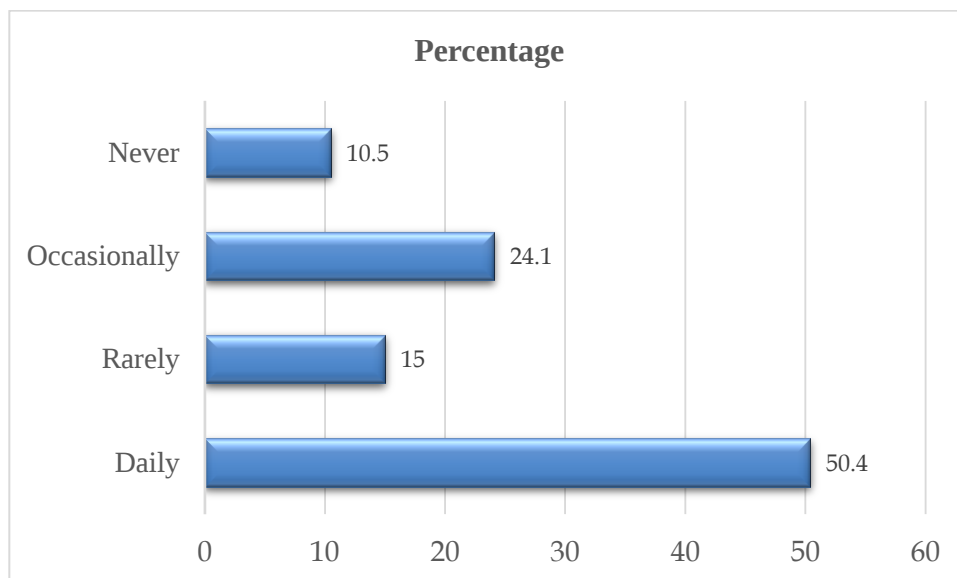


Figure 4.4: Frequency of use of the Anbassa public bus transport per week

Source: Own survey, 2024

4.1.1.5. Reason of travel

In this research the researcher asked respondents to indicate their opinion on the statement that says “for what purpose do you use the Anbassa public bus transport”? Accordingly, 36.3% of the respondents travelled to work, 18.0% travelled to do shopping, and 27.1% travelled to school, 12.8% were leisure trips, and 5.8% were other trips. The findings were recorded on Table 4.2.

For what purpose do you use the Anbassa public bus transport?	F	%
Work	33	36.3
Shopping	16	18
School	25	27.1
Leisure	12	12.8
Other	5	5.8
Total	91	100

Table 4.1: Reason of travel of respondents

Source: Own survey, 2024

4.1.2. Response rate

The response rate as the extent to which the collected set of data includes all sample members of the targeted population. It is calculated by the number of collected questionnaires divided by the number of the entire sample (Kothari, 2008). The study targeted a sample size of 102 respondents who were customers of Anbassa public bus enterprise transport in the three routes in the purposively selected three Anbassa road travel routes (Bus number 03: with travel road route Ayer Tena to Menelik Square, Bus number 51: route Betel Hospital to Marcato and Bus number 90: Betel Hospital to Leghari Bus Station). The response rate for the three router's is shown in Table 4.1.

Routes	Sample size	Respondents	Percentage
Bethel Hospital-Leghari (No 90)	43	39	90.69
Betel Hospital to Marcato (No 51)	46	41	89.13
Ayer Tena to Menelik Square (No 03)	13	11	84.62
Total	102	91	89.22

Table 4.2: Response Rate

Source: own survey, 2024.

Table 4.1 above shows that Betel Hospital to Marcato (No 51) is turned their questionnaires making a response rate of 89.13 percent followed by Bethel Hospital-Leghari (No 90) 90.69 percent and Ayer Tena to Menelik Square (No 03) 84.62 percent. The overall response rate was 89.22 percent. Berg (2004) states that response rate of 70 percent and above is credible for

analysis. Therefore, the questionnaire return rate was commendable at 92.47 percent and credible for analysis.

4.2. Presentation and interpretation of the study findings

Based on the stated the research objectives the following section presents the main finding of the study:

4.2.1. Reliability of the Anbessa public bus transport enterprise services and customer satisfaction

Reliability can be thought of as the method by which a service provider continues to be dependable in providing services to its clients. The ability of a service provider to continuously deliver a perceived level of service is guaranteed by reliability. So, the reliability of the Anbessa public bus transport enterprise services affect satisfaction of customer's Anbessa public bus. On this study to assess reliability of the Anbessa public bus transport enterprise services and customer satisfaction of the respondents, the researcher collects using indicators like respondents opinions on the reliability of the vehicle itself, when a customer has a problem, they show a sincere interest in solving it, availability of sufficient numbers of buses, the service right at the time they promise to do so, scheduled departure and arrival times by operating at the appropriate frequency, and information on the route, schedule of the bus in available to the passengers, information on the route and schedule of the bus in available to the passengers. And so, their view depends heavily on the actual conditions of buses while they are circulating.

Table 4.1: Reliability of Anbessa public bus transport enterprise & customer satisfaction

Indicators	Status	Frequency	Percent
the reliability of the vehicle itself	Strongly Agree	14	15
	Agree	36	40
	Neutral	7	7.7
	Disagree	31	34
	Strongly Disagree	3	3.3
When a customer has a problem, they show a sincere interest in solving it.	Strongly Agree	-	
	Agree	27	30
	Neutral	11	12
	Disagree	42	46
	Strongly Disagree	11	12
Availability of sufficient numbers of buses	Strongly Agree	-	
	Agree	11	12

	Neutral	8	9
	Disagree	55	60
	Strongly Disagree	17	19
The service right at the time they promise to do so.	Strongly Agree	3	3
	Agree	27	30
	Neutral	-	
	Disagree	32	35
	Strongly Disagree	29	32
Scheduled departure and arrival times by operating at the appropriate frequency	Strongly Agree	-	
	Agree	9	10
	Neutral	21	23
	Disagree	59	65
	Strongly Disagree	2	2
Information on the route and schedule of the bus in available to the passengers	Strongly Agree	5	5
	Agree	39	43
	Neutral	9	10
	Disagree	21	23
	Strongly Disagree	17	19

Source: Own survey, 2024

The researcher asked respondents to assess their satisfaction; they indicate their opinion on the reliability of Anbessa public bus transport enterprise services quality. Based on the above table 4.3, 15% and 40% of respondents agree and strongly agree respectively on the reliability of the vehicle itself and similarly 37% disagree. This implies that vehicle's reliability is one component of reliability under service quality and this concord with customer satisfaction. In other words, as the vehicle's reliability is dependable it results with good customer satisfaction. In comparing to the other indicators, this indicator had a great impact and comes first to the customer's satisfaction in the study area.

So, from the above table and its description we can conclude that the reliability of Anbessa public bus transport influences customers satisfaction. This agrees with the study by A. Parasuraman et al. (1991), A. Parasuraman et al. (1993), Rosli & Nayan (2020), Shamsudin, Azmi, et al., (2020), Hamzah et al. and Kim & Lee, (2017) and Shamsudin, Nayan, et al. (2020d) were documented that reliability of transportation was affects customer's satisfaction.

The combined data collected through questionnaires, observation and interview of many respondents indicated that reliability of Anbessa public bus transport enterprise affects their satisfaction. Information from my key informants from employees of Anbessa public bus

enterprises confirmed me, travelling using Anbessa public buses more reliable, convenience and affordable to more sustainable future to environmentally friendly, social Opportunities and hassle-free travel than compared to individual car travel. This because can transport larger number of people using less fuel per person that helps reduce carbon emission. They conformed me travelling using Anbessa public bus provides opportunities for social interaction and connection with fellow passengers, it's chance to meet new people, engage conversation and share experiences among the passengers. It also offers a hassle -free experience through scheduled departure and arrival time, ensuring a reliable and punctual journey.

4.2.2. Frequency of the Anbessa public bus transport enterprise services and customer satisfaction

Line frequencies (trips per hour) are determined before determining the timetable (departure time for each planned trip). Once these frequencies are obtained, the level of synchronization that can be achieved among different lines strongly depends on how much flexibility is available to determine the departure time of each bus from each stop. The study sought to determine whether the frequency of the bus transport services influence customer satisfaction in the three routes of the study area. The respondents were given a list of statement to indicate whether they agreed or disagreed. The findings are shown on table 4.4 below.

Table 4.2: Frequency of the Anbessa public bus transport and customer satisfaction (%)

Indicators	SD	D	N	A	SA
Total hours of service are sufficient	48	40	4	0	8
Availability of service on weekends is commendable	52	36	0	12	0
Sufficient service during public holidays and festive seasons	60	40	0	0	0
Enough services in the evenings	38	56	4	0	2
Effective services on working days	40	60	0	0	0
Customers are satisfied with queuing time	24	44	0	24	8

Source: Own survey, 2024 **Key: (SD-strongly disagree, D-disagree, N-neutral, SA-strongly agree)**

The above table 4.4 shows that majority (48.0%) of the respondents strongly disagreed to the statement that total hours of service is sufficient, 40.0% disagreed, 8.0% were neutral and 4.0% strongly agreed. Majority (52.0%) strongly disagreed with the statement that availability of service

on Weekends is commendable, 36.0% disagreed and 12.0% agreed. Majority (60.0%) strongly disagreed that sufficient service during public holidays and festive seasons, 40.0% disagreed Majority (56.0%) disagreed that there are enough services in the evenings, 4% were neutral, 2% strongly disagreed.

Since the holding has been proposed as a real-time decision to improve successful transfers, the frequency of the Anbessa public bus transport services affect satisfaction of customer's Anbessa public bus. Therefore, from this we can concluded that line frequencies of the Anbessa public bus transport services influences the satisfaction of its customers. This agrees with the study by Zeithaml (1988), Han & Ryu (2009) and Oliver (1997) were recognized the frequency of the bus transport services affect satisfaction of customers of the vehicle (Anbessa public bus).

4.2.3. Affordability of the Anbessa public bus transport enterprise and customer satisfaction

Affordability is the capacity to engage in necessary travel for purposes such as going to work, school, the doctor, or other social services, as well as visiting other family members or making urgent travel arrangements, all without compromising other vital pursuits. Consequently, the affordability of the Anbessa public bus transport enterprise affects satisfaction of customer's Anbessa public bus. This study sought to establish the affordability of the Anbessa public bus transport enterprise as a means of transport in influencing customer satisfaction in the three routes in Addis Ababa Ethiopia. The respondents were given a list of indicators to indicate whether they agreed or disagreed. The findings are shown on table 4.5 below.

Table 4.3: Influence of affordability of the bus on customer satisfaction (%)

Indicators	SD	D	N	A	SA
You are satisfied with the fare at off peak hours.	0	4	0	32	64
You are satisfied with the fare at peak hours.	28	52	0	0	20
Passengers at the stops make it easier for bus to hike fare.	0	4	12	36	48
The fare charged commensurate with distance.	56	36	0	8	0

Source: Own survey, 2024.

Key: (SD-strongly disagree, D-disagree, N-neutral, SA- strongly agree)

Based on the above table 4.5, the majority (64.0%) of the respondents strongly agreed that they are satisfied with the fare at off peak hours, 32.0% agreed, 4.0% disagreed. Majority (52.0%) of the

respondents disagreed that they are satisfied with the fare at peak hours, 28.0% strongly disagreed and 20.0% strongly agreed.

Therefore, from the above table and its interpretation we can conclude that the affordability Anbessa public bus transport plays main role to influences customers of the bus. As the price of the transport ticket price increases the number of passengers decrease as a result customer satisfaction also decreases. As the distance between origin and destination of passengers increase the price also increases and vice versa. And this determined the situation of passengers. Similarly, these findings agreed to the study by Gomide (2003), Litman (2009), Rosli & Nayan (2020), Shamsudin, Azmi, et al., (2020), Hamzah et al., (2017) and Kim & Lee, 2017) were recognized that affordability of transportation was affects customer's satisfaction.

4.2.4. Safety and customer satisfaction

User safety and comfort are priorities in routine public transport operation. According to Anderson et al., 2013, the service excellence and client satisfaction since it affects customer satisfaction, commuter preferences, passenger demand, investment choices, and revenue, service quality is becoming increasingly important for all enterprises, including public transportation organizations. The respondents expressed that the level of comfort, safety and skill of drivers are important in determining user preference for the Anbessa public bus transport enterprise service. The respondents (customers) satisfaction was assessed based on convenience of the bus for everybody, road accidents, vehicle operating speed, service quality, poor vehicle conditions and poor driving standards of Anbessa public bus enterprise. Therefore, the respondent's safety's satisfaction was presented in the below table 4.6.

Table 4. 4: Safety & customer satisfaction

	Status	Frequency	Percent
Convenience of the bus for everybody	Strongly Agree	12	13
	Agree	29	32
	Neutral	-	
	Disagree	41	45
	Strongly Disagree	9	10
Road accidents	Strongly Agree	14	15
	Agree	12	13
	Neutral	7	8
	Disagree	51	56
	Strongly Disagree	7	8

Vehicle operating speed	Strongly Agree	4	4
	Agree	56	62
	Neutral	10	11
	Disagree	21	23
	Strongly Disagree	-	-
Service quality	Strongly Agree	2	2
	Agree	12	13
	Neutral	1	1
	Disagree	68	75
	Strongly Disagree	8	9
Poor vehicle conditions	Strongly Agree	2	2
	Agree	71	78
	Neutral	-	-
	Disagree	11	12
	Strongly Disagree	7	8
Poor driving standards	Strongly Agree	17	19
	Agree	46	51
	Neutral	9	10
	Disagree	20	21
	Strongly Disagree	-	-

Source: Own survey, 2024

Based on the above table 4.6, 55% of respondents disagree on the convenience of the bus for everybody and this result for low customer satisfaction in the study area. 45% respondents agree with the convenience of the bus for every passenger in the study area. So, the customer satisfaction is low.

Therefore, from the above table we can concluded that the level of comfort, safety and skill of drivers in the study area are important in determining user preference for the Anbessa public bus transport enterprise service. And agrees to the study by Anderson et al., (2013), Dragu et al. (2013) Berry et al., (1985) and Oliver (1993) were recognized the safety of Anbessa public bus transport were main factor that influences customer satisfaction.

The data collected from field observation and by interviewing of many respondents that I combined, the safety, affordability of the Anbessa public bus highly affects satisfaction Anbessa bus customers. Majority of my key informants confirmed that, they said that the Anbassa bus public transport safety and comfort influences our day to day travelling transport satisfaction. They expressed that the level of comfort, safety and skill of drivers are important in determining user preference for the Anbessa public bus transport enterprise service. Generally, Anbessa public bus

enterprise many significant benefits in their way of life like, travelling Anbessa public bus instead of using car is cost effective offers. Bus tickets were generally more affordable compared to the expenses with owning and fueling cars. They said that if they planning a short trip or a long-distance journey travelling by those buses were effective in saving money, time and fuel. Travelling using buses reduced stress of stress due to gives safety of freedom for read book, listening music or simply admire scenery along the way. Using Anbessa public bus for transportation also gave them more satisfaction and safety because public buses help alleviate traffic congestion. A single Anbessa bus replace several individual cars, reduced the number of vehicles on the road and the associate traffic congestion.

4.2.5. Condition of the vehicles and customer satisfaction

Comfort is one of the factors that influence customer satisfaction. This can only be achieving when the condition of the vehicle is as per the travelers' expectation. Travelers will want to have comfortable seats to sit on, clean vehicles as well as clean drivers. The condition of the Anbessa bus mainly their seats with available space to move easily, heating and ventilation systems, high proportion of seated to standing passengers, low step heights good maintenance standards and low level of crowding can play vital role in influencing the customers satisfaction in the study area. based on the above listed the bus condition, table 4.9, shows the customer satisfaction.

Table 4.5: Condition of vehicles & customer satisfaction

Indicators	Status	Frequency	Percent
Good seats with available space to move easily	Strongly Agree	-	
	Agree	31	34
	Neutral	-	
	Disagree	46	51
	Strongly Disagree	14	15
good heating and ventilation systems	Strongly Agree	-	-
	Agree	27	30
	Neutral	10	11
	Disagree	43	47
	Strongly Disagree	11	12
high proportion of seated to standing passengers	Strongly Agree	6	7
	Agree	8	9
	Neutral	-	-
	Disagree	62	67
	Strongly Disagree	15	17

low step heights	Strongly Agree	22	24
	Agree	37	41
	Neutral	-	-
	Disagree	30	33
	Strongly Disagree	2	2
good maintenance standards	Strongly Agree	2	2
	Agree	9	10
	Neutral	21	23
	Disagree	59	65
	Strongly Disagree	-	-
low level of crowding	Strongly Agree	11	12
	Agree	13	14
	Neutral	-	-
	Disagree	67	74
	Strongly Disagree	-	-

Source: Own survey, 2024

Based on the above table, majority 66% of respondents disagree on the good seats with available space to move easily and contrary 34% agree. This implies that vehicle's availability of space to move easily is not as people expect it. The seats are crowded and are not as comfortable in addition to their hardship for movement. With regard to vehicles' good heating and ventilation systems 59% of respondents totally disagree. This means, based on the respondents, the vehicles are not qualified for transport and it is a cause for various transferable diseases. And this results in low customer satisfaction. On the contrary 30% of respondents agree on the vehicles' good heating and ventilation systems even though 11% respondents are in neutral position. They are neither agreeing nor disagree.

According to the respondents on the table above, 74% disagree on the low level of crowding while 26% agree. There is strong crowding and hence there is low level of customer satisfaction.

Therefore, from the above table and its interpretation we can decided that the condition of Anbessa public bus transport play main role to influences customers of the bus. Because comfort is one of the factors that influence customer satisfaction that can be achieved when the condition of the vehicle is as per the travelers' expectation. This agreed to the findings of study by Oliver (1997), Chen & Hu, (2010), Dragu et al. (2013), Hamzah et al., (2017) and Kim & Lee, 2017) were recognized that the condition of the vehicles transport was main factor that influences customer's satisfaction.

4.3. Summary of the major findings

The study established that most of the respondents disagreed with statements in frequency of the Anbessa public bus transport enterprise services, affordability of the bus as a means of transport, condition of the Anbassa us vehicles. With relation to the affordability of the bus, the findings of the study indicate that the public are still dissatisfied with the public transport services in Ethiopia. The analysis done on correlation indicates that reliability has the strongest relationship with the overall commuter satisfaction followed by frequency, affordability, security and comfort.

4.3.1. Discussion of the findings

In the first objective, the study sought to establish whether reliability influences customer satisfaction in the public transport sector. The findings confirm that majority (55%) of the respondents agreed that reliability influences customer satisfaction. Those who agreed to this statement mentioned that the travel time should be as short as possible without risking the lives of those commuting. A fixed travel schedule would help in commuters with assurance of reaching their destination in good time.

The findings give an indication that the commuters are not satisfied with the duration taken before delivery of services. These concur with the findings of Randheer Kokku et al. (2011) who state that commuters value more the delivery of services on timely basis. Bielen& Demoulin (2007) also pointed out that timely arrival of the bus at the waiting station also determines customer satisfaction. Friman (2004) believes that punctuality of service also affects the commuter's satisfaction on the quality of public transport service. Another indicator of a reliable public transport is that which gives information in case of delayed service.

In the second objective, the study sought to examine how the frequency of the Anbessa public bus transport enterprise services influence customer satisfaction. From the findings, majority (60%) of the respondents agreed that the frequency of Anbessa public bus transport enterprise services influence customer satisfaction. The supply of the vehicles is not enough to meet the increased demand from the growing population in Addis A baba. During the peak hours, the number of commuters is high whereas the number of vehicles is low. The respondents agreed that they would be more satisfied if the numbers would be able to meet the demand at peak hours.

The findings further imply that the commuters are not satisfied with the frequency of the bus services. These findings concur with the findings of Go vender (2014), who mentions that if services are available during peak times such as evening and off-peak times such as public

holidays and weekends, the commuters' view on service quality will be majorly influenced. Commuters are generally satisfied with Anbessa public bus transport enterprise E services that are available on weekdays, weekends, public holidays and if possible until late in the night. When there is increased frequency of transport services there will be increased commuter satisfaction and urban transport support (Taylor et al., 2008).

The third objective was geared towards evaluating the affordability of Anbessa public bus transport enterprise as a means of transport in influencing customer satisfaction. The findings indicate that majority (56%) of the respondents confirm that affordability influences customer satisfaction. Of those who agreed, they would like to have value for their money paid. The off peak and on peak rate should not have a huge difference yet the distance travelled is the same. The weather or increased number of passengers is not a justification to increased fare.

The findings also indicate that the customers are not satisfied with the fare charged. This concurs with the findings of Alan (1987) which states that travel expenditure is viewed as the most important factor to consider when choosing mode of transport by the commuters especially those having low income. Andreassen (1995) indicates that the ticket price, how high or low the price is and the outlook of the terminal are some the factors that influence customer satisfaction. Mosi (2010) also found ticket price as one of the major reasons why commuters are not satisfied, very few routes have standard fares. The fares vary depending on route, peak time and the weather.

The fourth objective looked at the safety in relation to customer satisfaction. All commuters would like not to feel safe on board and at the bus stops. Pick pocketing while boarding the bus or when in the bus, mugging at the bus route` and road carnages were some of the common security challenges mentioned that should be brought to zero for commuters to be satisfied with the public transport.

The findings confirm that the commuters are not satisfied with the safety standards in the bus industry. Many confirmed to having witnessed the police receiving bribes and drivers not observing the traffic rules and recklessly driving the bus vehicles even onto the pedestrian walk. This finding is in line with Raynor and Mirzoev (2014, p.344) who mention that, reckless driving and over speeding always lead to accidents which could have been prevented. Mungai et al. (2012) goes further to mention that drivers are paid depending on the number of passengers they have. Many drivers end up competing to carry as many passengers as possible, leading to constant rush for as many passengers as possible and carry as many as possible.

The fifth and final objective focused on examining how condition of the vehicle influence customer satisfaction. The findings indicate that majority (81%) of the respondents agree that the condition of the bus influences customer satisfaction. Most of the respondents confirmed that overcrowded vehicles, unpleasant behavior from fellow commuters, sexual harassment by the bus crew and playing loud music is annoying. Most of the commuters would like to enjoy their journey and be as comfortable as using their own private vehicle.

The findings also indicate that the commuters are not satisfied with the conditions of the bus vehicles which cause physical distress either physically, emotionally or socially. This finding is in line with Islam, R., Chowdhury, M. S., Sarker, M. S., & Ahmed, S. (2014); state that comfort is one of the factors that influence customer satisfaction. Commuters would want to have appropriate seats to sit on, clean bus as well as clean drivers and turn boys. Elobi & Mazzulla, (2009) researched on air passengers and realized that they not only value comfort ability but also cleanliness which also has an impact on their satisfaction level. Politics and government policies were also looked at as the moderating variables and indeed the findings as recorded in table 4.9 and 4.10 confirm that politics and government policies also influence customer satisfaction.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5. Introduction

The chapter provides the conclusions and recommendations of the study based on the objectives of the study. Descriptive and inferential statistics have been used to discuss the findings of the study.

5.1. Conclusion and Recommendations

5.1.1. Conclusion

Based on the study findings, it is concluded that a significant and a positive relationship exists between the reliability of Anbessa public bus transport enterprise & customer satisfaction, frequency of the Anbessa public bus transport enterprise services and customer satisfaction, affordability of the bus on customer satisfaction, safety & customer satisfaction based on the expectations and perceptions of respondents in the three routes in Addis Ababa Ethiopia the study also concluded that the factors affect customer satisfaction in the three routes in Addis Ababa. In order to enhance customer satisfaction, the reliability and frequency of the Anbessa public bus transport enterprise must come first. When there is increased frequency of transport services there will be increased commuter satisfaction and urban transport support. Frequency can only be ensured if there enough number of public transport vehicle to ferry people from one place to another. This also helps to enhance certainty and proper planning for the customers hence customer satisfaction.

Reliable transport will ensure longer travel time and minimized by creating lanes for public transport only and good motorcycle and bicycle lanes as well as pedestrian walks. Affordability on the other hand is that commuters want to get value for their money paid. If more customers are to be attracted to the public transport these three needs to be improved to maintain the existing commuters and to attract more. Friendliness of the personnel especially driver behavior in relation to service frequency has an impact on customer satisfaction.

The study recognizes that major investments have been made to address poor planning, inadequate transport infrastructures and chronic transport supply and demand mismatch and shortages.

However, it concludes that there is a need to improve mass transport network and the availability of an affordable public transportation system with special attention to low-income social categories and to distant areas or zones. The affordability of the public transportation will enhance mobility of public transportation users.

5.1.2. Recommendations

5.1.2.1. Recommendation for Policy Action

Based on the designed objectives, the light of the discussions and findings of the study, the following recommendations have been suggested for the policy action and future researchers:

- To make the Anbessa public bus transport service more reliable and convenient the city Authority should increase the frequency of the service and by reducing waiting time as well as overcrowding, increasing the number of buses is indispensable.
- To improve bus service frequency and reduce passenger waiting time, the Addis Ababa City Transport Authority in the provision of buses for intra-city transportation services to increase bus service frequency and reduce passenger waiting time and walking distance in the area, especially at the peripheries of the city, the introduction of dedicated bus lanes or Bus Rapid Transit (BRT), need to be established. This will encourage more people (including private vehicle owners) to use the bus transportation system concurrently reducing the number of private vehicles on the city roads.
- The number of vehicles in every route should be increased or the seating capacity be taken into consideration. Areas with high population should have more vehicles with high seating capacity plying those routes. This will avert the waiting period before next vehicle is boarded.
- To make the service more affordable and satisfy the requirements of customers the concerned body should be encouraged and implemented for all routes at different distances. And Bus operators should set fixed travelling schedule. This will help customers in planning their time well and to avoid delays.
- To increase the safety of Anbessa public bus transport and to enhance customer satisfaction the concerned bodies or the government should monitor the fare prices of Anbessa public bus transport enterprise operators in order to avoid exploitation of customers as well as exploitation of bus operators;
- To make the buses more comfortable for a long-term solution and to ensuring customer satisfaction should be established. This can be done by government coming up with proper policies pertaining drivers. They should be well trained and properly supervised in order to assure customers of their safety. Strict measures must be put in place for punishing both drivers and policemen who involve themselves in corruption and CCTV cameras should

be placed on all Anbessa public bus transport enterprise to put in check on board security. All commuters would like to feel safe on board and at the bus stops. Pick pocketing while boarding the bus and when on board, mugging at bus stations and road carnages are some of the safety challenges mentioned that should be brought to zero for commuters to be satisfied with the public transport. If the country is to have a sustainable public transport, all the attributes need to be improved by carrying out commuter's survey to get an indication of what should be improved on to maintain the current commuters and attract more from the private vehicles into the public transport.

- To enhance the condition of the Anbessa public bus transport, the physical facilities, equipment, and cleanness of buses and appearance of personnel, building depot, improve modern technology should be improved.

5.1.2.2. Suggestion for Further Studies

The following suggestions are proposed for further studies:

- Based on the findings, the study suggests that further studies should be conducted on the factors influencing customer satisfaction on other modes of public transport;
- This study was only limited to public transport sector and cannot be generalized for other sectors. It is suggested that further studies be done on customer satisfaction in other public transport;
- A study on the bus industry labor conditions to better understand the performance of the bus crew in provision of the services;

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Annex 1: Questionnaires

Part One: Introduction Letter

Tsegereda Tilahun

Cell phone: +251913081054

April /2024

Dear Respondent,

Data collection for academic research

I am conducting academic research on the topic below: Assessment of Factors Influencing Customer Satisfaction in Anbassa Transport: The Case of Three Routes in Addis Ababa. A series of questions have been prepared to be answered by you. The questionnaire is aimed at collecting data for research purpose which is for partial fulfillment of the requirements for the award of the degree of Master in College of Technology and Built Environment (CTBE). I assure you that whatever information is obtained, will be used for academic purposes only and will be treated as confidential information. I will be extremely grateful for your kind cooperation.

Yours Sincerely,

Tsegereda Tilahun

Cell phone: +251913081054

Part Two: Questionnaires

This study is meant to analyze customer satisfaction in the use of public transport, your answer will be relevant to the findings of this study. I wish to find out your views on frequency, comfort, affordability and safety of public transport.

Section A: Background Information

- Gender:
Male ☐ Female ☐
- Age:
☐ Less than 20 Years ☐ 21 –25Years ☐ 26 – 35Years ☐ 36 – 45Years ☐
Over 45Years
- What is your level of education?
Diploma ☐ Bachelor's Degree ☐ Master's Degree ☐ Post-graduate Diploma ☐
- How often per week do you use the transport?
Daily ☐ occasionally ☐ Once Rarely ☐ Weekends only ☐
- In the list below tick were appropriately the common reasons for your travelling.
Work ☐ Shopping ☐ School ☐ Leisure ☐ Other reasons. ☐
- During the peak hours, what would be the average inter arrival rate of these bus?
0-30minutes ☐ 30-60minutes ☐ Above 60 minutes ☐

Section B: Questionaries on the effect of moderating variables on independent variable

Objective 1: Determining how reliability of the bus transport influences customer satisfaction in Addis Ababa

No.	Reliability Indicators	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	There is reliability of the vehicle itself					
2.	Availability of sufficient numbers of buses					
3.	The service right at the time they promise to do so.					
4.	Scheduled departure and arrival times by operating at the appropriate frequency					
5.	Information on the route and schedule of the bus in available to the passengers					

Objective 2: Assessing how the frequency of the Anbassa transport services influence customer satisfaction in of Addis Ababa

No.	Frequency Indicators	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	Total hours of service is sufficient					
2.	Availability of service on weekends is commendable					
3.	Sufficient service during public holidays and festive seasons					
4.	Enough services in the evenings					
5.	Effective services on working days					
6.	Customers are satisfied with queuing time					

Objective 3: Evaluating the affordability of the bus as a means of transport in influencing customer satisfaction in the study area

	Affordability indicators	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	You are satisfied with the fare at off peak hours					
2.	You are satisfied with the fare at peak hours					
3.	Passengers at the stops make it easier					
4.	The fare charged commensurate with Distance					

Objective 4: Examining the safety of transport industry in relation to customer satisfaction in Addis Ababa

	Safety Indicators	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Convenience of the bus for everybody					
2.	Have witnessed road accidents happened ever by bus					
3.	Are you satisfied by the bus operating speed					
4.	Service quality by drops the passengers at their destination					
5	Poor vehicle conditions					
6	Poor driving standards					

Objective 5: Determining how the condition of the bus vehicle influences customer satisfaction in Addis Ababa

No.	Condition of bus Indicators	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	Good seats with available space to move easily					
2.	good heating and ventilation systems					
3.	high proportion of seated to standing passengers					
4.	low step heights					
5	good maintenance standards					
6	low level of crowding					

Section C: Questionaries on the effect of moderating variables on independent variable

1. a) Do you think politics has a role to play in the provision of public transport services?

- ☐ Yes
☐ No

☐ b) If yes, what is the nature of the role played?

- ☐ Positive
☐ Negative

Explain you answer in (b) above

.....
.....

2 a) Does the government policy influence the services offered by the public transport sector?

☐ Yes

☐ No

☐

b) If yes, what is the nature of the influence?

☐ Positive

☐ Negative

☐ Please explain your answer in (b) above

.....

.....

Annex 2: Amharic Questionnaires

አዲስ አበባ የንብርሶች

የኢትዮጵያ አርኪቶክቸር፣ ህንፃ ግንባታ እና ከተማ ልማት ተቋም

ስም ፅጌረዳ ጥላሁን

ስልክ: +251913081054

ሚያዝያ/2016 ዓ/ም

ውድ የአንበሳ ፐብሊክ አወቅብስ እንተርፕራይዝ ተጠቃሚ

ይህ መጠየቅ ለሁለተኛ ድግሪ መመረቅያ ፅሁፍ ግብአት መረጃ መሰብሰብያ ነው።

ውድ የአንበሳ ፐብሊክ አወቅብስ ተጠቃሚዎች በቅድሚያ ይህን መጠየቅ ለመሙላት ስለተባበሩኝ ከልብ አመሰግናለሁኝ። መጠይቁ የተዘጋጀው አንበሳ ፐብሊክ አወቅብስ እንተርፕራይዝ አገልግልት ተጠቃሚዎች ዙሪያ የደንበኞችን የእርካታ ደረጃ ለማጥናት ታስቦ የተዘጋጀ ሲሆን የዚህ ጥናት አጥኚ ለማንም ያልወገነና የማይወግን ግለ ሰው ነው። የጥናቱ ውጤትም ዋና አላማ ለሁለተኛ ድግሪ ትምህርት ማሟያና የጥናቱ ግኝቶችን መሰረት አድርጎ ለድርጅቱ እድገት አስፈላጊ የሆኑ ጠንካራ ጎኖቹን ለማጥፋትና ክፍተቶች ከተገኙም የመፍትሄ ሐሳቦችን ለማመላት ነው። ስለዚህ በዚህ መጠይቅ ከእናንተ የሚሰጠው ትክክለኛ ምላሽ ትልቅ ዋጋ አለው። ምላሻችሁ ምንም ይሁን ምን ምስጢራዊነቱ የተጠበቀና ለሦስተኛ ወገን ተላልፎ እንደማይሰጥ ላረጋግጥላቸው እፈልጋለሁ።

ለትብብራችሁ ድጋሜ ከልብ አመሰግናለሁ!

ፅጌረዳ ጥላሁን

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መመሪያዎች

ክፍል አንድ፡ የግለ ሰባዊ የመረጃ ጥያቄዎች ከተዘረዘሩት ጥያቄዎች በጥያቄው ትይዩ የተቀመጠውን “x” ወይም “✓” ምልክት ያድርጉ

ክፍል ሀ፡ የተጠቃሚ ግላዊ መረጃ

- **ፆታ፡**

ወንድ [] ሴት []

- **አድሜ፡**

ከ20 አመት በታች [] ከ21 —25 አመት [] 26 — 35 አመት [] 36
— 45 አመት [] ከ45 አመት በላይ []

- **የትምህርት ደረጃ?**

ዲፕሎማና ከዛ በታች [] የመጀመርያ ድግሪ [] ማስትሬት ድግሪ [] የዶክትሬት
ድግሪና ከዛ በላይ []

- **በሳምንት አንበሳ ፐብሊክ አውቶብስ ትራንስፖርት ለምን ያህል ቀናት ይጠቀማሉ?**

በተቀኑ [] አልፎ አልፎ [] አንድ ቀን []

የሳምንት መጨረሻ እረፍት ቀናት []

- **የአንበሳ ፐብሊክ አውቶብስ ትራንስፖርት ለምን አገልግሎት ይጠቀሙታል?**

ለስራ [] ለገበያ (ግብይት) [] ለትምህርት ቤት [] ለእረፍት
መዝናኛ [] ሌላ []

- **አንበሳ ፐብሊክ አውቶብስ ትራንስፖርት አገልግሎት ሲጠቀሙ በአመካይ ለምን ያህል ሰዓታት ይጓዛሉ?**

ከ0-30 ደቂቃ [] ከ30-60 ደቂቃ [] ከ60 ደቂቃ በላይ []

ክፍል ሁለት: ተጠቃሚዎች የአንበሳ ፕብሊክ አውቶብስ ትራንስፖርት አገልግሎት ሲጠቀሙ የሚያገኙት የእርካታ ደረጃና በጥናቱ አላማ መሰረት የሚመለሱት ይሆናል። ቀጥለው በተዘረዘሩት ጥያቄዎች ትክክለኛ ነው የምትሉትን ምላሽ ከ1-5 ከተዘረዘሩት አማራጮች ይምርጡ።

5. በጣም እስማማለሁ 4. እስማማለሁ 3. መረጃው የለኝም 2. አልስማማም 1. በጣም አልስማማም የሚስማሙበት መልስ ላይ ይህን"(x) ወይም ይህን $\sqrt{}$ ምልክት ያስቀምጡ።
አላማ 1: የአንበሳ ፕብሊክ አውቶብስ እንተርፕራይዝ ትራንስፖርት አገልግሎት አስተማማኝነት በተጠቃሚዎች ያለው የእርካታ ደረጃ ተፅእኖ መገምገም

ቁጥር	የአስተማማኝነት መግለጫዎች	1	2	3	4	5
1.	አውቶብሱ ለደንበኞቹ አስተማማኝ ነው ብለው ያስባሉ።					
2.	የአውቶብሶቹ ብዛት አቅርቦት በቂ ነው።					
3.	አውቶብሶቹ በተቀመጠላቸውን የጊዜ ፕሮግራም መሰረት ምንም ሳያዛንፉ አክብረው ይሰራሉ።					
4.	አውቶብሱ የሚሄድበትን መስመርና በተቀመጠለት የጉዞ ሰአት ሰሌዳ አገልግሎት ይሰጣል።					
5.	አውቶብሱ በሚሄድበትን መስመርና የጉዞ ፕሮግራም ለተሳፋሪዎች ተደራሽ ነው።					

አላማ 2: የአንበሳ ፕብሊክ አውቶብስ የሚሄድበትን መስመርና የጉዞ ፕሮግራም ድግግሞሽ በተጠቃሚዎች እርካታ ያለው ተፅእኖ ለመገምገም

ቁጥር	አውቶብሱ የሚሄድበትን መስመርና የጉዞ ፕሮግራም ድግግሞሽ መግለጫዎች	1	2	3	4	5
1.	አውቶብሶቹ የሚሰጡት አጠቃላይ ሰአት በቂ ነው።					

2.	አንበሳ አውቶብስ በቅዳሜና እሁድ አገልግሎት መስጠቱ የሚያስመሰግን ነው።					
3.	በህዝባዊ በአላትና በጾም ወቅት አንበሳ አውቶብስ በቂ አገልግሎት ይሰጣል።					
4.	የአንበሳ አውቶብስ በማታ በቂ አገልግሎት ይሰጣል።					
5.	የአንበሳ አውቶብስ በሥራ ቀናት ውስጥ ውጤታማ አገልግሎቶች ይሰጣል።					
6.	አውቶብሱ አገልግሎት በሚሰጥበት ጊዜ ደንበኞች ወረፋ ጠብቀው የሚያገኙት አገልግሎት ረክተዋል።					

አላማ 3: የአንበሳ ፐብሊክ አውቶብስ እንተርፕራይዝ ትራንስፖርት ተመጣጣኝነት ለትራንስፖርት ከመጠቀም አንፃር በተሰፋሪዎቹን እርካታ ያለውን ተፅእኖ ለመገምገም

ቁጥር	የአውቶብሱ ተመጣጣኝነት መገለጫዎች	1	2	3	4	5
1.	You are satisfied with the fare at off peak hours በትርፍ ሰዓት ላይ በታሪፍ ረክተዋል።					
2.	በስራ ሰአት በተቀመጠው የክፍያ ታሪፍ ረክተዋል					
3.	ተሳፋሪዎች በየፌርማታው በቀላሉና በስርአት ይቆማሉ					
4.	የታሪፍ ክፍያ ከርቀት ጋር ተመጣጣኝ ነው።					

አላማ 4: የአንበሳ ፐብሊክ አውቶብስ እንተርፕራይዝ የሚሰጠውን የትራንስፖርት አንፃር የትራንስፖርት እንዲስትሪ ደህንነት ከሰፋሪዎቹን እርካታን መመርመር

ቁጥር	የአውቶብሱ ምችት መገለጫዎች	1	2	3	4	5
1.	አንበሳ አውቶብስ ለሁሉም ሰው ያለው ምችት					

2.	በአንበሳ አውቶቡስ ስንዝ የመንገድ አደጋዎች ሲከሰቱ አይቻለሁ					
3.	በአንበሳ አውቶብስ በስራ ሰዓት በሚኖረው ፍጥነት ረክቻለሁ					
4.	ተገልጋዮች በመውረጃ ፊርማታ በሚወረዱበት ሰዓት ያለው የአገልገሎት አሰጣጥ ጥራት					
5.	የአንበሳ አውቶቡስ ያለቸው ደካማ ሁኔታ					
6.	የአውቶቡሱ ሹፌሮች ደካማ የመንዳት ደረጃዎች					

አላማ 5: የአንበሳ ፐብሊክ አውቶብስ እንተርፕራይዝ አውቶቦች ወቅታዊ ሁኔታ በተሳተፉበት ስርዓት ያለውን ተፅእኖ ለመገምገም

ቁጥር	የአንበሳ አውቶቦች ወቅታዊ ሁኔታ መገለጫዎች	1	2	3	4	5
1.	የአውቶቦቶቹ ውስጣዊ ጸዳትና መቀመጫ ወንበሮች ጥሩና ለመነቀሳቀስ ምቹ ናቸው።					
2.	አውቶቦቶቹ ጥሩ የአየር ማሞቂያና ማቀሻቀሻ ስርዓት አላቸው።					
3.	አውቶቦቶቹ ለተሳተፉበት ከፍተኛ የሚሆን መቀመጫና ተመጣጣኝ መንቀሳቀሻ ቦታ አላቸው።					
4.	በአውቶቡስ ዝቅተኛ ደረጃ ከፍታዎች ረክተዋል?					
5.	በጉዞ ላይ ለሚያጋጥም ችግር በስምሪት ሰራተኞች ወይም የአውቶቡስ ሹፌሮች ጥሩና ፈጣን መፍትሔ ይሰጣሉ።					
6.	የስምሪት ሰራተኞች ወይም የአውቶቡስ ሹፌሮች ተሳተፉበት ሳይጨናነቁ ጥሩ አገልገሎት ይሰጣሉ።					

ክፍል ሶስት: QUESTIONS ON THE EFFECT OF MODERATING VARIABLES ON DEPENDENT VARIABLE

1. ሀ) የሀገሪቱ የፖለቲካ ሁኔታ የአንበሳ ፐብሊክ አውቶብስ እንተርፕራይዝ ትራንስፖርት የሚሰጠው የትራንስፖርት አገልገሎት ጫና ያሳድራል ብለው ያስባሉ?

አዎ ☐

አይደለም ☐

ለ) መልስዎ አወ ከሆነ፤ የሚያሳድረው የተፅእኖ ሁኔታ ምንድ ነው

አወንታ ☐

አሉታ ☐

ሐ) በ (ለ) ያስቀመጡትን መልስ በግልፅ ያብራሩ

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2. ሀ) የመንግስት ፖሊሲ በአንበሳ ፐብሊክ አውቶብስ እንተርፕራይዝ ትራንስፖርት + አገልግሎት ዘርፍ ጫና ያሳድራል ብለው ያስባሉ?

አዎ ☐

አይደለም ☐

ለ) መልስዎ አወ ከሆነ፤ የሚያሳድረው የተፅእኖ ሁኔታ ምንድ ነው

አወንታ ☐

አሉታ ☐

ሐ) በ (ለ) ያስቀመጡትን መልስ በግልፅ ያብራሩ

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አመሰግናለሁ

Annex 3: Publishable Article

ASSESSMENT OF FACTORS INFLUENCING CUSTOMER SATISFACTION IN ANBASSA TRANSPORT: A CASE OF THREE ROUTES IN ADDIS ABABA.

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Abstract

This study was conducted with the main objective of assessment of factors influencing customer satisfaction in Anbessa public bus transport enterprise: by taking example on three routes in Addis Ababa. In order to address the stated objective, the researcher applied mixed research approach. And also, the researcher used descriptive research design. The main data collection instruments were both primary and secondary sources. The researcher was taken 91 of the 102 people from the 17 sample vehicles traveled through three routes (number 03, 51 &90) for data collection and some respondents through purposive sampling methods for interview. Based on the study findings, it is concluded that a significant and a positive relationship exists between the bus reliability, frequency, affordability, safety and customer satisfaction in the three routes. In the study area, the customers Anbessa public transport was not satisfied as they expected with the bus reliability, frequency, affordability, safety and the buses condition. This means customers perceived that service delivery of Anbessa bus transport did not meet their expectations. Finally, to make the Anbessa public bus transport service more reliable, improve bus service frequency city, increase the safety and to enhance its customer satisfaction, the researcher recommended that the city transport authority should increase the frequency of the vehicles, introduce of dedicated bus lanes, increased seating capacity, to make the service more affordable and satisfy the authority should be implemented for all routes at different distances, the government should monitor the fare prices of Anbessa public bus, enhance the condition of the Anbessa public bus transport.

Keywords: Anbassa bus, Customer satisfaction, Public Transport, Reliability, Affordability, Frequency, Safety.

1. Introduction

Transport plays a vital role in the development of the modern era as an integral part of the socioeconomic and political structure of the country (Kumar, 2014). Transportation industry is a public utility that it is an industry vital to the overall public interest. (Deneke, 2016). Usually, line frequencies (trips per hour) are determined before determining the timetable (departure time for each planned trip) (Rojas, et al, 2019). And it can be seen also in the study of Sivakumaran et al, 2019). The set of frequencies of the network lines affect the level of synchronization that can be achieved. Thus, it seems reasonable to optimize timetables & frequencies simultaneously (Rojas, et al, 2019).

Synchronization can not only be improved by adjusting line frequency and timetable. We can also plan some holding time for certain buses at specific stops (Rojas, et al, 2019). Holding has been proposed as a real-time decision to improve successful transfers. For example, the studies of (Delgado et al. 2019, and Hall et al.) The way transportation influences the healthiness and vitality of national economy, developing the infrastructure of transportation and improving its service provision require dues attention from the government and the society large (Mekuria, 2012).

In order to satisfy this ever-increasing demand of transport, several measures were taken by the Governments of countries in Africa (Trans-Africa, 2008). The Government of Ethiopia has been allocating huge resource to expand road transport infrastructure and to improve the capacity of transport service delivery. In the past fifteen years, the Government of Ethiopia has been vigorously engaged in new road construction as well as expansion of the existing road network through Ethiopia's Road Sector Development Programs (RSDP) (Program, 2009). In 2011, the GOE embarked upon RSDP Phase IV, the largest program undertaken in the sector. RSDP-IV is considered a strategic pillar of Growth and Transformation Plan (GTP), which achieved the road network to grow from 49,000 kilometers (30,447miles) to 113,066 kilometers (70,256 miles) over a five-year period. In general, the Government of Ethiopia has invested 142 billion Birr (\$7.1 billion) on road construction projects over the past 16 years. In 2015/16 fiscal year, the Government of Ethiopia (GOE) invested 47.5 billion Birr (\$2.11 billion) in road construction (Program, 2009).

The Government of Ethiopia yarms to expand the road transportation sector as major issues for the achievement of the Growth and Transformation Plan (Both I and II). During GTP I, all weather condition road increased from 70,000 Km in 2009/10 to 101,983 Km by 2014/15(Federal Democratic Republic of Ethiopia Growth and Transformation Plan Report (Development, 2015). During the GTP II period, which covers 2015/16 to 2019/20, the GOE anticipates a further expansion of the country's road network to 220,000 kilometers (136,701 miles) (Commission, 2016)

For many years, public transport has been viewed as an inevitable need in several parts of the world (Cervero & Golub, 2007). Illes (2005) stated that immobility leads to poverty. This implies that movement of people and goods affects the daily endeavors of human beings particularly in the economic aspect. A good transport system cannot be attained if there are no effective and efficient services that enhances people's living standards and gives them satisfaction through features such as affordability, efficiency, availability and economically important for development.

The department for Transport, UK (2003) considers adequate public transport service to be financially accessible, available, physically accessible and acceptable. The provision of sustainable public transport is a challenging task for the Sub-Saharan Africa, where success in transport and traffic planning in the post-independence era has been negligible and urban population is growing at a rapid rate than in any other continent (Kanyama, 2009). Weakened public transportation services are caused by the increased urbanization, increased operational costs, poor infrastructure and poor institutions (Beirao & Cabral, 2007).

Transportation in general, among other modes, and road transport in particular is the backbone for economic growth and development. This study was therefore sought to unveil the factors that influence customer satisfaction in public transport in three routes. The result of the study would benefit future researchers, officials working on transportation sector and policy makers to understand the factors and its effect on customer satisfaction in public transportation of the country in general and the study area in particular.

2. Method of Data Collection and Analysis

2.1. Study Area

The study is conducted in Addis Ababa city administration's at Anbessa public bus enterprise transport particularly in three routes in Addis Ababa.

The selected three routes were geographically passes through the sub cities Addis Ketema, Arada, Lideta, Nifas Silk, and Kolfe Keranyo. The buses road routes were clearly showed in the below figure map below.

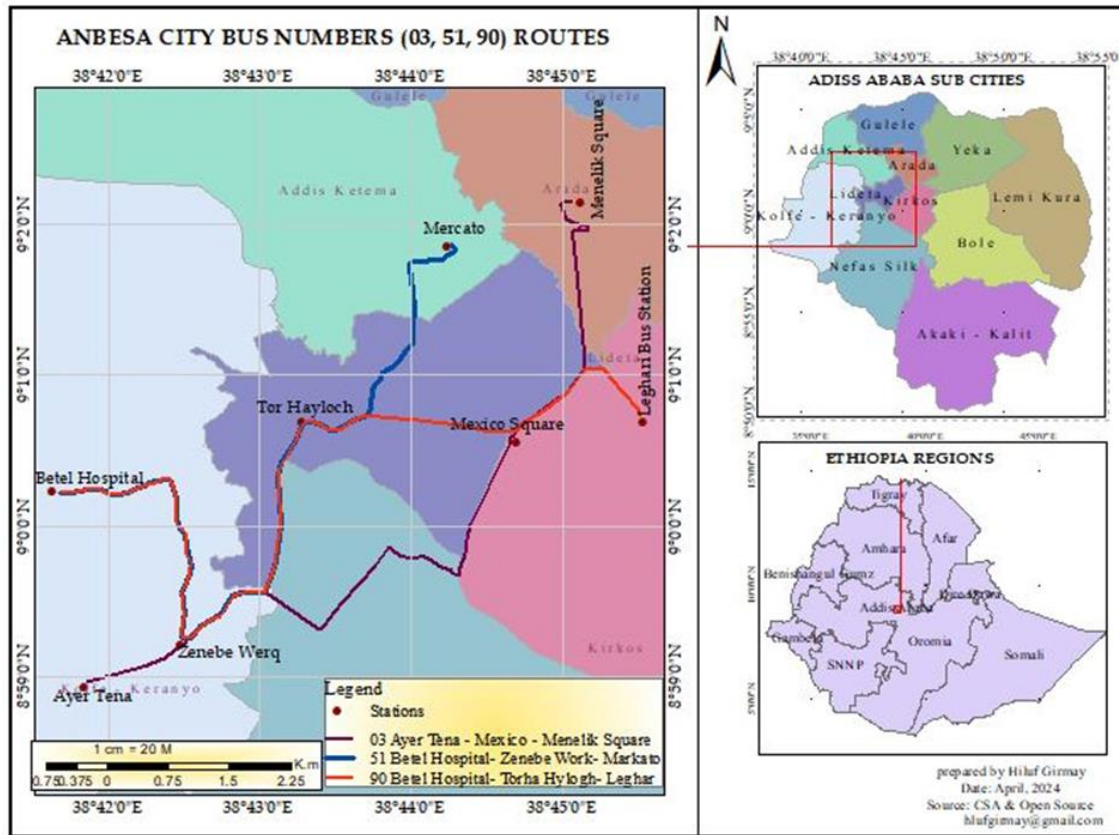


Figure 1: location of study area

2.2. Method of data collection and Analysis

In order to address the stated objective, the researcher applied mixed research approach. And also, the researcher used descriptive research design. The main data collection instruments were both primary and secondary sources. The researcher was taken 91 of the 102 people from the 17 sample vehicles traveled through three routes (number 03, 51 & 90) for data collection and some respondents through purposive sampling methods for interview. Data was analyzed using descriptive and regression analysis and then organizes, tabulates, depicts, and describes the data collection. This study used Yamane's formula in determining the sample size as outline by

$$\text{Yamane (1967): } n = \frac{N}{1+N(e)^2}$$

Where: - n= they require Samples size, N= Total population of House Hold heads e = Expectation of error = 0.05 i.e., 95% confidence level N= 137 e = 5% N =137

Therefore, the study used 102 sample units. The 17 vehicles were distributed using proportional allocation and summarized in Table below

Table 1: Target Population and Sample Sizes for the three stations

Routes	Study Population
Bethel-Leghari (No 90)	4
Ayer Tena-Piyassa (No 03)	8
Bethel-Merkato (No 51)	5
Total	17

3. Result and Discussion

The study was conducted on assessment factors influencing customer satisfaction in Anbassa public bus transport in case of three routes in Addis Ababa. Findings of the respondent's satisfaction on reliability, frequency, affordability, safety and customer satisfaction in the three routes were presented in as follows:

3.1. Reliability of the Anbassa bus Transport Services and Customer Satisfaction

Table 2: reliability of the Anbassa bus Transport Services and Customer Satisfaction

Key: (SD-strongly disagree, D-disagree, N-neutral, SA- strongly agree)

	Status	%	Availability of sufficient numbers of buses	SA	
The reliability of the vehicle it self	SA	15		A	12
	A	40		N	9
	N	7.7		D	60
	D	34		SD	19
	SD	3.3			
When a customer has a problem, they show a sincere interest in solving it.	SA		The service right at the time they promise to do so.	SA	3
	A	30		A	30
	N	12		N	
	D	46		D	35
	SD	12		SD	32
			Scheduled departure	SA	

and arrival times by operating at the appropriate frequency	A	10
	N	23
	D	65
	SD	2
Information on the	SA	5

route and schedule of the bus in available to the passengers	A	43
	N	10
	D	23
	SD	19

Based on the above table, 15% and 40% of respondents agree and strongly agree respectively on the reliability of the vehicle itself and similarly 37% disagree. This implies that vehicle's reliability is one component of reliability under service quality and this concord with customer satisfaction.

With regard to <When a customer has a problem, they show a sincere interest in solving it> 58% of respondents totally disagree. This means, based on the respondents, bus owners (drivers) are not volunteer to solve a problem related to customer's problem within the bus. And this results in low customer satisfaction. On the contrary 30% of respondents agree on the kindness of drivers to solve any customer's problem within bus while they are in travel. But 11% respondents are in neutral position. They are neither agreeing nor disagree.

In addition, the above table also shows 79% of respondents disagree about availability of sufficient numbers of buses. The numbers of buses are not balanced with total number of passengers and this result with low customer satisfaction in the study area even though 12% agree with the situation. 67% respondents disagree regarding to the service right at the time they promise to do so though 12% respondents agree. As the service right at the time they promise to do so is not appropriately handle on time it causes to low customer satisfaction. It has direct relationship.

In relation to the scheduled departure and arrival times by operating at the appropriate frequency, 67% respondents disagree irrespective of 10% agreement on the issue. It directly relates with the customer's satisfaction.

With regard to the information on the route and schedule of the bus in available to the passengers, the above table indicates that 48% respondents agree and 42% respondents disagree with 10% neutral position.

So, this situation has got a positive response by the respondents and has an affirmative effect in the customer's satisfaction. Availability of information enables passengers to identify the vehicle on a particular service to a particular direction. Accurate and up-to-date information increases

passengers' satisfaction and it may also persuade additional passengers to use the service (Iles, 2005).

3.2. Frequency of the Anbassa bus Transport Services and Customer Satisfaction

Frequency of the Anbassa bus determine whether the frequency of the bus transport services influence customer satisfaction in the three routes of the study area.

Table 3: Frequency of the Anbassa bus Transport Services and Customer Satisfaction

Statement	SD	D	N	A	SA
	%	%	%	%	%
Total hours of service are sufficient	48	40	4	0	8
Availability of service on weekends is commendable	52	36	0	12	0
Sufficient service during public holidays and festive seasons	60	40	0	0	0
Enough services in the evenings	38	56	4	0	2
Effective services on working days	40	60	0	0	0
Customers are satisfied with queuing time	24	44	0	24	8

Source: computed by the researcher

Key: (SD-strongly disagree, D-disagree, N-neutral, SA- strongly agree)

Table 4 shows that majority (48.0%) of the respondents strongly disagreed to the statement that total hours of service is sufficient, 40.0% disagreed, 8.0% were neutral and 4.0% strongly agreed. Majority (52.0%) strongly disagreed with the statement that availability of service on Weekends is commendable, 36.0% disagreed and 12.0% agreed. Majority (60.0%) strongly disagreed that sufficient service during public holidays and festive seasons, 40.0% disagreed Majority (56.0%) disagreed that there are enough services in the evenings, 4% were neutral, 2% strongly disagreed.

Majority (60.0%) of the respondents strongly disagreed that there are effective services on working days, 40.0% disagreed. Majority (44.0%) disagreed that customers are satisfied with queuing time, 24.0% strongly disagreed, 24% agreed and 8% strongly agreed.

3.3. Affordability of the Anbassa bus and Customer Satisfaction

The study sought to establish the affordability of the Anbassa bus as a means of transport in influencing customer satisfaction in the three routes in Addis Ababa Ethiopia.

Table 4: Influence of Affordability of the bus on Customer Satisfaction

Statements	SD	D	N	A	SA
	%	%	%	%	%
You are satisfied with the fare at off peak hours.	0	4	0	32	64
You are satisfied with the fare at peak hours.	28	52	0	0	20
Passengers at the stops make it easier for bus to hike fare.	0	4	12	36	48
The fare charged commensurate with distance.	56	36	0	8	0

Source: computed by the researcher

Key: (SD-strongly disagree, D-disagree, N-neutral, SA- strongly agree)

Table 4, shows that majority (64.0%) of the respondents strongly agreed that they are satisfied with the fare at off peak hours, 32.0% agreed, 4.0% disagreed. Majority (52.0%) of the respondents disagreed that they are satisfied with the fare at peak hours, 28.0% strongly disagreed and 20.0% strongly agreed. Majority (48.0%) of the respondents strongly agreed that passengers at the stops make it easier for Anbassa bus to hike fare, 36.0% agreed, 12.0% were neutral and 4.0% disagreed. Majority (56.0%) strongly disagreed that the fare charged commensurate with distance, 36.0% disagreed, 8.0% agreed.

3.4.Safety and Customer Satisfaction

User safety and comfort are priorities in routine public transport operation. According to Anderson et al., 2013, the service excellence and client satisfaction since it affects customer satisfaction, commuter preferences, passenger demand, investment choices, and revenue, service quality is becoming increasingly important for all enterprises, including public transportation organizations. The respondents expressed that the level of comfort, safety and skill of drivers are important in determining user preference for the Anbessa public bus transport enterprise service. The respondents (customers) satisfaction was assessed based on convenience of the bus for everybody, road accidents, vehicle operating speed, service quality, poor vehicle conditions and poor driving standards of Anbessa public bus enterprise. Therefore, the respondent's safety's satisfaction was presented in the below table 4.6.

Table 4. 6: Safety & customer satisfaction

Key: (SD-strongly disagree, D-disagree, N-neutral, SA- strongly agree)

	Status	Percent
Convenience of the bus for everybody	SA	13
	A	32
	N	
	D	45
	SD	10
Road accidents	SA	15
	A	13
	N	8
	D	56
	SD	8
Vehicle operating speed	SA	4
	A	62
	N	11
	D	23
	SD	-
Service quality	SA	2
	A	13
	N	1
	D	75
	SD	9
Poor vehicle conditions	SA	2
	A	78

	N	-
	D	12
	SD	8
Poor driving standards	SA	19
	A	51
	N	10
	D	21
	SD	-

Source: Own survey, 2024

Based on the above table 4.6, 55% of respondents disagree on the convenience of the bus for everybody and this result for low customer satisfaction in the study area. 45% respondents agree with the convenience of the bus for every passenger in the study area. So, the customer satisfaction is low.

With regard to road accidents majority 64% of respondents totally disagree. This means based on the respondent's response, bus owners (drivers) carefully drive their buses in order to minimize road accidents. And hence there is low road accident with high customer satisfaction since it is safety. But 28% of respondents agree with the situation.

66% of respondents respond by agreeing that vehicle operating speed is normal in the study area and as a result there is good customer satisfaction. 23% of respondents disagree whereas 11% of respondents have no stand.

Actual speed achieved is influenced by vehicle and alignment speed, as well as by stopping at passenger stops and general traffic conditions. Operating speed is the average speed of bus travel along bus route with some spacing. It is the speed of travel offered to the public. Armstrong-Wright et al. (1987) recommends public bus systems should operate with a minimum of 10 to 12 kph operating speed for dense areas with mixed And hence there is low customer satisfaction.

traffic. The average operating speed is 20.28km/hr 4.7km/hr, which shows the minimum average operating speed of Anbessa exceeds the range. This suggests the operating speed of Anbessa is good enough. According to Service quality the above table 4.6, shows 84% respondents disagree on service quality of buses in the study area whereas 15% respondents agree.

Based on the above table in relation Poor vehicle conditions to 80% of respondents agreeing on poor vehicle conditions in the study area whereas 20% disagree. With regard of Poor driving standards also, the majority 70% respondents agreeing whereas 21% respondents disagree on the issue of poor driving standards. And this causes to low customer satisfaction.

Therefore, from the above table we can concluded that the level of comfort, safety and skill of drivers in the study area are important in determining user preference for the Anbessa public bus transport enterprise service. And agrees to the study by Anderson et al., (2013), Dragu et al. (2013) Berry et al., (1985) and Oliver (1993) were recognized the safety of Anbessa public bus transport were main factor that influences customer satisfaction.

3.5.Condition of the Vehicles and Customer Satisfaction

Comfort is one of the factors that influence customer satisfaction. This can only be achieving when the condition of the vehicle is as per the travelers' expectation. Travelers will want to have comfortable seats to sit on, clean vehicles as well as clean drivers. The condition of the Anbessa bus mainly their seats with available space to move easily, heating and ventilation systems, high proportion of seated to standing passengers, low step heights good maintenance standards and low level of crowding can play vital role in influencing the customers satisfaction in the study area. based on the above listed the bus condition, table 4.9, shows the customer satisfaction.

Table 4.7: Condition of vehicles & customer satisfaction

Key: (SD-strongly disagree, D-disagree, N-neutral, SA- strongly agree)

Indicators	SA	Percent
Good seats with available space to move easily	A	
	N	34
	D	
	SD	51
	SA	15
good heating and ventilation systems	SA	-
	A	30
	N	11
	D	47
	SD	12
high proportion of seated to standing passengers	SA	7
	A	9
	N	-
	D	67
	SD	17
low step heights	SA	24
	A	41
	N	-
	D	33

	SD	2
good maintenance standards	SA	2
	A	10
	N	23
	D	65
	SD	-
low level of crowding	SA	12
	A	14
	N	
	D	74
	SD	-

Source: Own survey, 2024

Based on the above table, 66% of respondents disagree on the good seats with available space to move easily and contrary 34% agree. This implies that vehicle's availability of space to move easily is not as people expect it. The seats are crowded and are not as comfortable in addition to their hardship for movement.

With regard to vehicles' good heating and ventilation systems 59% of respondents totally disagree. This means, based on the respondents, the vehicles are not qualified for transport and it is a cause for various transferable diseases. And this results in low customer satisfaction. On the contrary 30% of respondents agree on the vehicles' good heating and ventilation systems even though 11% respondents are in neutral position. They are neither agreeing nor disagree.

In relation to vehicles' high proportion of seated to standing passengers, 84% of respondents disagree while 16% agree. This implies that number of passengers exceed as compare to their proportional seat. And this forms crowdedness and discomfort among the clients of the service. And hence this results in low customer satisfaction. 65% of respondents disagree on good maintenance standards of vehicles while 12% agree with 23% in neutral position. Even though this indicator is among the qualified one but based on the respondent's response the vehicles have not good maintenance standards and this causes for wastage of resources this impose for low customer satisfaction. According to the respondents on the table above, 74% disagree on the low level of crowding while 26% agree. There is strong crowding and hence there is low level of customer satisfaction.

4. Conclusion and Recommendations

4.1. Conclusion

Based on the study findings, it is concluded that there was significant and a positive relationship exists between the discussed factors and customer satisfaction in the three routes in study area. In order to enhance customer satisfaction, the reliability and frequency of the Anbassa bus must come first. When there is increasing frequency of transport services there will be increased commuter satisfaction and urban transport support and helps to enhance certainty and proper planning for the customers hence customer satisfaction.

Reliable transport will ensure longer travel time and minimized by creating lanes for public transport only and good motorcycle and bicycle lanes as well as pedestrian walks. Affordability on the other hand is that commuters want to get value for their money paid.

Addis Ababa is facing challenges due to rapid urbanization, lack of enough public transportation buses and inefficient public transport services. The study suggests that these challenges must be addressed to improve costumers' satisfaction. And also recognizes that major investments have been made to address poor planning, inadequate transport infrastructures and chronic transport supply and demand mismatch and shortages.

However, it concludes that there is a need to improve mass transport network and the availability of an affordable public transportation system with special attention to low-income social categories and to distant areas or zones.

4.2. Recommendations

Based on the study's findings, the researcher made the following recommendations;

- ✚ To make the Anbessa public bus transport service more reliable and convenient the city Authority should increase the frequency of the service and by reducing waiting time as well as overcrowding, increasing the number of buses is indispensable.
- ✚ To improve bus service frequency and reduce passenger waiting time, the Addis Ababa City Transport Authority in the provision of buses for intra-city transportation services to increase bus service frequency and reduce passenger waiting time and walking distance in the area, especially at the peripheries of the city, the introduction of dedicated bus lanes or Bus Rapid Transit (BRT), need to be established. This will encourage more people (including private vehicle owners) to use the bus transportation system concurrently reducing the number of private vehicles on the city roads.
- ✚ The number of vehicles in every route should be increased or the seating capacity be taken into consideration. Areas with high population should have more vehicles with high seating capacity plying those routes. This will avert the waiting period before next vehicle is boarded.
- ✚ To make the service more affordable and satisfy the requirements of customers the concerned body should be encouraged and implemented for all routes at different distances.
- ✚ To increase the safety of Anbessa public bus transport and to enhance customer satisfaction the concerned bodies or the government should monitor the fare prices of Anbessa public bus transport enterprise operators in order to avoid exploitation of customers as well as exploitation of bus operators;

- ✦ To make the buses more comfortable for a long-term solution and to ensuring customer satisfaction should be established. This can be done by government coming up with proper policies pertaining drivers. They should be well trained and properly supervised in order to assure customers of their safety. Strict measures must be put in place for punishing both drivers and policemen who involve themselves in corruption and CCTV cameras should be placed on all Anbessa public bus transport enterprise to put in check on board security.
- ✦ To enhance the condition of the Anbessa public bus transport, the physical facilities, equipment, and cleanness of buses and appearance of personnel, building depot, improve modern technology should be improved.

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