Addis Ababa University

School of Graduate Studies

College of Business and Economics

Department of Public Administration and Development Management

Performance and Challenges of Zonal Taxi Transport System in Addis Ababa

A Thesis Submitted to Department of Public Administration and Development Management of Addis Ababa University in Partial Fulfilment of the Requirements for the Degree of Masters of Art in Public Management and Policy.

By:

Wondem Mekuriaw

June 2012

Addis Ababa, Ethiopia

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Abstract

In consideration of the importance of transportation for other sectors and the public, Addis Ababa transport branch office has taken several measures to improve the transportation situation of the city. One of the major measures taken by the city transport branch office is zonal taxi transport system. However, anecdotal evidences indicate that problems are plenty such as shortage of taxis, chopping of routes into several segments, charging passengers over normal fares, taxis do not have or invisible root plates, passengers assaulted by taxi drivers and conductors, lose control and coordination of actors, passive participation of actors, vague accountable relationships of actors, poor in providing solution for grievances in time, and others. In fact, whether the system has brought about the desired result is yet to be assessed. Besides, accountability relationship and actors' participation in the system is nor clearly known. Thus, in line of above gaps, the objectives of the study were to: i) measure the performance of zonal taxi transport system in the city, ii) examine the accountability relationships and actors' participation, and grievance handling mechanisms, iii) identify challenges that hinder the system from being effective, and iv) suggest recommendation to improve the services. Both qualitative and quantitative data have been utilized. The study used both primary and secondary data. Primary data were collected through questionnaire, unstructured interviews and personal observations. They were analysed through descriptive and inferential statistics. Secondary data were also consulted from published and unpublished documents and reports. The performance of zonal taxi transport system was measured in terms of accessibility, affordability, quality, accountability relationship, participation of actors and grievance handling. Findings of the study indicate that accessibility and quality of zonal taxi transport system is relatively better because of the opening up of new routes, fair distribution of taxis, protection of criminal activities, and reduction of traffic accidents by giving break for drivers and others. But, it is difficult to say that there is improvement on the affordability where the system helps taxi drivers to exploit the poor. Besides, the system is ineffective in creation of organizational structure, which hinders establishment of strong accountability relationship and active participation of actors. Therefore, to make the system more effective, possible remedial actions should be taken, such as promoting taxi associations to Plc. and contracting out zones to them, establishing organizations with government holding of majority shares, and installation of computerized working system.

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Thank You

Wondem Mekuriaw

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List of Acronyms

AABO	Addis Ababa Branch Office of Federal Transport Authority
ACCO	Association des Chauffeurs du Congo
AFD	Agence Francaise de Development (French Development Agency)
ANOVA	Analysis of Variance
AU	Africa Union
CSA	Central Statistics Authority
DARCOBOA	Dar Commuter Bus Owners Association
GPRTU	Ghana Private Road Transport Union
KM	Kilometre
MBOA	Matatu Vehicle Owners Association
MEEDDM	Ministere de l'Ecologie, de l'Energie, du Developpement Durable et de la Mer (Ministry of Ecology, Energy, Sustainable Development and the Sea)
MDG	Millennium Development Goal
NGO	Non-Governmental Organization
NURTW	National Union of Road Transport Workers
ONATRACOM	Office National de Transport en Commun (Kigali)
Plc.	Private Limited Company
PPP	Public Private Partnership
PROTOA	Progressive Transport Owners Association
SNTMVCI	Syndicate National des Transporters de Marchandises et de Voyageurs de Côte d'Ivoire
SPUTNIC	Strategies for Public Transport in Cities
UNDP	United Nation Development Program
UNECA	United Nations Economic Commission for Africa
UPETCA	Union Patronale des Exploitants de Taxis-compteurs d'Abidjan
UTODA	Uganda Taxi Operators and Drivers Association

CHAPTER ONE

1. Introduction

1.1. Background

Transportation industry is a public utility in the sense that it is an industry vital to the overall public interest. Almost every business firm and every individual is directly affected by the transportation industry. Therefore, because of the way transportation influence the health and vitality of national economy, it becomes governments' responsibility to ensure that the transportation sector would operate fairly and without unfair discrimination against its users. To achieve this objective, government controls the number of transport competitors, along with their rates and the services they are allowed to offer. Because, the full force of competition suppresses by entry control (which limits the number of new competitors in the transport industry), it is necessary for the government to ensure that the positive attributes of a competitive market- innovative services, competitive price ,and new technology-would be achieved. A leading scholar in government –business relationships, Clair Wilcox, observed, Government is therefore, compels to intervene to safeguard public interest. Regulation is thus a substitution for competition. Where competition is impossible, regulation is a best mechanism to bring the benefit that competition would have brought (Wood *et.al*, 1989).

Development of transport network and wider socio-economic development of the region or country which serves can rarely go forward together in integrated manner. A critical objective, therefore, is the introduction of more flexible transport policies so as to allow reasonable rapid adjustment to change conditions and demands. At any given of development an area requires certain level of transport provision in order to realize and maximize its development potential, and there is thus an optimum transport capacity for any given level of development (Hoyle, 1988).

Transport is ever demanded for people mobility. Demand of transport has been increasing with growth of urban centers. Urbanization is growing at higher growth rate in both developed and developing countries. However, rapid urbanization, particularly the growth of large cities in conjunction with associated problems of unemployment, poverty, inadequate health facilities, poor sanitation, urban slums and poor infrastructure facilities pose a formidable challenge in many developing countries (Addis Ababa Finance and Economy Bureau, 2010).

Urbanization has been one of the dominant contemporary processes as a growing share of the global population live in cities. Considering this trend, urban transportation issues are of foremost importance to support the passengers and freight mobility requirements of large urban agglomerations. Transportation in urban areas is highly complex because of the modes involved, the multitude of origins and destinations, and the amount and variety of traffic. Traditionally, the focus of urban transportation has been on passengers as cities were viewed as locations of utmost human interactions with intricate traffic patterns linked to commute, commercial transactions and leisure/cultural activities. However, cities are also locations of production, consumption and distribution, activities linked to movement of freight. Conceptually, the urban transport system is intricately linked with urban form and spatial structure. Urban transit is an important dimension of mobility, notably in high density areas (World Bank, 2011).

Urban transport in the third world is characterized by rapid growth in demand which has transport capacity. According to Wright (1993), urban public transport defined as publicly provided mass transit systems in cities is often regarded as a less environmentally damaging mode of transport and in many countries generates much, sometimes uncritical, policy support.

Urban Transport systems in large developing cities face major challenges due to the continuous growth of urban population, private vehicle ownership, congestion, and fragility of public transportation systems. When urban transport system experiences major difficulties, consequences are felt by households, businesses, and urban community at large. Transport may become a binding constraint on both economic growth and social development and inclusion, along with increase negative impacts on health and on the environment.

Africa's cities are growing rapidly. In 2000, among three Africans one lived in a city; by 2030, it is expected that one in two will do so. Some say the growth is premature, in the sense that it is driven not by burgeoning wealth in urban areas but by anaemic economic conditions in rural areas (United Nations, 2005 quoted by Kumar and Barrett, 2008).

Like African cities, the population of Addis Ababa is steadily increasing overtime. Currently, it reached more than 3 million populations (CSA, 2012). It pushed up the demand of public service in the city. This huge population growth is a major challenge for Addis Ababa city Administration to meet the service demands of new urban residents, particularly the poor, who are most dependent on public provision of health, education, transport, and other services. But, the consequence of rapid growth affects all segments of society. Absence of strong and legitimate city government was unable to control illegal land invasion and economic development has led to urban sprawl, which multiplies the challenge posed by rapid population growth. The declining population density associated with sprawl has increased travel distances and pushed up the demand of public transport.

Addis Ababa transport branch office commenced zonal taxi transport to improve the transport situation. According to the branch office, one of the main objectives of the taxi zoning system is prohibiting of taxis from chopping of routes into several places and enabling passengers to commute as long as they want in the set route. The system is important for all actors because of it save time and money (AABO, 2011).

However, the problem seems to be worse instead of better. The streets of Addis Ababa witness a unique sort of battle every morning and late afternoon as the citizens of the city fight for transport. The study tried to assess the achievements and challenges of zonal taxi transport system in the city. It also evaluated how far the system is effective in improving the transport situation.

1.2. Statement of the Problem

Addis Ababa, like most African cities, has been experiencing huge population increases. This is mainly due to the fast growth in urbanisation. The population of Addis Ababa is about three million and expected to increase by 2.5 percent every year. The lifestyle of the city dwellers is changing where people prefer to travel by vehicles to move from place to place within the city (CSA, 2012).

Public transportation is one of the social facilities which provides with the aims of improving social welfare. However, providing equitable and efficient public transport for the ever increasing demand with limited available resource is one of the challenges in the Addis Ababa City Administration. The city has been experiencing shortage of transportation for decades. The major modes of public transport are buses and taxis. There is no rail transit within the city yet. The existing public transportation is low in quality because of limited number of buses and taxis, poor management, and poor driving ethics of drivers. The situation is even worse in the morning and late afternoon. Supporting this assertion, Kassahun (2007) indicated that urban mobility is increasingly becoming inefficient in Addis Ababa. In addition, Gebeyehu and Takano (2004) indicated that the major modes of public transportation in Addis Ababa are buses and taxis. They focused in their study on public transport condition under three parameters, notably: bus fare, bus convenience (boarding, in-bus crowd, bus steps and chairs convenience etc.) and bus frequency. They conclude that Addis Ababa public transport is poor in quality. In addition, findings indicated that people prefer bus compared to other modes of transport as a result of fare and frequency. Besides Meshesha (2009), also strengthen this finding is that more than 50 percent of user are not yet satisfied with the transportation system. But, their study focused on all public transport offered in Addis Ababa rather than taxi. Besides, there is no any study focuses on zonal taxi transport system as a result of new system for the county.

Finally, Addis Ababa transport branch office commenced taxi zoning transport system to improve transport situation. The system divided Addis Ababa into five zones namely; Asko, Tor-Hailoch, Saris, Bole and Megenagna. The responsible government agency, Addis Ababa Transport Branch Office of Federal Transport Authority, has formulated a model regulation for associations which were established under these zones. Each zone has a specific number of routes within its territory. Taxis under each zone are expected to operate only in the routes within the zone where they are registered. The highest number of routes is 42 in Asko zone, followed by 38 in Megenagna and 31 in Bole and Saris for each; the least number 24 in Tor-Hailoch (AABO, 2011).

According to the branch office, one of the main objectives of the taxi zoning system is preventing taxis from refusing to travel long distances to maximize their income. Then, passengers are able to travel as far as they want along the set routes. The transport office believes that taxi zoning system is important for taxi users, owners and operators, as it saves money and time (AABO, 2011).

However, whether this zonal transport system has brought desired outcomes is yet to be assessed. The assessment could be examined from different perspectives. Firstly, accessibility of transport to the dweller of the city is one of the parameters. Even if zonal transport system is introduced with many new taxi routes to enhance accessibility, anecdotal evidences reflect that shortage of taxis in contrast to the number of passengers in a given area. This may make things worse for passengers to transit. This problem is also aggravated by the fact that assigned taxis in a given route do not provide full time service to the passengers (from 6:30 am to 9:00pm).

Secondly, more than 50 percent of Addis Ababa city residents live below absolute poverty line and most of the residents have low income (Addis Ababa Finance and Economic Bureau, 2010). However, the cost of transit in the city is steadily increasing overtime as a result of increase in the price of oil and spare parts. Thus, whether taxi transport fares are expensive (for the poor) to afford or not are not studied. In fact, observations show that the system increases the cost of transport in the city.

Thirdly, passengers have right to claim quality of service as the return of their payment. However, complaints come frequently from passengers on quality of roads, traffic congestion, unpredictable and irregular service, long waiting time to get taxi and other problems. But, whether the city transport bureau has established grievance handling mechanisms is not studied. Finally, the extent of stakeholders' participation for the effective implementation of the system is not known clearly.

Against the backdrop of the above-mentioned issues and arguments, therefore, the study tried to file gaps in Addis Ababa by measuring the performance and achievements of zonal taxi transport system taking into account accessibility, affordability, and quality of service to the passengers; accountability relationships and actors' participation in the system; and grievance handling mechanisms of the city transport bureau.

In line of the above problems of the system, the following research questions were set for investigation.

- How is zonal taxi transport system helping passengers to access service?
- What are the challenges faced in the implementation of zonal taxi transport system?
- To what extent is far zonal taxi transport system effective?
- Does zonal taxi transport system have weakness in service provision?
- Are there problems on the traffic police side, which encourage taxi drivers to breach rules and regulations of zonal taxi transport system?
- How far actors participate in the system?
- Is there any accountability relationship between actors?
- Is there any room to motivate actors participate in the system?
- What factors hinder the system from being effective?
- Does Zonal taxi transport system assign enough number of taxis in the routes?
- Does city administration give awareness creation training program to all actors?
- Does city administration have grievance handling mechanisms?

1.3. Objectives of the Study

General objective:

General objective of the study is identifying the performance and opportunities of zonal taxi transport system in Addis Ababa. In addition, it also finds out the challenges and problems that hamper the system from being effective.

Specific objectives: this study seeks to

- measure the performance of zonal taxi transport system in terms of availability, accessibility, affordability and quality;
- Examine the accountability relationships and actors' participation, and grievance handling mechanisms;
- Identify challenges of zonal taxi transport system; and
- Suggest recommendation to improve the transport situations.

1.4 Research Design and Method

1.4.1. Research Approach

The purpose of this study is to identify the main achievements and opportunities that the zonal taxi transport system has brought based on the perception of some selected residents. In addition, it examined the factors that hinder the system from being effective. To serve this purpose, both descriptive and exploratory research methods were used. Besides, both qualitative and quantitative data have been utilized.

Zonal taxi transport system has 239 routes, which are categorized into five zones; namely, Bole, Megenagna, Asko, Saris and Tor-Hailoch. In some instances, the names given to zones and terminals are similar. In which case Bole, Saris, Megenagna, Asko and Tor Hailoch are names serving for both zones and terminals. This study considered six main terminals vis-à-vis: Megenagna, Bole, Saris, Piazza, Asko and Tor Hailoch. These terminals are selected purposively in order to get more insight into passengers' perception on service accessibility, quality and affordability; and problems they grapple with as regards transport service provision.

The performance of zonal taxi transport system is measured in terms of accessibility, affordability, quality, accountability relationship, participation of actors and grievance handling mechanisms. These variables indicate the status of the system (Table 1.1).

Table 1.1: Variables and their indicators of transportation.

Variables to be measured	Indicator of variables	helps to measure indicators
Performance	Accessibility	Spatial accessibility of taxis
		Availability of taxi
		Getting seat
		Considering all segments of the society
	Affordability	Whether it is affordable or not
	Quality	Behaviour of taxi drivers and conductors
		Quality of road
		Taxi station attendants
		Passengers
		Alternative modes of transport
		Traffic congestion
		Waiting time to get taxi
		Safety and security
		Customer satisfaction
Actors' participation	Stakeholders involvement	How far all actors are involved in the system
Accountability relationships	Clear organization structure	How far actors' accountability relationship is clear.
Grievance handling mechanisms	Telephone, suggestion box, suggestion writing pad, face-to –face	Accessible to the public and responsiveness of the system

Source: Own survey, 2012

The system has brought several new things in the sector. The question is how far is the transport situation improved in the city? The study focuses on how far the city transport situation improved following the new system. This study measured zonal taxi transport system in terms of whether the transportation options have financial costs within the targeted user's budget (affordability); whether transportation options exists at the location and time users require(availability); whether the transportation options accommodate user's abilities, including people with disabilities and special needs, often called universal design(accessibility); and whether the transportation options are considered suitable by users(quality).

1.4.2 Types of Data

The study used both primary and secondary sources of data. Primary data were collected from Addis Ababa Transport Bureau, Traffic Police, Associations, Drivers and Conductors, Taxi Station Attendant enterprises and Passengers of Addis Ababa public transport. The data collected through questionnaire, deep face-to-face-interview with key informants and personal observations about how taxis provide service to the passengers.

Secondary data were also consulted from published and unpublished documents, reports, public opinion (online radio conversation), and internet which found from Addis Ababa Road Authority, Addis Ababa Transport Bureau, Media and Taxi Transport Association

The respondents of the structured interview are passengers of taxi transport. Passengers were selected randomly when they were traveling or waiting taxi at taxi terminals as a result of difficult to differentiate taxi users from non-users. The respondents filled the questionnaire when they were travelling and waiting to get taxi at terminals.

The respondents of deep face-to-face interview were management and employees of Addis Ababa Transport Bureau who participated in the study and implementation of zonal taxi public transport system, Taxi Station Attendants, Addis Ababa Police Commission Traffic Controlling and Investigation Department and Taxi Transport Association. The respondents were selected by purposive sampling to get more depth and relevant information. In addition, taxi drivers and conductors were interviewed when they had break time. They were selected randomly at taxi terminals through convenience sampling as a result of unavailability of recorded document which describe the profile of them.

1.4.3 Data Collection Procedures

The validity and reliability of the structured interview were tested through pilot testing using 20 respondents of similar character outside taxi terminals. For collection, field assistants were trained for about 4:00 hours on how to conduct the structured interview. One data collector was assigned in each zone. Data collectors were supervised by the researcher on how they could collect the data.

Since the majority of passengers are Amharic language speakers, first the questionnaire questions were prepared in English language and then translated into Amharic. The collected data through structured interviews were edited, coded, and entered into SPSS 13 version.

The target groups of this study were Addis Ababa city dwellers who use taxi as a main mode of transport. The selected respondents were 175 people and collected 35 samples from each zone. However, the collected data shows that 33 respondents are residents of Tor-Hailoch and Bole zone for each; 36 respondents from Megenagna and Saris zones for each; and the rest 33 people are the residents of Asko.

The data, which used in the inferential statistics i.e. ANOVA to compare mean of zones, have been checked whether they assumptions are meet or not. The data which fulfil the assumptions were used in the inferential statistics. Scheffe post hoc test were used as a result of different sample size of zones.

1.4.4 Data Analysis

Information collected through review of documents, questionnaire and unstructured interview and observation were analysed within the framework of the study objectives. Data collected through structured interviews were edited, coded, and entered on SPSS 13 version. Subsequently, they were analysed by using inferential and descriptive statistics. To compare the mean across zones, ANOVA and scheffe post hoc test were done to find the status of zones. Mean, percentage and frequency tables were utilized to explain characteristics of respondents and present the collected data. Data obtained from official records and interviews were used to enrich, illustrate, and elaborate the quantitative and qualitative findings. Both qualitative and quantitative analyses were used to answer research questions.

1.6. Scope of the Study

The study focuses on the newly introduced zonal taxi transport system. It is limited only taxis as a result of limitation of money and time. Traffic accident date is not included in the study. Because, it is hardly possible find the data from responsible organization which keeps traffic accident data as classified document.

1.7. Significance of the Study

This research document has significant value in terms of the following aspects:-

The outcome of this study is used to assess the performance of urban public transportation sector in Addis Ababa from as many angles as possible. Hence, the end result of it, will give comprehensive overview of the potentials as well as the constraints of zonal taxi transport system in the city.

Secondly, the outcome of this research can also be used as a springboard for further studies in the urban transport area. This study will also be significant in terms of providing necessary resource in light of the possibility of future urban transport intervention projects that might be proposed.

1.8. Organization of the Study

The study is accomplished in five chapters.

The first chapter included background of the paper, statement of the problem, objective of the study, research design and method, scope of the study, significance of the study and organization of the study. The second chapter discusses various literatures and researches which relevant to the topic. Chapter three also explains that background of the study area. Chapter four focuses on data presentation and discussion of the findings. The final chapter contains conclusion and recommendation.

CHAPTER TWO

2. Literature Review

2.1. Introduction

Transportation refers to the activity that facilitates physical movement of goods as well as individuals from one place to another. Movements of people, goods and information have always been fundamental components of human societies. Transportation is yet given inadequate attention in development studies. But, it has fundamental importance in day to day activity of people and economy. Transportation is considered as blood vessel of one economy. Contemporary economic processes have been accompanied by a significant increase in mobility and higher levels of accessibility. Although this trend can be traced back to the industrial revolution, it significantly accelerated in the second half of the twentieth century as trade was liberalized, economic blocs emerged and the comparative advantages of global labour and resources were used more efficiently. However, these conditions are interdependent with the capacity to manage, support and expand movements of passengers and freight as well as their underlying information flows. Societies have become increasingly dependent on their transport systems to support a wide variety of activities ranging, among others, from commuting, supplying energy needs, to distributing parts between factories (Rodriguez *et.al,* 2006).

In general, the improved transportation may yield positive and beneficial effect in terms of economic development. In direct association with transport improvement, new factories may become established; agricultural output may increase as access to market improves or as new areas or crops are cultivated. Population may be attracted to growth area and with an influx of new ideas and expertise; economic activity may be considerably diversified (Hoyle, 1988). Then, employment opportunities are also created. Finally, the living standard of people will also improve. Transportation has irreplaceable role in society's and country's sustainability. All countries has been engaging in development of transport infrastructures especially least developed countries.

Least developed countries have been experiencing huge population growth, especially in the urban centers. This huge population increase in urban centre pushed up the demand of transport in urban areas. Then, the city administration faced a huge challenge to satisfy ever increasing demand of transport in cities (World Bank, 2011).

2.2 Theoretical Framework

2.2.1 Urbanization and Transportation

Population of urban centers is steadily increasing overtime and growing the share of urban population live in cities. This huge population created huge demand of public service, especially transportation. Then, the cities are taking transportation service as a major issue because of multi nature of the sector (World Bank, 2011).

The increases in urban populations have results in massive increases in the demand for transport. In addition, sprawl population settlement coupled with increased urban land factors adding significantly to the level of demand, are the spread of urban areas leading to longer and more motorized trips, increased commercial and industrial activity and a greater propensity to travel where incomes have risen. In most cities, because of these factors demand for public transport in particular, has grown even faster than the population. This has a serious impact on public sector services which generally rely on subsidies. Rarely can subsidies be increases sufficiently to cope with the increasing costs of services. As a result, in many cities public sector services are deteriorate and are quite unable to provide effective expansion in the face of increasing demand. On other hand, while private sector services generally have been better able to cope, in many cities their expansion has inhibits by a lack of access to funding and in some cases by undue regulation (Wright, 1993).

However, cities are also locations of production, consumption and distribution, activities linked to movements of freight. Conceptually, the urban transport system is intricately linked with urban form and spatial structure. Urban transit is an important dimension of urban transportation, notably in high density areas (Rodriguez *et. al*., 2006). It has played a great role in the transformation of the society and facilities modernization at large. By doing so it has changed the lifestyle of society from traditional to modern.

2.2.2. Urban Transportation

Over the last two decades, rapid population growth and spatial expansion has led to a sharp increase in demand for urban transport facilities and services in many cities. It is commonly accepted that cities are the engines of growth in most developing as well as developed countries. More importantly, urban transportation can be viewed as oil that minimize friction and enhance the efficiency of machine. Urban transportation is a type of transport that people use to transit within the city. World Bank (1986) quoted on World Bank (2002) emphasized efficient management of existing transport capacity, good traffic management, and efficient pricing. Urban transport system is crucial for economic and social development of society as it meets challenging mobility requirements of urban agglomerations.

Urban mobility is crucial to the economic growth of cities and towns and the quality of life of their residents. Managing urban transport is a real problem of all countries. It has several challenges faced. The requirements are challenging because road transport, which is the most problematic transport mode, is dominating the urban transport activities.

However, several factors have hindered the adequate provision of services to match the ever-increasing demand. In many cities, densification and spatial expansion have occurred with little or no development planning, while in some cases the failure of the instruments of governance has resulted in a significant wastage of resources or substandard quality of infrastructure. Furthermore, the huge capital costs and time required to develop high capacity transit systems have prevented the timely implementation of such systems in rapidly growing urban areas. As a result, many cities have relied on road-based systems, which have serious capacity constraints, negative environmental consequences and other limitations.

In addition, World Bank (2002) published on cities on move report, which focused on poverty. It concentrates on the problems of people who are very poor, not only in terms of their income but also in terms of the broader dimensions of social exclusion associated with inaccessibility to jobs, schools, health facilities and social activities. Cities on the Move identified three aspects of urban development that create a fundamental paradox of urban transport strategy.

The first is urban transport can contribute to poverty reduction both indirectly through its impact on the city economy and hence on economic growth, and directly through its impact on the daily needs of poor people.

The second is urban growth increases transport costs. From the viewpoint of efficiency and growth it is not too difficult to characterize the central problem. Economies of agglomeration generate the growth of cities. As cities grow and become richer, vehicle ownership and use grow more rapidly than the available road space, resulting in increased congestion and traffic-generated air pollution.

The third one is urban growth often has perverse distributional effects. As cities expand, the price of more accessible land is increases. Poor people are forced to live on less expensive land, either in slums or on the periphery of the city. As average incomes grow and car ownership increases, the patronage, financial viability, and eventually quality and quantity of public transport diminishes. Motorization, which is permitted by the growth process, may thus also make some poor people even poorer (World Bank, 2002).

Since transportation sector is crucial for health function of national economy, the government should be taking transport sector as a major responsibility of it. Then, the transportation sector would operate fairly and without discrimination against users. The government should also regulate to overcome negative consequence of free market economy in the transportation sector (Wood *et.al*, 1989). Because, it has spill over effect on national economy and it also affects all segment of society.

2.2.3. Urban Public Transportation

Public transportation is passenger transportation services, usually local in scope, that available to any person who pays a prescribed fare. It operates on established schedules along designated routes or lines with specific stops and is designed to move relatively large numbers of people at one time (Rodrigue *et.al*, 2006). Mostly public transportation provides service for poor people. It is established mostly by government but private sector is also providing service. Public transport includes large bus, minibus, taxi, and railway. It owns by formal or informal organizations.

The demand for public transport services in urban centers has been growing at a rapid rate due to the expansion of the city and rise in population. As car ownership has not gone up corresponding to the population growth rate, public transport operations have a dominant role in urban mobility. Urban public transport is defined as all modes of transport which provide service in urban area with irrespective of their ownership. A public transport service can be viewed as a system set up to convey people by using dedicated resources (infrastructures and/or vehicles). The most important distinguishing feature of public transport is that it is accessible to everyone, thus it excludes systems targeted to specific groups such as school transport or services for company employees.

Its performance is measured with different indicators. It measures in terms of whether the transportation options have financial costs within the targeted user's budget (Affordability), whether transportation options exists at the location and time users require (availability), whether the transportation options accommodate user's abilities, including people with disabilities and special needs, often called universal design (accessibility), and whether the transportation options are considered suitable by users (quality) (Button *et.al*, 2010).

Besides, accountability relationship and actors participation have also paramount importance for its performance.

2.2.3.1. Accessibility of Urban Public Transportation

Accessible transportation is the passport to independent living for everyone. Mobility means having transport services going where and when one wants to travel; being informed about the services; knowing how to use them; being able to use them; and having the means to pay for them(Suen and Mitchell, 2012). Access to public transport services in cities can be assessed on several levels.

First, one may consider the extent to which any particular user is within easy geographic reach of a bus line. While direct evidence is scarce in our sample cities, the low density of paved roads coupled with unplanned growth, poor road surfaces, and narrow streets, suggests that the geographic reach of bus services is seriously circumscribed.

Second, there is the issue of seating capacity relative to demand. Data on fleet sizes and bus capacities can be converted into an indicator of seat availability per thousand urban residents (Kumar and Barrett, 2008).

Thirdly, Travel information about transit and Para transit services is being made accessible for people with sensory impairments. During travel, real-time information is available visually and audibly at stations, at bus stops, and inside trains and buses. Inductive loops are being used at booking and information desks, in stations (for public address systems), and in trains for travellers with hearing impairments (Suen and Mitchell, 2012).

2.2.3.2 Affordability of Urban Public Transportation

The concept of affordability is difficult to apply to urban passenger transport. Affordability varies widely with income and the distance to be travelled. For most people, moreover, transportation is essential rather than discretionary, so the necessary funds need to be found in the house-hold budget. Anecdotal evidence in Africa cities from limited surveys demonstrates that rising transport fares can isolate some people from employment opportunities, but this effect does not appear to be widespread. However, the fact that budgets are tightly balanced is illustrated by the sharp drop in ridership following fare increases, although ridership often rebounds after a few months (Kumar and Barrett, 2008).

Public transport is for all. Concentrating on the transport modes of poor people in middle-income countries essentially means the provision of affordable forms of public transport, both formal and informal. But, it should not be viewed as only for the poor, as the importance of public transport to all income groups in many rich European cities demonstrates. Improving efficiency in public transport must be concerned not only with keeping costs down but also with providing a flexible framework within which the less poor as well as the very poor can use public transport with confidence and comfort (World Bank, 2002).

The affordability of the transport fare needs to be gauged in relation to household income. Subsidy policies on public urban transport have been adopted ubiquitously. In both developed and developing countries, subsidies are implemented to make transport more affordable (Estupiñán *et.al*. 2007). Affordability of transportation fare is also connected with accessibility of public transportation.

2.2.3.3 Quality of Urban Public Transportation

Service quality indicators are deal with the relationship between service delivery, customer's expectations and degree of customer satisfaction. These indicators address the question; does the delivery of public transportation service meet or exceed customer expectations? SPUTNIC, 2012) Service quality has many dimensions and the importance of any single attribute differs from passenger to passenger.

The quality of transport may compromise by quality of roads, overcrowding of buses, unpredictable and irregular service, and inadequate terminal facilities. Besides, the passengers waiting time before being able transport and trip made to reach taxi stations also compromise the quality of urban transport (Kumar and Barrett, 2008).

Other factor may compromise the quality of transport is operators ultimate goal which is maximizing profit. This commercial interest makes operators squeezing as many passengers as possible into their vehicles, as long as fares can still be collected under such circumstances (Kumar and Barrett, 2008).

Furthermore, service quality is also measured by conducting surveys among the population that try to capture the degree of customer satisfaction. Issues relating to comfort, safety, and cleanliness, and security, reliability of service and friendliness of personnel are some of the measures that should be measured on a regular basis (SPUTNIC, 2012).

2.2.4. Accountability Relationships and Actors Participation in Transportation Sector

Another factor that affects the performance of urban transport is accountability relationships and actors participation of all stakeholders. Accountability and Actors participation are very crucial for effective performance of the transport.

2.2.4.1. Accountability Relationships in Transportation Sector

According to World Bank (2004) quoted on Sharma (2009), successful services for poor people emerge from institutional relationships in which the actors are accountable to each other. In addition, UNDP (2006) quoted on Sharma (2009) provide definition of accountability is that the requirement that officials answer to stakeholders on the disposal of their powers and duties, act on criticisms or requirements made of them and accept (some) responsibility for failure, incompetence or deceit. The transport sector highly exposed for corruption and other malfunctions. Therefore, actors function should be transport and their accountability relationship should be strong. The relationship and accountability channel should be clear and strong. In addition, another dimension to accountability is responsiveness. Responsiveness is what citizens want when they exercise their voice, and it is fostered by the existence of soundly functioning accountability mechanisms. Responsiveness and accountability are the "critical missing elements in our understanding of the relationship between the powerful elites and the disempowered poor who are asserting their rights" (World Bank, 1996).

2.2.4.2 Participation of Stakeholders in Transportation Sector

The transport situation is performing in a better way when all stakeholders are actively engaged in the system. Simply participation is not bringing positive result. Participation is efficient when practised through institutionalised channels or through clearly legitimate, though informal, mechanisms coupled with effective commitment to participation and organised movement produce positive results. Besides, Partnerships between and among different levels of government, the private sector, civil society and other stakeholders can contribute to accessible ,and quality transport in the city (Work, 2012).

In Addition, People are not very good at defining, particularly in detail, what they want. However, people are fairly good at indicating what they think they want and then when an option is presented to them what they like and do not like about it. In other words, every service organizations need to work with stakeholders to identify what people think they want, produce something which reflects that understanding, and get feedback from stakeholders.

The implication is every organization need to work in a more evolutionary and collaborative manner if organizations are to provide solutions which reflect stakeholders actual needs, and to do that organization must work closely and regularly with stakeholders (Ambler, 2010).

2.3. Empirical Literature

The proportion of urban dwellers among the world's total population hit the 50 percent mark in 2008 and is currently estimated at 3.36 billion. Two thirds of those live in the developing world. This population is expected to see a massive increase over the next few decades, rising from today's 50 percent to 60 percent by around 2030 (AFD and MEEDDM, 2009).

2.3.1. Urban Transportation Situation in Africa

Urban transport in the third world is characterized by rapid growth in demand which has overwhelmed transportation capacity. For the past few decades, African cities have been experiencing huge population increase. This is mainly due to galloping urbanisation and rural exodus. It is estimated that by 2020 some 55 percent of the African population will be live in urban areas (Trans-Africa Consortium, 2010). The demand of public service is increasing at alarming rate. This huge population growth associated with scattered settlement pushed up the demand of transport in most African cities. In order to satisfy this ever increasing demand of transport, several measures were taken by the Africa cities. Among them is privatizing of public own transport operators and allowing private sector to operate. However, the sector failed to provide efficient and effective service (Trans-Africa Consortium, 2010).

The 14 cities studied which share some common characteristics. These common characteristics are the population size, growth rate of urban population, density of inhabitants and other. Table 2.1 shows that the cities have more than a million populations and their population growth rate is above 3 percent. These cities share of population are range 5 percent at Addis Ababa to 20 percent Abidjan of national population. The cities take the highest share of countries urban population it ranges 20 percent in logos to 100 percent at Kigali. As a result of these similar characteristics of cities, the study takes these cities as a benchmark to know the status of Addis Ababa (for farther information see appendix 1A).

Table 2.1: Size and other characteristics of selected African cities .

City	Population (millions)	Growth rate (percent)	City population as share of national population	City population as share of urban population	Density (1,000 inhabitants per sq km)	Private cars 1,000 inhabitants
Abidjan	3.5	3.7	20	46	6.2	52
Addis Ababa	3.1	<4.0	5	28	5.7	32
Bamako	1.2	4.8	9	32	4.5	108
Kigali	0.7	3.1	8	100	1.0	40
Lagos	15.0	6.0	12	25	4.2	80
Average	n/a	4.7	13	43	5.2	55

n/a= no applicable - =not available

Source: Africa infrastructure country 2007 quoted by Kumar and Barrett 2008)

2.3.1.1 Modes of Transportation

The modes of transport 14 African cities are used almost similar. But, both minibus and large buses are common modes of public transport in most cities. Table 2.2 shows that more than 70 percent in Dakar and Kigali to little more than 10 percent in Bamako and Ouagadougou of all trips are taken by large buses and minibuses. Unlike other cities, Addis Ababa is highly depends on large bus for transit. In general, the city's residents prefer twice much minibus than large bus.

Table 2.2: Share of various modes of transport in use in some selected African cities.

City	Large bus	Minibus	Taxi	Motorcycle	Private car	Walk	Other
Addis Ababa	35	20	5	0	7	30	3
Bamako	1	10	5	56	19	-	9
Kigali	1	75	10	0	10	5	0
Dakar	3	73	6	6	11	-	1
Ouagadougou	8	0	-	58	14	-	20
Average	7	30	8	12	12	37	4

Note: - = not available,

Source: city authorities, published documents, various quoted by Kumar and Barrett 2008.

Table 2.2 shows also the extent of walking as a mode of commuting (for those cities that have attempted to measure it) also varies enormously. In cities such as Conakry, Douala, and (anecdotally) Kinshasa, walking account for most urban trips (60-80 percent). By contrast, in Addis Ababa, Accra, and Abidjan, walking is estimated to account for only 10-30 percent of all urban trips (for farther information see Appendix 1B).

Although small-scale suburban rail networks exist in Dakar, Kinshasa, Lagos and Nairobi, it accounts not more than 2 percent of the cities market. Addis Ababa is has no rail transit mode of transport. The huge number of the city's population cannot access public transport (large bus, minibus, and taxi) transport. This is evident that large numbers of cities residents are pedestrian. As a result of public transport is inaccessible, unaffordable, and poor quality (Kumar and Barrett, 2010).

These modes of transportation accessibility may measure availability of seat per 1,000 populations. The issue of seating capacity relative to demand is data on capacities can be converted into an indicator of seat availability per thousand urban residents. Table 2.3 shows that most of cities have 30-60 bus seats per thousand residents. In Addis Ababa, Kinshasa, and Ouagadougou, the indicator falls to no more than 12 seats per thousand. Relatively Kigali and Abidjan are found in a better position to provide 58 and 55 peoples is getting seat from 1,000 populations.

Table 2.3: Public transport capacity as a share of the population in 14 African cities

City	All modes of share seat for public (seat per 1,000 population)	City	All modes of share seat for public (seat per 1,000 population)
Abidjan	55	Douala	47
Accra	48	Kampala	48
Addis Ababa	12	Kigali	58
Bamako	47	Kinshasa	6
Conakry	34	Lagos	61
Dakar	48	Nairobi	43
Dar es Salam	57	Ouagadougou	7
Average	41		

Source: city authorities, published documents, various quoted by Kumar and Barrett 2008.

The other measures of accessibility of transportation service are availability and spatial accessibility to the society. On average, passengers report walking for around 10 minutes to reach a bus station, and typically waiting around 30 minutes at the bus stop before being able to start their trip (Kumar and Barrett, 2008). However, these shows that availability of transportation in African cities is low compared to Riyadh, Saudi Arabia. Average waiting time of passengers to get minibus para-transit service in Riyadh, Saudi Arabia is on average 6 minutes. Riyadh is better in transportation availability compared to African cities (Algadhi, 1992).

Another measure of this African transportation system is efficiency of the buses and minibuses. It is measured by distance covered by vehicles. Table 2.4 shows that in Abidjan, Nairobi, Kigali and Kinshasa, minibuses are more than 200 km per day distance covered. On the other hand, in Accra, Legos and Kampala, minibuses are distance covered not more than 140 km per day. This shows that in Abidjan, Nairobi, Kigali and Kinshasa, minibuses have high efficiency and frequency compared to Accra, Legos and Kampala minibuses. The first cities have better accessible transportation to their dwellers. The average distance covered in the sample cities is 186 km per day.

Table 2.4: Average distances travelled per day (Kilometres) in 14 African cities.

City	Minibus	City	Minibus
Abidjan	250	Douala	Na
Accra	140	Kampala	100
Addis Ababa	180	Kigali	210
Bamako	180	Kinshasa	200
Conakry	180	Lagos	100
Dakar	-	Nairobi	240
Dar es Salaam	180	Ouagadougou	n/a
Average	186		

Source: Cities Authorities Quoted by quoted by Kumar and Barrett 2008

Another factor which affects accessibility of transportation service is affordability. Although most households report some degree of positive transport expenditure, majority of household do not spend anything on transport, meaning that they meet all their transport needs by walking. The share of household budgets spent on transport on average 6.5 percent across the cities but with considerable variation (Kumar and Barrett 2008).

Public have right to get quality of service in return of its payment. Quality is subjective to the public. But, it measures satisfaction of passengers. Formal and informal surveys of users undertaken in 14 cities suggest widespread customer dissatisfaction with bus services. Frequent complaints include poor quality of roads, overcrowding of buses, unpredictable and irregular service, and inadequate terminal facilities. On average, passengers report walking for around 10 minutes to reach a bus, and typically waiting around 30 minutes at the bus stop before being able to start their trip (Kumar and Barrett, 2008). On the other hand, average waiting time of passengers to get Minibus Para-transit service in Riyadh, Saudi Arabia is on average 6 minutes. Riyadh is better in transportation availability compared to African cities (Algadhi, 1992).

2.3.1.2. Minibus Operators Structure

Urban transport is deregulation and liberalization of urban public transport to the private sector. The private sector is assuming a greater role as operators of minibuses. The second hand, imported minibus has increased in the last decade, expanding 11 percent per year in some cities. Of the cities studied, only Douala and Ouagadougou do not provide minibus service. Cameroon’s government outlawed such services on as to favour the development of a new large bus operator. In both case, the vacuum created by shared taxis that operate on a similar model (Kumar and Barrett 2008).

Table 2.5 shows that the name and characteristics of minibus vary, but the services are almost invariably provided by the informal sector characterized by highly dispersed ownership, with most individual entrepreneurs owning no more than one or two vehicles, which they generally rent out to drivers. Drivers are keeps the fares they collect and responsible miscellaneous expense including fuel. in all sample cities the transport service provided by informal operators. In Accra, Addis Ababa, Kampala and Legos cities, 80 percent of owners own one vehicle. Unlike other cities, Dakar, Dar es Salaam, and Kinshasa have formal operator along with informal operators.

Table 2.5: Characteristics of minibus service in selected African cities.

City	Service designation (capacity of vehicle)	Union/association for informal minibus operators	Degree of formality of Sector	Ownership structure
Addis Ababa	Minibus 12, mid-bus(25)	Various	Mainly informal	80 percent of owners have 1 vehicle
Dakar	Car rapide (23–32)	Yes	Two formal private companies, plus informal	Two operators with large fleets, remainder highly fragmented
Dar es Salaam	Daladala (18–35)	DARCOBOA	Formal public company, plus informal	Public operator has modest fleet, remainder highly fragmented
Kinshasa	Minibus (5–26)	ACCO	Formal private company, plus informal	Formal operator has modest fleet, remainder highly fragmented
Logos	Danfo (mini), molue (midi)	Several affiliated with NURTW	Mainly informal	80 percent of owners have 1 vehicle

Sources: City authorities, published documents, various quoted by Kumar and Barrett 2008.

Table 2.5 shows that the highly fragmented ownership of minibuses in Dare es Salaam and Kampala is offset by the existence of unions, associations, or syndicates that organize the activities of the sector and provide a degree of self-regulation. Almost all of 14 cities have at least one syndicate that performs this function. In Kampala, membership in the Uganda Taxi Operators and Drivers Association (UTODA), the single industry union, is obligatory and may be violently enforced. The general practice is for the syndicates to collect dues from their members, who then have the right to use the terminal facilities managed by the syndicate. The syndicates also charge daily fees based on terminal use. A charge is normally paid on first use of the terminal each day, and this may then be supplemented by individual departure charges, sometimes based on the number of passengers carried, and also by further charges at the destination terminal and at major stops along the line of route. Some syndicates play a role in regulating routes and setting fares (for farther information see Appendix 1C).

In all of the cities, minibus operators also face indirect charges that affect their commercial viability. Some of these charges represent petty extortion from enforcement agencies and local gangs preying on the sector.

Before 1979, urban public transportation service in Riyadh were provided by a number of minibuses (25 seats) operated by individual owner-operators (i.e. jitney service). Minibuses drivers operate their buses with no time schedules and make unilateral decisions, with almost no coordination with others in regard to routes served and hours of operation. Thus, the number and frequency of service on any given route can change significantly from one day to the next.

In 1979, the Saudi Arabian public transport company (SAPTCO) was established as the first bus transit company in the country, where the Saudi government owns 30 percent of its shares. Soon after its establishment, it was granted the rights of providing subsidized intercity and intracity public transportation services throughout the country. However, minibuses continued to provide intracity transportation services, successfully competing with SAPTCO on the high-demand routes serving the city centre (Algadhi, 1992).

To sum up, urban transport in 14 African cities reveals a relatively consistent set of problems and challenges, as well as some significant variations in institutions and practices. The problems are First; in none of the cities under review was a clear articulation of urban passenger transport policy available in the public domain. The general impression gained is of policy decisions made ad hoc in response to political pressures as they arise. International experience suggests that successful reform will depend on steady commitment to an urban passenger transport policy based on clear guiding principles. Secondly, most of the cities reviewed lack an effective coordinating institution capable of leading the implementation of urban transport reforms. A capable transport authority is a necessary precondition for reform. Combining democratic accountability with professional competence, the authority must coordinate transport planning, infrastructure development, and regulation of services. Finally, it must be said that the current system is quite deficient in terms of customer service. Access to public transport both in terms of geographic reach and seating capacity remains very low by global standards. At the same time, fares are too high as a share of typical household incomes to permit more than very limited motorized mobility. Even those who can pay have trouble boarding buses along the route and must wait long periods for buses to leave their terminals (Kumar and Barrett, 2008).

To overcome the deficit of transportation, the strategy consists of stepped measures to improve infrastructure, traffic management, service quality, and network reach. Short-term steps include increasing road funding, enforcing existing regulations, controlling overcrowding, and strengthening vehicle inspections. Medium-term measures include rehabilitating roads, improving traffic management, setting and enforcing service standards (fares, schedules), developing a new route structure, and rationalizing service along those routes through controlled competition. The long-term goal is to consolidate gains in all these areas through the creation of a metropolitan transport authority with jurisdiction over roadways and vehicles.

CHAPTER THREE

3. Description of the Study Area

3.1 Introduction

Addis Ababa is the capital city of the Federal Democratic Republic of Ethiopia. It is centre of political, economic and cultural activities of the country. It is the headquarters of the African Union (AU), the United Nations Economic Commission for Africa (UNECA) and the host of multilateral funding organizations such as the World Bank, the European Commission, UNDP and others. In addition, the city also gathers over 103 embassies and heads of diplomatic missions, different international, regional and sub- regional organizations and several international NGOs (Addis Ababa city government, Office of Mayor, 2011).

Today, Addis Ababa has established partnership agreements with twelve cities and is enjoying the fruits of the sister city partnership. Though there is a vast range of diversity in these relationships, all have shared the common goal of promoting peace through mutual respect, understanding and cooperation.

Addis Ababa was founded by Emperor Menelik II in 1886. Since then its history as a capital of the nation has begun to grow in all dimensions. Its international reputation has also started to pick up since the Ethiopian army led by emperor Menelik II defeated the Italian colonial power at the battle of Adwa in 1896 (Addis Ababa city government, office of Mayer, 2011).

Addis Ababa extends over 530 square kilometres at an altitude of 2,300 meters above the level of the Mediterranean Sea. It geographically located at 9.03 N degrees 38.74E degrees.

For administrative purpose, Addis Ababa is divided into 10 sub cities and 116 woredas.

3.2 Demography

Addis Ababa, like most African cities, has been experiencing huge population increase. This is mainly due to the fast growth in urbanisation. According CSA (2012) the population projection figures based on the results of the 2007 National Population and Housing Census of Ethiopia, the projected figures for the year 2012 of Addis Ababa has 3,041,002 populations of which 1,449,002 are males and 1,592,000 are females; all of the populations are urban inhabitants. For the capital city 662,728 households were counted living in 628,984 housing units, which results in an average of 4.1 persons to a household. Although all Ethiopian ethnic groups are represented in Addis Ababa due to its position as capital of the country, the largest groups include the Amhara (47.04 percent), Oromo (19.51 percent), Gurage (16.34 percent), Tigray (6.18 percent), Silt'e (2.94 percent), and Gamo (1.68 percent). Languages spoken include Amharic (71.0 percent), Oromiffa (10.7 percent), Gurage (8.37 percent), Tigrinyan (3.60 percent), Silt'e (1.82 percent) and Gamo (1.03 percent). The religion with the most believers in Addis Ababa is Ethiopian Orthodox with 74.7 percent of the population, while 16.2 percent are Muslim; 7.77 percent Protestant; and 0.48 percent Catholic (CSA, 2007).

The population of Addis Ababa is increase by 2.5 percent every year. The cause of rapid population is that Rural-Urban migration accounts 57.6 percent, followed by 22.3 percent fertility. Sex ration of the city is 91 male for 100 females (Addis Ababa Communication Affairs Bureau, 2011).

3.3 Socio Economic Characteristics

Addis Ababa is a rapidly growing urban city both in terms of population and economy. It accounts 85 percent of manufacturing industries located (Meshesha, 2009). Resulting, it is a heartbeat of the country's economy. Despite it has a wider role in economic, social, political and administrative perspectives, more than 50 percent of its population live in absolute poverty (Addis Ababa Finance and Economic Bureau, 2010).

The economy of Addis Ababa city administration composed of three sectors. These are industry, service and agriculture. Industry is account for 46 percent of the annual gross production of Addis Ababa. While service and agriculture sectors are cover 45 percent and 8.3 percent, respectively. Based on 2007 over all city assessment service sector covers the lion share of the economy which stood at 77 percent while agriculture, on other hand, was estimated to contribute 1 percent to the city's economy (Addis Ababa City Government, Office of Mayer, 2011).

According to the 2007 national census, 98.64 percent of the housing units of Addis Ababa have access to safe drinking water, while 14.9 percent have flush toilets, 70.7 percent pit toilets (both ventilated and unventilated), and 14.3 percent have no toilet facilities. Values for other reported common indicators of the standard of living for Addis Ababa as of 2005 include the following: adult literacy for men is 93.6 percent and for women 79.95 percent, the highest in the nation for both sexes; and the civic infant mortality rate is 45 infant deaths per 1,000 live births, which is less than the nationwide average of 77; at least half of these deaths occurred in the infants' first month of life.

3.4 Road Network

Roads are constructed with the aim of connecting two places. Addis Ababa is the heart beat of economic activity of the country. The city government is constructing roads to sustain the city's role in the economy. The city administration has been constructing roads for satisfying the demand of people mobility. The demand for public transport services in Addis Ababa has been growing at rapid rate due to the expansion of the city and rise in population. Most of the city mobility depends of public transport (bus and taxi). The city road network has been constructing since 1904 (Table 3.1).

Table 3.1: Asphalt and gravel roads in Addis Ababa.

S. N	Roads hierarchy		Units of measurement	Length with different width	Length at 7m width	Numbers of bridges	Pedestrians walkway	Roads condition
1	Asphalt	Arterial	KM	326	1265	114	194	Very Good
		Sub-arterial	KM	114	254	45	160	Very Good
		Collector	KM	109	109	64	130	Good
		Local	KM	130	130	36	46	Good
2	Gravel road		KM	1687	1687			
3	Coble Stone road		KM	67	67			
	Total		KM	2433	3512	268	530	

Source: Addis Ababa Road Authority, 2012

The road coverage of the city reached 13.1 percent of the city coverage. It is half of the plan to have 25 percent in 2022 (Addis Ababa Road Authority, 2012). It is above african cities road coverage, 7 percent and below developed cities, 25-30 percent (Kumar and Barrett, 2008).

3.5 Public Transportation System

The demand of public service in Addis Ababa is ever increasing as a result of huge population growth and most of the residents depend on public service. One of basic public service the city administration provided is public transport. Public transport is essential for smooth functioning of the economy of the county. The major modes of transport the city have buses and taxis. These modes of transport account 55 percent share of the city transit.

One of the characteristics of the urban public transport sector in Addis Ababa is that minibuses have been playing a greater role, partly because they achieve higher frequency due to their adaptability to difficult operating conditions of congestion as compared to the conventional buses of Anbessa which require larger road space (Transport Research Laboratory, 2002).

The modal share of people mobility in Addis Ababa is pedestrian, small taxi, minibus city buses, private cars, and company provided transport. The highest modal share is city bus followed by pedestrian.

Table 3.2: Modal share of transport in Addis Ababa.

S.No	Type of mode of transport	Percent	Rank
1	City buses	35 percent	1
2	Pedestrians	30 percent	2
3	Minibuses	20 percent	3
4	Private vehicles	7 percent	4
5	Small taxi	5 percent	5
6	Company provided transport	3 percent	6
7	Total	100 percent	

Source: Addis Ababa Millennium Secretariat, 2008

In order to understand public transport situation in Addis Ababa, it is better to talk about transport operators.

3.1.6. Addis Ababa Transport Operators

3.6.1. Anbassa City Bus Service Enterprise

Anbassa city bus service enterprise is a formal bus company created in 1963 as a private enterprise holding an exclusive franchise for the provision of passenger transport services in Addis Ababa, yet was nationalized in 1974.

It operates a fleet of 420 conventional large buses, with on average a vehicle age is seven years, and provides scheduled services along about 98 routes account for about 15 percent of the public transport market share, that is 153 million passengers carried annually.

Fares are controlled by the City government which compensates with a subsidy per ticket sold. But with a view to affordability for the population, fare levels have been revised continuously.

3.6.2. Midi-buses

In 2008, the City government undertook to purchase 500 midi buses at a cost of about EUR 10 million through a bank loan and distributed them to private operators for a five year repayment period. Fares are controlled and revised by city government in every month.

3.6.3. Taxis

The City of Addis Ababa is also served by minibuses also known as "taxis" which numbers are estimated 12,500. They provide 75 percent of the public transport journeys despite their fares being up to three times more expensive than the bus fares. Basically, they are blue painted minibuses with a white roof and with a seating arrangement of 12 seats. They travel very fast from one part of the city to another. Besides minibuses, about 1,500 4-seater taxi-cars with the same colours also operate. The minibuses are mainly used by Addis Ababa residents to reach their work place, and tend to represent a better quality of service than the conventional buses.

There are no restrictions for minibus taxis in terms of routes or areas of operation till zone transport system commenced. The fares are controlled by Federal Transport Authority though passengers confirm that the actual fares charged (Trans-Africa Consortium, 2008).

3.7 Zonal Taxi Transport System

The vision of transport plan of Addis Ababa is providing assessable, affordable, and quality service to the public. It enhances the mobility of public and economic activity of county. Public transport in Addis Ababa consists of conventional bus services provided by the publicly owned Anbessa city bus enterprise, minibuses operated by the private sector (World Bank; 2002).

Addis Ababa is a centre of national and international economic activity coupled with ever increasing population in the city, creates high demand of transport. On other hand, the existing taxis plate shows that code 1 taxis are reached beyond 23 thousands which include minibus, lada and "*wuyiyite*". But, currently functioning taxis are not more than 12 thousand. The rest taxis are not providing service to city dwellers. Even the existing taxis are less efficient as a result of age. In addition, "*wuyiyite*" taxis are providing service for cargo instead of passenger. These gaps are forced the city transport branch office to take several mechanisms to satisfy ever increasing demand of transport.

The first measure was taken by the city transport branch office is allowed for code 3 minibus to provide service. But this measure was unsuccessful as it expected. The then the city transport branch office is looking another alternative that is importing of mid-buses. These measures were not satisfying ever increasing demand of transport. From time to time transportation situation becomes worse. These occurs because of taxis are concentrate in more profitable routes instead of fair distribution. Besides, illegal activities were undertaken in taxi transport. These activities are severe in the morning and let afternoon. These factors are deteriorating the sector situation over time.

The city transport branch office studied and commenced zonal taxi transport system in 2011. Zonal taxi transport system provides service efficiently and effectively by enhancing accessibility of taxi in all areas through assigned taxis in a specific route. In addition, for controlling purpose, Addis Ababa divided into five zones and taxis organized into 13 associations and assigned zones to these associations (AATBO, 2011).

CHAPTER FOUR

4. Data Presentation and Discussion of the Findings

4.1. Introduction

The study was conducted to measure the performance of zonal taxi transport system in improving the transport situation of Addis Ababa. It also found out challenges that hinder the system from being effective. This chapter focuses on data presentation and discussion of the results. It is organized into three parts. The first part focuses on performance of the system. The second and third parts discuss on the participation of actors and accountability relationships, and grievance handling mechanisms, respectively.

4.2. Performance Zonal Taxi Transport System in Addis Ababa

Zonal taxi transport system is commenced by the city transport branch office to regulate taxi transport service of Addis Ababa. The study measured the performance of the system.

4.2.1 Accessibility Taxi Transportation Service in Addis Ababa

Access is the ultimate goal of transportation except the small portion of traveling which the movement is an end by itself. Transportation is very important for the development of the country. People and country sustainability depend on the accessibility of transport. Like many economic activities, the transport sector is an important component of the economy impacting on development and the welfare of populations. When transport systems are efficient, they provide economic and social opportunities and benefits that result in positive multiplier effects such as better accessibility to market, employment and additional investment. When transport systems are deficient in terms of capacity or reliability, they can have an economic cost such as reduced or missed opportunities. As a result, to secure economic scale of transport, zonal taxi transport system is commenced by Addis Ababa transport branch office to make taxi transport service efficient and accessible.

The accessibility of zonal taxi transport measured from the perspective of spatial accessibility, availability, getting seat and other criteria, which are discussed below.

4.2.1.1. Spatial Accessibility of Taxi

One of the major criteria that measures accessibility is geographic accessibility of service to the public. One of the achievements of zonal taxi transport system is that formerly taxis were provided services with business focused and concentrated in a few areas to accumulate high profit following free market policy. It is created unfair taxi distribution in the city. Especially in the periphery areas, people had little or no access of taxi transport. In addition, taxis were provided service with copped of routes into two or more places coupled with loaded more than the capacity of taxis to maximize profit. These problems were minimized by redesigned the routes and taxi stations and limited taxis in specific routes. Then, taxi transport service relatively accessible to all parts of the city.

Spatial accessibility of transportation measures on how far the passengers are walking to get taxi from their home. On average, the city passengers are walking 14 minutes way to get taxi. On the other hand, on average African cities passengers are walking 10 minutes way to get transport (Kumar and Barrett, 2008). This implies that the city transportation is relatively inaccessible to the city dwellers as compared to African cities. This is the result of Provisional Trust Board Administration of Addis Ababa, which is weak and illegitimate, was unable to control illegal land invasion coupled with economic development which has led to urban sprawl, which multiplies the challenge posed by rapid population growth. The declining population density associated with sprawl has increased travel distances and pushed up the demand of public transport. Consequently, the city transport bureau is unable to reach public with limited quantity of vehicles. One of the key informants of Addis Ababa transport bureau said that the cause of limited quantity of taxis is that the sector had not received new investment. Any sector needs new investment to survive in the market. However, the city transport has inadequate or no attractive situation for investors. The sector does not have any incentive to attract investors to the sector; the sector does not have any situation to accept any new investment.

However, the city transport bureau is striving to secure spatial accessibility. One of the city transport bureau measure is divided the city into five zones; and redesigned routes and taxi stations, then, distributed to taxi associations. Taxi associations also empowered to administer zones and routes. Currently, the city taxi stations and routes reached to 127 and 269, respectively. The system increased the taxi routes by 103 to make accessible to the public. On other hand, passengers do not have sufficient awareness about these newly introduced taxi routes. Table 4.1 shows that only 47 percent of respondents do have awareness about new taxi routes. The rest 53 percent of respondents do not have awareness about these taxi routes.

Table 4.1: Passengers' awareness about newly introduced taxi routes.

	Frequency	Percent
Have awareness	83	47.4
Have no awareness	92	52.6
Total	175	100.0

Source: Own survey, 2012

This implies that the city transport bureau has done nothing or insufficient awareness creation activity about these new routes. In Addition, the city transport bureau established taxi stations which help to load and unload passengers. It should be establish with consideration of demand. However, Addis Ababa's taxi stations are established with nothing or insufficient consideration of demand of transport. Passengers rated 2.69 out of five for their level of agreement (see Appendix 2C). This implies that passengers think that special accessibility of taxis are poor due to taxi stations established with inadequate research on the demand of transport.

Besides, the level of agreement of respondents on the place of establishment of taxi stations with regard to demand of transport is different across zones. According to Figure 4.1, there is statistically significant difference between zones on public opinion on the place of establishment of taxi stations with regard to demand of transport at $P< 0.05$, $(F (4,170) =2.895, P=.024)$.

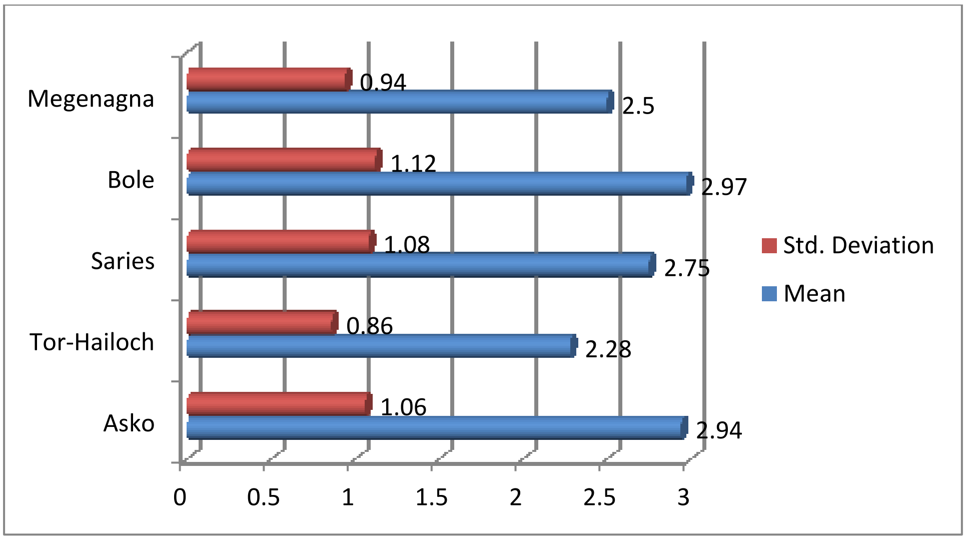


Figure 4.1: Passengers' level of agreement on the place of establishment of taxi stations with regard to demand of transport

Source: Own survey, 2012 * F=2.895, Sig. =0.024, and df= (4,170)

To identify where the difference is occurred, multiple comparisons scheffe post hoc tests were done (Table 4.2). The result shows that their level of difference is insignificant. The means of zones at 95 percent confidence interval are include 0 which shows that there is no statistically significant difference between zones. Even if the result of ANOVA shows that the means of zones have statistical significance, null hypothesis is accepted as a result of no evidence to reject the null hypothesis. (*Means if the CI contains 0, we can say that the two means are equal (Ho, is concluded =no enough evidence to reject the null hypothesis)*. To sum up, there is no evidence to suggest that there is statistically significant difference exist between zones. Therefore, taxi stations are established among zones exhibit the same level of agreement of passengers.

Table 4.2: Passengers' level of agreement on the place of establishment of taxi stations with regard to demand of transport

(I) Zone where the respondants live	(J) Zone where the respondants live	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Asko	Tor-Hailoch	.654	.247	.140	-.11	1.42
	Saries	.189	.245	.963	-.57	.95
	Bole	-.032	.247	1.000	-.80	.74
	megenagna	.439	.245	.524	-.32	1.20
Tor-Hailoch	Asko	-.654	.247	.140	-1.42	.11
	Saries	-.464	.241	.451	-1.22	.29
	Bole	-.686	.243	.098	-1.44	.07
	megenagna	-.214	.241	.940	-.97	.54
Saries	Asko	-.189	.245	.963	-.95	.57
	Tor-Hailoch	.464	.241	.451	-.29	1.22
	Bole	-.221	.241	.932	-.97	.53
	megenagna	.250	.240	.896	-.50	1.00
Bole	Asko	.032	.247	1.000	-.74	.80
	Tor-Hailoch	.686	.243	.098	-.07	1.44
	Saries	.221	.241	.932	-.53	.97
	megenagna	.471	.241	.434	-.28	1.22
megenagna	Asko	-.439	.245	.524	-1.20	.32
	Tor-Hailoch	.214	.241	.940	-.54	.97
	Saries	-.250	.240	.896	-1.00	.50
	Bole	-.471	.241	.434	-1.22	.28

Source: Own survey, 2012

The rationale of this similar status of zones on taxi stations position relative to demand is that taxi stations were established centrally by the city transport branch office. The city transport branch office is only included associations in the study of the system. It creates huge gap on the established stations and demand. To sum up, taxi stations are established with nothing or insufficient consideration of demand. This indicates that taxi stations are far from peoples' resident. This is a result of low density of paved roads coupled with unplanned growth, poor road surfaces, and narrow streets (Kumar and Barrett, 2008). Addis Ababa road coverage reached 13.1 percent which is half of the plan for 2022 (Addis Ababa Road Authority, 2012). It is above African cities road coverage, 7 percent and below developed cities, 25-30 percent (Kumar and Barrett, 2008). This implies that roads network are not reached all parts of the city. On other word, taxi transport service is not georgaphic accessiblity to the public.

4.3.1.2. Availability of Taxi

Geographic accessibility of transport does not mean necessary access. The system redesigned routes and assigned taxis in each route with consideration of demand. Then, passengers are getting taxi as soon as they reach taxi stations. In this assumption, the system commenced to alleviate shortage of taxis; especially in peak hours (morning and late afternoon). However, the problem is getting worse. The streets of Addis Ababa witness a unique sort of battle every morning and late afternoon.

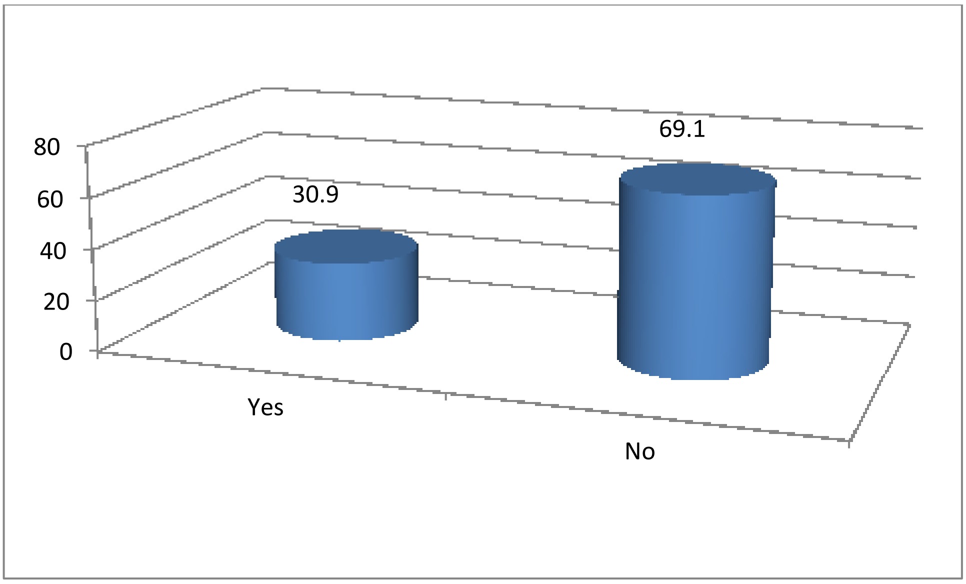


Figure 4.2: The trends of availability of taxis for passengers at taxi station.
Source: Own survey, 2012

Figure 4.2 shows that only 31 percent of respondents said that they get taxi as soon as they reach taxi stations. On other hand, 69 percent of taxi respondents do not get taxi as they reach taxi stations. The main question is how much time they wait to get taxi? According to passengers' response, on average, passengers are forced to wait 27 minutes to get taxi at taxi stations. It is almost similar to other African cities. According to Kumar and Barrett (2008), on average, African passengers wait 30 minutes to get taxi at terminals. However, it is much larger than Riyadh, where passengers wait on average 6 minutes to get taxi (Algadhi, 1992). In general, the availability of taxis at stations in Addis Ababa is very poor compared to Riyadh. This implies that the availability of taxis in Addis Ababa is low. On other hand, it affects the accessibility of taxi transport service.

The system commenced to improve accessibility of taxi transport service to the society. However, it creates acute shortage of taxis in the city. This situation is worse in the morning and late afternoon. This is evident that we are always observes huge crowd in the morning and late afternoon at taxi station. One of the key informants of the city transport bureau said that the city transport bureau expected more than 12000 taxis to be registered. But, the actual taxis registered not more than 9500 taxis. This gap of the expected and actual number of taxis created shortage of taxi.

In addition, taxis are not working or absent from the assigned routes in stated time. To strength this idea, one of the key informants of association believes that the transport fares are not considered all expenses other than fuel. So, taxi drivers are not willing to provide service at the right time and place. Another key informant of association believes that there is no shortage of taxi in Addis Ababa. Rather it created as a result of taxi fares set by federal transport authority. He said that the authority considers only distance of routes to set fares. But, the authority did not take into account traffic jam, land scape, weather condition, spare parts and other expenses. For instance, traffic jam may consume double fuel than expected routes like from Bole to Mexico or Mexico to Megenagna. It vanish taxis from their assigned routes. In addition, taxi drivers and conductors, owners and associations are reluctant to accept the system's rules and regulations. As a result, taxi drivers and conductors deliberately decrease the flit of taxis. It creates shortage of taxi.

One of driver of a taxi and phoned to radio Fana at Teguash Nekash program on November 2011, pointed out the cause of shortage of taxi is assigning of taxis in a route without consideration taxis' capacity. On other hand, the city transport bureau has no any standard to determine taxis' capacity. Hence, associations assigned taxis randomly without take into consideration of vehicles capacity.

Besides, the system specifies taxis' service provision time from 6:30 AM to 9:00PM. However, all passengers do not get taxis in the stated time.

Table 4.3:Trends of availability of taxis to passengers from 6:30AM to 9:00PM.

	Frequency	Percent
Yes	23	13.1
No	152	86.9
Total	175	100.0

Source: Own survey, 2012

Table 4.3 shows that 87 percent of respondents do not have access taxi in the stated time. This indicates that the taxi transport service of the city is inaccessible due to unavailability of taxis in the stated time. Unlike traditional system, the system empowers taxi associations to assign and control taxis and manage zones and routes. It was monopoly owned by the city transport branch office. However, taxi associations have lack capacity, experience and motivation to get done the empowered functions. Besides, lose coordination and control of stakeholders is aggravated the problem.

One of the main challenges which hinder the system from being effective is unknown taxis route. Some of taxis do not have posted root plate. Some other taxis do have posted root plate but invisible to the passengers.   One of the key informants of the city transport bureau said that some taxis have no route plate. This occurs during rotation of route, correction of route, or lost as a result of theft. However, most of taxis are deliberately remove route plate with the cover reason of either of the above.

Even those taxis have posted route plate; they are not providing service in their assigned routes. One of the member of Abye Tefaces taxi station attendant enterprise explains to radio Fana, at Teguash Nekash program on November 2011, the cause of shortage of taxis is that the assigned taxis do not available in their assigned routes.

Moreover, the available taxis are either do not have posted root plate or do have posted root plate, but, invisible to the passengers (Table 4.4).

Table 4.4: The numbers of taxis which have posted route plate.

	Frequency	Percent
All	15	8.6
Majority	105	60.0
Half	36	20.6
Quarter	16	9.1
None	3	1.7
Total	175	100.0

Source: Own survey, 2012

Table 4.4 shows that 9 percent of respondents observed that all taxis posted their route plate; whereas 91 percent of taxi passengers are agreed that all taxis do not have posted route plate, even if they have difference in quantity. This indicates that taxis are disobeying to post route plate which affects the availability and accessibility of taxis to the public. This unavailability of route plate helps taxi drivers to chop a route more than one places. Legehare taxi station attendants explains to radio Fana at Teguash Nekash program on November 2011, taxis cut routes into two or more places to maximize profit. It also creates shortage of taxi in the city. Poor management capacity and experience of association coupled with lose control and coordination of actors aggravated the problem.

Another factor which motivates taxi drivers to breach the system's rules and regulations is that most individual entrepreneurs owning no more than one or two vehicles, which they generally rent out to drivers for fixed return. Drivers keep the fares they collect but are responsible for paying fuel costs, conductors' wages, terminal fees, and other incidental expenses. Drivers face a strong incentive to breach the system's rules and regulations and load more than vehicles' capacity to maximize profit.

In Addition, one of the reporters of radio Fana FM, explains the transportation situation of Addis Ababa to Teguash Nekash program on November 2011; some taxis provide service half of their assigned route. Besides, they also chop long route into two or more parts. It is aggravated when transport controllers absent. He also added that code 3 minibuses are highly engaged in chopping of routes in several segments as a result of invisible route plate.

One of the key informants of the city transport bureau said that a headache of the city transport bureau is absence of taxis in their assigned route and chopped routes into many segments. These problems are created by lose control and coordination of actors.

To sum up, the system failed to force taxis to post their route plate. This opens hole for taxi drivers to breach the rules and regulations of the system and traffic. The system brought shortage of taxi. Even taxi transport is spatially accessible areas; availability of taxis at the right place, time and with required quantity is very low. This is one of the causes of shortage of taxi transport.

Another factor that affects the availability of transportation is frequency of taxis. The demand of transport is alleviated when taxis are efficiently working. It is measured by taxis' flit. When taxis frequency is high, the shortage of taxi is minimized. In Addis Ababa, the flits of taxis are varying with regards to distance. According to the city transport branch office, taxis provide service to more than 1.5 million people every day. This means that each taxi serves more than 150 people per day. This is achieved when taxis fully utilize their capacity. The estimation of frequency of taxis by transport branch office is presented in appendix 2A.

The data indicted in appendix 2A is supported by the responses of taxi drivers. Some taxi drivers said that on average, they flit more than the numbers of the city transport bureau estimated. But, it depends on taxi route, taxi stations attendant, and quantity of assigned taxis in a route. They explained that taxi stations attendants do not properly carry out their function. They focus on money collection rather than the system function. This highly affects taxis frequency and system. On average, 180 Km per day distance is covered by taxis in Addis Ababa which is below African cities, which is 186 km per day (Kumar and Barrett, 2008). This indicates that Addis Ababa taxis are less efficient compared to other least developed country's cities. This low efficiency of taxis adversely affects the frequency of taxis. The other reason of low frequency of taxis is demand of taxi is one side, which forced taxis flit one way. Low frequencies of taxis aggravated the situation.

The system designed is very effective in adjusting taxis frequencies with passengers demand. But, the headache of the city transport bureau is low efficiency of taxis coupled with taxi drivers deliberately creating problem in the frequency of taxis. This results from lack of awareness and intention of maximizing profit.

In general, zonal taxi transport system has potential to improve the transportation situation of the city. However, lack of awareness, lose control and weak relationship between the actors hinder the system from being effective. As a result, the system is making the transport situation worse instead of improving.

4.2.1.3. Getting Seat

Another measure of taxi transport accessibility is that whether passengers get seat when they travel. The system assigned taxis in specific route to satisfy the demand of transport. However, the assigned taxis numbers and demand do not match; coupled with taxis carrying capacities not more than 12 seats. This created crowd at taxi stations. According to Kumar and Barrett (2008), Addis Ababa population share of seat for all modes of public transport is 12 seats per 1000 population. But, on average, African cities have 41 seats per 1000 population. The shares of seat of Addis Ababa residents are below African cities. It indicates that Addis Ababa has severe shortage of transport. Table 4.5 indicates that the majority of passengers, i.e., 116 people or 66.3 percent do not have seat when they travel. Only 33.7 percent of the total passengers do have seat when they travel.

Table 4.5: The frequency of getting seat when passengers commute.

Response	Frequency	Percent
Yes	59	33.7
No	116	66.3
Total	175	100.0

Source: Own survey, 2012.

This situation is worse in periphery areas which are inaccessible to the traffic police and the city transport bureau’s and associations’ controller. In addition, in early morning, late afternoon and at night, the situation is becomes more severe following absence of traffic police and the city transport bureau’s and associations’ controllers.

4.2.1.4. Considering All Segment of the Society

Urban public transportation is accessible when it considers all segment of the society. Transportation system ought to be designed to accommodate people with disabilities and other special needs. For example, a pathway designed to accommodate people in wheelchairs may be called accessible. Poverty among people with disabilities is perpetuated by their lack of access to education, health care and employment opportunities. However, without the ability to travel, people with disabilities can benefit from interventions in the health care, education or socio-economic sectors only in a very limited way. Transport is thus an important enabler of most other strategies to fight poverty and social exclusion. People with disabilities are one segment of the society who lives in Addis Ababa. This segment of the society has great contribution for the development of the county. However, people with disabilities in Addis Ababa experiences discrimination in transport sector so far. This discrimination has spill over effect on the government effort on poverty reduction. In addition, the newly regulatory system i.e. zonal taxi transport system did not consider them (Table 4.6).

Table 4.6:The extent of people with disabilities considers in taxi transport service.

	Frequency	Percent
Yes	29	16.6
No	146	83.4
Total	175	100.0

Source: Own survey, 2012

Table 4.6 shows that 83.4 percent of passengers do not think that taxi transport provide service with consideration of people with disability. This implies that Addis Ababa transport service has ignored people with disabilities. In other words, the Addis Ababa city administration discriminates people with disabilities from being contributed to national poverty reduction program. It negatively affects a countries progress to achieve Millennium Development Goal (MDG) one; reducing poverty by half in 2015. Besides, it also increases the gap between rich and poor.

The city transport bureau should force taxis to include facilities which encourage people with disabilities to commute. It has also to influence Addis Ababa Road Authority to design and construct roads with consideration of people with disabilities.

4.2.2 Affordability of Taxi Transportation Service in Addis Ababa

Another indicator of the city transport to be called accessible is its affordability. One of the major criteria to measure urban transport is consideration of people's capacity to pay. Affordability is whether transportation options have financial costs within the targeted users' budget. Affordability varies widely with income and distance to travel. Transportation is essential rather than discretionary. Therefore, every household necessarily include in their monthly budget. The raising transport fares can hinder the poor from travelling and creating difficulty for the movement of labour force to work places. In addition, most of low income people live in the periphery area of the city to get low cost rent. However, ever increasing transport cost highly affects low income society. Consequently, it increases the gap between rich and poor.

The system is introduced to overcome unnecessary exploitation of the poor by preventing taxis from refusing to travel long distances to maximize their income. The system helps to maximize all stakeholders' benefit. Along with zonal taxi transport system Federal Transport Authority introduced new taxi fares with consideration of distance (See appendix 1B). These taxi fares were determined by taking into account taxi spare parts, taxi frequency, miscellaneous expenses, and people payment capacity.

One of the key informants of the city transport bureau explains that formerly taxi fares were set without appropriate measurement of distance. In zonal taxi transport system, taxi fares were determined with exact measurement of routes. He farther explains that, for instance, the distance from Saris to Piazza is 9.9 km. People were charged for this route more than Birr 8. Currently, in zonal taxi transport system, people are supposed to pay for this route is Birr 3.95.

However, these taxi fares are being implemented wrongly. For instance, up to 7 km people supposed to pay 2.70. However, currently people are charge Birr 3.90. In Addition, passengers pay Birr 5.20 up to 10 kilometres but they are supposed to pay 3.90birr. These shows that transport fares developed by Federal Transport Authority are not being implemented properly. One of the key informants of taxi association said that the current fares are not appropriate. He believes that it is unfair for taxi drivers and owners. It leads them to incur loss. So, taxi drivers charge more than the normal fares. In addition, they provide service in early morning and late afternoon to load over the capacity of taxis to maximize profit. It is created as a result of lose control of controllers of city transport bureau, taxi associations and traffic police.

Box: **Accessibility of Taxis Transport Service**

W/t Selam lives at Ferensay Legasion. She is a retailor. She is frequently using taxi route from Merkato or Autobus Tera to Ferensay. She said that she never got taxi from Ferensay to Merkato or Autobus Tera. But, taxis are available with route plate from Ferensay or Brte Deledie to Merkato or Autobus Tera route plate. These taxis are chopping the route into two at St. George's church. She tried to enforce taxi drivers to give service according to route plate. However, taxi drivers were insulted her. Moreover, taxi station attendants and passengers were collaborated to drivers and discouraged her from claiming her right. She also added that she sometimes got taxi from Merkato or Autobus Tera to Ferensay. But, they are charging her 4 birr instead of 2.80. Because, the distance from Merkato to Brte Deledie is 6.8 km, it is within the range of 7 km. the taxi fare is Birr 2.80 up to 7 km, passengers have to charge 2.80 birr. She pointed out she does not know the kilometres and taxi fare. She is paying the fare as accustomed before the system was commenced.

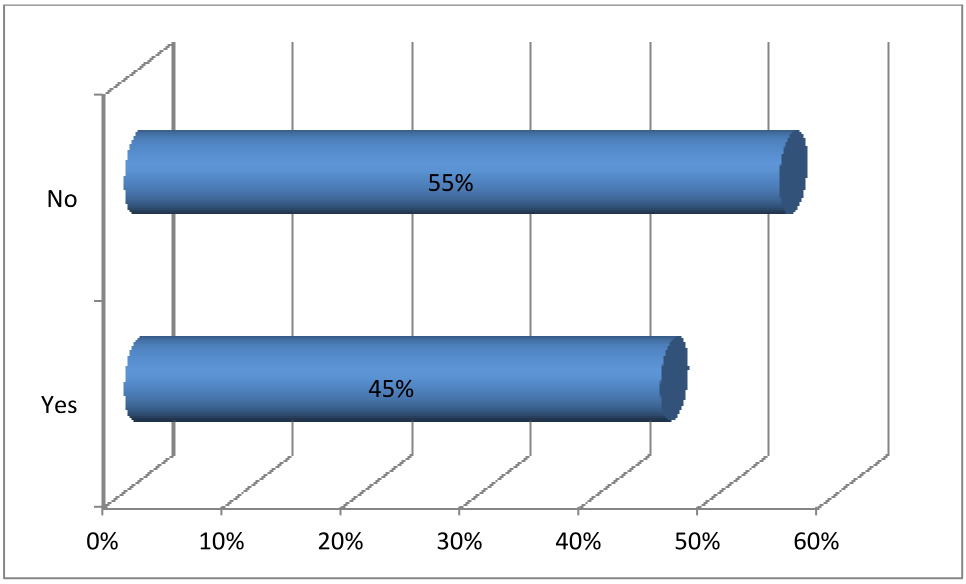


Figure 4.3: The frequency of passengers who seen the list of fares with kilometres

Source: Own survey, 2012

Figure 4.3 shows that 55 percent of passengers do not see the list of fares with kilometres. Only 45 percent of passengers do check taxi fares. Passengers know the taxi fare either posted in taxis, listened from medias, asking other passengers or people and asking conductors.

Table 4.7: Passengers' alternatives ways to know taxi fares.

		Responses		Percent of Cases
		Frequency	Percent	
how do you pay taxi fare(a)	Posted in taxi	23	10.3percent	13.1percent
	Media	88	39.3percent	50.3percent
	Asking other passengers or people	43	19.2percent	24.6percent
	Conductors	70	31.3percent	40.0percent
Total		224	100.0percent	128.0percent

Source: Own survey, 2012

Table 4.7 shows that 39.3 percent of respondants said that they heared from media; 31.3 percent ask conductors; and 19.2 percent ask other passengers.

The passengers spend on average 19.7 percent of their income for transportation (Table 4.8). It is more than African cities passenger budget for transportation which is on average 6.5 percent of their income (Kumar and Barrett, 2008). This implies that the taxi transport fares of Addis Ababa are very expensive as compared to African cities. This is difficult for the poor to afford transportation service.

Table 4.8: Passengers' monthly income and transport expenditure.

		Respondent's monthly income(birr)	Respondent's spend for transport per month(birr)	Respondent's spend for transport per month (percent)
N	Valid	175	175	175
Mean		1475.0057	290.8000	19.7

Source: own survey, 2012

The rationale for this high price of transportation is that government does not have any subsidy for the sector.

The current taxi fares are expensive for passengers. Figure 4.4 indicates that 68 percent of passengers perceived that taxi fares are expensive and 31 percent of passengers perceived medium. This implies that for most of the travellers think that the transport fares are expensive for the poor to afford the service.

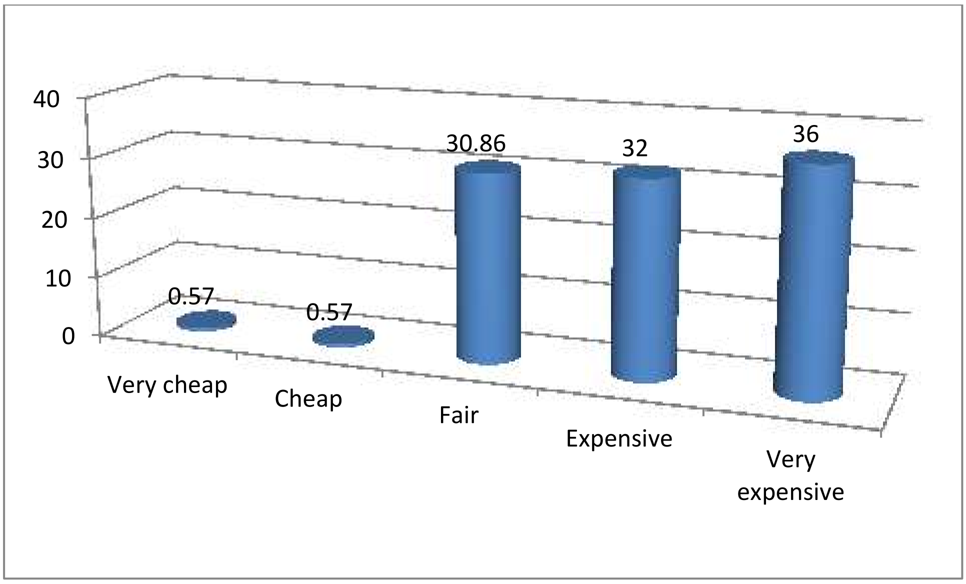


Figure 4.4: The taxi fare situation from passenger's perspectives.
Source: Own survey, 2012

In general, zonal taxi transport system commenced new taxi fares which make transport service affordable for the society. However, because of lose control of stakeholders with insufficient awareness of public; it exposed the poor to unnecessary exploitation. To sum up, it is difficult to say that there is improvement on the affordability where the system helps taxi drivers to exploit the poor.

4.2.3 Quality of Taxi Transportation Service in Addis Ababa

Customers have the right to claim appropriate quality of service in return of their payment. Public transport is one of the services provided to the passengers. Zonal taxi transport system commenced to improve the quality of taxi transport service provided to customer. Several factors are compromising the quality of transportation. Some of these factors are discussed as follows:

4.2.3.1. The Behaviour of Taxi Drivers and Conductors

Quality of transport is highly affecting by taxi drivers' and conductors' behaviour. Taxi drivers ought to consider themselves as service provider and with respect their clients. Zonal taxi transport system brought some improvement on the behaviour of taxi drivers and conductors. This has been possible due to the city transport bureau conducted awareness creation training to drivers and conductors. Besides, the system creates favourable condition to control those unethical drivers through limiting taxis in a specific route. It makes easier to find and punish unethical drivers. On other hand, passengers have right to inviolable and inalienable human right which is backed by constitution.

However, taxi drivers and conductors are employed informally coupled with passengers' inadequate awareness about their right; opens the door to assault passengers orally as well as in written and notices. It also violates and disgraces the passengers' humanity. Besides, it is hardly possible to control the guilty drivers. Because of taxis have reserve (*scoart*) drivers, who drive when the main drivers taking rest. It adversely affects the vehicles performance as well as the quality of taxi transport service. In addition, taxi drivers and conductors are addicted of drugs (chat and cigarette) which force them to violate passenger's right. It also exposes passengers for traffic accident as a result of it over stimulated drivers.

Besides, passengers rated 2.72 out of five on taxi drivers' and conductors' behaviour (see Appendix 2C). This means that taxi drivers' and conductors' behaviours are bad for passengers. This implies that passengers think that the quality of taxi service is bad from the perspective of behaviour of taxi drivers and conductors.

The behaviour of taxi drivers and conductors are similar in all zones. Table 4.9 shows that there is no statistically significant difference on passengers' evaluation on taxi drivers' and conductors' behaviour between zones at the $P<0.05$, ($F(4,170) = 1.965$, $P=0.102$).

Table 4.9: Passengers' evaluation on the behaviour of taxi drivers and conductors.

	Frequency	Mean	Std. Deviation	F	Sig.
Asko	33	2.61	.899	1.965	0.102
Tor-Hailoch	35	2.66	.998		
Saris	36	2.61	.803		
Bole	35	3.11	1.022		
Megenagna	36	2.61	.934		
Total	175	2.72	.945		

Source: Own survey, 2012

The city transport bureau should force taxi owners to employ taxi drivers and conductors through formal way. If their employment is legitimate, it makes simple to control their behaviour. In addition, it is better to provide training to respect driving as profession.

4.2.3.2. Quality of Roads

Quality of roads has paramount effect on quality of transport service. The quality and coverage of road determines the level of transport quality and accessibility in the city. In Addis Ababa, the total road coverage reached 13.1 percent of the city total coverage which is half of the plan in 2022 (Addis Ababa Road Authority, 2012). This indicates that the city is expected to construct the remaining 12 percent within 10 years.

This low coverage of roads has negative effect on people mobility. But, the status of roads is relatively found in better condition. Almost the arterial and sub arterial roads are found in very good condition. It maximizes the transport quality of the city (See Table 3.1).

In addition, passengers said that the quality of roads is good and rated 3.27 out of five which indicate that the quality of roads in Addis Ababa is good (See Appendix 2C). The roads situation in Addis Ababa is good and increase the quality of transport by minimizes traffic accident.

Figure 4.5 indicates that there is statistically significant difference between zones on passengers' evaluation on the quality of roads at the $P<0.05$, ($F(4,170) = 3.878$, $P=.005$).

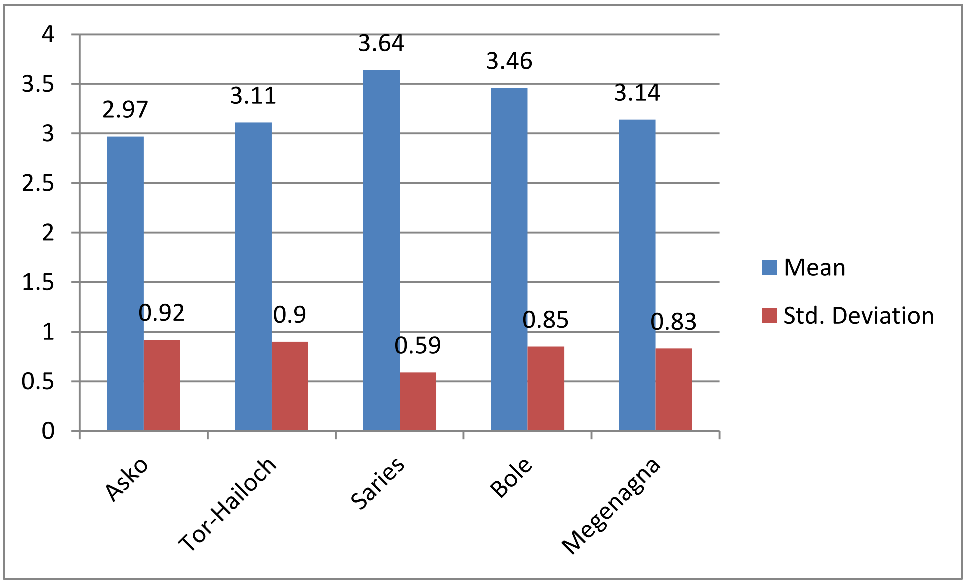


Figure 4.5: Passengers' evaluation on quality of road

Source: Own survey, 2012 *$F=3.642$, Sig. $=0.005$ and $df= (4, 170)$

To identify where the exact difference is occurred, multiple comparisons scheffe post hoc tests were done (Table 4.10). The tests indicate that the mean of zones at 95 percent confidence interval between Saris and Asko do not contain 0 which indicate that the level of quality of roads of Saris (M=3.64, SD=0.593) has significance difference than Asko (M=2.97, SD=0.918). However, Bole (M=3.46, SD=0.852), Tor-Hailoch (M=3.11, SD=0.900) and Megneagna (M=3.14, SD=0.833) has no significance difference from Saris and Asko.

Table 4.10: Passengers' evaluation on the quality of roads.

(I) Zone where the respondants live	(J) Zone where the respondants live	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Asko	Tor-Hailoch	-.145	.200	.971	-.77	.48
	Saries	-.669*	.199	.026	-1.29	-.05
	Bole	-.487	.200	.210	-1.11	.14
	megenagna	-.169	.199	.948	-.79	.45
Tor-Hailoch	Asko	.145	.200	.971	-.48	.77
	Saries	-.525	.196	.133	-1.13	.09
	Bole	-.343	.197	.556	-.96	.27
	megenagna	-.025	.196	1.000	-.63	.59
Saries	Asko	.669*	.199	.026	.05	1.29
	Tor-Hailoch	.525	.196	.133	-.09	1.13
	Bole	.182	.196	.930	-.43	.79
	megenagna	.500	.195	.164	-.11	1.11
Bole	Asko	.487	.200	.210	-.14	1.11
	Tor-Hailoch	.343	.197	.556	-.27	.96
	Saries	-.182	.196	.930	-.79	.43
	megenagna	.318	.196	.621	-.29	.93
megenagna	Asko	.169	.199	.948	-.45	.79
	Tor-Hailoch	.025	.196	1.000	-.59	.63
	Saries	-.500	.195	.164	-1.11	.11
	Bole	-.318	.196	.621	-.93	.29

*. The mean difference is significant at the .05 level.

Source: Own survey, 2012

The rationales of this difference are that Saris is located along the main trade route and main industry zone of the city. The city road authority gives priority to Saris zone compared to Asko. The other reason is that the main road which takes from Wunigate to Asko is under construction. It makes Asko zone to be the worst in terms of quality of roads compared to Saris. This implies that passengers think that the quality of taxi transport service of Asko is bad as compared to Saris due to bad quality of roads in Asko.

4.2.3.3. Taxi Station Attendant Enterprises

Zonal taxi transport system commenced with 127 taxi terminals and 269 transport routes. In each taxi terminals, the city micro and small enterprise bureau is reorganized taxi station attendant enterprises. These enterprises have role in zonal taxi transport system. In addition, these enterprises have been created more than 4000 job opportunities for the city residents.

Taxi station attendant enterprises are enterprises which provide row for taxis at taxi stations. They charge Birr 1.25 per flit in return of their service. In addition, the city transport bureau also provides power to them to control chopping of routes and prohibit stray taxis, which are not assigned in that route. These activities are helping the system to be effective.

However, these enterprises become a major obstacle for zonal taxi transport system. The employees of the enterprises pursue their own interest rather than system's effectiveness through providing privilege for drivers who pay more fees. In addition, these taxi station attendants are making abuse on passengers rather than helping. One of the passengers of taxi transport who lives in Batel, phoned to Teguash Nekash program in radio Fana on December 07, 2011, and she said that she tried to force taxi station attendants to prohibit those taxis did chop routes. But, they tried to beat her rather than helping.

One of the informants of Addis Ababa police commission said that taxi station attendants do not have any traffic knowledge. They could not participate in reducing congestion at taxi terminals.

He also added that some of taxi station attendants employ other persons to collect money for them. Besides, they charge fees without recite. It creates space for tax evasion. In general, these enterprises highly exposed to rent seeking behaviour. It is highly aggravated by lose control of Addis Ababa micro and small enterprise bureau. In addition, the city transport bureau, associations and traffic police do not have power to control the functions of these enterprises.

Passengers rated 2.91 out of five for taxi station attendants' behaviour. It shows that taxi station attendants' behaviour is bad (See Appendix 2C). This implies that passengers' think that quality of taxi transport service is bad as the result of bad behaviour of taxi station attendants. To summarize, these enterprises do have insufficient contribution to the system's effectiveness.

4.2.3.4. Passengers

Every system needs all stakeholders' active involvement. Zonal taxi transport system like other systems needs all stakeholders' participation. One of the stakeholders of the system is passengers of the city transport. Passengers have role in the quality of taxi transport service. Nevertheless, passengers are passive participant in the system. Even the worst thing is that passengers are disobeyed to the system. Passengers are paying new taxi fares for former distance. This is evident that passengers pay wrong fares rather than wright fares for the routes. For instance, passengers are currently paying up to 7 km, Birr 3:90 instead of Birr 2:70. One of the drivers of taxi phoned to radio Fana; for Teguash Nekash program on November 2011, passengers themselves forced us to breach the normal fares. He explains that passengers are not willing to pay normal fares, which determines with consideration of distance. As a result, they charge current fares by former distance.

In addition, passengers have to aware their own rights and responsibilities in taxi transport. If the passengers passive to know their rights and liabilities, they may violate others safety. It, therefore, compromises the quality of taxi transport service. Anecdotal surveys states that more than half of passengers' surrendered their rights to taxi drivers and conductors and discourage others who claim their rights. One of the key informants of the city transport bureau explains that even the city transport bureau's controllers try to help them; they insulated and discouraged controllers rather than collaborate and enjoy by their rights. This is created huge obstacle to correct problems committed by taxi drivers and conductors.

In addition, passengers do not use route plates to take taxi; rather they are asking the consent of conductors. But, passengers have the right to get service according to route plate without asking conductors' consent. Because of lack of awareness of passengers about their right, taxi drivers and conductors encouraged to chop routes as they wish. This implies that the city transport branch office was done inadequate awareness creation activities. Table 4.11 shows that only 64 percent of passengers have awareness about zonal taxi transport system. The remaining 36 percent of passengers do not have awareness about it.

Table 4.11: Awareness of public on zonal taxi transport system.

	Frequency	Percent
Yes	112	64.0
No	63	36.0
Total	175	100.0

Source: Own survey, 2012

Because of this inadequate awareness creation program was done by the city transport branch office, passengers are a collaborator of illegal activities.

In Addition, the passengers' dressing style and tidiness are adversely affecting the quality of taxi transport service. Some passengers are dressing against to the society's culture; it compromises other passengers' safety. Besides, some people have perfume which might create terrible for other passengers who have asmatic, alerjic, etc.

4.2.3.5. Alternative Modes of Transportation in Addis Ababa

Alternative modes of transport have huge contribution for the quality of transport service. Alternative modes of transport might be walking (pedestrian), bicycle, motorcycle, railway, bus, mid-bus, minibus and private vehicles.

Quality of service depends on passengers' preference about the modes of transport. More alternative modes of transport available for passengers; their satisfaction also increases. Nevertheless, Addis Ababa city Administration has only road transport particularly pedestrian, bus, mid bus, taxi and private vehicles (see Table 3.2). These modes of transport are available with low quality and quantity. Therefore, the quality of transport in Addis Ababa is seriously compromised by modes of transport. In addition, more transport modes may give cost option for passengers.

In addition, alternative modes of transport have significant contribution on accessibility, affordability and safety transport service. Multiple modes of transport are giving opportunity for passengers to choose with regard to their preference. Multiple modes of transport maximized traffic speed, minimized congestion, and reduced crowded and accidents. Besides, it also improves the quality of service by enhancing passengers' satisfaction.

In Addis Ababa, urban passengers' depend only on road transport. The major modes of public transport in the city of Addis Ababa are buses and taxis. There is no rail transit within the city yet. The existing public transportation is low in quality because of limited numbers of buses and taxis couples with poor management and poor driving ethics of drivers. According to Kunar and Barrett (2008), Dakar, Kinshasa, Lagos, and Nairobi have small scale suburban rail networks which market share is not more than 2 percent. In addition, in Douala, Lagos, and Kampala, the use of motorcycles for commercial transport has grown very rapidly in recent years, mainly as a consequence of the poor status of roads and the inability of bus companies to meet growing demand. These extra modes of transport may improve the accessibility, affordability and quality of service in the cities. However, Addis Ababa has no alternative transportation mode except bus, midi-bus and taxi. It adversely affects passengers' preference and satisfaction.

One of the major transport modes in Addis Ababa is taxi transport. The numbers of taxis in Addis Ababa are not more than 9500 and their efficiency decreased as a result of age and accident. The internal facility of taxis is not controlled by the city transport bureau. Because, the city transport bureau does not have standard to evaluate internal facility of taxis. The existing taxis are poor in internal facility. Broken chairs, fixed windows (not opening), not properly closed door and other internal poor facilities are a manifestation of taxis.

The city transport bureau provides license for taxis without consideration of internal facility of taxis. The mean of passengers' judgement on taxis' internal facility like seat, window, comfort and other facilities are bad. The respondent's rated 2.94 out of five (see Appendix 2C). This implies that passengers think that the quality of taxi transport service is bad as the result of poor internal facility of taxis.

The quality of taxis' internal facilities between zones has no difference. Figure 4.6 shows that there is no statistical significance difference in passengers' judgement on internal facilities of taxis between zones at the $P<0.05$, $F(4,170)=0.774$, $P=0.544$)

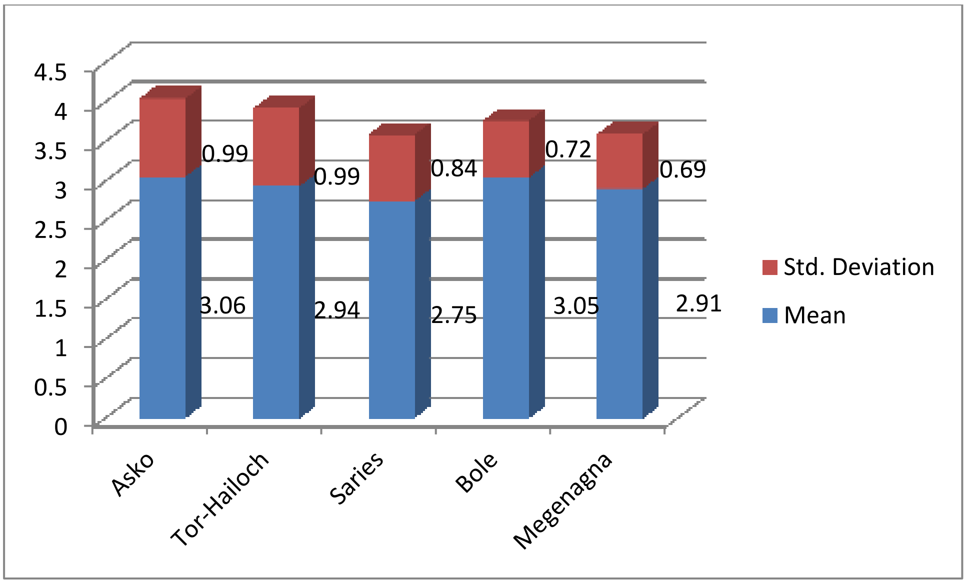


Figure 4.6: Passengers' evaluation on internal facility of taxis

Source: Own survey, 2012 *F=0.774 Sig.0.544 and df= (4,170)

This similar status internal facility of taxis is a result of absence of standard that taxis should have and new investment in the sector. One of the key informants of the city transport bureau strengths that not more than 5 percent of taxis which provide service with better internal facility. But, the rest taxis do have poor internal facility which may jeopardize passengers' life and health. He also added that the city transport bureau does not have any alternative to prohibit them from being provide service.

4.2.3.6. Traffic Congestion

Traffic congestion has significant effect on smooth functioning of transport. Congestion is most often observed, where the demand for travel during morning and afternoon peak periods increases sharply, while capacity remains relatively fixed. Besides, limited modes of transport, numbers of sub-arterial roads, pedestrian roads and increases of private cars are a main cause of traffic congestion. In addition, Public want uses whole course of routes as taxi terminals. This is creating traffic jam in the routes. Consequently, it creates high consumption of time and fuel. Traffic congestion is created mostly in the peak hours as a result of all passengers demanding transport at the same time. Severe traffic congestion is cause of high consumption of fuel and time, pollution of air, and others. Consequently, it has spill over effect on the economic activities of the county.

Zonal taxi transport system commenced to improve overall transport situation of Addis Ababa. The system improves traffic speed. However, taxi stations are established with small parking areas as compared to the assigned taxis. It creates traffic congestion at taxi station areas. For instance, Bole taxi station established at Bole. Terminal's capacity to give service up to 170 taxis simultaneously. However, the city transport bureau assigned more than 800 taxis for 8 taxi routes as initial and destination. Consequently, it creates high traffic jam at the terminal area.

Traffic symbols should be posted to create smooth traffic flows. However, traffic symbols are a major obstacle for smooth traffic flows in the city. Because, the city transport bureau posted two symbols at a place for taxi and bus terminals which creates huge traffic congestion at the routes and terminals.

Passengers rated 2.46 out of five for traffic congestion situation in Addis Ababa (see Appendix 2C). This implies that passengers think that the quality of taxi transport service is bad due to bad traffic jam in the city.

Traffic congestion has no difference between zones. Table 4.12 shows that there is no statistically significant difference on passengers' evaluation on traffic congestion between zones at the $P<0.05$, ($F(4, 74)=1.304$, $P=0.271$)

Table 4.12: Passengers' evaluation on the traffic congestion.

	Frequency	Mean	Std. Deviation	F	Sig.
Asko	33	2.27	.977	1.304	0.271
Tor-Hailoch	35	2.31	.963		
Saris	36	2.64	.798		
Bole	35	2.40	.847		
Megenagna	36	2.64	.961		
Total	175	2.46	.914		

Source: Own survey, 2012

Traffic jam is a cause of traffic accident. The system improves the traffic flow as compared to previous system. Hence, the system may relatively minimized traffic accident and improved quality of taxi transport service.

4.2.3.7 Waiting Time to Get Taxi

The other factor which compromises the quality of taxi service is passengers' waiting time to get taxi. Passengers waiting time has to be reasonable. On average, Passengers wait 27 minutes to get taxi at taxi terminals. This is very high compared to Riyadh. On average, passengers wait 6 minutes to get taxi in Riyadh (Algadhi, 1992) and slightly improved other African cities passengers' waiting time, 30 minutes (Kumar and Barrett, 2008). This implies that Addis Ababa has poor quality of taxi transport service due to long waiting time of passengers to get taxi. This low availability of taxis at terminals is a result of low quantity of taxis coupled with low efficiency of vehicles. Therefore, the city transport bureau has to increase the quantity and frequency of taxis. Otherwise, it adversely affects the availability as well as quality of taxi transport service in the city.

4.2.3.8 Safety and Security

The other important elements of quality of transport service are safety and security of passengers. Safety of passengers have pivotal role on the quality of service. Safety and security are important issues that should be taken into account throughout the life cycle of any system. Because of its dynamic nature and geographic spread, transport sector exposed passengers to accident more than any other single economic sector does. On other hand, passengers preferred to use potentially minimum risk service.

The system has brought security for passengers by minimizing criminal activities. The system designed to protect crimes which have been undertaking in taxis. The system has great contribution to protect criminal activities like "*showa showa*", which is a type of theft done by drivers and conductors through kidnap. In addition, if anything happens in the customer, they can easily report to the responsible body with the name of taxi association, plate number and route plate. Then, guilty driver and conductor are easily identified and punished.

The system limits taxis in a specific route. The owner can easily observe and control their properties. Besides, the system helps owners can easily know the amount of frequency of taxis do so as income. The system is giving break for drivers, conductors, and vehicles. It has paramount importance to minimize accidents and prolong life of vehicles.

The quality of internal facility of taxis has paramount importance for quality of service they provided. Taxis should have certain standard. These standards ought to consider passengers' safety. The city transport bureau does not have any standard that taxis should have. But, majority of taxis have broken chair, not opening window, least comfort, and inferior internal quality. Passengers rated 2.94 out of five for taxis internal facility (see Appendix 2C). This implies that the passengers think that the quality of taxi transport service is bad due to bad internal facility of taxis.

The quality of taxis is never observed by the city transport bureau and associations. In addition, the city transport bureau gives taxi transport license and route plate without checking vehicles. One of the key informants of association said that they found taxi which has route plate and taxi license without painting blue and white colour. To improve the quality of taxi transport service, the city transport bureau ought to introduce standard that taxis should have. It is also important in reducing taxi accident in the city.

4.2.3.9. Customer Satisfaction

Passengers' satisfaction depends on the quality of transport service. The quality of transport service highly determines passengers' expectation. Taxi transport service considers quality as long as it satisfies customers. The passengers' satisfaction on transportation is determined by the quality of roads, behaviour of drivers and conductors, responsiveness of responsible bodies, and accountability relationships and voicing mechanisms.

The first factor which compromise passengers' level of satisfaction is the behaviour of taxi drivers and conductors. The passengers' rated their satisfaction level in terms of the behaviour of taxi drivers and conductors. They rated 2.66 out of 5 which shows that the passengers are dissatisfied with the behaviour of drivers and conductors (see Appendix 2C).

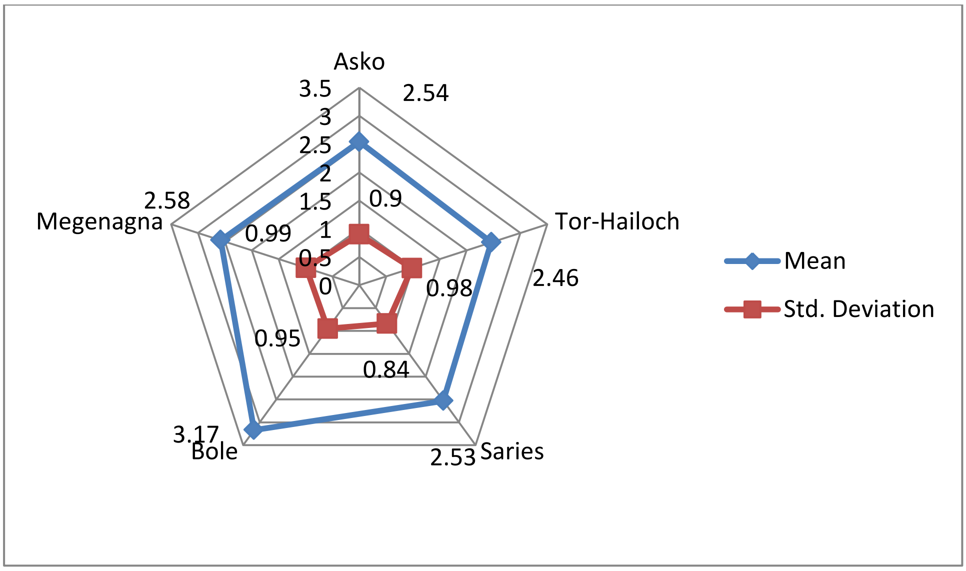


Figure 4.7: Passengers' level of satisfaction with taxi drivers and conductors behaviour

Source: Own survey, 2012 * F=3.372, Sig. =0.011, and df= (4,170)

Figure 4.7 indicates that there is statistically significant difference on passengers' level of satisfaction between zones with the behaviour of taxi drivers and conductors at the $P<0.05$ and ($F(4,170) = 3.372$, $P=0.011$).

Table 4.13: Passengers' level of satisfaction with the behaviour of drivers and conductors.

(I) Zone where the respondants live	(J) Zone where the respondants live	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Asko	Tor-Hailoch	.088	.228	.997	-.62	.80
	Saries	.018	.226	1.000	-.69	.72
	Bole	-.626	.228	.114	-1.33	.08
	megenagna	-.038	.226	1.000	-.74	.67
Tor-Hailoch	Asko	-.088	.228	.997	-.80	.62
	Saries	-.071	.223	.999	-.76	.62
	Bole	-.714*	.224	.042	-1.41	-.02
	megenagna	-.126	.223	.988	-.82	.57
Saries	Asko	-.018	.226	1.000	-.72	.69
	Tor-Hailoch	.071	.223	.999	-.62	.76
	Bole	-.644	.223	.084	-1.34	.05
	megenagna	-.056	.221	1.000	-.74	.63
Bole	Asko	.626	.228	.114	-.08	1.33
	Tor-Hailoch	.714*	.224	.042	.02	1.41
	Saries	.644	.223	.084	-.05	1.34
	megenagna	.588	.223	.143	-.11	1.28
megenagna	Asko	.038	.226	1.000	-.67	.74
	Tor-Hailoch	.126	.223	.988	-.57	.82
	Saries	.056	.221	1.000	-.63	.74
	Bole	-.588	.223	.143	-1.28	.11

*. The mean difference is significant at the .05 level.

Source: Own survey, 2012

To find where the difference is occurred, scheffe post hoc tests were done (Table 4.13). Post hoc comparisons using scheffe tests indicate that the mean of Bole and Tor-Hailch at 95 percent confidence interval do not include 0 which means that the satisfaction level of passengers of Bole ($M=3.17$, $SD= 0.954$) with the behaviour of taxi drivers and conductors has significance difference than Tor-Hailoch ($M=2.46$, $SD=0.980$). However, Asko ($M=2.55$, $SD=0.905$), Saris ($M=2.53$, $SD=0.845$), and Megenagna ($M=2.58$, $SD=0.996$) do not significantly differ from Tor-Hailoch and Bole. This difference is occurred as a result of geographic location of zones. Bole zone is the nearest to the city transport bureau as compared to Tor-Hailoch. Hence, Bole zone is getting more assistance from the city transport bureau's controllers as compared to Tor-Hailoch. In addition, the management of zones and routes vested to associations. Bole zone's associations have motivation to manage the behaviour of drivers and conductors as compared to Tor-Hailoch.

The second factor that affects the satisfaction of passengers is voicing mechanisms. The passengers' rated 2.39 out of 5 for voicing mechanisms (See Appendix 2C). This implies that the passengers think that the city transport bureau voice receiving mechanisms are inconvenient.

Besides, how far the passengers' level of satisfaction with voicing mechanisms differs between zones? To answer this, ANOVA were done. There is no statistically significant difference in passengers' level of satisfaction with the voicing mechanisms between zones at ($F(4,170) = 0.665$, $P = 0.617$) (Table 4.14).

Table 4.14: Passengers' level of satisfaction with the voicing mechanisms between zones.

	Frequency	Mean	Std. Deviation	F	Sig.
Asko	33	2.36	.859	0.665	0.617
Tor-Hailoch	35	2.34	.998		
Saris	36	2.25	.874		
Bole	35	2.63	1.239		
Megenagna	36	2.36	1.125		
Total	175	2.39	1.027		

Source: Own survey, 2012

The third factor that influences the satisfaction level of passengers is the quality of roads. Passengers are relatively satisfied with the quality of roads. They rated 3.01 out of five (See appendix 2C).

The final factor that affects the satisfaction of passengers is the responsiveness of responsible bodies to public. Passengers are dissatisfied with the responsible bodies' responsiveness. They rated it 2.31 out of five (see Appendix 2C). This implies that the system is receiving nothing or little feedback from the public about their interest.

Table 4.15 shows that there is no statistically significant difference on passengers' satisfaction with the responsiveness of responsible bodies between zones $P<0.05$, [$F(4,170) = 2.364$, $P=0.55$].

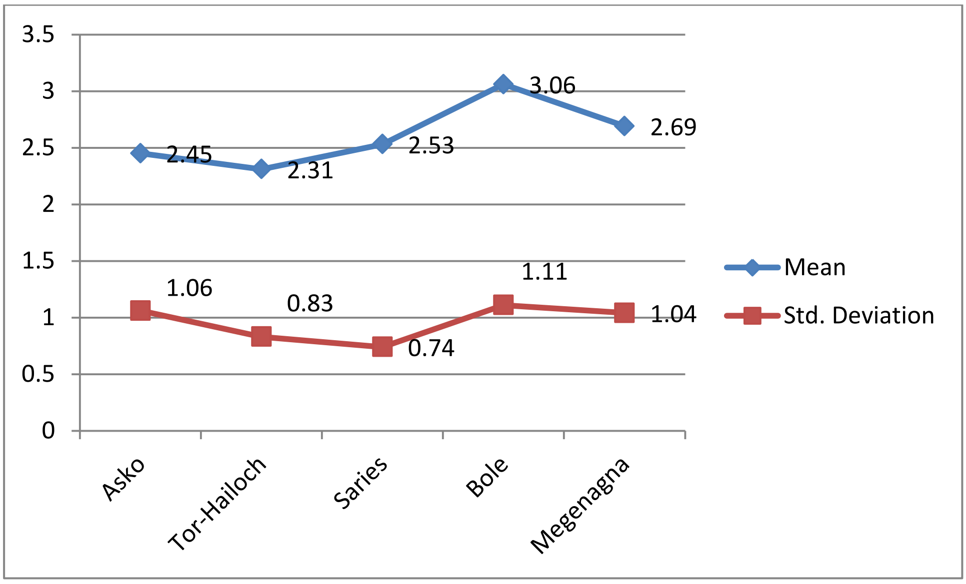
Table 4.15: Passengers' level of satisfaction with the responsiveness of responsible bodies between zones.

	Frequency	Mean	Std. Deviation	F	Sig.
Asko	33	2.42	1.062	2.364	0.055
Tor-Hailoch	35	2.00	.874		
Saris	36	2.25	.874		
Bole	35	2.69	1.022		
Megenagna	36	2.19	1.117		
Total	175	2.31	1.010		

Source: Own survey, 2012

In general, this dissatisfaction has great impact on the quality of taxi transport service. Passengers dissatisfied on the performance of the system. The passengers rated 2.61 out of 5 (See Appendix 2C). This indicates that passengers think that the quality of taxi transport service of the city is bad due to dissatisfaction of passengers. This dissatisfaction of passengers on the system is a manifestation of poor quality of taxi transport service.

Graph 4.1 indicates that there is statistically significant difference on the level of satisfaction of passengers with the performance of the system between zones at the $p<0.05$, and [F (4,170) =3.050, P=0.018].



Graph 4.1: Passengers' level of satisfaction on the system.

Source: own survey, 2012 * F=3.050, Sig.0.018 and df= (4,170)

To figure out where the difference is occurred, post hoc comparison tests were done (Table 4.16). Post hoc comparisons tests indicate that mean of zones at 95 percent confidence interval between Bole and Tor-Hailoch do not include 0 which indicate the satisfaction level of passengers at Bole zone (M=3.06, SD=1.110) on the system difference than Tor-Hailoch (M =2.31, SD=0.832). However, Saris (M=2.53, SD=0.736), Asko (M=2.45, SD=1.063) and Megenaga (M=2.69, SD=1.037) do not significantly differ from Bole and Tor-Hailoch.

Table 4.16: Passengers' level of satisfaction with zonal taxi transport system.

(I) Zone where the respondants live	(J) Zone where the respondants live	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Asko	Tor-Hailoch	.140	.234	.986	-.59	.87
	Saries	-.073	.233	.999	-.80	.65
	Bole	-.603	.234	.162	-1.33	.13
	megenagna	-.240	.233	.899	-.96	.48
Tor-Hailoch	Asko	-.140	.234	.986	-.87	.59
	Saries	-.213	.229	.929	-.93	.50
	Bole	-.743*	.231	.038	-1.46	-.02
	megenagna	-.380	.229	.601	-1.09	.33
Saries	Asko	.073	.233	.999	-.65	.80
	Tor-Hailoch	.213	.229	.929	-.50	.93
	Bole	-.529	.229	.259	-1.24	.18
	megenagna	-.167	.227	.970	-.87	.54
Bole	Asko	.603	.234	.162	-.13	1.33
	Tor-Hailoch	.743*	.231	.038	.02	1.46
	Saries	.529	.229	.259	-.18	1.24
	megenagna	.363	.229	.644	-.35	1.08
megenagna	Asko	.240	.233	.899	-.48	.96
	Tor-Hailoch	.380	.229	.601	-.33	1.09
	Saries	.167	.227	.970	-.54	.87
	Bole	-.363	.229	.644	-1.08	.35

*. The mean difference is significant at the .05 level.

Source: Own survey, 2012

The rationales behind this difference on level of satisfaction on zonal taxi transport system between zones are; firstly, administration of zones is decentralized to associations with the help of the city transport bureau. However, poor management capacity and experience of Tor-Hailoch associations are adversely affecting the system's effectiveness as compared to Bole. Secondly, the passengers' of Bole zone are relatively satisfied with the behaviour of taxi drivers and conductors as compared to Tor-Hailoch (Figure 4.7 and Table 4.13). Thirdly, location of zones from the city transport bureau has negative effect on communication and control of unethical drivers. As a result of the above reasons, Bole zone is better in satisfying passengers compared to Tor-Hailoch.

To sum up, the quality of taxi transport service is bad in Addis Ababa. Due to bad behaviour of drivers and conductors and taxi station attendants; lack of capacity and experience of associations; lack of awareness of stakeholders about the system; and lose control of responsible bodies.

4.3 Actors Participation and Accountability Relationships in transportation Sector in Addis Ababa

4.3.1 Actors Participation in Transportation Sector

The quality of public service is effective when all stakeholders' participate in the system. Transportation service is one of public service which provides to the public. In consideration of the importance of actors' participation, the city transport bureau commenced the system with collaboration of actors. These stakeholders are the city transport branch office, taxi association, taxi drivers and conductors, taxi station Attendant enterprises, traffic police and police. These stakeholders ought to involve in the process of the system. Unless these actors involved, zonal taxi transport system could not be effective.

To involve actors in the system, the city transport branch office created new organizational structure. The city transport branch office reorganized in the city administration and called Addis Ababa Transport Bureau; decentralized its power to the sub-city field offices, taxi station attendant enterprises, and taxi associations to manage and control the system.

During the study of the system, taxi associations take as the owner of the system and they were actively involved. They have much contribution when rules and regulations emanated. In addition, the city transport branch office has been given several awareness creation programs to traffic police, public, taxi station attendant enterprises, and drivers and conductors. But, it did not include the city police in the process of the system. The city transport branch office has done awareness creation description program to all stakeholders with several mechanisms since the year 2008.

One of the key informants of associations gave his witness that associations have been participating in the system as a major stakeholder. He explains that associations involved in redesigning of routes and taxi stations with consideration of both transporters and passengers interest. In addition, he explained that associations are contributing in the assignment of taxis in a specific route with consideration of demand. In addition, the city transport bureau assigns code 3 supportive minibus with request of association question. However, the city transport bureau assigns code 3 supportive minibus without the associations' request. It creates grievance on taxi associations and drivers.

Even though the system specifies all stakeholders' functions and activities, they were not invited in the study of the system. But, the city transport branch office gave awareness creation training to them. As a result, they are passive participant in the system. Among those actors which actively participate in the system is that the city transport branch office, traffic police and taxi association. The remaining actors are passive participant in the system. This passive participation of actors hinders the system from being effective.

Even if the city transport bureau commenced the system with collaboration to stakeholders, their participation is low. One of the manifestations of actors' passive participation is ineffective voicing mechanisms of the city transport bureau. The voicing mechanisms of the city transport bureau are ineffective. The passenger rated 2.39 out of five (see Appendix 2C). This shows that passengers think that the city transport bureau does not give sufficient attention to stakeholders' interest. It is affected the performance of the system. Therefore, the city transport bureau ought to evaluate its voicing mechanisms' effectiveness. To sum up, actors participation in the system is low and affecting the effectiveness of the system.

One of the key informants of associations said that the majority of transporters are disobeyed and reluctant to the system. One of the rationales of passive participation of associations is that the owners of vehicles do not have any direct benefit from the association and system. They are always rent out their taxis for drivers for fixed return as accustomed. As a result, it makes them passive in the system. To overcome such problem, Dakar and Kinshasa were organized two formal operators and contract out the service to those operators (Kumar and Barrett, 2008). The city transport bureau has to promote associations to Plc. and contract out zones to them. Finally, the system could get benefit from the private sectors needed.

The other rationale of passive participation of stakeholders comes from lack awareness and willingness. If they have awareness about the system, this reluctant and unwillingness does not exist. One of the key informants of the city transport bureau said that the city transport branch office tried to provide awareness creation training to all stakeholders about the system. They promised to work for the effectiveness of it. However, taxi drivers and owners of taxis are not keeping their word after the system commenced.

One of the key informants of the city transport bureau said that at the initial stage of zonal taxi transport system, it was effective as a result of all stakeholders were engaged and actively participated. Lately, some stakeholders were leaved from the system. The city transport bureau and taxi associations are monopolizing the system. Then, the transportation situation becomes worse instead of better. This implies that taxi drivers and conductors, and owners have lack of awareness about the system.

The city transport is controlled by the controllers of the city transport bureau and associations and traffic police. These stakeholders actively participate to make the system to be effective. However, lack of awareness of stakeholders about the system coupled with insufficient quantity of controllers; make difficult to control the transport situation of the city. The system commenced without enough amounts of material as well as human resources. This makes hardly possible to be effective in controlling illegal activities.

One of the key informants of association said that the main headache of associations is limited number of controllers. He explains that associations do not have controller in each taxi terminals and routes. It makes hardly possible to control illegal activities. He said that traffic police have inadequate contribution in the system.

This poor coordination and governance system create huge obstacle to receive new investment. The city transport sector needs new investment to survive in the market. However, the sector has inadequate or no attractive situation for investors. One of the key informants of the city transport bureau said that the sector has inadequate or no attractive situation for investors. The sector does not have any incentive to attract investors to invest; the sector does not have any situation to accept any new investment. Therefore, the city transport bureau ought to revise the governance system of the sector.

4.3.2 Accountability Relationships in Transportation Sector

Accountability relationship has pivotal role in the effectiveness of the system. Accountability is answerability of actors about what they have done. Transportation sector potentially exposes for corruption. The city transport sector accountability relationship is vague and unclear. The city transport sector is controlled by several stakeholders under the city transport bureau. However, the accountability relationships are not clear and open the door for malpractices and corruption.

The transporters are controlled by the city transport bureau, taxi associations, traffic police, public, and taxi station attendant enterprises. Nevertheless, only taxi associations are only actors which directly accountable and controlled by the city transport bureau. Traffic police controlled by directly sub-city police department and has nothing relationship with the city transport bureau. The city transport bureau does not have power to justify the city traffic polices' work. Taxi station attendant enterprises organized and controlled by the sub-city micro and small enterprise offices. The offices do not have knowledge to control whether they are working properly or not. Simply the city micro and small enterprise bureau organized taxi station attendant enterprises and report for higher authority about job opportunity. However, these enterprises are not accountable to the city transport bureau. The city transport bureau does not have any power to evaluate and question them about their work (Diagram4.1).

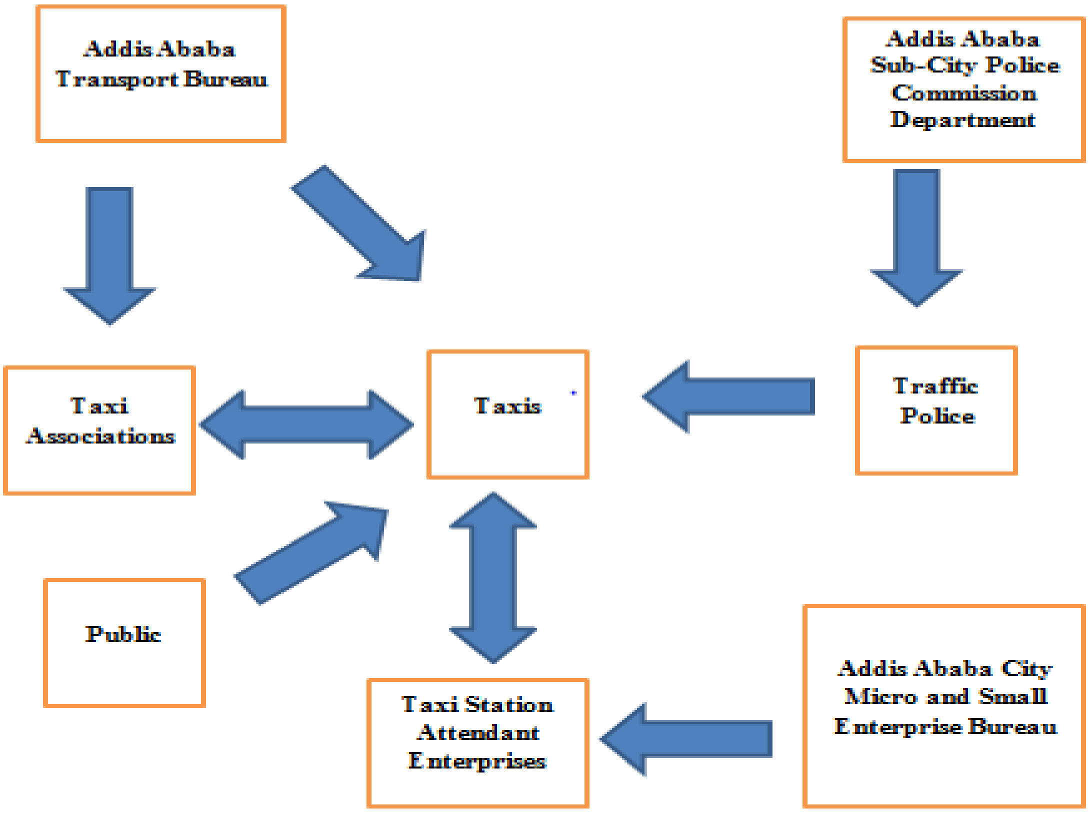


Diagram 4.1: Accountability relationships in transportation sector in Addis Ababa.

Source: own survey, 2012

N.B. The diagram developed by the researcher who understood and perceived the matter from interviews.

There is no mechanism to make passengers accountable to the city transport bureau. The city government emanated rules and regulations, which force pedestrians, respect traffic rules. But, it is not enforced so far.

To sum up, the sector accountability relationship formally established between taxis, taxi associations and the city transport bureau. The rest actors are functioning without directly contact with the owner of the sector (the city transport bureau). The city transportation sector accountability relationships are vague and expose actors for corruption and malpractices.

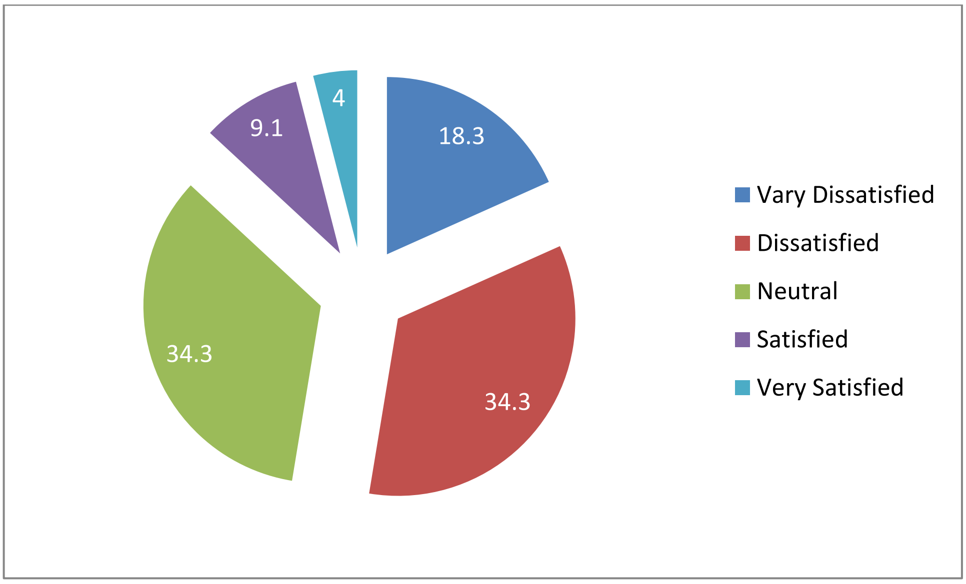


Figure 4.8: Passengers' level of satisfaction on accountability relationship

Source: own survey, 2012

In addition, the passengers are highly dissatisfied by accountability relationship of the stakeholders. Figure 4.8 shows that almost 87 percent of the city respondents said that they are not satisfied about the accountability relationship of the actors. This implies that passengers think that actors highly exposed to corruption due to lose accountability relationships between actors. It adversely affects the system's effectiveness.

4.4. Grievance Handling Procedure

Any service providing organization has to have grievance handling system to sustain in the market. It is a best mechanism to get feedback. The installed grievance handling system ought to be functional. Grievance handling system is effective when it is available and accessible to the clients with enough awareness. Besides, the organization system has to be proactive to get feedback.

The city transport bureau installed grievance handling department to improve transportation service. It enables the city transport bureau to carry out its pivotal role. The city transport bureau provides service like: renewed driver licence, collect fines from punished drivers, and other service. The grievance handling department of Addis Ababa transport bureau has several mechanisms which help to receive grievance and feedback from the clients and other stakeholders. These mechanisms are face to face, free telephone line (938), suggestion box, and suggestion writing pad. In addition, Traffic police, and taxi associations are also collecting feedback and grievance for the city transport bureau.

The city transport bureau grievance handling department is not functioning with full capacity. But, it would take appropriate measure to alleviate problems as possible.

Even if the city transport bureau's controllers are limited in number; these controllers are collecting grievance from society at any time and place; and report to grievance handling department of the city transport bureau.

Merely installed grievance handling mechanisms do not give positive change, unless awareness creation programs are done. Table 4.17 shows that almost 39 percent of the total respondents do not have awareness about where to report their grievances; and 61 percent of respondents do have awareness about it.

Table 4.17: Passengers' level of awareness where to report their grievances.

	Frequency	Percent
Yes	107	61.1
No	68	38.9
Total	175	100.0

Source: Own survey, 2012

This means that the city transport bureau has been undertaking insufficient awareness creation programs. In addition, the respondents who have awareness and grievance are 65 percent of the total sample. Out of them, reported their grievances to the responsible organizations are 36 percent. The remaining 64 percent of respondents did not report their grievances to the responsible organization (figure 4.9).

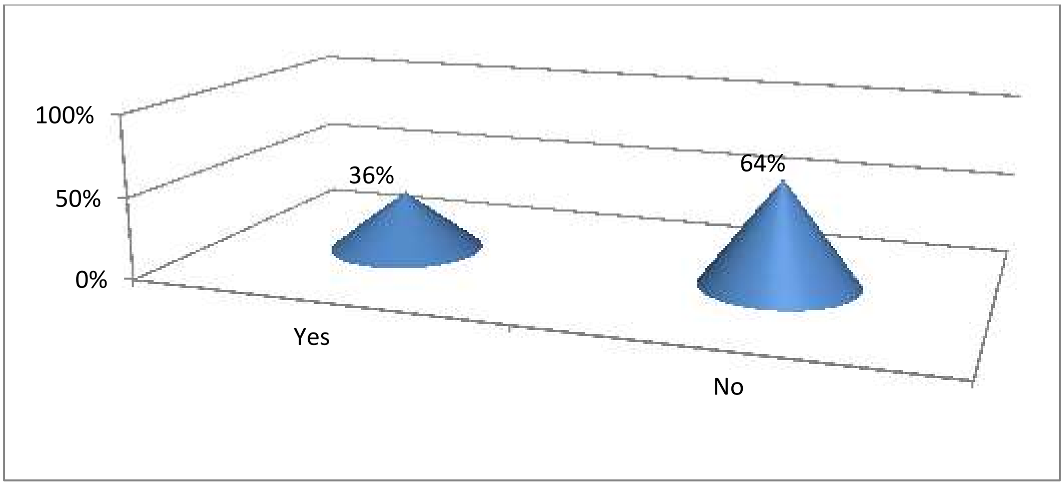


Figure 4.9: The trends of reporting grievances to the responsible organization.

Source: Own survey, 2012

Figure 4.9 shows that only 36 percent of respondents have reported their grievance to the city transport bureau, taxi association, or traffic police. This means that the city transport bureau has been given very inadequate awareness program to the passengers. In addition, passengers may discourage by the responsible bodies low rate of response to the reported problems. Out of the reported grievances; only 44 percent of respondents got solution. The remains 56 percent of respondents did not got solution (Table 4.18). This poor solution provision of the responsible bodies may discourage passengers from being report their grievances.

Table 4.18: The trends of solution provision of responsible bodies.

	Frequency	Percent
Yes	18	43.9
No	23	56.1
Total	41	100.0

Source: Own survey, 2012

Lack awareness of passengers and low solution provision of responsible bodies; results low rate of report grievance. This low rate of report grievances of passengers creates difficulty to improve the quality of taxi transport service in Addis Ababa. The city transport bureau ought to give awareness creation training to the passengers through several medias and enhance the responsiveness of responsible bodies.

The city transport bureau installed grievance handling department to improve the transportation situation. The performance of the department is not satisfactory as a result of inadequate human and material resources. It created difficulty to provide solution in time for grievances. One of the key informants of associations said that the city transport bureau has grievance handling department. It is not functioning well. He said that the city transport bureau assigns code 3 supported minibuses in the routes without the request of association. Besides, these minibuses assigned with their preference instead of areas which associations' need assistance. However, this associations' grievance does not get solution yet. To sum up, the city transport bureau is weak in giving solution for grievances in time.

In addition, one of the customers of the city transport bureau wrote his/her suggestion on December 2010 that service providers of the city transport branch office are insufficient compared to customers. Besides, the existing service providers have no respect for customers. In addition, other customer of the city transport bureau wrote on January 2011, the organization service manual says that for renewed driver's license takes 5 minutes, but he was waited more than 2 hours. According to one of the clients of the city transport bureau wrote on February 2012; the employees of the city transport bureau have nothing motivation to work. He also added that the employees are not punctual.

On the other hand, taxi associations have power to control routes and terminals. Nevertheless, associations do not have capacity and experience to properly manage their zones. Even if the associations have mandate to solve grievances comes from the public. But, they do not have any grievance receiving mechanisms.

In general, the overall performance and effectiveness of the system is unsatisfactory. Passengers rated 2.91 out of five on the effectiveness of the system (see Appendix 2C). This shows that the passengers think that the system is ineffective in improving the transport situation of the city.

One of association leader said that he is afraid to say zonal taxi transport system brought significant change in the transport situation; and it is effective. But, he underline that there are a lot of promising thing in the system's effectiveness. The current situation, zonal taxi transportation system makes the transport situation worse instead of improved. He also added that the reason for the system's ineffectiveness is weak coordination between stakeholders coupled with manual working system. To summarize, the city zonal taxi transport system's effectiveness is promising to improve the accessibility, availability, affordability, and quality of transportation situation. However, the system is ineffective so far.

CHAPTER FIVE
5. Conclusion and Recommendation

5.1 Conclusions

Transport is a vital component of development. An efficient transport system serving an area allows a wide range of functions to operate. Where a good transport infrastructure exists, people are better able to take advantage of a wide variety of economic opportunities, to increase their mobility, and improve their living standards. Where the transport facilities are poor, however, the mobility of people and movement of goods are limited, economic opportunities curtailed, and living standards decline or rise only slowly.

In consideration of the importance of transportation for other sectors and the public, Addis Ababa transport branch office has taken several measures to improve the transportation situation of the city. One of the major measures taken by the city transport branch office is zonal taxi transport system.

Zonal taxi transport system commenced by Addis Ababa Transport Branch Office to regulate the city taxi transport service. Unlike traditional transport system, zonal taxi transport system commenced with better organizational structure. The city transport branch office reorganized into Addis Ababa city government and called Addis Ababa Transport Bureau. As a result, the city transport bureau opens its branch office in all sub cities to make the transportation service accessible and alleviate passengers' grievance in time. The system also includes all stakeholders. These stakeholders are the city police commission, taxi associations, the city small and micro enterprise bureau, the city justice office and the city transport bureau. The city transport bureau could coordinate and lead stakeholders.

Formerly taxis were provided service with business focused and concentrated in a few areas to accumulate high profit as following free market policy. It created unfair taxi distribution in the city. Especially, in the periphery areas, people had little or no access for taxi transport service. In addition, taxis were provided service with chopped of routes into two or more places and loaded more than the capacity of taxis to maximize profit. These problems are minimized by the redesigned of routes and taxi stations and limited taxis in a specific route. Besides, the city transport bureau divided the city into five zones. Zones and the redesigned routes and taxi stations are distributed to taxi associations. Unlike traditional system, the system empowers taxi associations to assign taxis in the routes and administer zones. It was monopoly owned by the city transport branch office. The system is abolished monopoly leadership and management of the city transport branch office and changed to governance system (i.e. stakeholders' participation). The system has also great contribution to protect criminal activities like "*showa showa*", which is a type of theft done by drivers and conductors through kidnap. The system is clearly identifies routes and assigns taxis in each route. It makes easier to protect crimes which committed in taxis. If anything happens in the customer, they can easily report to the responsible body with a name of taxi association, plate number and route plate. Then, the guilty drivers and conductors are easily identified and punished. The system has 127 taxi terminals and 269 routes. In each taxi terminal, the city micro and small enterprise bureau organized taxi station attendant enterprises. These enterprises have role in the system's effectiveness. In addition, these enterprises created more than 4000 job opportunities for the city residents. The system limits taxis in a specific route. The owners can easily observe and control their properties. Besides, the system helps the owners of the taxi to know the amount of frequencies taxis' do so as income. To sum up, the system relatively improved on accessibility and quality of taxi transport service as compared to traditional system.

Despite zonal taxi transport system brought positive changes, it has several defects which hinder the system form being effective. The system commenced with expectation of all actors' active participation. However, almost all stakeholders are passively participating in the system. This passive participation comes from lack of awareness. It opens the door for lose control in the system. It aggravated by the system's structure which is fragmented and has no room for accountability about actors what they have done. In addition, the system commenced with inadequate human and material resources. This deficiency of human power aggravated disobedience of taxi drivers to the system's rules and regulations. The city transport bureau has weakness in information provision to the public in terms of taxi fares and the rights and responsibilities of pubic. It creates opportunity for taxi drivers to exploit the poor. Besides, the passengers are insulted orally and in written and notices. The grievance handling mechanisms of the city transport bureau and associations is poor as a result of insufficient numbers of human resource with competency. Even though associations empowered to receive grievances and take remedial action in time in their zones, they do not have any grievance receiving mechanisms including telephone.

In general, zonal taxi transport system has positive and negative effect in the transportation situation of the city. It is relatively improved the transport situation in terms of accessibility and quality. But, it is difficult to say that there is improvement on the affordability where the system helps taxi drivers to exploit the poor. To sum up, zonal taxi transport system's effectiveness is promising to improve the transportation situation. But, it is difficult to speak the system is effective.

5.2 Recommendations

The study tried to investigate the performance of zonal taxi transport system in the city. It also found out the challenges that hinder the system from being effective. Finally, it provides the possible remedial actions that help to improve the transportation situation of the city. However, these possible solutions need further research to implement in the system. To improve the transportation system, the following suggestions are forwarded.

1. The government should promote taxi associations to private limited company (Plc.). It has spill over effect on the transportation situation. It creates opportunity to employ drivers and conductors formally. Formally employed drivers and conductors have no incentive to breach traffic's and system's rules and regulations. Then, it minimizes traffic accident. The other benefit of Plc. is that creating timely flit of taxis on the roads and passengers easily access the transport service. On other hand, the government can easily subsidize Plc.'s in several mechanisms. For instance; importing of spare parts duty free, subsidizing of passengers' cost, etc. It could make transport service affordable to the poor.
2. The other possible measure might be public private partnership (PPP). The government establishes formal transport operators with holding of majority share. It could help to protect unscrupulous private investors from being exploit the poor by creating artificial transport shortage in the city. Moreover, the government could make the transportation flit with time interval. PPP has a potential to overcome transport shortages and minimizes traffic congestion in the city's roads. Besides, drivers are employed in formal way; and monthly paid. It completely avoids the incentives of drivers to breach the system's rules and regulations. It also minimizes traffic accident due to drivers obeys to the traffic's and system's rules and regulations. It is also important to subsidize the sector. To sum up, PPP has a potential to improve accessibility, affordability and quality of transport service in the city.
3. The organization structure of the city transport sector should be clear. The actors, which involved in management of the city transport sector, are organized into several bureaus. It creates fragmented and poorly coordinated work in the system. It also exposes the actors for rent seeking and malpractices. Therefore, all actors have to be

organized and coordinated under the city transport bureau. It helps to create strong accountable relationship and transparent governance system in the sector. In addition, the city transport bureau has to install computerized working system which reduces work burden and time.

4. The transportation fares are steadily increasing overtime. This ever increasing transport fares are affecting the poor. Consequently, it increases the gap between rich and poor. The government should subsidize the sector to reduce and make affordable the transportation service to the poor. For instance: introduction of tax on private vehicles and subsidize public transport, allow importing of duty free spare parts for public transport, and other measures. It discourages private vehicles ownership and promotes public transportation. As a result, traffic congestion and air pollution will minimize in the city.

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Appendices

Appendices

Appendix 1A**:** size and other characteristics of the 14 cities of the study

City	Population (millions)	Growth rate (percent)	City population as share of national population	City population as share of urban population	Density (1,000 inhabitants per sq km)	Private cars 1,000 inhabitants
Abidjan	3.5	3.7	20	46	6.2	52
Accra	2.8	4.0	13	28	8.1	65
Addis Ababa	3.1	<4.0	5	28	5.7	32
Bamako	1.2	4.8	9	32	4.5	108
Conakry	1.5	4.1	16	65	13.3	61
Dakar	2.8	4.4	30	49	5.1	39
Dar es Salam	3.7	6.4	10	29	2.1	13
Douala	2.5	6.5	17	34	13.5	40
Kampala	2.0	5	7	59	2.1	-
Kigali	0.7	3.1	8	100	1.0	40
Kinshasa	8.0	4.1	13	32	0.8	-
Lagos	15.0	6.0	12	25	4.2	80
Nairobi	4.0	>4.0	12	29	5.7	-
Ouagadougou	1.1	4.4	8	52	2.0	78
Average	n/a	4.7	13	43	5.2	55

n/a= no applicable - =not available

Source: Africa infrastructure country 2007 quoted by Kumar and Barrett 2008)

Appendix 1B**:** Share of various modes of transport in use in 14 African cities

City	Large bus	Minibus	Taxi	Motorcycle	Private car	Walk	Other
Abidjan	11	19	29	0	18	22	1
Accra	10	52	9	0	13	12	4
Addis Ababa	35	20	5	0	7	30	3
Bamako	1	10	5	56	19	-	9
Conakry	1	14	6	0	1	78	0
Dakar	3	73	6	6	11	-	1
Dar es Salam	0	61	1	1	10	26	1
Douala	10	-	13	12	2	60	3
Kampala	0	41	-	20	35	-	4
Kigali	1	75	10	0	10	5	0
Kinshasa	-	-	-	-	-	High	-
Lagos	10	75	5	5	5	High	0
Nairobi	7	29	15	2	-	47	0
Ouagadougou	8	0	-	58	14	-	20
Average	7	30	8	12	12	37	4

Note :-= not available , rows may not total to 100 because of rounding

Source: city authorities, published documents, various quoted by Kumar and Barrett 2008.

Appendix 1C:Characteristics of minibus service in 14 African cities

City	Service designation (capacity of vehicle)	Union/association for informal minibus operators	Degree of formality of Sector	Ownership structure
Abidjan	Gbaka (22)	UPETCA, SNTMVCI	Mainly informal	Highly fragmented, 1–2 vehicles per owner
Accra	Tro-tro	GPRTU, PROTOA	Mainly informal	80 percent of owners have 1 vehicle
Addis Ababa	Minibus 12, mid-bus(25)	Various	Mainly informal	80 percent of owners have 1 vehicle
Bamako	Sotrama, dourouni	Yes	Mainly informal	Highly fragmented, 1–3 vehicles per owner
Conakry	Magbana (15–18	None	Mainly informal	Highly fragmented, 1–2 vehicles per owner
Dakar	Car rapide (23–32)	Yes	Two formal private companies, plus informal	Two operators with large fleets, remainder highly fragmented
Dar es Salaam	Daladala (18–35)	DARCOBOA	Formal public company, plus informal	Public operator has modest fleet, remainder highly fragmented
Douala	None (outlawed), shared taxis used	None	Mainly informal	Highly fragmented, 1–3 vehicles per owner

	instead			
Kampala	Known as taxis	UTODA	Mainly informal	80 percent of owners have 1 vehicle
Kigali	Twegerane or shared taxi (14–20)	ATRACO, ONATRACOM	Mainly informal	Highly fragmented
Kinshasa	Minibus (5–26)	ACCO	Formal private company, plus informal	Formal operator has modest fleet, remainder highly fragmented
Logos	Danfo (mini), molue (midi)	Several affiliated with NURTW	Mainly informal	80 percent of owners have 1 vehicle
Nairobi	Matatu	MBOA	Mainly informal	80 percent of owners have 1 vehicle
Ouagadougou	None, shared taxis used instead	No	Mainly informal	Highly fragmented

Sources: City authorities, published documents, various quoted by Kumar and Barrett 2008.

Appendix 2A: Average flit of taxis per day estimated by the city transport bureau

Kilometre	Status	Number of double flit
0 to 2km	Short	18
2.1 to 7km		
7.1km to 10km	Medium	12
10km to 12km	Long	8
12km to 15km		

Source: Addis Ababa Transport Bureau, 2012

Appendix 2B: Taxi fares revised during zonal taxi transport system

Distance	Price per commuter
0 km to 2km	1.40 birr
2km to 7 km	2.80birr
7km to 10 km	3.95birr
10.1km to 12km	4.10birr
12.1km to 15km	5.20 birr

Source: Addis Ababa Transport Bureau, 2012

Appendix **2C:** Passengers' evaluation taxi transport service from different perspective.

No.	Variables	The mean of passenger evaluation out of five.
1	Public level of agreement taxi stations are established with consideration of demand for passengers?	2.9[A]
2	Public opinion on the behaviour of taxi drivers and conductors	2.72[G]
3	Public perception on the Quality of road	3.27[G]
4	Public perception on the Taxi station attendants behaviour	2.91[G]
5	Public evaluation on the Seat, opening window, comfort and others facility of taxi	2.94[G]
6	Public opinion on the traffic congestion	2.46[G]
7	the satisfaction level of passengers on the behaviour of taxi drivers and conductors	2.66[S]
8	the satisfaction level of passengers on the voicing mechanism	2.39[S]
9	the satisfaction level of passengers on the quality of road	3.01[S]
10	the satisfaction level of passengers on the responsiveness of the responsible bodies to public grievance	2.31[S]
11	the satisfaction level of passengers in general taxi zonal transport system	2.61[S]
12	Public evaluation on the effectiveness of the voicing mechanism?	2.39[E]
13	Public evaluation on the effectiveness of the zonal taxi transport system?	2.91[E]

Source: own survey

[S]1= Very dissatisfied 2= dissatisfied 3=Modest, 4=satisfied, 5=Very satisfied

[E]1=Very Ineffective 2 =Ineffective, 3=Modest 4 =Effective 5= Very effective

[D]1= Worst 2=Bad 3 =modest 4 =Good 5=Very Good

[A]1= Strongly Disagree 2=Disagree 3=Modes 4=Agree 5=Strongly agree

Appendix 3A: **Addis Ababa Transport Bureau**

Part one

1. Personal information

A. Name ________________________________

B. Position________________________________

C. Age________________________________

D. Education _______________________

E. Experience _________________________

Part two: questions details

2. What is the rationale to introduce zonal taxi transport system?
3. What are the new things introduced by zonal taxi transport system?
4. What is your enforcement mechanism for taxi owners' to perform their responsibility in the route not profitable?
5. Do you think zonal taxi transport improved the affordability of taxi transport? How?
6. Did your organization involve stakeholders during the study of the zonal taxi system? How?
7. Does your organization provide awareness training program to all stakeholders? How?
8. Do you think zonal taxi transport increased accessibility of transport system?
9. Do you have any law indicating the taxi standard?
10. Do you have taxi internal facilities standard which influences the quality of services?
11. How do you evaluate your controlling mechanism?
12. Do you think that zonal taxi transport improves the behaviour of taxi drivers and their assistants in respect to customer handling? How?
13. Do you think that zonal taxi transport system is working fully in stated time? Why?
14. Do you think that taxi drivers and their assistants charge the correct fare?
15. What are the criteria to assign taxis in specific routes?
16. Who are the responsible persons to control zonal taxi implementation?
17. How taxi fare is adjusted?
18. Does government subsidize taxi transport? How much?
19. How do you control whether taxis are providing service or not?
20. Do you have mechanism for handling grievance?

21. How often do you response to peoples quarrel?
22. What are the criteria to allow supported minibus?
23. How do you evaluate supported minibus in solving taxi problem?
24. How many supported minibus is engaged in transport process?
25. How many plates allowed to supported minibus?
26. How do you evaluate zonal taxi transport contribution in solving transport problem?
27. How do you think these transport problems could be solved?
28. What is expected of:

A. Taxi drivers and their assistants:

____
____
____

B. Addis Ababa Transport Branch office:

____
____
____

C. Public

____
____
____

Thank you

Wondem Mekuriaw

Appendix 3B: Taxi Station Attendants

Part one

A. Personal information
B. Name ________________________________
C. Position________________________________
D. Age________________________________
E. Education _______________________
F. Experience _________________________

Part two: questions details

2. What is the importance of zonal taxi transport system for passengers?
3. What new things are introduced by zonal transport system?
4. What is the role of your enterprise in the effectiveness of zonal taxi transport system?
5. What is your responsibility when taxi derivers are not willing to take a route?
6. What are problems created followed by zonal system?
7. How do you evaluate the effectiveness of zonal taxi transport system?
8. How do you think these transport could be solved?
9. What is expected of:

D. Taxi drivers and their assistants:
____
____
____

E. Addis Ababa Transport Branch office:
____
____
____

F. Public
____
____
____

Thank you

Wondem Mekuriaw

Appendix 3C: Taxi Associations

Part one

29. Personal information

G. Name ___________________________________
H. Position___________________________________
I. Age___________________________________
J. Education _________________________
K. Experience ___________________________

Part two: questions details

1. What are new things introduced by zonal taxi transport system?
2. Do you think that zonal transport system alleviated or reduced taxi problems?
3. How mach powers do you have in zonal taxi transport system?
4. Did your organization have role in zonal taxi transport system study? How?
5. What is your organization role in zonal taxi transport system?
6. Do you think zonal taxi transport have positive impact on accessibility, affordability and quality of transport service? What are they?
7. Do you think zonal taxi transport have negative effect on accessibility, affordability and quality of transport service? What are they?
8. What is the importance of zoanl taxi transport for taxi owners?
9. How does your organization assign taxis in the routes?
10. Does your organization consider taxi capacity in the assigning of taxis in the routes?
11. How people contract taxi if emergency case happens?
12. Do you allow taxis to give service to students rather than serving the public?
13. How do you evaluate the implementation of zonal taxi transport system?
14. How do you think these transport problems could be solved?

1. What is expected of:

G. Taxi drivers and their assistants:
____
____

H. Addis Ababa Transport Branch office:
____
____

I. Public
____
____

Thank you

Wondem Mekuriaw

Appendix 3D: Taxi Rivers and Conductors

Part one

1. Personal information

L. Name ________________________________

M. Position________________________________

N. Age________________________________

O. Licence stage_______________________

P. Experience _________________________

Part two: question in details

1. Have you observed any improvement after zonal taxi transport implemented?
2. Do you observe any negative side effect of zonal taxi transport?
3. What is the importance of zonal taxi transport for taxi drivers?
4. What is the importance of zonal taxi transport system for passengers?
5. How do you evaluate supported minibus?
6. Do you think you are serving the passengers in the right way?
7. Do you think that zonal taxi transport decrease taxi accident?
8. Do you think that zonal taxi transport decrease traffic congestion?
9. How do you evaluate taxi assigning for specific route?
10. How do you evaluate all over performance of zonal taxi transport?
11. How do you think these transport problems could be solved?

2. What is expected of:

J. Taxi drivers and their assistants:

____

K. Addis Ababa Transport Branch office:

____

____

____

L. Public

____

____

____

Than you

Wondem Mekuriaw

Appendix 3E: Addis Ababa police commission traffic controlling and investigation department

Part one

1. Personal information

Q. Name ________________________________

R. Position________________________________

S. Age________________________________

T. Education _______________________

U. Experience _________________________

Part two: questions details

3. Do you have awareness about zonal transport?
4. What is the role of your organization in zonal taxi transport?
5. Do you think that zonal taxi transport decrease taxi accident?
6. Do you think that zonal taxi transport decrease traffic congestion?
7. Do you think that zonal taxi transport decrease suspicion of robber?
8. How do you evaluate zonal taxi transport system effectiveness from making public transport g accessible, affordable and quality to passengers?
9. How do you evaluate penalty
10. How do you think these transport problems could be solved?
11. What is expected of:

M. Taxi drivers and their assistants:

____

____

N. Addis Ababa Transport Branch office:

____

____

O. Public

____

____

Thank you

Wondem Mekuriaw

Appendix 3F

Addis Ababa University
Faculty of Business and Economics
Department of Public Management and Policy

Dear respondents

The researcher is conducting research on "Performance and Challenges of Zonal Taxi Public Transport System in Addis Ababa", in partial fulfilment of the requirements for a Master's Degree in Development Management. Quality of this research depends very much on the response you provide. You are, therefore, kindly requested to me with your genuine responses. Do not write your name.

I thank you in advance for your time!

General Instructions

- Read the statement carefully:
- Answer the questions by circling the spelling on the answer

Part One: Personal Data

1. Sex A. Male B. Female
2. Age ______________
3. Educational Status
   A. 1-12 grades C. Certificate E. master and above
   B. Diploma D. Degree F. Illiterate
4. Employment Status
   A. Student D. Self-employed
   B. Private employee E. unemployed
   C. Government employee F. Retire G. Others _____
5. Where is your place of residence?_________________________

Part Two: Questions in details

6. Do you have awareness about zonal taxi transport system?
   A. Yes B. No
7. What is the reason you prefer taxi? **(more than one answers possible)**
   A. Low accident G. Low theft
   B. Easily available H. Least fare
   C. Courtesy of taxi drivers and conductors I. High frequency
   D. More comfortable J. High Speed
   E. Absence of others modes of transports K. Low crowdedness
   F. Because of status L. Easy access of seat
   P. Others specify_____________________
8. How much your monthly income? ______________Birr
9. How much do you spend for transport per month?(on average) _______________Birr
10. How do you evaluate the transport price of taxi?
    A. Very expensive C. Fair E. Very Cheap
    B. Expensive D. Cheap
11. For what purpose do you use public transport? Rank according to frequency.

A. Work_______ C. Religious______ D. School______
B. Market _____ E. Family visit _______ F. Entertainment______
G . others______________

12. How do you evaluate the frequency of taxi transport?
    A. Very Good C. Modest E. Worst
    B. Good D. Bad
13. On average how long do you wait at terminals to get taxi? _______________ minutes
14. How much time is taking to reach taxi station from your home? ___________minutes
15. Do you always get seat when you travel in a taxi?
    A. Yes B. No
16. If your answer is "No" for Q. 15, how often do you get seat when you travel?
    A. Majority C. Once a week E. Not at all
    B. Sometimes D. Twice a week
17. How do you evaluate taxi public transport in the following issues?

S.No.	Variable	Very good	Good	Modest	Bad	Worst
A	Seat ,opening window, comfort and others facility of taxis					
B	Quality of road					
C	Behaviour of taxi drivers and conductors					
D	Taxi station attendants behaviour					
E	Traffic congestion					

18. Do you know where do you report if you have any grievance?
    A. Yes B. No
19. If your answer "yes" for Q. 18 which responsible body?**(more than one answers possible)**
    A. Traffic police D. Taxi Associations
    B. Police E. Addis Ababa Transport branch office
    C. Woreda Administration F. Others_________________________________
20. Do you have any experience about bad behaviour of taxi drivers and conductors?
    A. Yes B. No
21. If your answer "yes" for Q.20. Have you ever reported to the responsible bodies?
    A. Yes B. No
22. If your answer "yes" for Q. 20. How many times?___________
23. If your answer "yes" for Q. 21. Have you got solution from reported body for your problem?
    A. Yes B. No

24. How do you rate the responsiveness of the responsible bodies in terms of addressing your queries?
   A. Very effective C. Modest E. Very ineffective
   B. Effective D. Ineffective
25. How do you rate the effectiveness of the voicing mechanism?
   A. Very effective C. Modest E. Very ineffective
   B. Effective D. Ineffective
26. Have you always got taxi for long journey without cutting the trips into two or three short distances?
   A. Yes B. No
27. Do you always get taxi for short distance (1: 35 birr)?
   A. Yes B. No
28. Have you always get taxi from 6:30AM to 9:00PM?
   A. Yes B. No
29. Do you always get taxi from taxi station?
   A. Yes B. No
30. Do you agree taxi stations are established with consideration of demand for passengers?
   A. Strongly agree C. Modest E. Strongly Disagree
   B. Agree D. Disagree
31. Do you think zoal taxi transport system has improved the transport system?
   A. Strongly agree C. Modest E. Strongly Disagree
   B. Agree D. Disagree
32. Have you watch taxi transport tariff?
   A. Yes B. No
33. How do you know taxi transport tariff? **(more than one answers possible)**
   A. Posted in taxis C. Asking other passengers or people
   B. Media D. Conductors
   E Others____
34. How many taxis post their license plate?
   A. All C. Half E. None
   B. Majority D. Quarter
35. How do you evaluate the way taxi drivers and conductorss treat women compared to men?
   A. Very good C. Modest E. Worst
   B. Good D. Bad
36. Does taxi public transport provide service in consideration of people with disabilities?
   A. Yes B. No
37. What are positive changes following zonal taxi transport system? **(more than one answers possible)**
   A. Created new routes F. Low rate of theft
   B. High accessibility of taxi G. fair distribution of taxi
   C. Low traffic congestion H. Low crowdedness

D. Improve the behaviour of drivers and conductors I. High speed
E. Low risk of accident
J . Others____

38. What are problems you observed in zonal taxi transport system? **(more than one answers possible)**
A. Absence of license plate E. High risk of accident
B. Charging over fare F. Over crowdedness
C. Traffic congestion G. High theft
D. Create shortage of taxi
H .Others specify____

39. How do you rate the effectiveness of the zonal transportation system?
A. Very effective C. Modest E. Very ineffective
B. Effective D. Ineffective

40. How much you satisfied by zonal taxi transport system the following issue?

S.No.	Variables	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
A	The behaviour of taxi drivers and conductors					
B	The voicing mechanism					
C	Quality of roads					
D	Accountability relationship					
E	The responsiveness of responsible bodies to public grievance					
F	In general taxi zonal system					

41. How do you think these transport problems could be solved?
____
What is expected of:
Taxi drivers and conductors:
____
____
Addis Ababa Transport Branch office:
____
Public
____
____

Thank You!
Wondem Mekuriaw

Appendix 3G

አዲስ አበባ ዩንቨርሲቲ

ቢዝነስ ኢኮኖሚክስ ፋካልቲ

የህዝብና ልማት አስተዳድር ድህረ ምረቃ መርሃ-ግብር

በአዲስ አበባ ከተማ የቀጠና ታክሲ ትራንስፖርት አገልግሎት ያመጣው መሻሻልና በአጋጠሙት ችግሮች ዙሪያ ጥናታዊ ፅሁፍ ለሁለተኛ ዲግሪ በልማት አስተዳደር ማሟያ የሚሆን የተዘጋጀ መጠየቅ ነው፡፡ የዚህም ጥናት ስኬት በእርስዎ መረጃ በመስጠት ላይ የተመሰረተ ነው፡፡ ስለዚህ እርስዎም ይህን መጠይቅ እንዲሞሉ በትህትና ተጠይቀዋል፡፡ ስምዎን መፃፍ አይጠበቅቦትም፡፡

ይህን መጠይቅ ለመሙላት ፍቃደኛ በመሆንዎ በቅድሚያ አመሰግናለሁ፡፡

ጥያቄዎችን ለመሙላት የሚያስፈልጉ መመሪያዎች

- ጥያቄዎችን በደንብ ማንበብ
- ጥያቄዎችን ሲመልሱ መልስ የያዘውን ፊደል ላይ ያክብቡት ወይንም በተሰጡት ክፍት ቦታዎች ላይ መልስዎን ይፃፉት፡፡
- ለጥያቄ ቁጥር “11” በቁጥር ደረጃ ይስጡ (1፣ 2፣ 3፣… ወዘተ)

ክፍል አንድ፡- አጠቃላይ መረጃ

1. ፆታ ሀ. ወንድ ለ. ሴት
2. ዕድሜ__________
3. የትምህርት ደረጃ

ሀ. 1-12 ክፍል ሐ. ሰርተፍኬት ሠ. ማስተርስ እና ከዚያ በላይ

ለ. ዲፕሎማ መ. ዲግሪ

4. የሥራ ሁኔታ

ሀ. ተማሪ መ. በግል የሚሰራ

ለ. የግል መሥሪያ ቤት ሰራተኛ ሠ. ሥራ የሌለው

ሐ. የመንግስት ሰራተኛ ረ. ጡረታ ሰ. በሌላ__________

5. ከየት ሰፈር ነው የመጡት?_________________

ክፍል ሁለት፡-ጥያቄዎች በጥልቀት

6. ስለቀጠና የታክሲ ትራንስፖርት ግንዛቤ አለዎት?

ሀ. አዎ ለ. የለኝም

7. ለምን የታክሲ አገልግሎትን ምርጫዎ አደረጉ?(**ከአንድ በላይ መልስ መስጠት ይቻላል**)

ሀ. ትንሺ አደጋ ስላለው ሰ. ትንሽ ሌብነት

ለ. በቀላሉ ስለሚገኝ ሸ. ርካሽ ዋጋ

ሐ. የታክሲ ሹፌሮች እና ረዳቶች ትህትና ቀ. ከፍተኛ ምልልስ

መ. በጣም ስለሚመች በ ከፍተኛ ፍትነት

ሠ. አማራጭ ትራንስፖርት በማጣት ተ. ትንሽ መጨናነቅ

ረ. ለክብር ቸ. በቀላሉ ወንበር ስለሚገኝ

ወ. በሌላ_________________

8. ወርሃዊ ገቢዎ ስንት ነው?_________________
9. ከወርሃዊ ገቢዎ በአማከኝ ስንት ያህሉን ለትራንስፖርት ያወጣሉ?________
10. የታክሲ ትራንስፖርት ዋጋዉን እንዴት ነው?

ሀ. በጣም ዉድ ሐ. መጠነኛ ሠ. በጣም ርካሽ

ለ. ዉድ መ. ርካሽ

11. ለምን አላማ ነዉ ትራንስፖርት የሚጠቀሙት? (**በተደጋጋሚ በሚጠቀሙበት ዓላማ መሠረት ደረጃ ይስጡ፡፡**)

ሀ. ለሥራ_________ ሐ. ለህይማኖት_________ መ. ለትምህርት ቤት________

ለ. ለገበያ__________ ሠ. ዘመድ ለመጠየቅ_________ ረ. ለመዝናኛ_________
ሰ. ለሌላ____________
12. የታክሲዎችን ምልልስ እንዴት ይገመግሙታል?
ሀ. በጣም ጥሩ ሐ. መካከለኛ ሠ. በጣም መጥፎ
ለ. ጥሩ መ. መጥፎ
13. በአማካኝ ታክሲ ለማግኘት ምን ያህል ደቂቃ ይጠብቃሉ?______________ ደቂቃ
14. ከቤትዎ እስከ ታክሲ የሚይዙበት ለመድረስ ምን ያህል ደቂቃ ይወስድብዎታል?___________ ደቂቃ
15. ሁልጊዜ በታክሲ ሲጓዙ ወንበር ያገኛሉ?
ሀ. አዎ ለ. አላገኝም
16. የእርስዎ መልስ ለጥያቄ ቁጥር 15 "አላገኝም" ከሆነ፤ ምን ያህል ጊዜ ወንበር ያገኛሉ?
ሀ. ሁል ጊዜ ሐ. አንድ ጊዜ በሳምንት ሠ. አግንቸ አላዉቅም
ለ. አንዳንድ ጊዜ መ. ሁለት ጊዜ በሳምንት
17. የታክሲ ትራንስፖርትን ከታች ከተሰጡት መስፈርቶች አንፃር እንዴት ይገመግሙታል?

ተ.ቁ.	መስፈረት	በጣም ጥሩ	ጥሩ	መካከለኛ	መጥፎ	በጣም መጥፎ
ሀ	መቀመጫ፣ የሚከፈቱ መስኮቶች፣ ምቾት እና ሌሎች ፋስሊቲዎች					
ለ	የመንገዱ ጥራት					
ሐ	የታክሲ ሹፌሮች እና ረዳቶች ባህሪ					
መ	ተራ አስከባሪዎች ባህሪ					
ሠ	የትራፊክ መጨናነቅ					

18. ችግር ሲያጋጥምዎት የት ቅሬታ ማቅረብ እንዳለብዎት ያዉቃሉ?
ሀ. አዎ ለ. አላዉቅም
19. የጥያቄ ቁጥር 18 መልስዎ "አዎ" ከሆነ፤ለማን ነው የሚያመለክቱት? (**ከአንድ በላይ መልስ መስጠት ይቻላል**)
ሀ. ለትራፊክ ፖሊስ መ. ለታክሲ ማህበራት
ለ. ፖሊስ ሠ. ለአዲስ አበባ ትራንስፖርት ቅርንጫፍ ጽ/ቤት
ሐ. ለወረዳ አስተዳደር ረ. ለሎች_____________________________________
20. ከዚህ በፊት መጥፎ ሥነ-ምግባር ካላቸው የታክሲ ሹፋሮች እና ረዳቶች ጋር ችግር አጋጥምዎት ያዉቃል?
ሀ. አዎ ለ. አያውቅም
21. የጥያቄ ቁጥር 20 መልስዎ "አዎ" ከሆነ፤ ለሚመለከተዉ አካል አመልክተው ያዉቃሉ?
ሀ. አዎ ለ. አያውቅም
22. የጥያቄ ቁጥር 21 መልስዎ "አዎ" ከሆነ፤ ምን ያክል ጊዜ? ________________
23. የጥያቄ ቁጥር 21 መልስዎ "አዎ" ከሆነ፤ አቤቱታ ያቀረቡለት አካል ለቅሬታዎ መፍትሄ አግኝተዋል?
ሀ. አዎ ለ. አላገኙሁም
24. አቤቱታ ያቀረቡለትን አካል ምላሽ አሰጣጥ ዉጤታማነት ደረጃ እንዴት ይገመግሙታል?
ሀ. በጣም ዉጤታማ ሐ. መካከለኛ ሠ. በጣም ደካማ
ለ. ዉጤታማ መ. ደካማ
25. የአዲስ አበባ ትራንስፖርት ቅርንጫፍ ጽ/ቤት የህብረተሰቡን አስተያየት ከማዳመጥ እና ችግሩን ከመፍታት አንፃር የውጤታማነት ደረጃ እንዴት ያዩታል?
ሀ. በጣም ዉጤታማ ሐ. መካከለኛ ሠ. በጣም ደካማ
ለ. ዉጤታማ መ. ደካማ
26. ረጂም መንገድ ሲጓዙ ለሁለት ወይም ለሶስት ቦታ ሳይቆራረጥ ሁል ጊዜ ታክሲ ያገኛሉ?

ሀ. አዎ ለ. አላገኝም

27. ለአጫጭር መንገዶች ሁልጊዜ ታክሲ ያገኛሉ (1፡35 ብር)?

ሀ. አዎ ለ. አላገኝም

28. ከጠዋቱ 12፡30 እስከ ማታ 3፡00 ድረስ በቂ የታክሲ አገልግሎት ሁሌም ያገኛሉ?

ሀ. አዎ ለ. አላገኝም

29. ከታክሲ ፈርማታዎች ላይ ሁሌም ታክሲ ያገኛሉ?

ሀ. አዎ ለ. አላገኝም

30. የታክሲ ፈርማታዎች የተቋቋሙበት ቦታ የተገልጋዩን ፍላጎት ያገናዘቡ ናቸው ብለው ምን ያክል ይስማማሉ?

ሀ. በጣም እስማማለሁ ሐ. መጠነኛ ሠ. በጣም አልስማማም

ለ. እስማማለሁ መ. አልስማማም

31. በእርስዎ አስተሳሰብ የቀጠና ትራንስፖርት የትራንስፖርቱን ሁኔታ አሻሽሎታል ብለው ምን ያክል ይስማማሉ?

ሀ. በጣም እስማማለሁ ሐ. መጠነኛ ሠ. በጣም አልስማማም

ለ. እስማማለሁ መ. አልስማማም

32. የታክሲ ትራንስፖርት ታሪፋን አይተውት ያዉቃሉ?

ሀ. አዎ ለ. አላዉቅም

33. እንዴት አድርገዉ ነው የታክሲ ታሪፋን ያወቁት?

ሀ. ከታክሲው ውስጥ ስለተለጠፈ ሐ. ከተሳፋሪ በመጠየቅ

ለ. ከመገናኛ ብዙሃን መ. ከረዳቱ በመጠየቅ

ሠ. ከሌላ____

34. ምን ያክል ታክሲዎች ታፔላ ለጥፈዋል?

ሀ. ሁሉም ሐ. ግማሹ ሠ.የለጠፈ የለም

ለ. በአብዛኛዉ መ. እሩቡ

35. በእርስዎ አስተያየት የታክሲ ሹፌሮችና ረዳቶች ሴቶችን ከወንዶች አንፃር እንዴት አድርገው ያስተናግዱአቸዋል?

ሀ. በጣም ጥሩ ሐ. መካከለኛ ሠ. በጣም መጥፎ

ለ. ጥሩ መ. መጥፎ

36. የታክሲ ትራንስፖርት ከአካል ጉዳተኝነት ጋር የሚኖሩትን ሰዎች ከግምት ያስገባ ነው ብለው ያምናሉ?

ሀ. አዎ ለ. አላስብም

37. የቀጠና ታክሲ ትራንስፖርትን ተከትሎ የመጣ አውንታዊ ለውጥ አለ ብለው የሚያስቡት ካለ?(**ከአንድ በላይ መልስ መስጠት ይቻላል**)

ሀ. አዳዲስ መስመሮች ተከፍተዋል ረ. ዝቅተኛ ሌብነት

ለ. ታክሲ ከፍተኛ ተደራሺ ሆኖአል ሰ. ፈትሀዊ ታክሲ ሥርጭት

ሐ. ዝቅተኛ ትራፊክ መጨናነቅ ሸ. ዝቅተኛ መጨናነቅ

መ. የታክሲ ሹፌሮችና ረዳቶችን ባህሪ አሻሽሎአል ቀ. ከፈተኛ ፍጥነት

ሠ. ዝቅተኛ አደጋ

በ. ተጨማሪ ካለ____

38. የቀጠና ትራንስፖርትን ተከትሎ የመጣ አሉታዊ ለውጥ አለ ብለው የሚያስቡት ካለ?(**ከአንድ በላይ መልስ መስጠት ይቻላል**)

ሀ. ታፔላ ያለመለጠፍ መ. የታክሲ ዕጥረት ሰ. ከፍተገኛ ሌብነት

ለ. ከፍተኛ ታሪፍ ሠ. ከፍተኛ አደጋ

ሐ. ትራፊክ መጨናነቅ ረ. ከፍተኛ መጨናነቅ

ሸ. ተጨማሪ ካለ____

39. የቀጠና ትራንስፖርት ምን ያህል ውጤታማ ነው ብለው ያምናሉ?

ሀ. በጣም ዉጤታማ ሐ. መካከለኛ ሠ. በጣም ደካማ

ለ. ዉጤታማ መ. ደካማ

40. በቀጠና ትራንስፖርት ከታች ከተቀመጡት መስፈርቶች አንፃር ምን ያህል ረክተዋል?

·.	ሥፈርቶች	ነም ረክቻለሁ	ቻለሁ	ነከለኛ	ረካሁም	ነም አልረካሁም
	ክሲ ሹፌሮች እና ረዳቶቸ ባህሪ					
	ዘቡ ድምፅ የሚሰማበት መንገድ					
	ንገዱ ጥራት					
	ጠያቂነት ግንኙነት ወይም ሰንሰለት					
	ቤቱታዎች ምላሺ የሚሰጥበት ሂደት					
	ጠቃይ በቀጠና ትራንስፖርት					

41.የትራንስፖርት ችግሩን ለመፍታት ምን መደረግ አለበት ይላሉ?

41. ምን ይጠበቃል?

ሀ. ከታክሲ ሹፌሮች እና ረዳቶች፤

ለ.ከአዲስ አበባ ትራንስፖርት ቅርንጫፍ ጽ/ቤት፤

ሐ. ከህዝቡ፤

አመሰግናለሁ!
ወንድም መኩሪያው

DECLARATION

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

Declared by:

Name:____

Signature:____

Date:____

Confirmed by Advisor:

Name:____

Signature:____

Date:____

Place and Date of Submission:_______________________________