ADDIS ABABA UNIVERSITY

SCHOOL OF SOCIAL WORK

THE NATURE OF PUBLIC TRANPORT SERVICE AND THE DAILY EXPERIENCE OF PASSENGERS: THE CASE OF MEGENAGNA TO KOTEBE ROUTE

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A THESIS SUBMITTED TO THE SCHOOL OF SOCIAL WORK OF ADDIS ABABAUNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERSIN SOCIAL WORK

OCTOBER, 2020

ADDIS ABABA, ETHIOPIA

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This is to certify that the thesis prepared by Genet Wuhibe, entitled “The Nature of Public Transport Service and the Daily Experience of Passengers: The Case of Megenagna to Kotebe Route” and submitted in partial fulfillment of the requirements for the Degree of Masters in Social Work complies with the regulation of the University and meets the accepted standards with respect to originality and quality.

APPROVED BY THE EXAMINING BOARD

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Acknowledgement

In the first place, I would like to thank my Almighty God and Mother of Jesus Mary.

Then, I would like to express my gratitude to my Advisor Dr. MengistuLegessefor this unreserved professional advice.

Special thanks go to my dearest husband. I am successful here primarily because of his understanding and willingness to handle most household tasks. I also extend my due respect to Addis Ababa Transport Bureau Officers.

Special thanks go to Mr.TesfayeEndale and DemisseAbebe. Last but not least, I would like to thank Mr. MelakuGetahun and Mrs. SamrawitTessema for their precious time and efforts shown to coordinate varies discussion sessions that I conductedinterview with key individuals.

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List of Acronyms and Abbreviation

APTA -American Public Transportation Association

EEA - European Environment Agency

ERA - Ethiopian Road Authority

NASCSP -National Association for State Community Services Programs

Abstract

The study aims to examine the socio - economic impacts of public transport service that is affecting the majority of passengers from Megenagna to Kotebe. This is one of the oldest and highly populated routes of Addis Ababa. The study involves the cases of 10 individuals. The selection of participants for this study was based on a strategy referred as, "purposeful selection. The residential history of passengers along Megnagna to Kotebe route has been used as preliminary criteria to select participants of the study. All participants of the study lived more than 5 years in this route. Hence, they are able to give detailed picture on the nature of public transportation service provision and their daily experience as a regular user.

To explore the nature of public transport delivery, the study used in-depth interview with purposive sampling technique and all the data have been transcribed, translated and later on organized and presented thematically.The findings of the study indicated that, the numbers of residents of these localities of the city are poorly matched with the number and type of public transport providers. As a result, the worst public transport shortage faced on daily basis. These transportation shortages are obliging residents of the route to be late from their work/ school, travel with suffocated and overcrowded conditions or forced them to spend more money on transport due to the unlawful frequent increment by public transport providers. This study also revealed a gap in regulating the public transport service provision. Hence, the concerned institutions and stakeholders dealing with public transportation management should channel their efforts towards increasing the mobility of passengers in the route.

Key words: *Public transport, Socio -economic impact***,** *Mobility*

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The purpose of transportation is to overcome space, which is shaped by a variety of human and physical constraints such as distance, time, administrative divisions and topography.Affordable and efficient transport is central to development as it facilitates access to different amenities. Transport represents one of the most important human activities worldwide. It is an indispensable component of the economy and plays a major role in spatial relations between locations. It is a key factor in social inclusion: the ability of an individual, family or community to access economic and employment opportunities; education, healthcare and other services; and leisure, sporting and social activities (Rodrigue, 2009).

One of the urban transportation systems is public transport. In history, the first public bus line was launched in 1662 (Alan, 1995).The French philosopher and mathematician Blaise Pascal obtained a patent from the King and began a low-fare coach service on five fixed routes in Paris. Nowadays, globally the public transport service has different forms which include: taxis, bus, light train, tram, underground metro light rail etc and providing service to millions of transporters. The service is available to the general public and that carried passengers to destinations for a fee. The systems were broadly accepted in many cities as preferred transportation alternative for commuting to work, performing everyday jobs or travelling to social events (Richard, 2005).

Increasing urban public transport infrastructures can get better urban employment and ease of travel, and easeurban imbalances in terms of job relations and limited employment accessibility (Taylor and Ong, 1995).For example, empirical studies in Europe have shown that

transport infrastructure is a significant restraint on the economic competitiveness of economically backward regions(EEA, 2004).Efficient public transport systems promote geographic integration between residential and employment hubs, increasing the capacity of more dispersed populations to generate wealth (TTF, 2010).Transportation is directly correlated to economic empowerment.

The history of public transport service development in the city of Addis Ababa is similar with other African countries and dated back to the end of the Italian invasion. It was started in 1942when fascist Italy was driven out of Ethiopia by collecting vehicles and spare parts used by the invader(ACBE,2006). Through the last decades the service slowly evolved and currently the public transport of the city is predominantly provided by the state-owned Anbessa Bus Company, Sheger Buses and medium buses; a large number of smaller and privately owned minibuses and recently built light train. City buses and taxis are the dominant public transportation modes. These services are overcrowded, operated in congested mixed traffic, and most of the medium and small taxis are old, unreliable and inefficient vehicles.

On top of this, high-quality public transport delivery in a city is affected by congestion. The phenomenal increase in private car ownership and the resulting growth in the number of private vehicles are responsible for the high level of congestion and poor public transport provision. Policy overlaps and distorted policy implementation which include insufficient and inefficient public transportation, mixed use of dedicated roads, low-price parking policies, lack of connectivity between modes, poor driving behavior, lack of transport planning, and absence of intelligent transport systems are the hindering factors for the poor quality of public transport service of the city.

Currently, even if there are a number of measures taken to solve the shortages of public transport in all corners of the city, it is common to see long lines of people waiting for public transport. The city is getting bigger all the time and the transport system has been left behind. It is common to see all forms of public transporters while packed in people way beyond their capacity. This transportation shortage has tremendous social and economic impacts on the daily life of residents (ERA, 2005).

Giving the fact of transportation service quality and availability, the primary goal of the study is examining the experience of public transport users from Megenagna to Kotebe and the socio-economic challenges they are facing on daily basis. Further, the study assesses impacts of public transport service delivery on users and identifies the nature of public transport service delivery in the Megenagna – Kotebe route.

1.2 Statement of the Problem

It has been six decades since the public transport service started in the city of Addis Ababa. Over the last decades,the sector showed very slow development. To date, we may affirm that it is a sector remains poorly organized. Over years, the urban planners failed to understand the need to integrate urban transport development with city growth and as a result today we faced with a huge challenge in providing sustainable transport system to a population that is engaged in a variety of economic activities. There have been very few local researches that assessed the public transport service of Addis Ababa. Meron, Mulu, Sisay, Adisu,andGetu are those whose studies assessed the public transport system of the city.

One of the local studies concerning the public transport of Addis Ababa was conducted by (Meron,2007), the researcher explored the overall role of public transportation system in urban mobility as it pertains to the city of Addis Ababa and explored its relationship with other supporting systems such as the existing road network, the local development plans, traffic management, and the like. In general, the study greatly settles upon discussions about the two existing public transportation service operators, these are the city bus enterprise and the shared taxi.

Another study about public transportation system of Addis Ababa was conducted by (Mulu, 2015).The paper was greatly dwell upon discussions about the existing public transportation service operators that the residents has. These are the city bus enterprise, *higer bus*, star alliance bus, public service bus, shared taxiand salon taxi.In so doing, the principal focus was the transportation service provider's impact in the route from Ayer Tena to Legehar.

Improving Addis Ababa's transport system by using transport demand management strategy was the study focus of (Sisay, 2019). The research mainly explored the demand side solutions for Addis Ababa transport system problem. Identifying new strategies that can improve Addis Ababa public transportation system was the main focus of the study. Besides the study recommended transport demand management strategies that is applicable to Addis Ababa.

A research conducted by (Adisu, 2010), entitled 'Public Transport Route Planner for Addis Ababa', tried to assess the core public transport services of Addis Ababa those are the Anbessa City Bus Enterprise and taxis. Thestudy included the routes DilBer to the north, Kara Alo to the east, Kaliti to the southeast, Kara Kore to the southwest, and Asco to the west.

On the other hand, (Getu, 2015) mainly focused on the complexity of road safety to examine the possible causes and contributing factors of pedestrian crashes in Ethiopia and to identify potential countermeasures to improve pedestrian safety.

Although the above mentioned studies tried to assess the public transport service from different angles, none of the studies had tried to examine the socio – economic challenges faced by users of the inappropriately deliveredpublic transport. The streets of Addis Ababa witnessing a unique sort of battle every morning and late afternoon as the citizens of the city fight to get public transport. Students making their way to school shove and push alongside those trying to get to their respective places of employment.Meanwhile, Minibus taxi's and medium sized buses pack in people way beyond their capacity and the few that come out victorious in the war of elbows and knees to earn a seat.

The road from *Megennagna to Kotebe* is one of the busiest lines of Addis Ababa where thousands of inhabitants moving in and out with the most awful public transport service. According to the respondent of this study the numbers of assigned public transport providers in this route are inadequate compared with the number of residents of the route. This inadequacy is creating various challenges on passengers.

Regular public transport users of the route are obliged to be late from their work/ school. The inadequacy of transporters also encouraged a price increment that is mostly set by the only available service providers. Transport users in most cases are requested to pay the double price for a single trip unlike the amount which is set by the transport authorities. This fact is creating unplanned financial pressure on passengers and their families. In addition to this, the disagreement on transport tariff to a single trip is becoming a major cause for the frequent violent incidents that is happening between the passengers, drivers and their assistance.

Public transport shortages in this route are also became a factor to expose female passengers to gender based violence. The abuse usually takes place inside the intact medium and large buses. In view of this, study was tried to explore in detail the social and economic challenges that appear to the life of Megenagna - Kotebe public transport users.

1.3 Objectives of the Study

1.3.1 General Objective

The research aims to explore the experience of public transport users from Megenagna to Kotebe and the socio-economic challenges they are facing.

1.3.2 Specific Objectives

a) To assess the day to day challenges related with public transport use
b) To identify the nature of public transport service delivery in the Megenagna – Kotebe route
c) To assess impacts of public transport service delivery on users
d) To identify and propose alternative solutions to improve the public transport service

1.4Research Questions

a) What are the day to day challenges related with public transport use?
b) How is the nature of public transport service delivery in the Megenagna – Kotebe route?
c) What impacts did the public transport service delivery has on users?

d) What are the recommended alternative solutions to ease daily challenges associated with public transport service?

1.5 Significance of the Study

The study is mainly conducted for an academic purpose aimed at extending knowledge about the realities of public transport provision. The findings of the study provide an insight or a method of intervention that may shape the future public transport management.The study is also significant topassengers,policy makers and academicians. Passengers will be aware about the impacts ofusing inefficient public transport service and will awake them to actively participate on efforts to improve the service while collaborating with concerned officials. In addition to this, this will help them to raise their voices and advocate their right on the subject.

This study will also be a significant source of information for city's public transport administrators by pointing out parts of public transportation system priorities that require a due consideration during the planning phase.The study also hopes to fill the theoretical gap and thereby add values to current knowledge production. In relation to this, the study will serve as a good information source for students who have the interest to make further study on the topic.

1.6Organization of the Paper

This research paper has six chapters. Background information and statement of the problem are presented in detail in the first chapter. Major literatures that are related with the research topic are reviewed in chapter two. In chapter three, particulars of the study area and methods of the research explained. Findings of the research thoroughly presented under chapter four. These findings broadly discussed under chapter five. The final chapter is about the conclusion, the stud`s implication to social work and recommendation.

1.7 Anticipated challenge

Absence of organized information center at the major transport stations, limited publications to get accurate figures about the number of public transport users and number of transport providers, difficulty to secure convenient time with key informant interview were among the major challenges during the preparation of the research paper.`

1.8 Operational Definition of Terms

Public – for this study purpose people in general, the community

Transportation - means of conveyance or travel from one place to another.

Transport Congestion - for this study is a condition on transport that is characterized by slower speeds, longer trip times and increased vehicular queuing

Transport Infrastructure - for this study consists of the fixed installations necessary for transport and includes roads, railway airways

Mobility: - for the study purpose the ability to move between different levels in society or employment

Mode of transport: The term used to distinguish substantially different mode of conveyance

Commute: -for the study purpose travel some distance between one's home and place of work on regular basis.

CHAPTER –TWO: LITERATURE REVIEW

2.1 Meaning of Public Transport

(Vasconcellos, 2001)has definedpublictransportation, or mass transit as the transport of passengers by group travel systems available for use by the general public, typically managed on a schedule, operated on established routes, and that charge a posted fee for each trip.In his definitionhe explained that public transport as the de facto barometer of economic, social and commercial progress has transformed the entire world into one organized unit.On the other hand (Ogburn, 1946)also defines public transport as transport system for the general public and believes public transporthas considerably contributed to the evolution of civilization.

2.2 History of Urban Public Transport

As (Alan, 1995) put it, the history of urban public transport dates back to the era of Roman Empire. The Romans established a system of vehicles for hire during the reigns of Emperors Augustus and Tiberius. These two- or four-wheel wagons were stationed at inns every five or six miles along the fine highways for which the Romans were famous. On the other hand, as (Newman, 1999) discussed animal drawn wheeled vehicles developed in Europe and India in the 4^{th} millennium B.C, and in China about 1700 BC.

Alan described that the first public bus line was launched in 1662 (Alan, 1995).The French philosopher and mathematician Blaise Pascal obtained a patent from the King and began a low-fare coach service on five fixed routes in Paris. Although successful at first, the service lasted less than 2 years. This was partly because Pascal died, at the age of 39.Concerning the history of modern era of urban mass transit, (Miller, 2001) mentioned the year 1819 was the beginning year. According to him, a coach line in Paris used an existing type of stagecoach called “a

diligence". Later, the first transit service in the United States was started by Abraham Brower on Broadway in New York City in 1827. For this he designed a modified stagecoach seating 12 passengers, it was named "the Accommodation". According to the American Public Transport Association 56 edition bulletin, the second generation of this stagecoach had a different design: all the seats ran lengthwise, and there was a door at the rear with an iron stairway to the ground. This vehicle was named the "Sociable"(APTA, 2005). Later in the 19th century rail-based, horse or cable drawn systems appeared in many cities. Early in the 20th century, modern subways began to appear, along with motor-powered buses. (Pacione, 2001) enlightens the development of railways and trams were triggered in separating home and workplaces. Nowadays, examples of public transport include city buses, trolleybuses, trams or light rail and passenger trains, rapid transit (metro/subway/underground) and etc. However, most public transport trips include other modes of travel, such as passengers walking or catching bus services to access train stations.

2.3 History of Public Transport in Sub-Saharan Africa

The history of public transport development in Sub-Saharan Africa varies from one country to another. However, to date we may affirm that it is a sector which remains poorly organized across the continent (Kumar and Diou, 2010).Many companies were created in various countries, even several times in the same country, but the vast majority of them have failed. Across many Sub-Saharan African cities, during the first half of the twentieth century colonial governments established monopolistic public transport operations. As Gabs elaborated some of these services were rail-based, most were road-based (GABS, 2013).An example of an early rail-based undertaking is The Cape Town and Green Point Tramway Company established in Cape Town in 1861(Klopp, 2012). Examples of road-based undertakings are the Overseas Transport Company of London introduced to Nairobi in 1934, the Dar es Salaam Motor TransportCompany

established in Dar es Salaam in 1949, and the Compagniesénégalaise de transports collectifsin Dakar in the late-1940s (Kanyama et al, 2004). The road-based operations typically comprised fleets of conventional large buses operating scheduled services on networks of fixed routes focused on an urban centre, with standardized fares, passenger information and vehicle branding.

According to the Finn examination, in the second half of the twentieth century the continuation of these operations became increasingly difficult. Faced with rapid growth in city populations and concomitant traffic increases, stagnant road capacity; commercial speeds reduced and operating costs increased. In the context of limited fiscal resources, government authorities were unable to provide sufficient capital and operating funding support. In many cases private mono- polybus companies were nationalized as part of the decolonization processes in the 1960s(Finn, 2008).

With regards to the sustainable service provision of public transport providers (Kumar and Barrett, 2008), explained most of the public bus companies eventually failed, with many of the bankruptcies occurring in the 1990s when structural adjustment policies severely limited the availability of public funds for subsidy. In most cities, the deterioration and collapse of scheduled bus services allowed the establishment of large-scale par transit operations, offering flexible services typically in the form of small-to medium-sized buses with capacities ranging between nine and 25 seats(Behrens et al, 2015). With a few exceptions, this change in-service offering did not result from a deliberate policy decision to deregulate public transport in the same way privatization policies were implemented in other parts of the world at that time, but rather represented a localized response to growing unnerved passenger demand and relatively unrestricted market entry in a regulatory vacuum(McCaul, 1990).

2.4 The History of Public Transport of Addis Ababa

The public transport service development in the city of Addis Ababa is dated back to the end of the Italian invasion(UITP, 2008). It was started in 1942, when fascist Italy was driven out of Ethiopia, the service started by collecting vehicles and spare parts used by the invader. In 1952 it was reorganized as Share Company and started its service with ten buses, which were dispatched in four routes each containing two buses. In 1982 the Share Company was nationalized by the government. Currently, it is named as Anbessa City Bus Service Enterprise (ACBSE) and owned by the Federal Government of Ethiopia. Its operations are also financially supported by the city administration. As it is evident from the Statistical Report of ECSA and Africa-Trans (2010), the numbers of bus user dwellers in and around the city of Addis Ababa have increased from time to time due to the galloping urbanization and rural exodus.

2.5 Public Transport System of Addis Ababa

In Addis Ababa the dominant public transportation modes are city buses, taxis and light rail transport. Public transport is predominantly provided by the state-owned Anbessa Bus Company, and a large number of smaller, privately owned buses and the light rail transport(AATB, 2015). These services are overcrowded, operated in congested mixed traffic, and make use of old, unreliable and inefficient vehicles. Many people walk due to a lack of service availability, or an inability to afford alternative means of commuting. The city has implemented the first phase of the Addis Ababa Light Rail Transport (LRT) network, with operations having commenced in the second half of 2015(UTSACA, 2016). The condition of public transport in the city regarded as one of the poorest in the world. The transport system of Addis Ababa characterized by shortagesof road network with respect to the size of the city, lack of sufficient access roads, lack

of off street parking facilities and over utilization of road space by parked vehicles, poorly designed road junctions, lack of pedestrian walkways/facilities and miss-use of the existing facilities, sub-standard terminals for passengers and freight transport and inconvenient bus and taxi, lack of segregated bike- ways, lack of standard public transport service provisions and rising transport fairs and absence of stakeholder coordination in the sector,lack of skilled manpower and capacity limitation for enforcement in traffic management, low level of awareness and publicity in traffic system for road users, absence of emergency and incident management, unregulated.

2.6 Impacts of Public Transport

2.6.1 Social Impacts of Public Transport

Public transport maintains social contacts and act as an agent of transforming the culture from one place to another and from one society to another. It helps in cultural exchange, thoughts, ideas, knowledge of the community. (Mackett, 2015)studied the relation of access to public transport with the daily lifestyle of public and found that how transport contributes to the nature of social exclusion by providing barriers to access. Transport helps human beings by removing the unwarranted barrier of physical separation and “enables a given flow of resource to produce greater results” (Bonavia, 1954).It also promotes homogeneity among the people of a country, and this sense of oneness strengthens political unity. Mobility is a key condition of access to employment, housing, education, culture and leisure and family. The right to work, to have a home, to training involves the right to mobility(Ascher, 2007).When public transportation is available, domestic burdens decrease, while literacy rates and access to healthcare increase. Improved road accessibility has led to increased school enrollment and reduced travel time.

Transport is a key factor in social inclusion: the ability of an individual, family or community to access economic and employment opportunities; education, healthcare and other services; and leisure, sporting and social activities. Public transport in major metropolitan cities can be the fastest, safest, and cheapest way to connect to work, family, and social activities - facilitating social inclusion and providing additional opportunity (APTA, 2005).

Low-income earners, the unemployed, the elderly and people with a disability are particularly at risk of social isolation as a result of poor transport options. Improving access to public transport for these groups is necessary to achieve social equality, as it invariably increases access to employment, education, health and community services (Eddington, 2006).

Conversely, limiting this access and the impost of expenses relating to car ownership exacerbates the social disadvantage experienced by these groups. Access to efficient public transport systems facilitates interaction between communities and individuals, contributing to the overall fabric of society. From this perspective, public transport can be seen as a vital social institution which, if maintained and developed correctly can benefit communities through enhanced social cohesion.

Closer alignment between transport and health policy can potentially ease the burden on health services through promoting active lifestyles. By walking or cycling to a bus stop or train station, public transport provides opportunities to improve personal fitness, whilst removing the stress associated with driving a private car in congested conditions (UITP, 2009).

2.6.2Economic Impacts of Public Transport

Providing the transit facilities can widen the range of opportunities for employment. Transport should be seen as a service, which can also increase economic efficiency by adding access to opportunities such as seasonal prospects beyond their settlements (Gannon and Liu, 1997).Research shows that public transport based job accessibility has a positive and indefinite effect on individual incomes. Urban public transport systems target, among other motives, to assist commuting and to improve individual performance on the labor market (Pons Rotger and Nielsen, 2015).Urban public transport systems aim, among other purposes, to facilitate commuting and hopefully to enhance individual performance on the labor market. Improved job accessibility may raise individual employment rates and earnings by different mechanisms. Workers may not consider relevant job vacancies due to excessive commuting time. The study of the consequence of improved accessibility on incomes is a significant contribution to the literature on the effect of improved accessibility which tends to rely on the more indirect methodology (Pons Rotger and Nielsen, 2015). Research on effects of job accessibility improved by public transport system in Copenhagen estimated minimum street distance from residences to a metro station. Employment percentages of residents were calculated for the analysis corresponding to distance from the metro station. Employment rate of 84.7 % was recorded where residence was ranging 0.5-2.7 km from station where the same parameter of employed was rated to 84.0 % for the residences ranging from 2.7-6.2 km from station. Same trend was recorded in case of earnings (Pons Rotger and Nielsen, 2015).

Efficient public transport systems promote geographic integration between residential and employment hubs, increasing the capacity of more dispersed populations to generate wealth (TTF, 2010).Transportation is directly correlated to economic empowerment. In Sana’a

andCasablanca, there is a direct correlation between access to transportation and residents economic empowerment. Especially in the peripheral areas of Sana'a and Casablanca, lack of transportation services limit opportunities, particularly for women. In the West Bank, checkpoints and the economic impacts of occupation dis-empower men as well as women. In fact, many educated women have given up aspirations for employment. Cases in urban Oman, Bangladesh, Indonesia and Turkmenistan reveal similar constraints, as well as some approaches for addressing them.

People, who come from low-income households, reside outside urban settings, and who face difficulty in accessing employment opportunities located mainly in cities and urban areas. Many people living outside big cities struggle to reach healthcare facilities, educational institutions, and potential job opportunities. This keeps them at a disadvantage in comparison with people in cities who own cars and can travel freely from one place to another without restrictions or constraints (NASCS, 2008).

As to (APTA, 2010) public transport can play a pivotal role in alleviating urban congestion. Public transport plays an important role in facilitating productivity and opportunity by moving skills, labor and knowledge within and between markets. There is strong evidence of a direct correlation between improved accesses to public transport increases in property values. Planning that prioritizes public transport – by promoting mixed use density along transport corridors ,decreases the need to allocate public spaces to roads and parking, allowing these spaces to be put to more valuable uses, reflecting positively on the general urban amenity.

In most urban areas, women's travel destinations are more diverse, as they tend to make multiple stops for employment and household duties. Moreover, women's traditional social roles

in taking care of children and/or parents influence their travel patterns; they make shorter trips, travel with minors, carry more packages than men, and make multiple stops.

A study conducted by Hollaback and Cornell University, which included 16,600 interviews from 22 countries, concluded that 80-90% of women had been harassed in public. Another report published by the National Crime Record Bureau estimated that a woman is harassed or assaulted every 51 minutes in India's public spaces(The World Bank,2015) In Mexico, where women account for 57% of Mexico City's transportation users(Adriana, 2015) 64% of women living in Mexico City have been assaulted while using public transportation. Moreover, women account for 95% of harassment victims using public transportation in Mexico City. Similar results were found in New York City, where 63% of women surveyed reported experiencing sexual assault on the subway(Christine, 2017). With regards to safety and harassment, gender-based transportation systems continue to disadvantage women and limit their participation in the workforce(Azra, 2015). As a result, it impacts their livelihoods. For example, in India, the lack of transportation system safety has been the biggest reason deterring women from using public transportation, thereby hindering their participation in the workforce. Furthermore, the transportation system in New York City is considered to be one of the most dangerous in the world. These various studies demonstrate that women are victims of the current transportation system, which hinders their access to education and economic opportunities. As a result, it lowers their standard of living. Hence, reforming public transport and infrastructure should become a top priority, and gender issues must be considered as part of the solution.

Transforming transportation systems around the world has become a priority for governments. Gender-based solutions have been on the rise to enable women's participation in the workforce and improve accessibility to efficient and safe transportation methods. Some of the

solutions adopted globally include creating women-only trains and buses with separate boarding areas found in countries such as Iran, Egypt, Russia, Colombia, Nepal, and Japan.

2.7 Congestion and Public Transport service

2.7.1 Meaning of Congestion

Congestion is a word that is commonly used both by technical people and by the general public. "Congesting" means blocking the way, or obstructing the circulation or movement of something. In our case this "something" would be vehicle traffic. The other meaning of Congestion is the condition that prevails when the entry of an additional vehicle into a traffic flow increases journey time for other vehicles(Carlos, 2011).

Congestion is, beyond any doubt, determined by high traffic-volume-to-capacity ratios and is characterized by low average speeds, as well as by increased variations in speed, an increase in potential conflicts and by incentives to seek alternative routes(Albalate& Xavier, 2019).

Congestion occurs when lower speed of vehicle enters on a particular route. However, the benchmark of low-level speed of vehicle varies from country to country. Even within a country, this benchmark varies significantly. For instance, in California, if the speed falls to the level of 35 km continuously for 15 minutes then it is referred to as congestion; whereas in Minnesota, congestion occurs when the average speed falls from the speed limit is 45 km per hour during 6 a.m. to 9 a.m(Rao and Rao, 2012). In the Republic of Korea, traffic congestion is said to be occurring when traffic flow is below 30 km/h or congestion continues for more than 2 hours aday.

2.7.2 Causes of Congestion

In many respects, rapid urbanization is an indicator of economic growth in and it is expected to continue. As per an estimate by the Asian Development Bank (ADB), about 44 million people are added to Asia's urban population every year. (ADB,2005).With such a rapid increase in urban population, there has been an increase in demand for mobility, and with it, an increase in motorized vehicle ownership. As per a report by (Wards Auto Research, 2013), the overall vehicle population growth in China was27.5% in 2010 as compared to the preceding year. The estimates show that the total vehicles in operation in China "climbed by more than 16.8 million units, to slightly more than 78 million, accounting for nearly half the year's global increase" (Sausanis, 2011).The phenomenal increase in private car ownership and the resulting growth in the number of private vehicles are responsible for the high level of congestion in cities.

However, traffic congestion does not occur only due to increasing level of motorized vehicles. If that was the case, then cities with low levels of motor vehicles should not be congested. It suggests that congestion also occurs due to mismanagement between demand for and supply of transport services(MoRTH,2011).Some of the conventional causes of congestion are still rooted in growing cities owing to policy overlaps and distorted policy implementation. These include insufficient and inefficient public transportation, mixed use of dedicated roads, low-price parking policies, lack of connectivity between modes, poor driving behavior, lack of transport planning, and the absence of intelligent transport systems, among others(ECMT,2007).

In many Latin American cities thepresence in traffic flows of old or badly maintained vehicles is a further aggravating factor(SEI,2013).In addition, the presence of informal operators in public transport system also has a critical impact on congestion. A badly designed or poorly

maintained street system also causes unnecessary congestion. Anexample of this are, bus stops located just where the road narrows a frequent occurrence ina number of cities.Rainfall accumulated onthe road surface reduces the road's capacity and thus increases congestion; sometimes thepavement also gets damaged, so the capacity constraint persists long after the rain has ceased (SEI,2013).

2.7.3 Initiatives to Improve Urban Mobility

There are various policies and initiatives underway to improve urban mobility, primarily aiming to enhance and strengthen urban infrastructure. In addition, some countries have also adopted congestion pricing and policies to restrict private car ownership(ITSP, 2010). Therefore, it is certain that the creation of new infrastructure alone will not solve the problems and those other aspects also deserve consideration.

Some countries are adopting various measures to promote mobility which includes: For instance Beijing adopted prevented car mobility on specified days on the streets rotation of tail number plates of driving vehicles in the regional rush hours on working days (Municipal Government of Beijing, 2013).A number of Southeast Asian countries also adopted Intelligent Transport Systems. This provides buses enabled with intelligent transport systems and other projects including Bus Rapid Transit (BRT) System.

Adopting more effective parking policies with high parking fees, which represents the land value improves urban congestion. Guangzhou (China) adopted a Bus Rapid Transit system to improve traffic congestion generally is comprised of dedicated bus lanes and stations where passengers can prepay the bus fare. These innovations speed the buses by setting them apart from any traffic congestion and ensuring quick entry and exit of passengers. The Guangzhou BRT has

980 buses along 23 kilometers of dedicated trunk lines, and is moving 800,000 passengers per day(Fjellstrom, 2010).

Singapore implemented a manually-operated scheme where cars would have to pay to access the city center during the morning peak hours. The cost of using those roads was based on the actual demand of the area, which would regulate the demand based on price. This scheme successfully managed traffic congestion, and was known as the Area Licensing Scheme (ITSP, 2010).

2.7.4 Developing Public Transport Infrastructure

Academicians of urban transport discussed the accessibility of employment and the supposition of misplaced employment. It is not the geographical distance itself, but the influence of the option of modes of transport hatplaces disadvantaged groups in adverse situations (Shen, 2000). It has also been found that car possession is vital for increased elasticity in approaching employment opportunities, especially for low-skilled workers with changeable working hours (Taylor and Ong, 1995).It is generally not mentioned that increasing urban public transport infrastructures can get better urban employment and ease of travel, and easeurban imbalances in terms of job relations and limited employment accessibility. For example, empirical studies in Europe have shown that transport infrastructure is a significant restraint on the economic competitiveness of economically backward regions. As a result, the constant enhancement of public transport infrastructure not only facilitates local employment but is also a key factor in dropping regional economic differences (Holl et al, 2004). Another study found that public transport infrastructure and employment, economic development, social welfare and environment impact on each other closely. In addition, there are studies that observe the short-

term and long-term effects of public transport infrastructure on employment. For example, national studiesinGermansuggest that regional infrastructure inputs account for regional differences in employment growth (Laird, Nellthorp and Mackie, 2005).A study by Demetriades and Mamuneas (2000) based on 12 OECD countries showed that transport infrastructure investment had a clear lasting positive effect.

2.8 Summery of Literature

The principal objective of the study was to explore the socio-economic challenges which public transport users are facing on daily basis. To explore the issue, the literature that was presented above provided a comprehensive review and theoretical insight in line with the objective. The review started with history of urban public transport at the global level and how it revolves through time.As it has been presented in the literature theRomans established a system of vehicles for hire during the reigns of Emperors Augustus and Tiberius.Regarding the history of the first public bus line many literatures agree that it was launched in 1662 in French by Blaise Pascal.

On the subject of the history of public transport in Sub-Saharan Africa, it was developed during the colonization era.Europeancolonialist played a significant role to the establishment of public transport service in many African countries. The commencement of public transportservice in Addis Ababa is also linked with the Italian invasion. The service started at the end of the invasion using few buses that were left by the Italians.

The relation between poor public transport development and the associated social impacts was also assessed. As it has described in the literature, transport is a key factor to promotesocial inclusion: the ability of an individual, family or community to access education, healthcare and

other services; and leisure, sporting and social activities mainly depends on the available public transport service.

The other issue reviewed in this literature is the relation between public transport service and the economy. All literatures indicated that efficient public transport systems promote geographic integration between residential and employment hubs, increasing the capacity of more dispersed populations to generate wealth. Public transport plays an important role in facilitating productivity and opportunity by moving skills, labor and knowledge within and between markets. The constant enhancement of public transport infrastructure not only facilitates local employment but is also a key factor in dropping regional economic differences.

The literature also assessed the major causes to traffic congestion and the experience of other nations to curb the problem. As discussed in the literature, congestion is the major cause for poor public transport service. Though the phenomenal increase in private car ownership and the resulting growth in the number of private vehicles mentioned as the primary responsible factor for the high level of congestion in cities, other factors such as mixed use of dedicated roads, low-parking price policies, lack of connectivity between modes, poor driving behavior, lack of transport planning can be mentioned other causes of congestion. The major initiatives to improve urban mobility are also assessed which includes but not limited: the application of intelligent transport systems, Bus Rapid Transit (BRT) System etc.

Finally, the literature discussed that the public transport facilities are not women considerate. Various literatures demonstrated that women are victims of the current transportation system, which hinders their access to education and economic opportunities.

2.9 Theoretical Framework of the Study

2.9.1 Theory of Traffic Policy Development

Transport refers to services related to the moving of goods and people. Currently, the supplying of transport services requires four elements: routes, transport equipment, power, and terminals. Notable characteristics of these services include the high demand, immediacy, locality, the effect of intangible factors, and wide fluctuations in demand. These elements and characteristics have a major effect on the transport problem. From a transport economy standpoint, traffic congestion represents a state in which transport demand for roads exceeds the transport supply. When congestion begins to occur in a city, it is usually caused by an increase in transport demand; a significant and sudden fluctuation in supply is unlikely. According to this theory, the nature of demand is related to the degree of need for transport. Generally, demand is comprised of intrinsic demand and derivative demand. Intrinsic demand refers to normal demand, representing the aim of a desire to ‘do something’; while diverse demand refers to travelling for its own sake, such as going on a drive or taking a cruise for fun(Kutani andSado,2016).

Although intrinsic demand exists for transport, it is a somewhat unique form.Most transport demand in modern society consists of derivative demands that stem from the various intrinsic demands (the demand to move), including commuting to work or school and travelling to locations for shopping or leisure. Thus, any increase in demand is generally caused by changes in areas other than transport itself, such as in changes in economic demand and changes in social structure. Furthermore, the total sum of these activities is strongly correlated with population, and population increase is one of the primary factors behind the growth in transport demand. In addition, the rate of automobile usage, which is directly connected to traffic congestion, is

strongly correlated with income level. Generally, a rise in income leads to a rise in automobile usage, leading to traffic congestion. At the same time, public transport is often used more by lower socioeconomic groups, and its income elasticity is negative. When public transport takes on a negative image as the mode of transport of the poor, automobile usage trends become even more significant (ERIA, 2015).

Two frequently mentioned negative effects of traffic congestion are economic losses and energy losses. For instance, in Japan, the Ministry of Land, Infrastructure, Transport and Tourism estimates that the opportunity costs of traffic congestion represents an economic loss of ¥12 trillion per year. Meanwhile, in the United States, the average time spent in traffic congestion per person is twice that of Japan, representing a major economic loss. Furthermore, other negative effectsof traffic congestion, including external effects, are often mentioned, such as a rise in traffic accidents and a deteriorating roadside environment. From an energy standpoint, driving at a slow speed during traffic congestion greatly worsens the fuel efficiency of automobiles. For instance, compared to driving at 25 kilometers per hour (km/h), driving at only 10 km/h drops halves fuelefficiency (Muller and Laired, 2007).The automotive industry goes to great lengths to improve fuel efficiency by several percentage points each year, but solving traffic congestion would have a much greater effect on improving fuel efficiency in a shorter period of time than technological improvements by automobile manufacturers. In the coming years, road transport demand is expected to increase in regions where a rise in population and economic development is predicted. Traffic congestion is already becoming a significant social issue in developing countries in Asia. The same phenomenon is expected to occur in other regions,such as Africa and Central and South America,coinciding with economic development.

2.9.2 Family System Theory

Family system theory evolved from general system theory which was primarily developed by Bertalanffy.The Family Systems Theory states that a family functions as a system wherein each member plays a specific role and must follow certain rules. Based on the roles within the system, people are expected to interact with and respond to one another in a certain way. Patterns develop within the system and each member's behavior impact the other members in predictable ways. Depending on the specific system, these behavioral patterns can lead to either balance or dysfunction of the system. Family System Theory is a concept of looking at the family as a cohesive emotional unit. According to the FST, family members are intensely emotionally connected. It has been observed that there is little research on how families use or are influenced by the media because it is quite simply a moving target (Coyne, Bushman,&Nathanson, 2012). Family system approach see parental and child behavior as interdependent and influence reciprocal (Fingerman, Hay, &Birditt, 2004).

Nowadays, it is reasonable to assume that digital technology both reflects and shapes a broad range of family system dynamics. As such, family systems theory may be a useful conceptual tool for human service and clinical professionals caring for and working with children and their families. The family is a structure of related parts or subsystem with each action or change affecting every other person in the family. What is most relevant in FST is tracking how the behavior of one member of the family influences and, usually outside conscious awareness, restricts the actions/utterances of other family members.

Despite the fact that many caregivers do their best to keep up with technology and create a safe technological environment for their children, the technological say of today's youth can

quickly outpace that of their parents. For example, parents are often shocked to learn that the access that is prohibited on the family computer is completely enabled by thewifi and the IPOD in the bedroom. Ideally, it is advisable parents to keep digital media in a centralized and public area of the home. This will allow the parents to better track the types of information that are being accessed by their children. Parents should also require that youth and adolescents turn in their phones and devices at the end of the night. (Van den Bulck, 2007; Munezawa, et al.,2011).

2.9.3 Statistical Decision Theory

According to the statistical decision theory the urban public transportation demand of the future is unpredicted (Berger, 1985). Uncertainties in transportation are of 3 types: demand, technology, and goals. No matter how elaborate a demand model we build or how much data we collect, there will always be uncertainty about our predictions of the future demand for transportation, because we do not understand very well the internal dynamics of the social and economic system with which we are concerned. In addition to the uncertainty about demand is the uncertainty about technology, not only about the pavement life and other characteristics of the particular highway or transit line we design but also about the transportation technologies that may be available a few years from now. We are also uncertain about goals. In designing a metropolitan transportation plan or specific highways, we attempt to make decisions from the point of view of the body politic, but whose point of view? How are the interests of different groups balanced? The objectives of our society are continually evolving, and no single individual or group is able to fully express those objectives.

Any change in the transportation system impacts differentially on different groups. Some groups benefit, some groups lose. If we build a highway through a city to serve automobile-owning

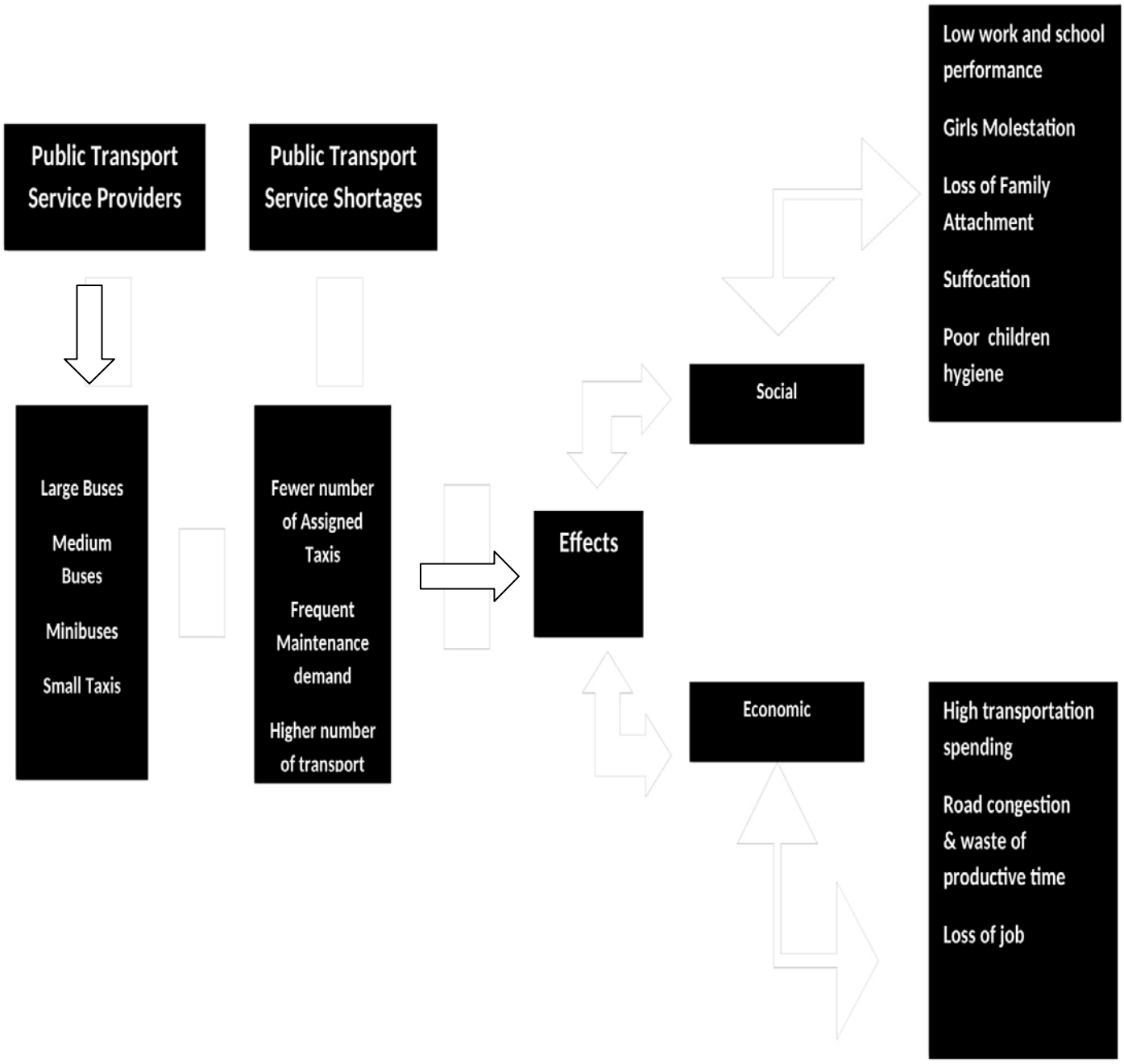
suburban commuters, we displace homes and jobs, and reduce transit ridership, thus causing increased fares and lower service for non-automobile-owning transit users. It is particularly important not to hide these differential impacts, but to trace them out explicitly. If we try to place a dollar value on all the benefits and costs and to compute some aggregate total, such as net benefits or costs, or benefit-cost ratio, we ignore how each of these different groups will be affected. The real issue is not how much total net benefit is increased or decreased, but how each particular group is affected. Any politician recognizes this fact of life: no system can be implemented in reality unless no group is disrupted. For, if some group is negatively affected, then we can expect politically effective reactions. Thus, in the systematic analysis of transportation alternatives, we must explicitly trace out the incidence of these differential impacts (Samuels, 1965).

2.9.4 Push – and Pull Approach

According to this approach, one way to view the problem of public transport is to analyze it from the standpoint of "where" people should be in transport (where we should "push" them) and from which modes we should "pull" them(Müller, 1992). This is commonly called the "push and pull" approach. It emphasizes that urban transport measures must persuade users into using public transport and non- motorized transport, while developing strategies to "push them out" of automobiles and similar transport modes. To achieve the "pull" component, one must provide good quality of service in public transport, develop infrastructure for public transport and non-motorized transport and in general develop policies that improve conditions for the use of these modes. To arrive at a situation where people are "pushed from cars", policies must be in place to discourage their use by eliminating fuel subsidies, creating charges to automobile ownership and use, and in general creating policies that increase the cost of using these modes while using

theirvenue from those charges to enhance sustainable urban transport modes. This approach is generally used by transport economists as it follows a rationale of “price-driven-behavior”.

2.10 CONCEPTUAL FRAMEWORK



The conceptual framework of this paper tries to illustrate the overall interaction and interdependence of the concepts of public transport. As it has shown above in the framework, 12 seat taxis; medium and large buses are the main types of public transport providers of the route. However, there are shortages of assigned public transport providers. This in turn is creating number of socio - economic encounters at the family and community levels.

Limited number of public transporters in the route means, parents or guardians has the obligation to arrive to their home duringthe evening hours. The conceptual framework tries to show that how this is becoming the major factor for the continual weakening of family attachment. Intense suffocation inside the public transports also has negative health impacts on passengers. Women passengers of the route are also experiencing gender based violence on daily basis. The abuse of women usually happens due to the packed nature of transportation service where passengers obliged to travel while closely setting or standing.

The framework also tries to show that shortage of public transport's impacton the continual unlawful price increment on passengers by transport providers. This in turn is exerting its economic pressure mainly on low income passengers. Besides, these shortages are also affecting the performance of workers and students. These are the productive section of the community and they are obligated to waste their time while being on the roads for hours. The framework also tries to show the road congestion impact on the productivity of individuals.

CHAPTER THREE: RESEARCH METHOD

This chapter presents the researcher's perspective, the research design, the study setting, the sampling technique and sample size, data collection procedure, ethical consideration andmethod of data analysis.

3.1 Researcher's Perspective

As a researcher I take myself on the position of constructivist, and this has benefit me while conducting data analysis and interpretation, to interpret the meanings, how the passengers mainlyperceive the public transport service provision and associated challenges and relate it subjectively. The constructivist perspective influences the research process in the following ways; 1) the process that will be followed for this phenomenological qualitative inquiry considers flexibility in procedure and hence the method of data collection is semi-structured, and (2) it also influences the way in which the researcher comprehends the experience of public transport challenges.

In agreement with this worldview, I used a constructivist paradigm to examine and understand public transport service providers' perceptions and experiences of passengers about the quality of transport service they are getting. Constructivist researchers focus on understanding and reconstructing the meanings that individuals hold about the phenomenon being studied (Gubrium& Holstein, 1997) by examining in-depth their lived experiences (Jones, Torres, &Arminio, 2006) through use of open-ended questions (Crotty, 1998). Thus, for this study, I conducted interviews with 10 study participants, made in-depth interviews with 6 key informants, observed the situation and reviewed relevant publications, and continually analyzed

these data in an attempt to understand and construct meaning of participants' perceptions and experiences of the public transport service they are getting.

3.2. Research Design

This study used a qualitative approach applying a case study method to investigate the pattern of public transport from *Megenagna to Kotebe* and its socio-economic impact on passengers. The case study research method is employed in order to obtain information and understand the level of the transport service. According to(Yin, 2003) case study is a preferred strategy to address the how and why research questions. In addition (Creswell, 2005) states that different strategies can be employed to conduct a qualitative research and one of them is case study, "Case studies are strategy of inquiry in which the researcher explores in depth a program, event, activity, process or one or more individuals. Cases are bounded by time and activity and researchers collect detailed information using variety data collection procedures over a sustained period of time".

This research uses a collective case study or multiple case study type which uses multiple case studies with no separate discussion at each case but all covers cross case analysis illustrate the issue of transportation. The route from *Megenagna to Kotebe*wasselected due to the presence of thousands of residence who on daily basis obliged to use public transport. Their perception of the experience along with the challenges they face and the coping mechanism they use are investigated.

3.3 Study Setting

The study area for this assessment is the route from Megenagna to Kotebe through Zero Hulet. The reason I select this setting is because *Megenagna*is an intersection place to the direction of Stadium, Bole, *Arat Kilo, CMC, Wasen* and *Kotebe*and other newly populated villages such as *Abado&Gerji.*Therecently established cross- country bus station which is located on the way to *Koteb* has also increased the number of users of the root. The narrowness of the road from *Arrarat Hotel to Karra* junction, presence of small market at the place called '*Zero Hulet'* area and inappropriate parking of private vehicles, mini buses and medium public transport buses also increased the crowdedness of the road.

Partial view of transport problem atMegenagna(source: picture taken directly at megenaga bus station ,2020)

There are thousands of residents who are moving out from their villages in the morning rush hours to reach on time to their daily runs and struggling to return to their homes in the late hours

of the day. There is alternative road from *Megenagna to Wosen* Grocery in which residents of *Kotebe a*nd the surrounding areas are using at the time of extreme transport shortages. However, this route is highly crowded route due to the high influx of vehicle from *Ayat, Summit Tafo and Abado*areas. In addition to this, recently started road construction from ARRAT hotel (the new cross country bus station terminal) to Kara Junction is also temporarily exerted its influence on the traffic of this alternative route.

As most routes of Addis, the road from *Megenagna to Kotebe* didn't have important road facilities which includes: improved traffic signal system, road and pedestrian safety, parking management and traffic enforcement and improved conditions of road infrastructure and pedestrian facilities.

3.4 Participants of the Study

For this study 10 individuals and 6 officials and providers are selected for interview and key informant interview respectively are selected. The selection of participants for this study was based on a strategy referred as, "purposeful selection" which, by one definition (Maxwell, 2005) denotes that "a selection strategy in which particular settings, persons or activities are selected deliberately in order to provide information that can't be gotten as well from other choices. Purposive or judgmental sampling is the more acceptable sampling procedure for qualitative research when it involves selecting participant for special situations. Importantly purposive sampling is important in this study because the study intends to identify the pattern of public transport service of the route. The residential history of passengers along Megnagna to Kotebe route has been used as preliminary criteria to select participants of the study. All participants of the study lived more than 5 years in this route. Hence, they were able to give detailed picture on

the issue of transportation, and their daily experience of the service. The sample size was determined by response saturation on each designed interview question.

3.5 Sampling Techniques

The main principle of sampling in qualitative research is to collect precise cases, events or actions that can simplify understanding (Krueger & Newman, 2006). The nature of this study is qualitative; it is not be necessary that the sample be representative of the total population of public transport users of the route. The purpose of the study is not to generalize; rather, its purpose is to understand the unique subjective experience of the participant. Furthermore, there is no clearly defined rule in qualitative research to determine a sample size of a study, but the focuses on gathering relevant data and becoming rich in data to meet the entire research question.

3.6 Data Collection Procedure

Both primary and secondary sources used to collect the data of the research. Primary data collection was an important piece for this research. The primary data of the research was collected through interview, observation and key informant interview.

3.6.1 Primary Data Collection

In a case study, it is important to converge sources of data, also known as triangulation, as a means to ensure comprehensive results that reflect the participants' understandings as accurately as possible. (Yin, 2009) and (Stake, 2000) concur that triangulation is crucial to performing a case study reliably.

3.6.1.1 Interview

The interviewees was selected with the method of purposeful sampling that individuals were selected based on the purpose which is anticipated to provide detailed picture of the problems or issue of transportation that the passengers faced on their daily experience. In addition to this, their accessibility, willing to provide information, distinctive for their accomplishment are other considerations made when selecting respondents. For the questionnaire interview 20 open ended questions used and a total of 10 interviewee'sparticipated. The interview questions are used to explore information regarding experience of public transport users. An interview format provided the data rich in detail that is analyzed with each interviewee's context. In qualitative research, the interviewer is a critical part of the process (Heather, 2000).The questions are designed based on various public transport performance indicators such as ratios (cost per revenue Km), frequency, accessibility, and public transport quality. The questions were carefully designed, evaluated and tested.

In addition to this, the study usedweek days to conduct the interview with passengers and the key informant interviewees. It is for the reason that most selected passengers for the interview have better time to calmly participate in the interview session over the weekdays.

3.6.1.2 Observation

Participatory Observation was other primary data collection method applied on this study. This method believed to provide firsthand information on the public transport service actuality of *Megenagna to Kotebe* route. It is planned to conduct the observation during the pick hours of the day (Morning and Evening hours). Mainly weekdays were used to conduct the observation. This is because there were a lot of passengers who were regularly travelling to their work place

and schools. This situation helps to observe the transport pattern of the route while passengers' movement is highest unlike the weekend days.

3.6.1.3Key informant interview

Six participants were interviewed for this research. Interviewing these individuals allowed for identifying and soliciting knowledge from those who (Patton,2002) calls, "key informants". Key informants are people who are particularly knowledgeable about the inquiry setting and articulate about their knowledge, and whose insights can be helpful in assisting an observer in understanding events that have happened and reasons why those events happened. All interviews were conducted face to face and lasted from 35-55 minutes.

Key informants of the study were carefully selected. In creating this list, the study tried to acquire a diverse set of representation with different personal and professional backgrounds. This diversity provided me a broad range of perspectives to the matter. Only 6 key informants were selected for interview. This is due to time limitation and availability of the key informants:

1) Addis Ababa City Government Transport Office, Officer (2)
2) Bus driver(1)
3) Public transport users(3)

3.6.2Secondary Data

The research used secondary data from published and unpublished sources. Mainly books, periodic publications, strategic plans and reports, official statistics,audio-visual materials administrative records and various journals referred.

3.7 Method of Data Analysis

As it has been mentioned in chapter one, the study aims to assess the socio- economic challenges faced by public transport users on the route from Megenagna *to Koteb*. The first step in data analysis process was transcribing. By carefully listening to the recorded interview, the data has been transcribed on the paper. Since the data collection was made through the local language, it has been translated into English as appropriate. The second step was coding, which enabled the study to understand the contents of the data and also to limit the incursion of possible bias to the minimum. After the coding, the data has been categorized in similar and related groups as appropriate. This data categorization helps to sort out texts into meaningful groups which make the data to be manageable (Tuckett, 2005). The coded data are categorized into similar, related categories. This categorization indicates how the different codes were constructed into similar categories of different types that gave meaningful shape for the data. After categorizing, themes have been developed that clarify the findings as the various elements of data are entangled together to come up with a deep understanding of the incident.

3.8 Ethical Consideration

In conducting this study, the core ethical issues in the profession of Social Work like respecting the autonomy and the beneficence of the participants ensured. The research obtained permission from the school of Social work prior to engaging in data collection. This study considered principles of ethical codes or issues. Voluntary participation of respondents or full consent of participants guaranteed and participant's dignity was respected. The research assured that the information they provided regarding the management of public transport service and other issues to be kept confidential and the data will only be used for intended purpose. No

financial or material benefits are extended for participants.The study also used appropriate language to communicate with different segments of the population and when conducting an interview with individual respondents. The study was also acknowledged the works of other researchers and authors while mentioning them with the APA (Harvard) guide 7th edition referring system.

CHAPTER FOUR: FINDINGS

4.1 Data Presentation

The purpose of the research was to examine the quality of public transport service and associated socio-economic challenges faced by users in the routes from Megenagna to Kotebe. The research tried to realize individual level challenges, and proposed alternative solutions to improve the quality of public transport provision.And data are collected before the outbreak of Covid 19 pandemic in Ethiopia.It involved interviews that tried to understand the cases of purposefully selected 10 individuals who are residing along the route fromMegenagan–*Kotebe*within the approximate distance of 4.3 kilometers. Participants of the interview have a minimum of 5 years of residential history in these localities.Of these participants seven of them revealed that they travel 15-20 kilometers every day to get to their workplace. Of the above mentioned seven interview participants two of them are physically challenged.

The remaining three interviewees were secondary school students whose schools were situated in distant localities from the residential areas and obliged to use public transport to get to their schools that are located 10 – 12kilometersfar from their homes. The age of 10 participants of the interview ranged from 17 to 67 years old. In terms of gender composition three were female, and seven were male. The interviews centered two broad areas of investigation with several questions in each area; 1) accessibility of public transport and users satisfaction 2) challenges of public transport and its socio-economic impacts on individual families.

To gather key information, the research also involved 6 participants. These were: officers from the City Government's Transport Authority, passengers and public transport drivers.

The key informant interviews mainly focused on the city administration's transport regulation and management; and the quality of public transport delivery and challenges that has been experienced by individuals at household level.

On the other hand, the research mainly tried to cover the below mentioned three thematic areas:

1) Distance, daily experience of travellers and socio-familial effects
2) Allocation, regulation and management of public transporters
3) Public transport shortages and associated economic effects

4.2Distance, Daily Experience of Travelers and Socio-familial Effects

The public transport environment of Addis Ababa, includes a few combinations of alternative transport modes. Various types of passengers use urban public transport with different travel frequencies and travel times. These passengers include: students, workers and leisure travelers and passengers with different travel purpose. The demand is higher and condensed in the morning and evening hours while it is sparse in the remaining times of the day. It is noticeable that the rush hours demand mainly comes from the workers and students.

The above fact is also true in theMegenagna- Kotebe route. It is one of the routes of Addis Ababa in which on daily basis thousands of residents are travelling to the inner parts of the city for various reasons. In this route public transport is predominantly provided by medium buses, the state-owned Anbessa Bus and 12/15 seats privately owned mini buses. Many people walk because of the shortages of public transport providers, or an inability to afford alternative means of commuting.

The interviewed participants of the research are working and student individuals who on daily basis travel to other localities of the city.ParticipantsX1, X3, X5, X6, and X10 have to travel 5 days of the week to their work place/school. On the other hand, participantsX2, X4, X7, X8 and X9 have a class or half day work on Saturday's too. The entire interviewed participants of the research use public transport to get to their destined location.

Arrival to a destined place involves use of frequent public transports and walking from home to work place/school or vice versa. Transfers permitted between public transport services at public transport points called interchanges. It is called transfer time or connection time. An important portion of public transport trips are in form of multiple journeys. Which is composed of more than one transport mode example walking, bus, taxis etc. Interchanges (connections) make an important component of the journey time during travel. The number of legs used in a journey influences the total time spent.

Participant X1, X4, X6, X7, X9, and X10 have 30-45 minute walk or access time. Access time means the distance these participants overcome to get to a service stop. Access time ismentioned about origin and destination based access. The origin based access is the distance from one's residence to the nearest public transport service stop. While the destination based access represents the distance from one's desired trip target to the nearest public transport stop.

X7&X10 mentioned their residence is in the mountainous suburb areas of Kotebe. According to these participants, they are living in these mountainous regions because their houses are located in there. X7 mentioned his family owes the house in this locality and X10 mentioned he can't afford to rent a house near to the main road. As tothe second participant, the renting price of houses near the main road is double the amount of the monthly earning. Hence, according to

this participant; he has no choice but to reside in the mountainous localities far from the main road. The research understood that their location from the main road increased the access time which usually takes from 25 - 30 minutes.

With regards to time spent to reach to their destined place;X2, X6 & X7 revealed that it takes them from 11/2 – 2 hours to reach to their work place. As to these respondents, absence of public transport in their localities and presence of traffic congestion on the route usually obliges them to spend hours on the road. The distance between the residential place of passengers and their work/school is also affecting the returning time back to home.ParticipantsX2, X3, &X4 also mentioned they are arriving back to their home between the times of 7:00 pm – 8:00 pm after tiresome travel.

Participants X7& X9mentioned that in addition to their work, they are attending evening classes. Getting public transport (medium and large buses) during the late evening hours is unthinkable. In most cases onlythe 4 seat contract taxis and twelve seat blue taxis are available at this time. However, these taxis charge triple the price that is set by the city administration's transport authority. As to X7 & X9, this reality is obliging them to spend up to 10 percent of their incomeonpublic transport.

According to the Family System Theory, family is a cohesive emotional unit. Family members are intensely emotionally connected. Children are influenced by the current emerging social media (Coyne, Bushman,&Nathanson, 2012).Parents are huge contributors to the knowledge, skills and character of their children. The effect of parenting is surrounded in the countless social factors affecting child development. These range from other family influences, such as marital and sibling relationships, to broader environmental factors, such as neighborhood

violence. Parental monitoring played a particularly important role in preventing children from various risks which includes exposure to delinquent peers;communication is also an essential component in a family setting. Effective communication between parents and their teenager can foster a better relationship among the two. The frequency and time taken in a day by parents and teenagers to communicate with each other via face-to-face has a great contribution to parental monitoring. Nowadays, this closeness and communication will also help parents to understand the level of their children exposure to social media.

Participants X2, X5 and X7 explained that they have children/dependent of the early grades;they believe that parental engagement positively impacts their children academic attainment. They explained that their involvement in a child's early education is consistently found to be positively associated with a child's academic performance. According to these participants, they noticed the difference on their children/dependent academic performance when they are around home during theannual leave or for some other reason.

> *……X2, X5 and X7 mentioned that we are arriving home during the early evening hours with high physical exhaustion and lowintervening moral. This reality is limiting our involvement on the overall issues of our children such as parent–child communication which includes talking about children's school activities, home supervision(limiting TV and monitoring homework), educational aspirations for children, strengthening school contact and homework assistance. For us with respect to homework, our early grade children/dependents need some help such as problem-solving strategies, handling proportional reading among various subjects, helping them to like some subjects which in most cases difficult to understand by their children etc. To frankly mention, we are not regularly following our children's education because we are getting*

home with over-crowded and unclean public transports this adds further physical and emotional strain on top of our exhaustion. On top of this,we are obliged toimmediately engage inother household tasks.

Women participants of the study mentioned that the impact of poor public transportation on women is more profound than men due to women's socioeconomic status. For example, women who spend at least two hours commuting are expected to assume their traditional domestic roles, such as cleaning, cooking, childcare, etc., when they return home, regardless of how long or stressful of a work day/commute day they had. Men, on the other hand, are not expected to assume many domestic duties, and may rest after their long and/or stressful trip. Women commuters of the public transport are also suffering from family and social pressures as a result of their late arrival to home due to the inadequate public transport. Needless to say, having to return home during late evening hours is making women of this route more vulnerable to harassment or physical harm. The longer the distance of women have to walk to stops and stations, the higher the risk of street harassment.

As for the above participants, the regular lateness at home is creating uninvolved parenting in the family administration. This in turn is creating the most negative effect on the children.

In the same line,participant X9 argued that;

For me, the morning hours are the tightest time of the day since I am passing through difficult household assignments which include: helping the children to dress upschool uniforms, preparing the lunch boxes of the family or instructing the daily assignments to household servants etc. Taking serious care to issues of the children in this tight hour is too difficult and the children feel they are ignored.

ParticipantX10, as a male parent mentioned he too is experiencing this reality. The more the lengthened this trend, the more the attachment is lost. This in turn creates a declining family attachment with children which is distressful. For him, the children have closer relationship with other family members who spend more time at home than they have with him. Even, they start sharing more secrets with the home maid than they do with him. I have various commitments that oblige me to get home such as late working hours. These realities contributed to the poor familial relation that exists with my children.

4.3 Allocation, Management and Regulation of Public Transporters

During the last decades more and more localities in Addis Ababa faced transportation issues. This is particularly true for the fast growing agglomeration of new inhabitants. The consequent demographic growth coupled with the individual's mobility inside the city exerted its influence onthe transportation system of the city. In many cases, due to the availability of limited number of vehicles in service and passengers having short of time, the service quality becomes out of a major issue for many. Many inhabitants have no other alternative transport medium to use or time especially in rush hours, in these cases getting to work takes the higher priority than the service quality.

The key informant interview that was conducted with Addis Ababa Transport Authority reveals that, a total of 126 taxis are assigned to Megenagna -*Zero Hulet – Kotebe* route. Moreover, 90 medium sized buses are also assignedin the route. Additional 15 buses are also giving transport service in this route (10 buses from Megenagna- *Kotebe*- Kara and 5 buses from *Piassa to MegenagnaKotebe*).

However, in contrast to the above mentioned figures, the research observed on daily basis only 60 - 70 blue taxis (12/15seats) are involved in public transport service provision. This fact was also confirmed during the key informant interview that was conducted with public transport users.

As one participant of the study mentioned, there are daily challenges faced by him and members of his family. As stated by this participant, usually there are long transport queues in the early hours of the day. To avoid this long queues, on regular basis his family members are obliged to leave their homes around 6:00am.

The transport officials also explained they too are witnessed the shortages.

As to these officials;

> *….Several factors contributed to the presence of fewer numbers of assigned medium buses and twelve seat taxis. The Addis Ababa Transport Authority adopted various strategies to regulate the problem such as assigning modest number of transport officials to regulate the problem, forced drivers to stick with the assigned routes as per theirtapellas&obligating them to sign daily attendance, set punishment price on those disobedient taxis, temporarily reshuffle the route of those support taxis etc. But, on daily basis nearly half of the assigned taxis are providing service to public transport users. Various factors contributed to this low attendance. Technical problems of the vehicles, which is a frequent problem, intentional absenteeism, intentional boycotting of the route etc. are the main reasons to less number of vehicles. Even though, the transport authority tried to introduce various mechanisms to control this gap, the problem is still widely present"*

Testimony of participantsX2, X9 and X7 indicated that the absence of adequate number of minibuses increased their waiting time which in turn augmented the daily travel time. Further participant X5 attested that;

> *….The medium sized buses (Higer and Kitkit) are the predominant public transport service providers in the route. As to my travel experience, the majority of travelers are obliged to use the medium sized buses. This is because of two major reasons: first, there are fewer number of 12/15 seat minibus taxis. Second, there is a longer waiting time of larger buses. The actual duration of waiting at the bus stop usually exceeds half anhour.This is very stressful and frustrating especially during the morning and evening rush hours. There were frequent instances that I do pay higher charges to avoid the inconvenience of waiting time.*
>
> *……..X1, X2 &X3 mentioned that the undergoing road constructionfromLamberet regional public transport terminal to Kara is also playing its part to upsurge the problem. It is very difficult to get all the allocated public transporters during the morning rush hours. This reality aggravated the problem. The 12/15 seat blue minibuses can't be considered as an option because of two reasons. First, they are not present during the pick hours. Second, they charge up to 10 birr to travel from Kotebe to Megenagnaand this is very expensive.*
>
> *The route from Megenagna to Kotebe is one of the densely settled parts of Addis Ababa. Especially, the settlement is high on the mountainous side of the route where residents didn't have other options to travel to the center of the city.*

> *Though the transport officers show up during the morning hours and late afternoon, the route has big transport shortages. This reality is obliging us to board in crowded medium sized buses that usually carry 60 - 75 travelers. This reality makes travelling with medium sized buses very unpleasant and suffocated.*

As the assessment found out there are two groups of respondents about the adequacy of assigned public transporters. For the first group of respondents, fewer number of assigned public transport providers are the major reason for shortages. According to these respondents, in between the stations from Megenagna to Kotebe it is common to see people shoving each other to get a twelve seat taxis. Due to the current undergoing road construction the *Anbessa* public transport totally relocated its fleet to Kara – *Wassen* – *Megenagna* route. This situation totally made the public transport users to depend on medium sized buses and very limited 12/15 seat mini buses.

According to these respondents, the reallocation of this*Anbessa* Bus fleet is not timely. At the time of this undergoing construction reallocating the assigned buses isn't considerate action. Public transport users mostly suffer from the shortages of transport that are to some extent associated with the undergoing road construction and reallocation. In addition to this, unlike the other routes of the city, *Sheger*Public Transport Service didn't assign buses to this route. On top of these problems, the Alliance Transport Service Share Company that previously assigned few buses to this route has cancelled the assigned buses following the internal disagreement among the shareholders.

For the second group of respondents, the improper management of the assigned public transport providers is the major reason for shortages. The shortages of public transport providers

are well evident during the morning and evening rush hours. On both ends of the route there is a long queue: during the early hours at *Kotebe and Zero Hulet* while in the late afternoon people shove at *Megenagna to* get a public transport that will take them to their villages. As it has been observed during the study only half the assigned 12/15 seat minibus are regularly providing service in the route. This fact contributed its own role to exacerbate the shortages. Little has been done by the Transport Authority to improve this situation.

As it has been informed by the City Administration's Transport Authority, on daily basis 15 transport controllers are getting assigned in this route to facilitate the transport system and supervise the service of public transport providers. These controllers start to show up in the assigned duty places from 7:00am -9:00am in the morning and from 3:00 pm -1:00 pm in the afternoon from Monday to Friday.

However, the study observed that, from *Megenagna to Kotebe* usually the transport controllers station mainly in three places: *Megenagnainfront of Yeka* Sub-city Administration building on the way to *Kotebe* (2 controllers), *Zero hule*t (2 controllers), at the main gate of *Kotebe*Metropolitan University College (2 controllers). These controllers usually show up only in the early morning and late afternoon hours.

In the early morning hours usually they arrive to the assigned places starting from 7:00am and serve till 9:00 am. During the late afternoon rush hours they show up to their duty station starting from 3:00 pm and serve the travelers till 7:00 pm. These transport controllers are not present all the time on the assigned place especially at *Kotebe*Metropolitan University College main gate which is one of the duty station of officers.

On the other hand, as it has been observed during the assessment, public transport shortages are highly impacting those people who leaving with physical disability.

> *…….X4 attested that, in recent years the introduction of queues mainly at Megenagna, Zero Hulet and Kotebe helped to reduce the challenges faced by the people who are living with physical disability. The transportation barriers that I am facing on daily basis are affecting my life in important ways. There was one moment I always remember. I had a job interview approximately 15 km far from my home. With the consideration of the distance and the anticipated challenges to get the public transport while being a disabled person, I left my home early. Though I made enough preparation to get early to my destination, I spent hours waiting to get the transport. The problem which I faced in that day was, everyone is pushing and shoving each other to secure a seat on the 12/15 seat minibus taxi. This problem obliged me to miss the few available taxis and be late from my interview. For me, inadequate transportation is a major problem. The more severe the disability of the passengers, the more serious the transportation problems they are facing on daily basis.*

> *…...As X2 & X6 put it, concerning the frequency of buses there are a number of interrelated issues. When a bus falls behind its schedule – due to a combination of road traffic, or a few stops with more riders than usual – the stops ahead along the route accumulate more riders than they usually would between buses. When these additional passengers aboard the late bus, it becomes more crowded than if it had stayed on schedule, as some of these passengers would have caught the following bus.*

As it has been observed during physical assessment, the road construction that is taking place between Regional Bus Terminal at ARRAT Hotel to Kara junction obliges passengers to use medium buses to go to the destined place. At the height of the rush hours, getting the public transport is very difficult especially in between the stopping pointsofMegenagna - Kotebe route. Travelers take a big breath and push forward to get in tightly crowded middle buses. The problem is intense especially to those respondents whose homes are in between Zero Hulet and KotebeMetropolitan University College (KMUC): the mini and medium buses usually come with the tightly packed crowed and passengers of these localities shove and fight among themselves to secure a place inside. The number of 12 seat taxis and medium sized buses are too small compared with the number of inhabitants. The transport problem is also highly intensified during the early morning and late evening hours, especially after the transport officers left. These realities are obliging many public transport users to walk longer distances.

4.4 Public Transport Shortages and Associated Economic Effects

As to those working study participants, the public transport problem made them not to arrive on time to their work places. In addition to this, the frequent lateness in the early hours is costing them to spend some portion of their salary as calculated monthly penalization. Besides, due to their punctuality record, their supervisors are repeatedly leaving them out from the list of candidates in any work promotion opportunities.

Regarding the price of public transport, though the City Administration Transport Authority set a fair price in the route, participants of the assessment revealed that on daily basis they are obliged to incur extra transport price.

…….. As X1, X3, X5 and X6 put it, the increment is happening while the authority's transport controllers are present. In addition to this, almost all 12 seat taxis are not covering the distance that is assigned under their 'tapella'. Again, this is also happening in the presence of controllers. Usually they will take passengers fromMegenaga to Zero Hulet which is almost the two third distance of the entire route. The single trip price rate is similar either with the presence or absence of transport controllers. The single route from Kotebe to Megenagnaduring the morning rush hours costs around 6 birr. Usually the assistants of 12/15 seat taxis inform passengers as their travel destination ends from Kotebe to Zero Hulet. For this trip they charge 3 birr. Then again, from Zero Hulet to Megenagat they charge additional three birr.

Though this is a temporary circumstance, the road construction (that is taking place from the regional Bus Terminal at ARRAT Hotel to Kara junction) became a reason for additional price increment. According to the transport authority's tariff, for 12/15 seat mini buses the price from *Megenagna to Kotebe is* 3 birr, and for *higer/kitkit*buses 2 birr and 50 cents. However, starting from the early evening hours, they charge 5 birr from *megenaga to Zero Hulet* and another 5 birr from *Zero Hulet to Kotebe*. So that travelers are obligated to spend 10 birr to reach to their home. According to participants of this assessment, this makes the amount of daily expenses they are spending on transport very high. As it has been understood from the key informant interview the route has a high shortage of 12 seat taxis.

*As to X3, and X6*the transport expense is very high compared with their monthly income. For them, public transportation, therefore, does not give access to economic opportunities and work opportunities. Rather, it becomes an added burden on their families with low incomes and high living costs. According to these respondents, this high transportation cost in comparison to

income also puts many people they know in situations where they have to weigh the pros and cons of going to work versus staying at home.

During the assessment it has been tried to identify how many 12/15 seat taxis has been allocated from *Minilik S*chool (Arat Kilo) that pass through *Megenagna to Kotebe*. Based on the information received from the City Authority's Transport Bureau, one hundred twenty six minibus taxis areassigned in the route. However, during the field observation it has been witnessed on average only sixty – seven minibus taxisareshowing up during the morning rush hours.

The price rate also increases during the evening hours in which finding a 12 seat minibus taxis that will take travelers from Megenagna to Kotebe is very difficult. In the meantime,these 12/15 seat mini buses and their supporting unpainted taxisalso increase their price. The evening class students usually arrive at *Megenagnabetween the times of 8:00 – 9:30pm*. There are very few 12 seat taxis at this time. These taxis increase their price even higher than the price they are setting around 6:00 pm. Usually they set triple the amount of normal price. This reality increased the transport cost on passengers.

It has been observed through the study that in the morning rush hours hundred of productive section of the community is obliged to waste its time while being on roads for hours waiting for public transport from Kotebe Metropolitan University to Arrarat Hotel.

Participants X2 and X7mentioned that lack of transportation in their localities during the morning hours is indirectly limiting their access to work centers. X2 mentioned that there are individuals who he knows obliged to quit their works due to the daily public transport fatigue they are encountering.They explained that low financial returns which do not cover general

transportation and other basic expenses is the main reason for leaving work or rejecting employment opportunities.On the other hand, the high frequency of lateness in most economic sectors lowers the productivity of individuals and institutions.

As it understood during the assessment public transport shortages is also a factor to expose female passengers togender based violence. The abuse usually takes place inside the medium and large buses.

> *…….X2, X4, &X9mentioned that they tooexperiencedthe incident on frequent occasions. The abuse of women usually happens on medium and large buses. This situation usually occurs at the time when the busses packed with passengers. The abuse is usually done by male travelers aged 18 and above. The forms of abuse include:verbal abuse, stalking, uncomfortable looks, on those standing passengers putting their fingers very close to womenpassenger'shands,veryclosely standing near the backside of the women; even sometimes they try to slightly touch different parts of the women's body. These abuses usually stop at the time when the victim furiously reacts to the situation. However, there are occasions in which the abusers continue their action no matter how the women angrily react to the situation. As a result of the sensitivity of the issue, once a passenger woman faces this kind of state of affairs, she prefers to change her position rather than challenging the abuser.*

It has been observed that there is a physical contact at the time when female passengers try to get into a transport especially in areas where there is no lining up. In addition to this, it was also observed that they can't easily get public transport because they pushed by male travelers.

CHAPTER FIVE: DISCUSSION

This chapter is devoted to the discussion of the findings of the research that has been presented in the precious chapter, based on the literature review and the theoretical frameworks of the study which are elaborated in detail under chapter two. The discussion aimedto explore how shortages of public transport are affecting passengers' life. This chapter has presented the discussion section of the research under the following areas: daily experience of public transport users and the associated socio-familial effects; allocation, management and regulation of public transport providers; the economic impacts of public transport shortages and the effects of traffic congestion on the quality of public transport service. This study has been overseen by statistical decision theory, family systems theory, theory of policy development and push and pulls approaches.

5.1 Distance, Daily Experience of Travelers and Socio-Familial Effects

TheMegenagna- Koteberouteis one of the routes of Addis Ababa in which on daily basis thousands of residents are using it totraveltothe inner parts of the city for various purposes. As it has been observed during the study, the medium sized buses, commonly known as *higer/kitkit* are the predominant forms of public transport providers. Though they are few, the 12/15 seat minibuses and the state owned Anbessa Buses are also another forms of public transport providers of the route. Besides, many of the residents in these localities regularly walk at least half the distance of their destination due to the presence of limited number of public transport suppliers or an inability to afford alternative means of commuting.

On top of the above mentioned facts, during the study the researcher understood that a couple of participants are obliged to walk upto 45 minutes to catch a public transport as part of the origin based access. The origin based access is the distance from one's residence to the nearest public transport service stop. As it understood during the study these participants are living in the mountainous areas because their houses are located on the mountainous distant areas from the main road or as a result of economic reasons they are not in a position to rent a housein close proximity to the main road. As to one of the participant, the renting price of houses near the main road is double the amount of the monthly earning. Hence, the participantisobliged to reside in the mountainous localities far from the main road. This reality increased their access time which usually takes up to 45 minutes.During the assessment it has been observed densely populated localities with thousands of houses situated on the mountainous villages from Zero –Hulet (the place called *Ankorcha)* to Kotebe areas. These localities have the topography of an extended chain of distant hills parallel to the main road.

Public transport users of these localities also make longer walks to get to their destination access. It is an access that represents the distance from one's desired trip target to the nearest public transport stop. The walking distance varies depending on the number of destination access each traveler face when going to work/school. The above mentioned facts explain that most passengers who are using public transport obliged to spend hours to get to their destined places.There is a huge amount of stress, frustration and emotional duress caused by the unavoidable challenges of public transportation, including arriving late to work or school, or leaving early in the morning to take lengthy routes and arrive at their final destination on time.

As it has been observed during the study, on daily basis there were thousands of public transport seekers who push and shove each other to get public transport at Megenaga Terminal.

It has been also observed the in-service public transport providers are also not in a position to provide service even to half of the passengers. It is obvious that the consequent demographic growth coupled with the individual's mobility inside the city exerted its influence onthe transportation system of the city. As it has been explained in the statistical decision theory, government authorities usually make mistakes when forecasting the future transport demand. As to this theory, there will always be uncertainty about our predictions of the future demand for transportation, because we do not understand very well the internal dynamics of the social and economic system with which we are concerned.

The problem is worsened to travelers who were attending evening classes or have evening works. Getting public transport (medium and large buses) during the late evening hours is unthinkable. Only the 4 seat contract taxis and very few 12/15 seat blue taxis are available at this time. However, these few blue taxis charge triple the price that is set by the City Administration's Transport Authority. Public transport users have only two options: either to pay the requested price or skip these few taxis. The study observed frequent violent incidents that happened between the passengers, drivers and their assistance due to the disagreement made on the amount of unit price set to the trip. Passengers insist public transport providers must respect the amount of unit price set by the Transport Authority. Most of the time these disagreements change to verbal insults and then to violence fights.

On the other hand, in the Push and Pull Approach it is recommended that to minimize the shortages of public transport, authorities should implement important incentives to attract stakeholders of the public transport sector and develop policies that improve conditions of the transport sector. As it has been mentioned in this approach, the transport authorities can provide

a ‘pull’ component such as developing the infrastructure for public transport and non motorized transport.

Through the study it has also understood that shortage of public transport has various negative consequences at the family level. Late arrival of parents or guardians to their home coupled with their children/dependent being on sleep, becoming one of the major factors for the continual weakening of family attachment. This finding can be assessed form the family system theoretical views. The family systems theory states that a family functions as a system wherein each member plays a specific role and must follow certain rules. Based on the roles within the system, people are expected to interact with and respond to one another in a certain way. Patterns develop within the system and each member’s behavior impact the other members in predictable ways. Hence, parents as a lead component of the family are expected to play a pivotal role in guiding the rules of the family to closely follow their children.

Heads of the family members in this study mentioned that they are experiencing this reality and the more the lengthened this trend is; the more the attachment is lost. These participants have a fear on the continual declining of family attachment they are experiencing with their children. It is clear that shortage of public transport and the associated frequent delayin arriving home is indirectly affecting familial relations of passengers since this reality is minimizing the time they are spending at home. As it understood in the assessment early arrival to home increases parents involvement in their children education, helps to closely supervise children exposure to social media,strengthens school contact etc. Besides, those late arrival parents didn’t have a chance to prevent their children/dependent from delinquent peers.

This finding is also supported by the theory of family system. As the family systems theory states, caregivers do their best to keep up with technology and create a safe technological environment for their children. With the current rapidly revolving technology, excessive exposure to various social media also requires close parental monitoring. Parents to better track the types of information that are being accessed by their children. This observation can play a particularly important role in preventing children from various unwanted risks.

5.2 Allocation, Management and Regulation of Public Transporters

One of the major points understood through this study is the gap between the number of public transport providers that are assigned by the City Government's Transport Authority and the number of actual in-service public transport providers. As per the information received from the Transport Authority, 126 mini buses(12/15 seats), 90 medium buses *(higer/kitkit)* and 15 buses are assigned in this route (10 buses from Megenagna - *Kotebe* - Kara and 5 buses from *Piassa to Megenagna* - *Kotebe*). However, in contrast to the above mentioned figures, it had been observed on daily basis only 60 - 70 mini buses (12/15 seats) are involved in the provision of public transport service. This fact was also confirmed during the key informant interview that was conducted with public transport users. The gap has its own contribution in affecting the public transport system of the route. Though the Transport Authority is taking its own regulatory measures, the assessment understood that the penalization measures are not as such obligatory to persuade owners of these mini-buses.

It has been observed that the transport controllers are obliging the mini-bus drivers of the route to sign a daily attendance. However, during the key informant interview participants mentioned that those absence drivers can easily get 3 or 4 days signature while mentioning simple excuses for their absence. No subsequent punishment is also imposed on the owners of

the vehicle. This breach played its own role for the regular shortages of assigned 12/15 seats mini buses of the route.

The other observation in the assessment is, with the consideration of high demand for public transport the so called ‘assigned mini buses of the route’ doesn’t seem enough (even all the assigned minibuses start providing service). It is witnessed that the number of assigned public transport providers are very few compared with the transportation demand of the route. As participants of the study mentioned and observed during the study, in between the stations from Megenagna to Kotebeitis common to see people shoving each other to get medium and large buses which always arrive into these stopping points with their full carrying capacity. In addition to this, it is also common to see queues of people at Megenagna who waits longer hours to get minibus taxis. The assessment also founds out that the medium sized buses (Higer and Kitkit) are the predominant public transport service providers of the route. These medium buses are playing significant role by providing good transport service to thousands of public transport users.

The research also understood that due to the undergoing road construction from ARARAT hotel to Kara junction, the Anbessa City Bus Service Enterprise reallocated its Megenaga – Kotebe– Kara route to Megenagna – Wasen- Kara. This decision took place at the start of the road construction in which the alternative roads on the route are present and both the medium & minibuses continuing with their service. As to most of the study participants, this isn’t a kind of decision expected from a transport enterprise that is established mainly to serve the public. The city transport authority didn’t take any obligatory measures to influence the Anbessa City Bus Enterprise to change its decisions.

5.3 Public Transport Shortages and Associated Economic Effects

This study reveals the economic impacts of public transport shortages in three ways.First, being regularly late at work and the subsequent monitory punishment which is set by theemployers. As participants of the study explained, in the early morning hours they are staying long at their transport access point because of the shortages of public transport that will take them from their residential localities to Megenagna Terminal. For them, this is a daily reality, and the situation paved the way to the rough relations they had with their immediate supervisors at the workplace. The disappointment of supervisors is intense to those passengers who employed in NGOs and private firms. To the study participants, the public transport problem made them not to arrive on time at their office. The frequent lateness in the early hours is costing them to spend some portion of their salary as calculated monthly penalization. In addition to this, due to their punctuality record, their supervisors are repeatedly leaving them out from the list of candidates in any work promotion opportunities.

It has been observed during the study, that lack of transportation is limiting passengers' access to work centers. The key informant interview revealed that, public transport weariness is a major cause for the frequent administrative punishment and voluntary and forced resignation of employees who faces a daily transportation challenge. Moreover, low financial returns that do not cover general transportation and difficult access to transportation as reasons for leaving work or rejecting employment opportunities.

Second, passengers are obliged to spend additional money due to the unlawful price set by transport service providers. Although the Addis Ababa Transport Authority set a fair price in the route, it has been observed those 12/15 seat mini buses and sometimes those medium buses set their own price in contrary to the regular tariffs. As it understood in the assessment, travelers of the route are obliged to incur extra transport costs. Most of the times triple the amount that is set

by the Transport Authority. It is apparent that affordability is one of the most important challenges facing transportation. To most households transportation costs can be a significant share of household income and a financial burden in poorer households. This causes additional economic stress on families and represents one of the main reasons why individuals tend to resign from work.

During the key informant interview it has been tried to understand why the authorities are not working to solve the problem. Though, the transport authorities mentioned they are on daily basis assigning 15 transport controllers on various points of the route it seems the controllers failed to provide solution to this problem. In addition to this, almost all 12 seat taxis are not covering the distance that is assigned under their ‘tapella’. This is also happening in the presence of transport controllers. Hence, these realities are obliging some public transport users to spend 7 – 10 percent of their monthly income on transportation. With the current high national economic inflation and presence of many aspects of life that requires economic treatment, spending nearly 10 percent of monthly income on transport is agonizing. Most transport controllers are not able to prevent this illegal price increment of public transport providers.

Third, the productive workforce is spending hours on transport. On the other hand due to the high traffic on the roads and shortages of public transports the productive section of the community is obliged to waste its time while being on the roads for hours. The high frequency of lateness in most economic sectors lowers the productivity of individuals and institutions. It also hampers the morale of others. The morale of immediate co-workers may fall because the employee's lateness puts stress on them, especially if they have to cover for the late employee or fall behind in their own jobs. Students from these localities also miss a number of classes which intern has its own negative implication on their academic performance.

Gender is rarely an issue considered with regards to transportation policy and planning; similarly, transportation is rarely included in the gender policy agenda. Thus, the “gender and transportation” field is a somewhat new concept. Currently, it is fair to argue that there are no systematic gender inclusion procedures for transportation, neither in terms of training of professionals, participation of users, nor the design and planning of systems, services and equipment.

One form of gender-based violence is the physical violence against a person specifically because of his or her gender. It constitutes one of the most widespread human rights abuses. A study about the psychological impact of sexual harassment on women indicated that a greater frequency of experiencing sexual harassment and post-traumatic stress symptoms “predicated” more depression and overall psychological distress among women. This study also revealed that women passengers of the route are experiencing gender based violence on daily basis. The abuse of women usually happens on medium and large buses. This situation usually occurs at the time when the busses packed with passengers. The forms of abuse vary from very close physical contact to remarks with sexual suggestions and offensive gestures.

Given this, mainstreaming gender in transport policies has also become an important aspect of women empowerment in terms of access to socio-economic opportunities.Countries have adopted certain measures to deal with this type of harassment. For instance, women-only public transport has been introduced in a number of cities. Tokyo was one of the first major capitals to introduce women-only trains and directed transit police to enforce it.

Such transport is also found in Jakarta, Kuala Lumpur, Delhi, Cairo and Manila among others, while some other cities are also considering this option (Boros, 2014). A major factor that

leads to harassment in buses/mini-buses is overcrowding. Findings from survey indicate that women's first priority is to introduce separate buses for them. Their second priority is to introduce bigger buses with larger women's section and strict partitioning between women's and men's section.

CHAPTER SIX: Conclusion, Implication to Social Work and Recommendation

6.1 Conclusion

The study mainly examines the experience of public transport users from Megenagna to Kotebe and the socio-economic challenges they are facing. It also tried to understand the day to day challenges related with public transport use and its impact on family members. As it has been understood from this study, shortage of public transport is significantly affecting the regular public transport users of the route.

In this study, the available literature on public transport history, development, major factors affecting the quality of public transport has been reviewed. During the study what has been understood is, the number of residents of these localities of the city is poorly matched with the number and type of public transport providers. This in turn is affecting the daily life of residents. As a result, on daily basis the worst public transport shortage has been created. These transportation shortages is obliging residents of the route to be late from their work/ school, or forced them to spend more money on transport due to the frequent increment by public transport providers for a single trip contrasting the rates set by Addis Ababa City Government Transport Bureau.

These transport shortages also affected passengers' family life and their social cohesion with their neighbors. Heads of these households are also facing difficulties in regularly helping their children's schooling, following the physical well-being/health of their children or participating on social issues inside their village.

Due to the shortages of public transport in late afternoon, passengers obliged to make tiresome travel and get back to their home in the early evening hours. This reality is limiting their involvement on the overall matters of their children such as parent–child communication (e.g., talking about children's school activities), home supervision (e.g., limiting TV and monitoring homework), educational aspirations for children, school contact and participation and homework assistance.

In addition to this, the presence of limited number of medium sized buses obliged passengers to travel with the highly crowded and suffocated setting. This actuality is exposing women to be frequently abused by male travelers. Through the interview it has been understood that shortage of public transport, traffic on the road and it's the consequential delay at work is also greatly impacting their relationships with the immediate supervisors while risking their jobs.

Getting the transport that will take residents of this route to their destination during the rush hours of the day is the biggest challenge. During the study it has been understood that one of the major reasons is the assignment of very few public buses by Addis Ababa Transport Authority.

To conclude, the public transport shortages of this route will be minimized by the integrated effort of all concerned stakeholders. The Addis Ababa Transport authority should take the lions share to minimize the problem. Sufficient stuffs should be deployed on the ground by the authority. In addition to this, officials from the transport authority should be committed enough to regulate the service and prevent passengers from abuse.

6.2Implication to Social Work

Social work is a profession with a long tradition of focusing on the disadvantaged population and working for social justice.Inaddition to thisResults show that public transport is regarded as an important factor towards achieving other goals and other public values,particularly those related to economic and environmental issues; social exclusion of low-income groups and communities and in the transport-based barriers that contribute to social injustices.Providing dependable and efficient public transport system minimizes the day to day social challenges faced by individual families. One of the most important welfare effects of a well-functioning public transport system is considered to be the creation of a fair and publicly accessible transport system.

Early arrival to home and parental engagement positively impacts children academic attainment. Or using efficient public transport and arriving on time give the opportunity of parental monitoring which plays important role in preventing children from various risks that includes exposure to delinquent peers. The study also shows the impact of poor public transportation on women is more profound than men due to women's socioeconomic status. Women who spend at least two hours commuting are again expected to assume their traditional domestic roles, such as cleaning, cooking, childcare, etc., when they return home, regardless of how long or stressful of a work day/commute day they had.

On the other hand, as it has been observed during the data collection, the poorly delivered public transport service is highly impacting those people who are living with physical disability. Public transport shortages are also a factor to expose female passengers to gender based violence.

Besides, the well facilitated public transport is essential for other public interests such as housing and working issues, public transport can be closely related to the everyday lives of many

citizens. Therefore, all concerned stakeholders of the transport sector are expected to work together to improve the public transport service and alleviate the socio-familial effects. Transport authorities should modernize the system to realize the comfort and safety of every citizen for better development.

6.3 Implication for Social Work Research

This study revealed a gap in regulating the public transport service provision. Hence, the concerned institutions and stakeholders dealing with public transportation, such as: The City Administration's Transport Authority, traffic law enforcement, locally organized queue regulators *(*'*teraaskebariwoc*') of each stopping stations, and the like should channel their efforts towards increasing mobility of passengers in the route and create a medium that would allow for a smooth flow of information both at political and technical levels.

Gender is rarely an issue considered with regards to transportation policy and planning. Therefore researches should be conducted to understand systematic gender inclusion procedures for public transportation. Future research is also needed so as to more precisely understand the best modalities to supervise the in-service public transport providers (usually the 12 seat taxi's and medium buses). In addition, researches should also be conducted on the environmental impacts of un-sustained public transport provision in the city of Addis Ababa.

6.4 Implication for Social Work Policy and Program

The role of public transport in society is obvious. Public transport presents several benefits: the building of a strong economy by transporting people to and from work; the maintenance and creation of jobs; congestion prevention; and the provision of access for all ages. Transport related challenges can contribute to social exclusion by preventing people from participating in

work or learning and from accessing healthcare, food, shopping and other local activities. For urban planners it is important serving peripheral and isolated areas with public transport, which has been shown to have a reducing effect on social fragmentation and social exclusion.

The transport policy of Addis Ababa aims to provide comfortable, safe, dependable, efficient and equitable transport service for the city residents.However, in the absence of clearly defined centralized transport policy, providing a public transport service with the above mentioned standards is difficult.

Therefore, by getting a new outlook on the issues under inquiry the policy makers should design policies that facilitate the expansion of transport infrastructure, employ integrated and modern traffic management system, and focus on social issues, capacity building and coordination of transport services providing institutions.

6.5 Recommendations

- The transport authorities better to deploy more buses in this route by re-allocating from other routes in which the problem is minimal.

- The transport authorities should closely supervise and if necessary punish those public transport providers (usually the 12 seat taxi’s and medium buses) for being disobedient in covering the assigned route with already set price/trip.
- All the concerned institutions and stakeholders dealing with public transportation, such as: Traffic police, Addis Ababa City Roads authority, Addis Ababa Transport authority, Federal transport Authority and the like should channel their efforts toward increasing

mobility of passengers in Addis Ababa and create a medium that would allow for a smooth flow of information both at political and technical levels.

- Women car policy should be designed and implemented to ensuring access to safe ,quality, affordable and reliable transportation for women's
- Transport authorities should modernize the system to realize the comfort and safety of every citizen for better development.

References

Adisu, A. (2010). Public transport Route Planner for Addis Ababa. Addis Ababa: Addis Ababa University.

Africa-Trans.(2010). Statistical indicators of public transportation performance in Africa. Report, final version 1.3

American Public Transportation Association.(2005). PUBLIC TRANSPORTATION FACT BOOK (56th Ed.).

American Public Transportation Association. (2007). Public Transportation: Benefits for the 21st Century. Washington, D.C

AnbessaCity Bus Service Enterprise. (2006). Yearly Report. Addis Ababa.

Ascher, F. (2007). Section 2: Landscapes of Capital – Multimobility, Multi-speed Cities: A Challenge for Architects, Town Planners, and Politicians. Places. 19(1), pp. 36-41.

Asian Development Bank, available at http://www.adb.org/sectors/transport/key-priorities/urban-transport.

Asnake,T. (2006). Road Freight Transport in Ethiopia with Special Emphasis on Addis Ababa – Djibouti Corridor. Addis Ababa: Addis Ababa University.

The City Fix.(2015).Why Public Transport Needs to Work for Women Too." T:http://thecityfix.com/blog/public-transport-women-safety-equitable-access-indian-cities-azra-khan/.

Behrens, R. ; McCormick, D. and Mfinanga, D. (2015). An introduction to par transit in Sub-Saharan African cities. Oxford: EarthscanRoutledge.

Bolletin FAL No. 170 - October 2000TRAFFIC CONGESTION: ITS ECONOMIC AND SOCIALCONSEQUENCES

Boros, C. (2014). Latin American cities have most dangerous transport for women, NYC Best" The Daily Mail, October 29, 2014.

Christine, "How to Make Public Transportation Safer for Women," NEXT, February 8, 2017:https://howwegettonext.com/how-to-make-public-transportation-safer-for-women-b68678a2edb2.17Khan.

Creswell, J. W. (2005). Qualitative research design: An interactive approach (2nd ed.). Thousand Oaks, CA: Sage.

Crotty, M. (1998).The foundations of social research; Meaning and perspective in the research process. London: Sage Publications.

Daniel, A. and Xavier, F. (2019). Congestion, Road Safety, and the Effectiveness of Public Policies in Urban Areas.

Eddington, R. (2006) The Eddington Transport Study: Main Report, Volume 1, p. 24. Transport's

Role in sustaining the UK's productivity and competitiveness. http://webarchive.nationalarchives.gov.uk/20090104005813/http:/www.dft.gov.uk/162259/187604/206711/volume1.pdf

European Environment Agency. (2004). Ten key transport and environment issues for policy-makers. Copenhagen.

ERIA Research Project Report 2015-10, Jakarta: ERIA, pp.3-46.

Ethiopian Road Authority. (2005). Road Sector Development and Economic Growth In Ethiopia. Addis Ababa.

Fingerman, K., Hay, E. &Birditt, S. (2004). The best of ties, the worst of ties: Close, problematic, and ambivalent relationships across the lifespan. Journal of Marriage and Family, 66, 792-808.

Finn, B. (2008). Market role and regulation of extensive urban minibus services as large bus service capacity is restored: Case studies from Ghana, Georgia and Kazakhstan, Research in Transportation Economics, Vol22, pp118–125.

Fjellstrom, K. (2010). Year of the Transit Tiger in Guangzhou" in Sustainable Transport magazine, Winter. Institute of Transportation and Development policy. pp. 10-15

GABS. (2013). Golden Arrow Bus Services: Commemorating 150 years – 1861-2011, Golden Arrow Bus Services, Cape Town.

Gannon, C. A., Liu, Z. (1997). Poverty and transport.World Bank, Washington, DC.

Getu, S. (2010). Causes of Road Traffic Accidents and Possible Counter Measures. Addis Ababa: Addis Ababa University.

Gubrium, J., & Holstein, J. (1997).The new language of qualitative method. New York, NY: Oxford University Press.

Holl, A. (2004). Manufacturing location and impacts of road transport infrastructure: Empirical evidence from Spain. Regional Science and Urban Economics, 34(3): 341-363.

International Technology Scanning Programme. (2010). Reducing Congestion and Funding Transportation Using Road Pricing in Europe and Singapore. Washington: US Department of Transportation.

James, B. (1985). Statistical Decision Theory and Bayesian Analysis. Durham: Duke University.

Jhon, R. (2009). The Geograpy of Transport Systems(3rd ed)

Jones, R., Torres, V., &Arminio, J. (2006).Negotiating the complexities of qualitative research in higher education. New York: Routledge.

Kanyama, A., Carlsson-Kanyama, A., Lindén, A.-L., &Lupala, J. (2004). Public Transport in Dar-es-Salaam, Tanzania: Institutional Challenges and Opportunities for a Sustainable Transport System. Stockholm. FOI, Stockholm.

Klopp, J. (2012). Towards a political economy of transportation policy and practice in Nairobi, Urban Forum, Vol23, pp1–21.

Kreuger, L. and Newman, W. (2006). Social Work Research Methods: Quantitative and Qualitative Applications. Boston New York, San Francisco.

Kumar, A. and Barrett, F. (2008). Stuck in traffic: Urban transport in Africa, Africa Infrastructure Country Diagnostic. World Bank, Washington.

Kumar, A. and Diou, C. (2010). The Dakar bus renewal scheme: Before and after, Sub-Saharan Africa Transport Policy Programme, Washington DC.

Kutani, I. and Sado, I. (eds.).(2016). 'Theory of Traffic Policy Development', in, Addressing Energy Efficiency in theTransport Sector through Traffic Improvement.

Laird, J. Nellthorp, J. Mackie, P. (2005). Network effects and total economic impact in transport appraisal. Transport Policy, 12(6): 537-544

Mackett, L. and Thoreau, R. (2015). Transport, social exclusion and health. Journal of Transport & Health. 2(4), pp. 610–617.https://doi.org/10.1016/j.jth.2015.07.006

The World Bank. (2012). Making Transport Work for Women and Men: Challenges and Opportunities in the Middle East and North Africa (MENA) Region.

Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.).

South African Institute of Race Relations. (1990). No easy ride: The rise and future of the black taxi industry. Johannesburg.

Meron, K. (2007). Public transportation system and its impact on urban mobility: The case of Addis Ababa. Addis Ababa:Addis Ababa University.

Mulu, E. (2015). Public transportation system: The case of Addis Ababa. Addis Ababa: Addis Ababa University.

Bonavia, M.(1954). Economics of Transport. New York: Cambridge University Press.

Miller, J. and Shih-Lung, S. (2001). Geographic information systems for transportation. New York: Oxford University Press.

Ministry of Road Transport and Highways.(2011). Year Book.

Universiy of Michigan.(2011). Bedtime Mobile Phone Use and Sleep in Adults. Michigan: Munezawa et al.

Municipal Government of Beijing.(2013).Transport and Communications Bulletin for Asia and the Pacific No. 82, 2013 transport through connectivity with urban mass transit systems.

National Association for State Community Services Programs. (2008). The Stranded Poor: Recognizing the Importance of Public Transportation for Low-Income Households, :https://nascsp.org/wp-content/uploads/2018/02/ issuebrief-benefitsofruralpublictransportation.pdf.

Newman, P. &Kenworthy, J.(1999). Sustainability and Cities: Overcoming Automobile Dependence. Washington DC: Island Press.

Ogburn, F. (1946). Technology, Social Change, and the Future of Sociology. New York: B. W. Huebsch Inc.

Patton, Q. (1987). How to use qualitative methods in evaluation (2nd ed.). Newbury Park, CA: Sage.

Pons, A.& Nielsen, S. (2015). Effects of Job Accessibility Im-proved by Public Transport System: Natural Experimental Evidence from the Copenhagen Metro. European Journal of Transport and Infra-structure Research. 15(4), pp. 419-441.

Rao, R. (2012). Measuring Urban Traffic Congestion – A Review, International Journal for Traffic and Transport Engineering, 2012, Vol. 2, No. 4, pp. 286-305.

KTH School of Architecture & Built Environment Transportation and Logistics Division. (2011). Relevance and Reliability of Area-Wide Congestion Performance Measures in Road Networks. Royal Institute of Technology.

Richard, M. (2005).Public Transport in Developing Countries. London: Elsevier.Susan

Samuels, A.(1965). Some Studies in Machine Learning Using the Game of Checkers In Computers and Thought. New York: McGraw-Hill.

Sausanis, J. (2011). World's Vehicle Population Tops 1 billion units, Wardsauto, August 15, 2011. Available: http://wardsauto.com/ar/world_vehicle_population_ 110815%E2%80%99t- control-growth-private-vehicle-official.html

Shen, Q. (2001). A spatial analysis of job openings and access in a US metropolitan area. Journal of the American Planning Association, 67(1), 53–68.doi:10.1080/01944360108976355Stoll, M. A., & Covington, K. (2012). Explaining racial/ethnic gaps in spatial mismatch

Sisay, F. (2019). Improving Addis Ababa Transport System by Using Transport Demand Management Strategy. Addis Ababa: Addis Ababa University.

Stake, E. (2000). The case study method in social inquiry. In M. Hammersley, R. Gomm& P. Foster (Eds.), Case study method: Key issues, key texts (pp. 19-26). London: SAGE.

The World Bank.(2015). Are Women Traveling into a Safer 2015?":http://blogs.worldbank.org/voices/are-women-traveling-safer 2015?cid=EXT_FBWB_D_EXT.15Lobo,

Susan, M. and James, L. (2007), International Literature Review Of The Costs Of Road Traffic Congestion, Scottish Executive (www.scotland.gov.uk); at www.scotland.gov.uk/Publications/2006/11/01103351/0.

Taylor, D. &Ong, M. (1995). Spatial mismatch or automobile mismatch? An examination of race, residence and commuting in US metropolitan areas. Urban Studies, 32(9), 1453–1473. doi:10.1080/00420989550012348

Taylor, D. &Ong, M. (1995).Spatial mismatch or automobile mismatch? An examination of race, residence and commuting in US metropolitan areas. Urban Studies, 32(9), 1453–1473. doi:10.1080/00420989550012348

Tourism & Transport Forum. (2010). The Benefits of Public Transport

Tourism & Transport Forum. (2010).The Benefits of Public Transport. Retived on April 18 2019 from http://www.ttf.org.au/Content/transitorienteddevelopment.aspx.

Stokolm Environment Institute.(2013).Transport and Environment in Sub-Saharan Africa

Tuckett, G. (2005). Applying thematic analysis theory to practice: A researcher's experience. Contemporary Nurse, 19(1-2), 75-87.

UITP.(2008). Overview of public transport in Sub-Saharan Africa

Urban Geography: A Global Perspective by M. Pacione (2001-04-17) Paperback – January 1, 1750

Consortium for Africa.(2016). Urban Transport in Sub-Saharan Africa infrastructure.

Vasconcellos, A. (2001). Urban transport, environment and equity: The case for developing countries.London:Earthscan

Yin, K. (2003). Applications of case study research (2nd ed.). Thousand Oaks, CA: Sage.

Yin, K. (2009). Case study research: Design and methods (4th Ed.). Thousand Oaks, CA: Sage.

ADDIS ABABA UNIVERSITY

SCHOOL OF SOCIAL WORK

Appendix A

Informed Consent for Public Transport Users

Greeting … good morning/good afternoon

My name is Genet Wuhibe. I am a student at the Addis Ababa University, School of Social Work. I would like to interview public transport users of the Megenagna – Kotebe route. This study aims to explore the experience of public transport users from Megenagna to Kotebe and the socio-economic challenges they are facing on daily basis.

The interview also tries to assess the availability of public transport in the route; attempts to understand how the assigned publics transport controllers are performing and in which forms of public transport passengers experienced frequent price increment per trip.

The data you are going to give will be used only for academic purpose.

Participating in the study is voluntary. You are free to terminate the interview or decline to answer any question if you feel uncomfortable. I assure you that there will be no negative consequence you incur from anybody for participating or not participating in the study.

Any information you provide including your name will be kept confidentially. That means only the researcher will know that and no information will be disclosed without your full consent. To help me grasp the information you are going to give, I will tape record and write your responses

on note book based on your preference. If you have any question related to the study please don't hesitate to ask.

Upon your willingness, I would like to tape record and take note during the interview.

This will ensure the quality of the data and make transcription process easier. The recording made during the interview will be permanently deleted upon finishing the research project.

If you agree to take part in the study by giving information for the interview question, please confirm your agreement by signing here. Your signature below indicates your consent to participate in the study.

Signature of the interviewee (participant) _____

Date of the interview _____

Appendix B

Informed Consent for Transport Officials & Drivers

My name is Genet Wuhibe. I am a student at the Addis Ababa University, school of social work. I want to interview transport officials and drivers who are the major stakeholders on delivery and management of public transport service in the Megenagna – Kotebe route. The study also aims to explore the experience of public transport users and the socio-economic challenges they are facing on daily basis.

The interview also tries to assess the availability of public transport in the route; attempts to understand how the assigned public transport controllers are performing.

The research also aims to explore the major factors why public transport providers charge over the rate in a single trip contrary to the price set by the Transport Authority of Addis Ababa and why the transport authorities failed to regulate this problem.

The data you are going to give will be used only for academic purpose.

Participating in the study is voluntary. You are free to terminate the interview or decline to answer any question if you feel uncomfortable. I assure you that there will be no negative consequence you incur from anybody for participating or not participating in the study.

Any information you provide including your name will be kept confidentially. That means only the researcher will know that and no information will be disclosed without your full consent. To help me grasp the information you are going to give, I will tape record and write your responses on note book based on your preference. If you have any question related to the study please don't hesitate to ask.

Upon your willingness, I would like to tape record and take note during the interview.

This will ensure the quality of the data and make transcription process easier. The recording made during the interview will be permanently deleted upon finishing the research project.

Signature of the interviewee (participant) _____

Date of the interview _____

Appendix C Interview Questionnaire

Interview

Part One

Background information of the informants

Date of Interview_____

Code of the Interviewee_____

Age____

Marital status

a) married b)single

Sex

a) Male b)Female

Family Size_____

Place of living _____

Type of transport often used:_____

Average time to leave home(morning)_____

Average time to return to home(late afternoon/evening)_____

Work:

a) government b) private c) daily labourer d) student

Average monthly income _____

Work Place_____

Resident Address_____

Part Two

Interview with Public Transport Users

Questions related with distance, daily experience of travelers and socio-familial Effects

1) Is your living place located in a nearby distance to the main road? If not, then how far is it?
2) Is your work place/school is far from your living village? How many minutes/hours on average you need to reach to your work place/school?
3) Are you a regular user of public transport? If so, then how easily are you getting the transport which takes you to your destination?
4) If your work place/school is not in a nearby place from where you live, then what type of transport are you using to get to your work place/school?
5) If you are a student, then at what time are you reaching to your school? If you are an employee, then at what time are you reaching to your work place?
6) Did these transport shortages impact your performance at work/school? If your answer is yes, then in what way?
7) At what time are you returning back to your home?
8) Do you think being late at home during the early evening hours is affecting the family attachment? If your answer *yes*, then please explain how?
9) Did your lateness at home is affecting your social lives? Have you witnessed any social interaction breach with your neighbours due to your late arrival? If your answer is yes, then what social breaches have you experienced?
10) Have you ever experienced or witnessed any kind of gender based violence?
11) If your answer is yes for the above question, then will you elaborate the incident?

12) When you are trying to get the transport, have you ever experienced any other incident (such as theft, shoving by transport users, falling on the ground during the struggle to get transport, insult etc?

13) Does waiting place for transportation have standard quality?

14) What general problem you got or observe on the transportation sector?

Questions related with allocation, management and regulation of public transporters

1) While the controller is present, is there any instance in which the public transport provider/ the assistant increased the price/trip in contrary to the amount set by the transport authority?
2) Do you think the number of public transporters assigned to your route is adequate? And available at pick hour?
3) At what time did the transport bureau controllers show up to the place where you catch public transport?
4) Did the public transport providers cover the entire route that is assigned by the city administration transport bureau (*tapela)*?

Questions related with public transport shortages and associated economic effects

1) Did public transport providers charge over the rate for a single trip in contrast to the price set by the Transport Authority of Addis Ababa? In which group of public transport providers this increment is happening mostly?
2) On monthly basis, how many percent of your income is spent on public transport?

Any Other Comment:

= = = = = =Thank You= = = = =

Part Three

Interview with Transport Officials

Questions related with allocation, management and regulation of public transporters

1) Do you think the number of assigned public transporters in the Megenagna - Kotebe route are adequate?
2) Do you think the number of assigned public transporters in the Megenagna - Kotebe route areavailable?
3) What controlling mechanism did your office is using to check the regular presence of assigned public transport providers?
4) If your office is assigning transport controllers, then at what time did the transport bureau controllers show up to the assigned places?
5) What mechanism did your office adapted to supervise the transport controllers?
6) Did the public transport providers cover the entire route that is assigned by the city administration transport bureau (*tapela)*?
7) If not, what measures the transport office is taking to obligate the public transport providers?

Questions related with distance, daily experience of travellers and socio-familial Effects

1) Have you ever experienced or witnessed any kind of gender based violence in relation to public transport shortages?
2) Does waiting place for transportation have standard quality to minimize potential violence on girls during the evening hours?
3) What general problem you got or observe on the transportation sector?

= = = = = =Thank You= = = = =

Part - Four

Interview with Public Transport Drivers

Questions related with allocation, management and regulation of public transporters

1) Are you regularly providing public transport service in the assigned route?
2) If you are sometimes absent in the assigned route, can you mention the major causes for your occasional absence?
3) What consequences have you suffered as a result of your occasional non-attendance in the assigned route?
4) Have you ever charged passengers over the rate for a single trip in contrast to the price set by the Transport Authority of Addis Ababa?
5) If your answer is yes for the above mentioned question, then can you mention the major causes that influenced your decision?
6) Have you ever get penalized by the transport controllers for overcharging passengers?
7) As being regular public transport provider, do you believe the assigned public transport providers in the Megenagna – Kotebe route are enough?

Questions related with distance, daily experience of travellers and socio-familial Effects

1) Have you ever witnessed any kind of gender based violence in relation to public transport shortages?
2) Does waiting place for transportation have standard quality to minimize potential violence on girls during the evening hours?
3) What general problem you got or observe on the transportation sector?

= = = = = =Thank You= = = =

APPENDEXD

OBSERVATION CHECK LIST

Infrastructures

1. Waiting place or parking place
2. Roads

Transport system

3. Flow of transportation
4. Does it adequate
5. Does it accessible for old age people .disabled people, women's
6. Does the transport systems are comfortable for disable, old age people
7. Does the transportation systems caring based on their capacities and the transportation authority standard.
8. Drivers behaviors
9. Does it efficient
10. Relation between traffic police ,supervisors and controller