ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF SEWAGE REMOVAL SERVICE THE CASE OF ADDIS ABABA WATER & SEWARAGE AUYHORITY - ADDIS KETEMA BRANCH

BY

MERKEB TESFAY

ID No. SGS/0196/2007B

JANUARY 2017
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A THESIS SUBMITED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION (MBA)

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DECLARATION

I, the under signed, declare that this thesis is my original work, prepared under the guidance of Zemenu Aynadiss (Asst. Prof.), my thesis advisor. All sources of materials used for the thesis have been properly acknowledged, I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Merkeb Tesfaye
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Signature

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The Almighty God, I do not know how I can state for all; I am heartily indebted to him with his mother Saint Marry, for his bright gifts throughout my life from the beginning wherever I go.

Second I am heartily grateful to my advisor to Zemenu Aynadiss (Ass. Prof.), who gave me unreserved advising with constructive comments direction and support of advisor from the commencement to the final write-up of the thesis. Besides, I would like to offer my enduring gratitude to Saint Mary's University, School of Graduate Studies (SGS) Staff, and all my instructors for their effort to build my capacity throughout my stay in the university. My heartily thanks to W/ro Tirsit Bekele were giving encouragement and kindly support moral and the sources of inspiration to me and cooperation in printing and binding of this paper. I am also delighted to thank all AAWSA staff participate in survey and in-depth interview gladly. I also extend my warm gratitude to AAWSA staff members who provide invaluable documents for the conduct of my thesis.

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Abbreviations/Acronyms

AAWSA	Addis Ababa Water and Sewerage Authority
ECA	Economic Commission for Africa
GNI	Gross National Income
MDGs	Millennium Development Goals
NGO	Non-Government Organization
NPM	New Public Management
UN	United Nations
UNWWDR	United Nations World Water Development Report

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Abstract

The city of A.A has serious problems in the provision of sewerage service delivery. The AAWSA -Addis Ketema Branch authorized to give services in the area to the city residents. This study is assessing the sewage service in AAWSA-Addis Ketema branch. The study identifying indicators of sewage services in AAWA-Addis ketema branch.. The collected data organized, summarized and analysis service delivery made. Service standards are serving as a base for the accountability system in AAWSA-Addis Ketema branch service delivery. Explicit service standards and measures of performance help to realize accountability and transparency. From the findings, it concluded that setting service standards and making them known to public is a method to make work process transparent and ensure accountability in AAWSA-Addis Ketema branch. This study recommended that equipment and material facilities required for the work fulfill to deliver services that can satisfy customers.

Key Words: Sewage, Service delivery, Customer satisfaction

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Sewage is a water carried waste in solution or suspension, that is intended to be removed from community and it can cause a serious health problem to the residents unless the service is adequate .Sewer service is an epithet for the intentional failure to provide service of process on a named party in a lawsuit, in order to prevent the party from having a chance to respond (https: // www. en.org.com.).

Sewage removal service refers to the disposal of domestic wastes or industrial waste products; any material unwanted and rejected, liquid and solid waste mixed carried off in sewers or collected by vacuum trucks and disposed at dumping areas. (http://www.roevac.com).

Sewage removal service means that providing sanitation services to the inhabitants, which in turn contributes to the well being of the residents by avoiding environmental pollutions and reducing the serious health hazards. Sewers are liquid wastes that have a wide range of sources like storm water, residuals from individual households as waste water, human excreta, factories or industrial liquid wastes etc. that often cause health risks and environmental pollutions. On the other hand the improper sewage removal service remains a source of health risks that contribute to breeding of insects, and spreading of diseases as well as reduces the quality of both surface and ground water unless due attention is given to it and appropriate actions are taken (AAWSA, 2006).

1.2 Statement of the Problem

Sewer waste management in the branch is getting more difficult and becoming a problem due to an increasing rate of illegal disposal of liquid wastes. The problem can easily verified by a simple observation of sewages overflowing from every corner of household toilets, pit latrines, septic tanks into streets, public places and residential areas in the city. It has become a challenge to the city administration due to lack of proper collection, transportation and disposal practices. Poor life condition of the dwellers causes mass disposal of liquid wastes, which pose a threat to the environment and health situations.

Recent events in the branch areas of AAWSA- Addis Ketema branch have shown that the problem of liquid waste management has become a monster that has absorbed most efforts made by the city authority. A visit to these areas of AAWSA-Addis Ketema branch today reveals the extent of liquid waste management problems such as uncontrolled overflow of sewage on streets, roadsides to residential places that generate from individual households, toilets, latrines and septic tanks.

Such problems in the city are creating because of the gap between the demands of the service and the service provided.

1.3 Research Questions

3..1. What are the experience and capacity of Sewage service delivery in AAWSA-Addis Ketema Branch office?

3..2. Does the AAWSA- Addis Ketema branch provide service by setting a standard?

3..3. Does customers satisfied with the Sewage service AAWSA- Addis Ketema Branch?

1.4 Objectives

General Objectives

The overall objective of this study will be to assess Sewage service in Addis Ababa Water and Sewerage Authority (AAWSA) - Addis Ketema branch with a particular reference to sewage removal service by vacuum trucks.

Specific Objectives

- To assess the experience and capacity of Sewage service in AAWSA - Addis Ketema branch with sewage service.
- To assess standards in providing Sewage service in AAWSA - Addis Ketema branch.
- To assess customers satisfaction service AAWSA- Addis Ketema branch.

1.5 Significance of the Study

The study has different benefits. In the first place, AAWSA- Addis Ketema branch understands the existing capacity and potential of the Sewage service to make some adjustment in procedure. It has believed that the study adds something to the existing literature and it has served as a reference for those who will conduct further study.

1.6 Scope of the Study

This study has cover assessment of sewage service in AAWSA -Addis Ketema branch. Therefore, it does not include other Branches and outside Addis. The geographical

coverage of the study is AAWSA-Addis Ketema Branch only because of time and financial constraints.

1.7 Limitation of the Study

The problem that encountered while conducting this study may be

- Inadequacy of information that can show the status of sewage removal service in the branch.
- Time constraints have its impact.
- Fund constraints as well as lack of experience of the researcher were other limitations of conducting this study.

1.8 Definition of Key Terms

Sewage is waste matters, mixture of solid and liquid from domestic or industrial establishments that was carried away in sewers or drains for dumping or conversion.

Service delivery is completely transfers the public service orientation from the concerns of the acceptability of the service providers to attempts in fulfilling the need of customers.

Customer satisfaction is the condition at which perceived performance of different institutions or service meet users expectation.

1.9 Organization of the Study

The study organized in to five chapters; with the scope of study as mentioned above and systematically to deal the fact in the most comprehensive manner chapter one will in

corporate background of the study, statement of the problems, basic research questions, objective, significance and scope of the study. The second chapter will concern with the review of different researches and related literature dealing with the assessment of sewage Service Delivery. Third chapter will present methodologies used in conducting the study and description of the study area, research design, data sources, sample size and sampling procedures, data collection instruments, data collection procedures and methods of data analysis. Chapter four included the result and discussion of the study the data collected is analyzed using the data analyses tools. Chapter five, this chapter will contain conclusion and the possible recommendations made based on the findings.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1 Definitions

Under this chapter, theoretical frameworks of service delivery are treated. The chapter includes understanding quality service, sewage service delivery, and experiences of sewage service delivery from some countries.

2.2 Overview of Service

Literary, service means something, which is doing by individual or group to help or benefit others, freely or with payment, through systematically arranged way, or in informal way to meet individual or public needs. Members of societies, individuals or groups who are direct recipients or users of these services are customers for those who supply the services. Kotler (2003) defines, service as work carried out for others by an organization where no transfer of goods is involved. It consists of social processes that involve a physical or informational interaction between a service provider and a client (user), the interaction of client and employees really lies at the heart of most service system. EMI (2003) defines, customer as a person who buys (external customer) and a person with whom one deals (internal customer or employees). Therefore, the definition of customer is not limited only to someone who is a direct user of services or products and outside of the organization but it includes the organization's employees who render the service to direct users. The relationship between the two creates the customer chain and if the relationship is smoother, the chain is stronger. Personnel selection, training the staff, recognition/motivation of good work and control are conditions that lead to smooth

relationship between the internal and external customers; and the design and implementation of these conditions require commitment of management team.

Because of its broad concept and multidimensional nature, it is difficult to define service. However, different scholars have defined from different perspectives. Stanton and Summer (1973), for instance, define service as:

Separately identifiable, intangible activities that provide need Satisfaction when rendered to customers or service users, which are not necessarily tied to the sale product or other? Services McCarthy also points out that service is a deed performed by one party for another. Services are not physical; they are intangible, one cannot hold a service. It may be hard to know exactly what one gets when buying it (Mc Carthy 1973: 257). The Federal Democratic Republic of Ethiopia Service Delivery Policy in its part defines public service as those activities of government institutions aimed at satisfying the needs and ensuring the well-being of the society as well as enforcing laws, regulations and activities of the government (FDRE, 2001). On top of these, customer service was also defining as a task, other than common operation, that involves interactions with customers in person, or by telecommunication, E-mail and automated processes. A customer care seeks to acquire new customers, provide superior satisfaction and build customer loyalty. It is the action companies can take to add value to the goods and services (http://www.ec.org).

All these definitions of service stress that any service has objective and that is to satisfy the needs of customers, and this can be achieved if and only if the activities of the service provider are those that add values to the service; activities that do not add value should be avoided as much as possible. Services possess several unique features that often have a significant impact on marketing program development. Manufacturing organizations produce tangible goods that can be numbered, stored and consumed later whereas,

services are intangible performance. These special features of services may cause problems and often result in making decisions that are substantially different from those found in connection with the marketing of goods. Kotler (1996) as stated by Service generally has the following major characteristics that greatly affect the design of service management programs. These are intangibility, heterogeneity, inseparability, Variability and Perish ability features of services. Services are intangible, unlike physical products, they will not feel, smelled, heard, or tasted before they will be buy or rendered. Heterogeneity refers to the difficult nature of services to standardize them; as a result, output can vary widely in quality.

Services are usually design around the specific requirements of the individual customer. Services are inseparable because they are typically produce and consumed simultaneously i.e. production and consumption occurs at the same time. It is usually impossible to separate the production and consumption. Customers participate in the service delivery system, and they receive the value, as the service is produce. Services possess a potential for high variability in the quality of output. Because they depend on people, who provide them and when and where they are provide. It will not guarantee to be identical in all aspects to those that have given before and to those that will follow. Perish ability is to mean that services cannot be stored because it is not tangible goods.

These features, of course, give rises to numerous capacity and scheduling problems. Because of these, many services are in start and time constrained. Being in the right spot at the right time is important to service users while having the right service, in sufficient quantity, in the right place at the right time is important to the service providers. Because of the random nature of customer request for service that generally prevails in service system, it is almost impossible to provide service capacity that match demand. However, it is possible to address and achieve goals of satisfying customers to certain and better degree by efficient utilization of the fixed capacity. This requires the firm to use several

strategies for providing a better match between demand and supply in a service business. Appointment will intended to control the timing of customer arrival in order to minimize customer waiting while achieving a high degree of capacity utilization. Reservation systems are design to enable service to formulate reasonable, accurate estimate of the demand on the system for a given time or period and to minimize customer disappointment generated by excessive waiting or inability to obtain service (Stevenson, 1990:673-674).

2.3 Service Delivery

The concept of service delivery completely transfers the public service orientation from the concerns of the acceptability of the service providers to attempts in fulfilling the need of customers. Priorities as well as improvements in public service shall be seen from the service users and not from service provider's perspective.

Service delivery is decided as service that incorporates at every stage of the service designing and delivering process that the citizens needs become the organizing principle around which the public interest is determined and service delivery is planned (Canadian Center for Management Development, 1998). The conceptual framework of customer service delivery has four components. The Canadian management development lists and describes the framework as follows:

Citizen’s expectation of government service delivery: this shows knowing citizens expectation, perception as well as priorities and involving them in service improvements. Measuring and reporting on performance and accountability: With the aid of information in closing the service, gap measures progress to guide the selection of service improvement tools. Government delivery of service: in order to give service for citizens

as they expect, capacity of public organization should be improve continuously. Government service improvement tools box: citizens with the priorities for improvement guide closing the appropriate mix of tools to close the service gap.

2.3.1 Customers Satisfaction

Customer satisfaction is the condition at which perceived performance of government institutions or service meet users expectation. Customers are dissatisfied if the performance falls below expectations and they are satisfied if performance matches or exceeds expectations (Kotler and Armstrong, 1997:267). From this, one can understand that customer's satisfaction is the function of achieving performance expectations as well as level of the service. The main objective of public service delivery is to realize customer's satisfactions. As Petty (1999:267) describes successful marketer devotes its efforts to customer's satisfaction through providing basic element of the product of service that customer expect .providing a general service such as customer assistance, providing a recovery process for counteracting bad experience, providing extra ordinary service that excel in meeting customer's performance and make the service customized.
As Kotler (1998:20) states a customer is the most important person ever in the office, it is not an interruption of our work he /she is, he/she is doing as a favor by serving them(the service providers) the opportunity to do so.

2.3.2 Managing Service and Effectiveness

Service quality is difficult to define and judge as a product quality because there is no clear-cut measurement of a service quality. However, customers can make judgment about service quality, and service providers want to know customers expectations for designing effective service. Customer's satisfaction with service quality would defined by comparing perception of service received with expectations of service desired. When

expectations exceed, service were perceived to be of exceptional quality and surprising while the service quality that does not meet expectations is assumed as unacceptable. Customer can be satisfied if they get their expectations from the service provider on time. Therefore, the key of managing service quality of the office is to deliver high quality service consistently as expected by customers or service users (Kotler 1998:484). Even (1997:114) suggested customers' complaints satisfying system using service recovery program, which involves three steps:

- Make it easy for the unsatisfied customers complains by providing suggestions and complaints forms and others.
- Employees of companies who receive complaints trained in order to be able to solve customers' problems firstly and with great satisfactions.
- Companies should find the main causes of problems beyond satisfying particular customers

2.4 Definition of Sewage

Sewage is waste matters, mixture of solid and liquid from domestic or industrial establishments that was carried away in sewers or drains for dumping or conversion. It is often considered as any materials unused and rejected as worthless or unwanted. Sewage has usually considered useless and removes with the help of sewer net works or with some other means such as loading on vacuum trucks and disposing at some sites. It is carrying off in sewers, drains or by trucks for conversion or dumping into a form that is not toxic. In cities and towns where sewer net works has built, it is carrying off in sewers or drains by pressure or gravity (http://www.com/sewage).

2.5 Types of Sewage Disposal Systems

The first urban sewage disposal systems have built around 2000 B.C. by the inhabitants of the great cities of the Indus valley civilization at (Mohenjo-Daro now Pakistan). During this time, almost every house was connected to pipeline. Human waste and waste water was conveyed in baked clay conduits to covered gutters then through canals dug under the streets and covered with bricks and finally to larger collectors (Devid H. and Emanuel L., 2008:11).

These days, similarly, domestic sewage produce in urban residences, institutions and businesses, have usually collected by pipes and conduits called sanitary sewers, which lead to a central discharge point. In rural residences, domestic sewage has often collected in a septic tank. Industrial wastes, which consist of liquids produced in manufacturing processes, have sometimes collected in sanitary sewers, but the nature of many industrial wastes may make it dangerous or difficult to do so. Often industries dispose of their own wastes. Storm sewage, which comes from rain and groundwater, has collected either in a storm sewer or, with domestic sewage and industrial wastes, in what are called a combined sewer (UNWWDR 2006:10). Sewerage system can be a pipe through which sewage has transported to a collecting chamber or to partially vacuum, that carries sewers to the discharging site.

The system consists of various elements namely the owner's sewer connected to the public sewer, the public sewer constructed road right ways, pumping station which forces sewers to new gravity sewers, pressure mains that carry sewages away from their pumping station to the next sewer, treatment plant were the harmful substances are remove, organic substances and sludge disposal, and water disposal. Sewage flows in these networks with the help of water, which is the carrier vehicle to transport wastes

away from their sources (http//www.unesco.org/water/). Sewer pipe must be strong enough to withstand the structural stresses to which it has subjected by being buried in the ground. In addition, the pipe itself and the joints between sections of pipe must be capable of withstanding at least moderate water pressure without significant leakage of sewage into the environment. Materials used for sewer pipe include plastics, clay, cast iron and steel, corrugated iron, concrete, and asbestos cement.

Although usually circular, pipes also made egg-shaped or semi-elliptical so that suspended solids do not accumulate even at a relatively low rate of flow, about 2 ft (0.6 m) per second. Sewer pipes are usually inclined downward toward the central collection point so that sewage will flow to it naturally, although pumping stations may be required (*The Columbia Electronic Encyclopedia,*2007:348), Sewage is eventually discharged into underground or surface water courses that naturally drain an area. In past centuries, the dilution produced by discharging sewage into large bodies of water was considered sufficient to render harmless any toxic substances contained in it. However, the volume of sewage is now so great that dilution no longer considered an adequate safeguard.

2.6 Sewage Removal Services by Trucks

Provision of sewage removal service by trucks involves collection (loading), transportation and disposal activities as the major ones. In the collection or loading phase, mixing the sludge in septic tanks or pit latrines uniformly, sorting out clogs, loading into the vacuum truck is doing. In the transportation phase, the loaded sewers or sludge is carrying away to disposal areas. Preparation of disposal site, disposing, recycling and dumping has activities that are included in the disposal phase (AAWSA 2006:17).

In providing, such services there are interactions between customers and service providers. To respond to customers request for the service information provision about the service, customer handling, promptness in responding to the request, availability of work procedure, service standards and skills of front line staff are among the most requirements in providing the service. Road facility, situation of the trucks i.e. completeness of the equipment and appropriate way of using the toilets and septic tanks as well as pit latrines have also significant impact upon the service delivered.

2.7 Global Trends of Sewage Removal Service

The introduction of the sanitary system of household connections to sewers flushed by water has been vote as the greatest medical milestone since 1840. However, although this system is universal in the north, developing countries continue to lack urban sewerage systems. The UN estimates that nearly 1.5 billion people need access to improved sanitation by 2015. But the Millennium Development Goals (MDGs) definitions only specify improved sanitation', do not require sewerage connections, and emphasizes the use of 'lowest-cost' solutions. As a result, they fail to address the needs of city dwellers for sewerage connections and so fail to give proper weight to the enormous public health benefits of sewerage connections (David H. and Emanuel L., 2006:19). There are diseases, which are the major health problems in the absence of sanitation, especially for children. They kill many children a year in low and middle-income countries more than malaria, measles and HIV/Aids combined. With sewers, infant mortality rates are lower. Children in homes without sewers are exposing more to health risk, and their educational achievements are lower, than children in households connected to sewers.

Toilets and piped water alone do not make up for the lack of sewerage (Mara D., 2003:117). The problem of ignoring sewers is greatest in urban areas, where world population is growing fastest. Hygienic practices such as hand washing and household toilets help, but the problem of disposal of feces remains. Pits and septic tanks do not provide the same benefits due to leakage and contamination; recycling onto fields is not an option in cities.

Universal coverage matters because liquid wastes including human excreta from unconnected households increase the health risks of all households. The problem is acute in some major cities, such as Jakarta, Indonesia, with a population of 12 million, but with only 1% of households connected to a sewer. Urban sewers are not a northern invention but a traditional urban technology developed in south Asia 4,000 years ago. The benefits would delivered by conventional sewerage systems or other systems such as condominium sewerage (William C. and others, 2004:112). The Millennium Development Goals (MDGs) target to halve by 2015 the proportion of the urban population without household connections to a sewerage system". This entails connecting a further 1.14 billion people by 2015. Half of this need for urban sewerage connections is concentrated in four countries: China, India, Indonesia and Brazil; and 90% of the global need for urban sewerage connections is in just 24 countries with some combination of high economic growth, high urban populations, or low existing levels of sewerage (http://www.org.za). As (David H. and Emanuel L. 2006:13) indicates, there is an argument that donors and international institutions are strongly emphasizing full cost recovery from users and privatization as a way of developing sanitation systems.

They also argue that sewers are affordable. On the other hand, there is a party that argues sewerage is a public good, and leaving it to individual spending choices does not deliver the coverage needed for full public benefits. Full cost recovery makes sewerage unaffordable to the poor. Compulsory as a matter of public policy and not subject to

consumer choices to opt in or out. The European Union continues to provide high levels of subsidies from taxation for countries in Eastern Europe to develop water and sanitation systems. Some major developing countries are already achieving significant extensions of sewers in cities through public finance. In China for example, the urban sewerage connection rate rose from 30% in 1990 to 50% in 2002, and is still rising. In Brazil, the connection rate in the city of Salvador with 2.5 million residents was increase from 26% to 80% in just eight years.

2.9 Sewage Removal Service Provision of Some Countries

As Davidson (1998:117) states it, a large part of the urban population in developing countries lives in informal settlements in slum areas. Here, the health benefits of sewerage may be twice as high as in other urban settlements, because of the combination of living conditions and poverty. Therefore, some major initiatives have focused upon improving conditions for slum dwellers. Here are some examples. In India, a sewerage project was set up in 2001 to build a sewerage network for the city with a population of 145,000 (Aulander & Tamil Nadu, 2001).

The construction contract is issue to an Indian construction company. By 2005, some households that had paid for the service in advance have connected, including few slum households, whom opted for individual sewerage connections. For the poor households that could not afford to pay for the sewerage service, public toilets are, provide as an alternative, but families was expected to join a membership register and pay a monthly fee. When located relatively close to the sewerage network, the toilets have connected to it; Otherwise septic tanks are used (http:www.wsp.org/filez/).

Indonesia

The need for sewers in cities is well illustrate by the example of Indonesia. The great majority of people in Indonesian cities live without a sewerage connection. In the capital city, Jakarta, which has a population of 12 million people, only 1% of houses have connected to a sewer. Around 12% of the urban population has no access to latrines, so they defecate outdoors. Some of the houses with latrines empty their contents directly into streams or rivers.

The majority, around 65% of houses in urban areas, use septic tanks. In Jakarta alone, there are more than one million septic tanks. More than 60% of homes have septic tanks that are less than 10 meters apart from their wells and they are often too close to their neighbors' well. Many tanks leak too. Some are more like pits, because the base of the tank is not sealed and some have walls made of ordinary bricks or are too small. Some have inlet pipes that are not functioning properly. The contents of these septic tanks have often dumped by sewage trucks straight into rivers.

Many urban people still use river water for washing and bathing and, collectively, these millions of septic tanks have polluted 70% of the groundwater in cities with bacteria. Yet half of city dwellers use this groundwater for their daily needs (UN WWDR, 2006:30).

Pakistan

The Orange pilot project (OPP), in Karachi, Pakistan, was creating by a community organization that planned and developed a sewerage network throughout the area. It has constructed by paving the lines over sewers, following natural drainage channels. It has built using local labor and micro finance. The municipal authority built large mains

sewers in the settlements to support the development. The same principles have applied in other towns and cities in Pakistan, with investments financed by the government and development banks. The project has successfully campaigned for the principles of this approach adopted by the Karachi Water and Sewerage Board, as the basis for developing sewers throughout the city, including the slums.

Brazil

In January 2007, Brazil announced a new four year programmed for economic growth, a program based on investment of $236 billion (504 billion rises) in infrastructure, especially in roads and electricity, but also water, sanitation and housing. The sanitation investment programmed aims greatly increase the proportion of households connected to sewerage systems.

Public authorities in Brazil developed “condominium” sewerage systems as a cheaper method for providing sewerage, using narrower pipes installed at shallower depths under back alleys or pavements, rather than under streets. Condominium systems, or simplified sewerage, are not an alternative to sewers – they are sewers, built using cheaper construction techniques. The systems have been adopted by some public authorities as a standard. For example, the Sewerage Board of Brasilia, the capital city, uses condominium systems throughout the city, not just for poor areas. However, the installation of condominium sewers requires skilled workers and a lack of trained engineers is a major constraint to the implementation of condominium sewerage.

Salvador

The experience of the sewerage system in Salvador at the start of the 21st century demonstrates the same lessons evident from the introduction of the sewerage system in London in the mid 19th century. A public system, publicly financed, delivers health benefits, especially to the poorest. In 1996 the city of Salvador, in Brazil, with a population of 2.5 million, started on a major sanitation programmed. Only 26% of the city's households is connected to a safe sewerage system, mainly the upper and middle classes in the oldest part of the city. The primary objective of the new programmed was to extend the sewerage system to 80% of households. This involved laying over 2,000 kilometers of new sewers, building 86 pumping stations, and making new connections to 300,000 households. This was complete in eight years, involving 140 Construction companies.

Toronto

In Toronto Sewers were not automatically laid in new streets. Instead, householders had to petition the local council for connections, and then pay the cost themselves. No city of the size and pretensions of Toronto can be mention where the sanitary arrangements are so inadequate, and where consequently preventable disease is so common. The city council not only municipalized the water service, it authorized the city engineer to install new sewers for public health reasons, whether householders asked for it or not, financed by the municipality. The benefits were immense: This unprecedented power led to tremendous sewer development in the 1880s. The effects of the typhoid fever epidemic are greatly reducing by the presence of a complete, clean sewage system. The same approach is taking up across the province of Ontario, where public water systems were growing rapidly by the turn of the century.

China

The urban sewerage connection rate in China rose from 30% in 1990, to 50% in 2002. Public spending on infrastructure has not only kept pace with the growth of the Chinese economy, it has increased twice as fast: “Since 1995, China’s GNI has almost tripled while overall annual municipal infrastructure spending, including roads, has increased six fold.” The total length of urban sewerage networks increased by nearly 225% between 1991 and 1998, but less than 4% of all the investment in water and sanitation are financing through the private sector. China is now investing over 0.4 percent of GNI it’s and spending another 0.6% of GNI in operating costs in water and sanitation. This Combined 1% of GNI is sufficient not only to achieve the MDGs, but also the urban sewerage target. Chinese government is putting greater emphasis than in the past on drainage networks, consisting of sewer-only pipelines, combined sewer and storm water drainage.

2.10 Sewage Removal Service in Addis Ababa

The AAWSA is mandate to provide water supply and sewerage services in the city of Addis Ababa. Regarding the sewerage services, the authority provides sewage removal services by sewer connection system and vacuum truck system. According to AAWSA Sanitation Improvement Project Master plan (2001:7) it is intended approximately percent of the residents is to be served with sewer net work system, 11 percent using septic tanks, 70 percent individual or shared dry pit latrines which are to be vacuumed by vacuum trucks, and the remaining 10 percent remains without any form of sanitation facilities. The sewerage net work system is very limited in coverage. Due to various reasons, most of the available sanitation facilities do not serve the intended purpose and are rather acting as sources of health risk. Collection and disposal of sewage by vacuum

trucks has the biggest share in the city. Moreover, this implies that the authority has big number of customers who need sewage removal services by vacuum trucks.

Similarly, World Bank (2008:17) strengthens this by stating in its report that the forms of sewage removal service systems employed by the AAWSA authority are sewers connected to central piped system, sewers connected to septic tanks and collection of sewages (domestic liquid wastes, human excreta in toilets) by vacuum trucks. Accordingly, categorizing inhabitants of the city by the forms of sewerage system employed, less than 3 percent of the inhabitants use flush toilets connected to a central piped sewerage system. Approximately, 9 percent of the inhabitants use flush toilets connected to septic tanks, where sewage overflows from storage tanks into public places, streets and ditches often take place because of not collected by vacuum trucks in or on time. Nearly, one-quarter of the city's inhabitant use streams running through poor areas as an open sewerage system, and the rest 63 percent of the inhabitants use pit latrines of which only 60 percent of them are accessible for vacuum trucks. The remaining 40 percent of pit latrines are not accessible for vacuum trucks because the roads are too narrow in the congested city centers (AAWSA Project and Plan Office, 2004).These pit latrines have connected to either storm water drains, streams and ditches or simply overflow in to the surrounding open spaces.

In attempts to address the domestic waste problem and in line with the government's liberalization policy of the early 1990,s the administration of Addis Ababa has involved institutions working in sewage removal services.

CHAPTER THREE
RESEARCH AND METHODOLOGY

3.1 Type of Research Design & Approaches.

In undertaking the study, descriptive research design used to describe the data would employed to assess sewage service delivery in AAWSA- Addis Ketema branch in sewerage department.

The researcher adopted mixed methods approach (qualitative and quantitative approach), which is employee concurrently in collecting and analyzing data.

3.2 Source of Data and Data Gathering Tools

Source of Data

The primary sources of data for this study going to be the branch manager, sewer sub-process owner, employees and customers of the branch. Secondary Sources of data such as published books, journals and proceedings as well as report and documents in the organization would referred for revealing the background of the study, to organize relevant literature review and design the research questionnaires.

Data Collection Tools

The data collection tools employ in conducting this study will be questionnaire which are developed by the researcher. The prepared questionnaires going to be fulfill by respondents. The questionnaires will consist of both closed-ended and open-ended question items. Moreover, observations will be use to strengthen to collect data.

Procedures of Data Collection

In order to gather data the researcher used both observation (structured and unstructured) and questionnaires (closed-end and open-end) because to get extra information and explanation rather from limiting/fixing of the respondents.

3.3 Sampling Design and Sampling Techniques

Target population

Under this study the target population and target population shortly showed by using a table.

Table 3.1 Target population.

No.	Total population of Customers		Total population of Staffs		Total sample Staffs & Customers
	Target customers	Sample of Customers	Target Staffs	Sample of Staffs	
1	350	186	109	186	295

Sampling Technique

The technique undertaking from employees and customers respondents will be random sampling technique while for manager and Sewer sub-process owner respondent will purposive sampling. In applying the selective sampling technique, lists of the employees and customers the selection will be use selective from those who were there for the service. The Convenience sampling methods would be apply to the branch manager and Sewer sub process owner because they are officials in dealing and giving decisions up on issues related to the study.

Furthermore, the researcher used the following sample size determination formula to decide the sample size of the population in the customers and staffs. The formula was developed by Taro Yamane (1973), the reason to choose this formula

is to do you simplicity and the population under study is finite. According to Yamane for any sample given the estimated population proportion of 0.05 and 95% confidence level, the sample size is given by:

$N=N/ [1+N (e)^2]$
Where
n=is the sample size
N=is the total population size, and
e=is the level of the precision or sampling error= (0.05)
Therefore, $N=150/[1+150(0.05)^2]$ =109 Staffs
$N=350/[1+350(0.05)^2]$ =186 Customers

3.4 Methods of Data Analysis

The analysis was conducting a clear analysis about the sewage removal service. The method of data analysis both primary and secondary sources of data are analyzed using descriptive analysis, and the rationale for choosing this method of data analysis is that it allows in describing, summarizing and presenting the qualitative data and quantitative methods**.**

After completion of data, an appropriate data analysis has discussed to achieve the research objectives, and the required data has been collected through survey questionnaire. The link of research questions and research methods adopted in this particular study has also presented with proper justification in method selection in line with the strength and weakness of each research method. Therefore, the data has analyzed through descriptive methods and data collected using questionnaire was table's, percentage used to present the data. With this end, the next chapter presents the results and analysis of the study.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Response Rate of the Respondents

Response rate has been taken both from customer respondents and staff respondents organized, analyzed and presented under this chapter. The Target population 350 customers and 150 staffs were considered. The sample would contain 186 customer respondents and 109 staff respondents the data has collected through questionnaire.

Table 4.1 Demographic Characteristics of Staff Respondents

No	Indicators	Category	Out come	
			No.	%
1	Sex	•Male •Female	71 38	65 35
		Total	109	100
2	Education	• Tenth complete/Below grade10 • Twelve complete • Diploma • First Degree • masters degree and above	- 12 75 18 4	- 11 68 16 4
		Total	109	100
3.	Service years in the organization	a) below one year b) 1-5years c) 6-10years d) above 10 years	- 23 38 48	- 21 35 44
		Total	109	109

Source: Compiled from survey data Dec.2016

Regarding sex, as shown in table 4.1 above (65%) are male and (35%) are female respondents. As to the education level and experiences of the staff, AAWSA in Addis Ketema Branch has better qualified staff and well experienced staff, even though, the number of males is a bit greater, it is possible to secure information needed to be gathered from the two sexes .

Table 4.2: Up grading of Staff abilities with sewage service

No	Indicators	Response	Out come	
			No.	%
1	Does your organization provide you with trainings that help you improve your skills and efficiency?	•Yes •No	45 64	41 59
		Total	109	100
2	If your answer to question number 1 is Yes, how many training program did you attend in the past 4 years	A•1-6 months B• One Year C• Two Year D• Three &Above Years	36 9 - -	80 20 - -
		Total	45	100

Source: Compiled from survey data Dec., 2016

As it is indicated in table 4.2, 64 (59%) staff respondents that they were not given trainings but 45 (41%) of them said they were given training. This implies that AAWSA -Addis Ketema Branch has not given more training for its staff and has not trained staff.

Table 4.3: Relationship among the staffs

No	Indicators	Strongly agree		Agree		Disagree		Strongly disagree		Difficult to decide		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	Your superior Communicates well & gives clear directions about your work	81	75	19	16	9	9	-	-	-	-	109	100
2	You work with team spirit with your colleagues in your department and other departments	78	72	24	22	7	6	-	-	-	-	109	100

Source: Compiled from survey data Dec., 2016

Tasks would implement easily when the subordinates get clear work instructions from their superiors. The existence of team spirit among staff member enables staff to work

together cooperatively to achieve organizational goals and to satisfy customers. As item number 1 of the table shows, 81(75%) and 19 (16%) of the staff respondents **s**trongly agree and agree respectively that their superior communicates well and gives clear directions of work. The majority of staffs respondents 100(91%) agreed that there are team spirit among the colleagues.

As indicated above, there is a good communication between the superior and their boss significant percentage i.e. 9(9%) of them disagreed about the communication. This shows that the AAWSA with the branch has some employees who were not motivated because of poor communication. These staff may not have task clarities to perform their jobs. As item number 2 of the table shows, 78(72%) and 24(22 %) of the staff respondents **s**trongly agree and agree respectively that work with team spirit with their colleagues in the department and other departments.

Table 4.4: Improving Performance of employee to serve properly

No.	Indicators	Strongly agree		Agree		Disagree		Strongly disagree		Difficult to Decide		Total	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1	The organization has Performance evaluation system	74	68	21	19	14	13	-	-	-	-	109	100
2	Your performance evaluation is made based on indicators agreed upon with your boss	54	50	31	28	24	22	-	-	-	-	109	100
3	You are benefited based upon your performance evaluation results	12	11	8	7	60	55	29	27			109	100
4	Guidance and supports are given for poor performances	18	17	22	20	65	60	4	3			109	100
5	Your are able to utilize your knowledge and skills in your work	13	12	18	16	78	72	-				109	100
6	There is a system that can handle your complaints in the organization	15	14	28	26	66	60	-				109	100

Source: Compiled from survey data Dec., 2016

Table 4.4, contains perception of staff respondents towards indicators of performance appraisal and rewards system in their respective organizations. Staffs were asking to show their level of agreement or disagreement for the presence of the indicators. Their responses were summarizing below. The majority of staff respondents 74(68%) agreed that their organizations have performance evaluation system. The majority of staff respondents 54(50%) agreed that their performance evaluation is made based on indicators agreed up on with their bosses. Concerning getting benefits based on

performance evaluation results, 20(18%) staff respondents agreed that they were benefited based on their performance evaluation results whereas the majority 89(82%) of them disagreed and said they were not benefited based on their performance evaluation results. The employees paid only their monthly salaries.

Regarding the availability of guidance and support for poor performance, 18(17) and 22(20%) staff respondents strongly agreed and agreed respectively and 69(63%) of them disagreed. As to the availability o f good work environment to utilize knowledge and skills. 31(28%) staff respondents agreed that they were able to utilize their knowledge and still a significant percent 78(72%) of them disagreed and said they were not able to utilize their knowledge and skills, with respect to complaint handling system, 15(14%) and 28(26%) of staff respondents strongly agreed and agreed respectively, and 66(60%) of them disagreed complaint handling system. As stated above, staff respondents indicated that they have establishing performance evaluation system, setting indicators for evaluation with agreement, and staff complaint – handling system and facilitating situations for the staff to utilize their knowledge and skills. AAWSA- Addis Ketema Branch does not provide promotions and other benefits based on performance evaluation results and professionals(employees) does not allocate the right person on the right work place regarding to exploited their knowledge and skills. As a result, employees are not motivated to give quality services to customers that can satisfy them.

Table 4.5: Material and Office Facilities

No	Indicators	Strongly agree		Agree		Disagree		Strongly Disagree		Difficult to decide		Total	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1	The organization has office arrangements suitable for your work	**-**	**-**	**32**	**30**	**41**	**37**	**36**	**33**	**-**	**-**	**109**	**100**
2	Your organization provides you with	**-**	**-**	**34**	**31**	**51**	**47**	**24**	**22**	**-**	**-**	**109**	**100**

	the necessary materials and equipment												

Source: Compiled from survey data Dec., 2016

The above table 4.5 presents the perception of staff with regard to material and equipment facilities. For item number 1 of this table, below half 32(30%) of staff respondents agreed that the organization provided them with suitable offices. Similarly, for item number 2, 34(31%) of staff respondents agreed that the organization provides them with the equipment and materials needed to carry out their jobs. For both items (item1 and 2), the majority of the staff respondents 92(84%) disagreed and said the organization does not provide them with the necessary materials and equipment for their work. This also approved from the information collected during disseminated questionnaire held with the additional narration part they said other than scarcity in number, most of the vacuum trucks and vehicles are used for many years and become old the engines for sucking the sewage are worn out. They operate on very frequent maintenances and their capacity to suck at distance is very low and can only suck sewage and load at a distance of 30 meters or below.

Table 4.6: Overall Staffs Satisfaction

No	**Indicators**	Strongly agree		Agree		Disagree		Strongly disagree		Difficult to decide		Total	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1	In general, you are satisfied with your jobs	**19**	**17**	**28**	**26**	**34**	**32**	**21**	**19**	**7**	**6**	**109**	**100**

Source: Compiled from survey data Dec., 2016

Table 4.6 shows overview of staff satisfaction on their jobs. 47(43%) of staff respondents agreed that they were satisfied with their jobs whereas about half 55(51%) of them said

that they were dissatisfied with their jobs. Significant number of the staff indicated that they were dissatisfied.

Sewage Service Delivery with aspect of Customers

Assessment of Sewage service provided by AAWSA- Addis ketema branch customers aspect.

Table 4.7: Demographic of Customer Respondents

No	Indicators	Category	Out come	
			No.	%
1	Sex	•Male •Female	107 79	57 42
		Total	186	100
2	Education	• Tenth complete/Below grade10 • Twelve complete • Diploma • First Degree • Masters degree and above	- 51 91 44 -	- 27 49 24 -
		Total	186	100
3	Occupation	A, private org. employed B, government org. employed C, self employed D, another	49 31 98 8	26 17 53 4
		Total	186	100

Source: Compiled from survey data Dec., 2016

Regarding sex, as shown in table 4.7 above, (57%) are male and (42%) are female and 135(73%) of customer respondents have education levels of diploma and above. They are educated enough to express their opinions about services are given to them. So relevant opinion would be gather from them to judge service delivery and customers' satisfaction. Regarding the occupation of customers' respondents, they come from different lifestyles. For example, 49(26%), 31(17%), 98(53%) and another 8(4%) were from private company, government organization, self employed and another respectively. From these, it is possible to secure different views about condition of service delivery and customer satisfaction.

Table 4.8: Frequency to visit the Organization

No	Indicators	category	Out come	
			No.	%
1	Frequency to visit the providers for services	A. every six months B. once every year C. every two year D. every three year E. other	88 61 34 5 -	47 33 18 2 -
		Total	186	100

Source: Compiled from survey data Dec., 2016

Customers asked how many times they have ever visited to get sewage services. Accordingly, their responses show that there are customers of the organizations who visit every six months, every year, every two years and every three years. Much of them were frequent customers and could share ample of observations about the service delivery and create good opportunity to express their service satisfaction.

Table 4.9: Assessment of Customers on Accessibility of Services

No	Indicators	Category	Out come	
			No.	%
1	Distance travelled to reach the service center	a)less than 3 kms b) 4-6 kms c) 7-_9 kms d) more than 10 kms	31 43 84 28	17 23 45 15
		Total	186	100
2	Time taken to get the service	a) Less than 30 minutes b) 30 minute_1 hour c) 1_3 hours d) More than 4 hours	32 25 63 66	17 14 34 35
		Total	186	100
3	Number of appointment to get a service	a)once only b)Two times c) Three times d) more than three times	79 85 22 -	42 46 12 -
		Total	186	100

Source: Compiled from survey data Dec., 2016

Regarding the accessibility table 4.9, About 112(60%) majority customers of the branch were forced to travel longer distances to get the service center and spent a lot of time. The organization should shorten the length of distance and time customers spent to reach service delivery location by opening extra branches closer to the users.

As to item number 2 of table 4.9, 32(17%) customer respondents indicated services were delivered with in less than 30 minutes. 25(14%) customers respondents replied that it took them about half to one hour to get the service and 63(34%) customers respondents replied that it took them about one to three hours to get the service. 66(35%) customer respondents said that, they have to wait for four and above hours to get the services. In this case, the reasons for the longer appointments could be factors related with accessibility.

In item number 3 of table 4.9, 107(58%) customer respondents revealed that they were to come to the organization two times or more to fix appointments to get a service. This shows that there are undesired work procedures that affect service delivery. In general, this indicated that there might be gap in performance of the accessibility their services that are in delivering quick services.

Table 4.10: Customers Access to Information about the Service

No.	Indicators	Category	Out Come	
			No	%
1	Means of providing information to customers	a)pamphlets and brushers	21	11
		b)Oral explanation information desk	95	51
		c) Wall charts and displays	34	19
		d)Pined on notice board	19	10
		e) Radio	-	-
		f) TV	-	-
		g) Customers Forum	10	5
		h) Telephone	5	3
		i) Internet	2	1
		Total	186	100

Source: Compiled from survey data Dec.,

Table 4.10, contains some mechanisms of disseminating information about service delivery to customers. Customer respondents were asked whether they have got information about the services through these mechanisms or not. As it can be seen from the table, customer responded that 21(11%) of them got information about the service of the organization through pamphlets, and brochures, 95(51%) of them from Oral explanation information desk of the organization, 34(19%) of them from charts and displays posted in the organization,19(10%)from pinned on notice boards, 10(5%) of them got information from discussion held with customers and very few customers indicated that they got information from internet and telephone. The majority of them responded that they did not get information by Radio and Television. Very few customer respondents indicated that they got information on telephone, internet and discussions held with customers. The branch did not use these mechanisms perhaps because they are more expensive even though information disseminated by these mechanisms /particularly radio and Television are more accessible to the larger population.

Table 4.11: Establishment of Service Standards

No	Indicators	Strongly agree		Agree		Disagree		Strongly disagree		Difficult to decide		Total	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1	Service standards are established in the organization	**-**	**-**	**100**	**54**	**30**	**16**	**35**	**19**	**21**	**11**	**186**	**100**
2	The organization work process to get services is suitable for you.	**43**	**23**	**83**	**45**	**32**	**17**	**28**	**15**	**-**	**-**	**186**	**100**

Source: Compiled from survey data Dec., 2016

Customers were asked to express their level of agreement or disagreement to the establishment of service standards in Addis Ketema Branch AAWSA. 100(54%) respondents agreed that the organization has service standards whereas 65(35%) of them disagree and strongly disagree to the establishment of service standards in the organization and 21(11%). As it can be accessed from the table, the majority of customer respondents agreed that the branch have service standards. Those who disagreed may be due to absence of information access, In item number 2 of table 4.11, respondents were asked to express their agreement or disagreement with degree whether the work process to get service in the organization are suitable or not for them. 126(68%) customer respondents agreed that the work process is suitable for them whereas 60(32%) disagreed to the suitableness of the work process. One of the reasons for these could be the fact that the branch has service standards and avoided unnecessary work procedures to some extent.

Table 4.12: Customers Assessment of Organizational Setup

No	Indicators	Strongly agree	Agree	Disagree	Strongly disagree	Difficult to Decide	Total

		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	Offices are suitable to get services	-	-	118	63	41	22	27	15	-	-	186	100
2	There is a waiting room for customers until getting services	79	42	74	40	33	18	-	-	-	-	186	100
3	There is complaint handling system in the organization	-	-	68	37	98	53	20	10	-	-	186	100
4	The organization Receives opinions and suggestion	-	-	49	26	35	19	60	32	42	23	186	100

Source: Compiled from survey data Dec., 2016

Respondents were asking about the suitability of office to get services in the organization. Accordingly, 118(63%) of customers respondents agreed that the organization has suitable offices but 68(37%) of the customer respondents disagreed, concerning the availability of waiting room for customers, 153(82%) of customer respondents agreed that there are waiting room for customers while 33(18%) of them disagreed. As to the customers' respondents, in these two indicators, namely, suitability of office and availability of waiting rooms for a customer of the branch office indicates has suitable condition.

Under item number three of table 4.12, based on all indicators identified for the customers assessments of organizational factors that established complaint-handling system. 68(37%) of customer respondent responded that, there was complaint handling system in the branch office whereas 98(53%) of them disagreed and about 20(10%) of them said that they had no idea about the existence of the system in the organization.

Under item 4 of table 4.12, based on collecting comments and suggestion from customers 49(26%) of customers respondents agreed that the organization collect comments and suggestions, 95(51%) of them disagreed and about 42(23%) of them said that they had no idea about the existence of the system in the organization.

Table 4.13: Customers Assessment of the Staff

No	Indicators	Strongly agree		Agree		Disagree		Strongly disagree		Difficult to Decide		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	The organization provides its services in a fair way	-	-	79	42	107	58	-	-	-	-	186	100
2	Staff provide services in a quick way	-	-	80	43	106	57	-	-	-	-	186	100
3	The staff are available during work hours in office to give services	12	6	73	39	88	47	13	7	-	186	186	100
4	Staff are courteous and helpful	-	-	80	43	98	52	8	4			186	100
5	The staff have the knowledge and skills to give	-	-	99	53	87	47	-	-	-	-	186	100

	services												
6	The staff are honest	46	25	68	37	72	38	-	-	-	-	186	100

Source: Compiled from survey data Dec., 2016

Regarding delivering services in a fair way, 79(42%) customer respondents agreed that Services were render without partiality. Nevertheless, a significant number of customer respondents 107(58%) disagreed. So, as to the provision of prompt services 80(43%) of customer respondents agreed but a significant percentage 106(57%) of customer respondents does not deliver quick services.

Regarding that availability of staff in the offices during work hours 12(6%) of customer respondents strongly agreed and 73(39%) of customer respondents agreed, 88(47%) of customer respondents disagreed and 13(7%) of customer respondents strongly disagreed. Courtesy and helpfulness 80(43%) of customer respondents agreed, 98(52%) of customer respondents disagreed and 8(4%) of customer respondents strongly disagreed. Regarding the knowledge and skills of the staff, 99(53%) of customer respondents agreed and 87(47%) of customer respondents disagreed. Regarding the honesty of the staff 46(25%) customer respondents strongly agreed, 68(37%) customer respondents agreed and 72(38%) of customer respondents disagreed.

Related with knowledge, skills and honesty of the staffs in providing sewage removal services to the customers there is a positive response. However, regarding to delivering services in a fair way, the provision of prompt services, the availability of staff in the offices during work hours, courtesy and helpfulness there is a negative response.

Table 4.14: Assessment of Overall Customers' Satisfaction

No	Indicators	Strongly Agree		Agree		Disagree		Strongly Disagree		Difficult to decide		Total	
		No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
1	In general, you are satisfied with the services you have got from the organization	**-**	**-**	**82**	**44**	**104**	**56**	**-**	**-**	**-**	**-**	**186**	**100**

Source: Compiled from survey data Dec., 2016

Table 4.14, presents data about overall satisfactions of customers in AAWSA Addis Ketema branch as it can be seen from the table, 82(44%) customer respondents of AAWSA- Addis Ketema branch agreed that they were satisfied whereas 104(56%) of them disagreed. With respect to the overall satisfaction of the customers less than half of them (44%) are satisfied yet a very significant percentage more than half of them (56%) of the customers are not satisfied with the organization's service delivery.

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CHAPTER FIVE
CONCLUSIONS AND RECOMENDATIONS

5.1 Conclusions

The researcher has raised questions to staffs and customers as well as observations help to reach at some finding and conclusions as follows. AAWSA-Addis Ketema Branch.

- Lack of properly training of employees.
- Lack of task clarities of the front line staff.
- High frequency of visited to get the service.
- Shortage of necessary equipments to the employees, introduce new vacuum tracks with additional values that can meet the current needs of customers and maintain properly.
- Customers enforced to went long distance from different directions to get the AAWSA-Addis Ketema branch.
- Establishing performance evaluation system and implementing it is one of motivation factor that leads to provision of rewards for employees. This study concludes that performance evaluation should accompanied by reward system to motivate employees to deliver services that brings customer satisfaction.
- Knowledgeable and skilled human labor can be motivated and apply his/her skills, and performs better, when necessary resources has allocated for them. Availability of resources enables the employee to be effective and fruitful. This study showed that equipment and material facilities required for the work fulfill to deliver services that can satisfy customers.

5.2 Recommendation

Based on the survey study Addis Ababa Water and Sewerage Authority Addis ketema branch office the following feasible recommendations are suggesting:

- Set system of accountability and implementing since it is one of the motivation that lead to provision of rewards for employees.
- Provide healthy ground of competition and other benefits to employees through providing performance evaluation to brought customers′ satisfaction.
- AAWSA -Addis Ketema branch office should fulfill the necessary equipments to the employees, introduce new vacuum tracks with additional values that can meet the current needs of customers and maintain properly the old vacuum tracks to deliver quality service.
- Create a system receiving opinions and suggestions of customer as well as complaint handling.
- Focus on motivation of employees crucial for the providing of sewage service.
- AAWSA -Addis Ketema branch office should seek the other hand option in line with carry with vacuum tracks to dispose the sewage, maintain the sewer disposal system within sewer lines.

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APPENDIX

St. Merry's University
Masters of General business Management

Questionnaire to be filled by customers

The questionnaire is intended to assess service delivery and customer satisfaction in Addis Ababa Water and Sewerage Authority (AAWSA) Addis ketema branch. Information acquired from respondents has a significant contribution for the success of the study. So you're kindly requested to respond to the questionnaire. I would like to thank you in advance for your cooperation

Note:-

- No need of writing your name
- Please put a mark \ √/ or write your opinion on the space provided
- It is possible to provide more than one answer if necessary.
- Your responses are confidential and used for research purposes only.

Part one: - Characteristics of respondents

1. Sex: 闢 male * Female *
2. Age: 18-20 闢21-25 闢 26-30 闢 31 and Above闢

2. **Educational status**

- Tenth complete/Below grade10 闢
- Twelve complete 闢
- Diploma / 闢
- First Degree 闢
- Masters degree and above 闢

3. Occupation

- Private organization employed
- Government organization employed
- Self employed
- Others ----------

4. **How many times you visit the office?**

- Only one time a year
- Two times a year
- One time every two years
- One time every three years
- Other (specify) ----------

5. How many kilometers do you travel to reach the service center of the Organization?

- Less than 5 kilometers
- 5-10 kilometers
- 1o-15 kilometers
- more than 15 kilometers

6. How much time did it take you to get the service?

- Less than 30 minutes
- 30 minutes-1hour
- 1hour –4 hours
- more than 4 hours
- Other (specify) ----------

7. How many times did you come to the office to get the service?

- I came for the first time
- I came two times
- I came three times.
- Came more than three times

The following items are assumed to describe the degree of service delivery in AAWSA Addis ketema branch sewage service provider. Which one does you strong /agree Questionnaire regarding Customers′ service delivery.

	Variables	Strongly Agree	Agree	Disagree	strongly disagree	Difficult to decide
9	You reach the service center of the organization easily					
10	The process you went through to get the services were simple for you					
11	The organization gives services to the citizens without discrimination					
12	The organization has office arrangements suitable for you					
13	The organization arranges a suitable waiting area for you until the service is provided					
14	The organization gathers feedbacks from the customers					
15	The organization has a customer complaint handling system					
16	The staff provide quick services to you					
17	The truck operators are available on time to serve you					
18	The staff and truck operators are willing to help you					
19	The staff and truck operators have the required skill to serve you					
20	The staff(specially the operators on spot) serve you honestly					
21	The staff serve you with smile					
22	In general you are satisfied with the services you get from the organization					