# **UNIVERSITY OF KWAZULU-NATAL**

# An Assessment of Service Quality and Customer Satisfaction at eThekwini Municipality: Water and Sanitation Unit

By

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#### **Abstract**

The purpose of this study is to assess service quality and customer satisfaction and the performance on service quality dimension by eThekwini Municipality: Water and Sanitation Unit. The research topic was influence by the fact that the eThekwini Municipality: Water and Sanitation ("the Unit") Walk-In Centres are inundated with customers who require service because of different reasons from high water bills, new applications, water service cuts because of burst pipes or similar services. The research adopted a quantitative research approach, using a structured questionnaire survey to collect data. The researcher collected data from four out of the eight walk-in centres and two hundred and eleven respondents were surveyed. The focus of the study was to assess service quality and customer satisfaction at the four walk-in centres selected for the study. The study also focused on identifying the service quality determinants/dimensions that the Unit is excelling on, and which ones would need improvement. It was also imperative to assess the effects of service quality on customers' satisfaction and finally examine the effectiveness of communication on water savings strategies. The researcher and her assistant collected the data and then the researcher dedicated a full day to each of the four centres whereby she started collecting data from the time the office opened until it closed doors. The results of the data collected was analysed using SPSS statistical tool. The results indicated that with most customers the service was meeting their expectations as in each of the five service quality dimensions; (tangible, reliability, responsiveness, assurance and empathy) more than 50% of the respondents agreed that they were satisfied with the quality of service they were receiving from the Unit. The unit management would be advised to attend to a few areas of service quality dimensions that are outlined in the research. The study has highlighted the contributing factors to the long gueues at the walk-in centres being the printing of statement of accounts. The study has also highlighted the walk-in centre that has received the lowest service quality and the customer's satisfaction score. Overall ratings for service quality and customer satisfaction have been presented and recommendations made to the municipality to maintain good ratings.

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# **CHAPTER ONE**

# Introduction

#### 1.1 Introduction

The Water and Sanitation Unit is a division of eThekwini Municipality ("the Unit"). The population that is serviced by eThekwini Municipality is estimated at 3 555 868 (eThekwini Municipality Integrated Development Plan, 2016). This population is the potential number of eThekwini Water and Sanitation Unit customers. The province of Kwa-Zulu-Natal is facing a challenge of people migrating from rural communities to urban areas for better resources and quality of life. The main challenge with the migration is that the municipality would have done its budget and planning that would not have included the number of the people that migrate to the jurisdiction covered by this municipality. The Unit's customers are suburban, mixed community, rural and informal settlement. The municipality has put a lot of effort and investment in improving provision of water and sanitation services to its customers but it is still facing a challenge of poor and un-serviced areas that do not have water and sanitation systems.

#### 1.2 Background

The Unit does not have competition in the provision of water and sanitation, however, customer service quality and satisfaction is still of paramount importance to improve efficiency, better utilisation of resources and to improve customer service quality and satisfaction and service delivery. Provision of water and sanitation is a basic need for human beings as it helps them to survive and live a healthy life. The Constitution of South Africa, Act No.108 of 1996 ("the Act") also emphasises the right of the South Africans to access sufficient and safe water. It further requires the state to take reasonable legislative measures through the government structures to ensure realisation of this basic constitutional right (Act 108 of 1996). The provision of water and sanitation has been one of the services that has been in the priority list of the South African government.

Water is not only used by the human beings, but is also needed by animals and plants for them to survive and this makes water a necessity for all living beings to survive. In addition to the simple provision of water and sanitation services, as per eThekwini Water and Sanitation Service Level Standards (2016/2017), the Unit also provides the following services: portable water services, clearing of blocked sewers, the new system known as Urine Diversion Sewerage that aims to replace the old system called septic tanks and lastly it has engaged in the Durban Water Recycling Project.

Drought has severely affected the supply of water in the country. The Unit has taken some measures to restrict the supply of water. The inflation and economic challenges faced by the country have been reflected in the prices charged by water and sanitation providers. Illegal water connections and public protests are also a challenge of the Unit in terms of wastage and losses of this scarce resource. The interruption of the water and sanitation services has a direct impact on the number of customers calling the Unit's customer care line and/or visiting Walk- In Centre's in person. The Unit has eight Walk-in Centres located around the Metro area.

# 1.3 Motivation of the Study

The results of this study will assist management of the Unit to identify walk-in centres that are not performing well with regards to service quality and in which areas service quality is not meeting the standards as outlined in the Unit's Customer service charter. The study will also assist in encouraging the Unit's customers to report inferior service quality and to approach management if they have a complaint. Improved service quality and customer satisfaction assist in influencing and motivating voluntary compliance in terms of wise usage and taking good care of water facilities through reporting water leakages and payment of the services.

#### 1.4 Problem Statement

The Unit's Walk-In Centres are inundated with customers who require service because of different reasons from high water bills, new applications, water service cuts because of burst pipes or similar services. The study aimed at assessing whether the Unit is providing good service quality to its customers and 'whether the Unit's walk-in centres service is satisfactory to its customers. This assessment will

help management to develop customer satisfaction programs which is the responsibility of management.

Customer satisfaction influence operational and strategic decision-making. Management can only adequately address or implement improvement strategies when they have identified the areas where the organisation is not performing well or areas of dissatisfaction. Communication and meeting of minds between the Unit and its customers is critical in the provision of water and sanitation which is an essential service that human beings, animals and plants cannot leave without. It is, therefore, essential for the Unit from time to time to measure how its provision of service is viewed and rated by its customers.

# 1.5 Focus of the Study

The study focuses on assessing how the customers view service quality that is rendered by the unit. Due to the drought that the country and other neighbouring countries are facing the Unit has had to implement several water saving strategies, it is, therefore, necessary for the Unit to assess whether the way they service the customers at their walk-in centres is appreciated and acceptable to its customers. The study focuses on the four out of the eight walk-in centres. These walk-in centres were chosen based on geographical locations being: a township, suburban, mixed community, rural and informal settlements.

#### 1.6 Objectives of the Study

The objectives of the study are:

- To assess service quality that is provided by the Unit;
- To assess customers' satisfaction of Unit's service quality performance;
- To assess the performance of service quality dimensions/determinants in the Unit; and
- To recommend improvement initiatives for service quality and customer satisfaction to the Unit.

# 1.7 Key Research Questions

The study attempted to answer the key research questions stated below:

- What is the customers' perception of service quality that is provided by eThekwini Municipality Water and Sanitation Unit?
- Are the customers of the Unit satisfied with the service quality provided by the Unit?
- How is the Unit performing on service quality dimensions/determinants?
- What are the possible solutions to improve customer satisfaction in the Unit's walk-in centres?

## 1.8 Significance of the study

This study provides empirical information to management of the Unit and policy makers. The findings of the study provide these stakeholders with information on the service quality that is provided by Unit to its customers and whether its customers are fulfilled with the service they get from the Unit. The study also assesses the level of performance by the Unit on the service quality dimensions. This study may be of great benefit to both management of eThekwini Municipality, employees of walk-in centres at the water and sanitation unit and residents of the municipality in terms of improved quality of service and customer satisfaction. The study could also assist in contributing to the already available body of knowledge and may inadvertently help to stimulate further academic interest and studies.

# 1.9 Clarification of Key Concepts used in the Study

This section provides definition of key terms used in the research paper.

- Water and Sanitation Unit Refers to a service unit within a municipality charged with the responsibility to receive customer complaints, queries or applications for water and sanitation related issues.
- Customer refers to an individual who purchases goods and services from government at a charge (Fen and Lian, 2007).

- Customers of the Municipality are all people that the Municipality deal with in the line of their duty (eThekwini Municipality Customer Care Policy, 2016).
   They were previously referred to as ratepayers. They may be external and internal customers.
- Customers of the Unit based on the definition of customer care for the municipality one can define the Unit's customer as meaning, all the people that the Unit's walk-in centres, call centres, administration, field workers and management deal with in their line of duty in providing water services.
- Walk-in Centre This refers to centres where the municipality's customers
  can contact the municipality physically for various water service transactions.
   Walk-in centres include the Sizakala Customer Care Centres which exist for
  the customers' easy access to the Municipality services (Mhlongo,
  Nzimakwe, Naidoo & Munapo, 2016:79).
- Service Quality alludes to yield specialised quality, benefit execution and authoritative mental picture (Mosahab, Mohamad & Ramayah, 2010).
- Customer satisfaction refers to the contrast amongst desire and execution, which is a main aspect in clients' aspiration to make purchases in the future or ability to pay (Mosahab, et al., 2010).

# 1.10 Limitations of the Study

A portion of the members in the focus group could only communicate in Zulu and the interview guide was written in English. This limitation was mitigated by the researcher who could communicate with them in any of their languages. The study was conducted in four out of eight walk-in centres due to time and budget constraints; it could not be proven whether the perceptions and expectations of the other walk-in centres that did not form part of the study would be the same as those four that formed part of the study. Furthermore, the results of the study are only accurate for the period the research was conducted, due to the continuous changes and improvements that are being implemented and the water savings strategies that are being implemented by the Unit.

# 1.11 Chapter Outline

The examination paper comprises of five chapters as organized beneath:

**Chapter 1** – Present the basis of the research work, foundation and setting, context of the research work, articulation of the problem, examine goals, consider inquiries, significance of the study, elucidation of key ideas, theory and confinements of the research work.

**Chapter 2 -** This part shows the hypothetical structure on the quality of service and customer satisfaction.

**Chapter 3 -** This part outlines the research methods and plan used to test and satisfy the research objectives.

**Chapter 4** - This part presents information, translation and investigation of the outcomes.

**Chapter 5 -** Discussion of the findings, conclusions and recommendations based on the findings.

# 1.12 Summary

This introduction chapter has provided the role that is played by the Water and Sanitation Walk-in Centres in fulfilling the purpose of the Unit. The objectives of the study have also been introduced. The chapter has also outlined the need for the study and the factors that influence the decision to choose the Walk-in Centre. This chapter has also stated the expectation of what should be done with the results of the study and the recommendations thereto.

# **CHAPTER TWO**

#### Literature Review

#### 2.1 Introduction

This chapter concentrates on the discussion of literature relating to, in addition to other things, the factors adding to the service quality and the satisfaction of customers, products and services that contribute to the satisfaction of customers and highlight recommendations as suggested by various scholars on the research topic. This chapter further focuses on the scholarly views of municipalities' service delivery as perceived by the users. This chapter further highlights the underlying theory behind the concept of customer service satisfaction in water and sanitation provisioning. Lastly, the chapter discusses the strategies that are recommended to be applied and adopted to improve customer satisfaction and service quality in a municipality entity.

# 2.2 Service Quality

Numerous researchers have defined service quality in different ways. Howanitz & Steindel (2011) maintains that service quality is the ability by the service provider to fulfil the desires and necessities of the service recipient. To Jamal & Naser (2012) service quality, refers to a long run assessment of the service recipients' attitude. Parasuraman, Zeithaml & Berry (1993) looks at service quality as the discrepancy between expected and received service. Clow (2012) view of service quality is like Parasuraman et. al, he also refers to service quality as an error between service received and service experienced. Service quality refers to the degree that the views surpasses the desires of the customer (Kotler & Keller, 2009. Service quality is therefore based on the service that the customer or client has experience vs the what they expect.

# 2.2.1 Perceptions of Service Quality

As per Zeithaml, Bitner & Gremler (2013) a perception refers to somebody's understanding of qualities of the subject matter. Perceptions are normally built around the discrepancy between what the customer experience and what they

desire. The theory of disconfirmation was developed by Ekinci & Sirakaya (2014) and it refers to the customers' disappointment when their desires are different from what they experience.

In the context of municipalities' walk-in centres, service refers to customers' desires, what customers tell other customers about the walk-in centre and external communication Syriam (2013).

Walk-in centres for municipalities provide various services to residents such as providing vital information to walk-in centre customers, receiving new applications for water and sewer connections, receiving and processing customer concerns, liaising with other departments involved in water and sanitation provision. However, an overview conducted by Probe Marketing survey established that South African citizens had a poor view of the entire service rendered by the municipalities because of unmet expectations (Syriam, 2013), the respondents of this survey had expected quicker turnaround times in resolving their applications and queries. Respondents expressed their disappointments when they experienced that it took longer to get feedback on their service requests.

# 2.2.2 Importance of Service Quality

In both the public and private sector, quality of service as perceived by the recipients is a critical factor. Mosahab et al. (2010) calls it the most intense rivalry weapon and Clow (2012) calls it the organization's naturing blood. Quality is a multi-dimensional phenomenon.

As per Naidoo and Mutinta (2014), organisations must place a lot of emphasis on service quality since it can possibly make or break an organization. It has the potential to creating negative impression of the organization. Better service quality makes positive organizational image and a good name for municipalities. In the private sector quality has been instrumental in them making long-term profits and keeping their customers to make repeated purchases and refer new customers (Naidoo and Mutinta, 2014). The municipalities service quality has led to greater customer satisfaction and increased cooperation in terms of paying for municipal rates and services. This research focused on the public sector since the municipalities fall under the domain of public entities.

Mokhlis, Aleesa & Mamat (2013) in their study investigated the most critical service quality measure of citizen satisfaction with municipal services in Khok Pho in Pattani Province in Thailand, their investigation concluded that service quality plays a crucial role in customer satisfaction.

# 2.2.3 Service Quality in the Public Sector

South Africa adopted service charter, which serves as a contract between the State and the public servants, it outlines what the service beneficiaries can expect from the representative of the state being public servants (Service Charter, 2013). The aim of the service charter is to improve performance in the organs of the civil society (Service Charter, 2013). Some of the objectives of the service charter are:

- Encourage excellence and professionalise the public service delivery;
- Ensure an effective and efficient service that is also responsive to the needs of the public;
- Reinforcement and commitment to service delivery improvement for the benefits of the South African citizens; and
- Clarification of the rights and the obligations of both the public servants and the citizens;

#### 2.3 Factors affecting Service Quality and Customer Satisfaction

#### 2.3.1 SERVQUAL Determinants

Zeithaml, Parasuraman & Berry (1994) developed a model of measuring service quality known as SERVQUAL. The model is a tool used by researchers to measure the service quality as viewed by the customer's. The five SERVQUAL theoretical framework greatly affect service quality and municipality's walk-in centres needs to give much consideration to achieve greater service quality and customer satisfaction. The five SERVQUAL measurements as indicated by Zeithaml et al. (1994) are: tangibles, reliability, responsiveness, assurance and empathy. They further emphasize the importance of these measurements and that the service providers should strive to get them right to fulfil their customers' expectations and

develop positive perceptions of the service provider. The SERVQUAL measurements tool developed by Zeithaml et al. (1994) was later modified by Howanitz and Howanitz (2013), the modification was mainly about linking responsiveness and turnaround time. Thus, the notion of responsiveness and turnaround times are similar. As per Neuberger & Peters (2011) turnaround time is measured from the time the application is received to the time the client receives the outcome.

Agbor (2013) carried out a study to investigate the relationship between service quality and customer satisfaction in light of the serviqual dimensions cited above. The findings from a study conducted by Agbor (2013) led to the conclusion that the five service quality determinants as that were developed by Zeithaml et al., (1994) influence the relationship between service quality and customer satisfaction.

#### a) Tangibles

Parasuraman et al. (1993) explained that tangibles refer to the appearance of physical facilities, equipment and availability of staff to customers, personnel, and communication materials. According to Wan Yusoff, Ismail & Newell (2013) tangibles often includes aspects such as all "touchables" which constitutes the physical evidence. Wan Yusoff (2013) explained that the physical evidence (tangibles) comprises an organisation's facilities such as the buildings, the equipment, the information processing hardware and software, the reception area, the transaction area/space of a Walk-in centre, the circulation space, parking space and many other touchables.

Panda (2014) further explained that tangibles are the observable features of the service that are used by institutions like municipalities to enhance the external parts of customer satisfaction. Lentell (2010) pointed out that when carrying out a discussion of tangibles it is important to note that different institutions and organisations employ different types of tangibles. Thus, tangibles for a hospitality concern can be different from tangibles for a municipality or other service industries.

The effect of tangibility on service quality and customer satisfaction has been widely researched. However, from various studies carried out by the likes of Lentell (2010) for the hospitality sector and Mokhlis et al. (2013) for municipalities in Southern

Thailand came up with similar conclusions on the effect of tangibles on service quality and customer satisfaction. Lentell (2010)'s research on the effect of tangibles on service quality and customer satisfaction may be deemed to be outside the scope of walk-in centres in a municipality setting dealing with water and sanitation issues. However, the research findings have relevant implications for the research area covered by this topic because both the hospitality sector in the public sector and walk-in centres for eThekwini Municipality deals with provision of services to their customer and therefore issues of service quality and customer satisfaction applies to both sectors.

Lentell (2010), Mokhlis et al. (2013) and SÁ & Sintra (2012) researched the SERVQUAL determinants of service quality in the public sector, the findings of these independent studies concluded that the tangibles were the most significant determinant of service quality in a municipality service centre. The results of these three studies requires municipalities walk-in centres management to put a lot of effort and emphisis in improving tangibilities in their centres if they are serious about improving service quality. Mhlongo et al. (2016) results of their study conducted at Sizakala Centres of eThekwini Municipaliy showed that Tangibility dimesnion on the overal service quality was rated low.

#### b) Reliability

According to Zeithaml et al. (2013) and Panda (2014) reliability of a service refers to the potential of a service provider to independently and accurately perform the services as required and promised. Rodríguez, Burguete, Vaughan & Edwards (2014) added that the service should be dependable, consistent and delivered in an accurate manner. For example, a municipality Walk-in –Centre may advertise that it will process customer's online or physical walk-in tendered water applications and provide feedback in a certain number of days. Thus, a reliable service is one that performs the service as promised.

In a study conducted by Omar, Bin- Saddan & Kamaruzziman (2015) *n*=660 the reliability of the research construct was tested by using the statistic Cronbach's alpha test whose coefficient was 0.8 the reliability of the questionnaire was found acceptable. The research was based on e-commercial transactions. The rationale

for including this discussion in this research lies in the fact that most South African Municipalities and their respective departments are now automated, with most transactions in walk-in Centres being processed electronically. These transactions include processing customer queries/complaints, or processing applications for Water and Sanitation related issues to even providing feedback makes the research findings of Omar et al. (2015) to be useful and relevant in terms of providing useful insights pertaining to the relative importance of reliability in as far as influencing service quality and customer satisfaction is concerned. The findings of Omar et al. (2015) showed that there is a strong relationship between quality of service (reliability) and customer satisfaction. This finding further confirms earlier findings by Lentell (2010) and Mokhlis et al. (2013) who similarly asserted that reliability of a service provider has a strong impact on customer satisfaction after both tangibility and emphathy.

Omar et al. (2015) highlighted the following attributes of a reliable service that can lead to improved service quality and customer satisfaction:

- Deliver service as promised pertaining to complaint resolution timeframes,
   application processing and turnaround times for customer feedback;
- Being truthful about what is promised;
- Keep customer information secure and confidential;
- Secure online transactions;
- Deliver on commitments; and
- Keep customers up to date and informed.

#### c) Responsiveness

Bharwana, Bashir and Mohsin (2013) defines responsiveness as the eagerness of a service provider to help clients and give prompt service. Sureshchandar, Rajendran & Kamalanabhan (2012) pointed out that the responsiveness determinant places a lot of emphasizes on promptness and attentiveness when

dealing with a request, complaints and problems from a customer. A responsive service provider is one who provides a service willingly and in a timely manner. Wan Yusoff et al. (2013) argued that timeous response to customer needs is not enough on its own but must be accompanied by the notion of flexibility so that the service provider becomes able to provide the service from a customer's point of view rather that from the municipality's point of view. Wan Yusoff et al. (2013) asserted that for an organisation to be responsive to customers needs, there is a greater need for some acculturation of employees so that they don't engage in personal conversations among themselves whilst attending to customers, or ignoring the presence of a customer whilst doing other things.

Mhlongo et al. (2016) in their study of service quality and customers satisfaction of Sizakala centres they found that responsiveness was rated the highest by the respondents with a gap score of -63 with the overal study resusts showind that the customers of Sizakala centres were not satisfied with the quality of service they receive.

#### d) Assurance

Olorunniwo, F., Hsu, M. K. & Udo, G. D., (2014) explained that assurance referes to a the knowledge, confidence and courtesy of service provider employees. The assurance quality dimension involves aspects such as employee's knowledge of the customer's needs, employee courtesy to customers, which has an effect of inspiring trust and confidence in the minds of customers. Howanitz and Howanitz (2013) further explained that there are two pre-requisites that must be present for the assurance dimension to effectively lead to service quality. These dimensions include the ability of the organisation's employees to identify and meet customers' unique needs and deliver the services accordingly. The findings of the studies conducted the by Lentell (2010), Mokhlis et al. (2013) and SÁ & Sintra (2012) indicated that tangibility, reliability and empathy respectively are major determinants of service quality and customer satisfaction. The reason might emanate from the fact that mere courtesy or mere understanding or possession of customer needs alone is not sufficient to positively influencing service quality with real tangible action that translates into meeting those customer needs. Nevertheless, the ability to translate knowledge of customer needs or exercise of courtesy coupled with real tangible action that brings desired results is a solution to service quality and customer satisfaction.

#### e) Empathy

Zeithaml et al. (2013) explained that empathy involves the display of caring coupled with the provision of individualized attention that the firm provides to its customers. Howanitz and Howanitz (2013:133) defined empathy as the ability of an organisation's employees to experience another's feelings as in one's own. Municipal Walk-in Centres often serve a wide variety of people ranging from the elderly, the young, the infirm, the bereaved, the poor, the widowed, the stressed, the wealthy, the arrogant and so on. However, it must be borne in mind that being emphatic to all manner of persons is not an easy task for a service provider such as a walk-in centre. Some aspects of emphathy such as opening early and closing late, that is opening for extended hours to cater for different types of people who have different preferential times for obtaining a service can be difficult to achieve for a municipality such as eThekwini because of the working hours stipulated for all Government departments are set at national level plus the reward of overtime in a municipality is subject to stringent conditions.

# 2.3.2 Turnaround Time

Valenstein (2013) indicated that a municipality walk-in centre customer base calls for the delivery of a quick, reliable and efficient service at an affordable cost. Valenstein (2013) added that that time is the highest contributing factor to the satisfaction of a municipality 's clients at walk-in centres. As per Manor (2012) the saying that "faster is better" always holds true regarding improving service quality and customer satisfaction in a municipality service delivery environment. They further stated that delays in delivery and turnaround times often results in customer complaints. As per SALGA (2012) it is pointed out that customer complaints received by municipalities are mainly related to turnaround time.

# 2.3.3 Training and Skills Development

According to Dominici and Guzzo (2013) municipality service quality and customer satisfaction can only be achieved if management properly retraining existing staff

and train new staff on customer care, service dimensions, record keeping and communication of results. They further emphasised on the importance of employee training and skills development to ensure that employees in a municipality are: committed, have good communication skills, enthusiastic about their jobs, have good leadership and interpersonal skills and they demonstrate adequate product knowledge.

# 2.4 Legislation Around Provision of Service in the Public Service

#### 2.4.1 The Constitution

As per the Constitution of South Africa ("the constitution"), local government is an autonomous provincial level of government required to promote constitutional majority rules and communities' monetary improvement. The White Paper on Local government (1998) forms the ground for new local government framework, this level of government is closer to the communities and is responsible for addressing the imbalances that have existed before.

Section 153 of the constitution forces developmental obligations that incorporate planning and budgeting processes to the municipalities. It additionally arranges for organising the fundamental requirements of the societies and advancement of socio-economic development. Section 27(1) (b) of the same Act expresses the right of everyone to have access to clean water, section 27(2) imposes the state's requirement to ensure that sensible administrative measures are taken to provide the citizens with sufficient water. The motivation behind why the issue of water and sanitation must be incorporated into the constitution is that there were immense differences and disparities among the South African residents that existed in the arrangement and supply of water and sanitation services and most people that lived in rural areas had no access to clean water and sanitation supplies (The constitution of the Republic of South Africa, 1996).

### 2.4.2 Transforming Public-Sector Delivery

Customer care establishment and service quality are based on the eight premises of Batho Pele principle which is discussed in detail later in this chapter. The South African government promulgated several legislative frameworks that have positively

influenced the quality of service and the satisfaction of customers and delivery of water and sanitation services. The legislation and principles also influence the perception of service quality its customers have about Unit. The following sections give insight on the legislation since it has a significant influence on the service quality and customer satisfaction that the study focuses on.

# (a) Water and Forestry Affairs ("DWAF")

The National government has formed a division that is responsible for ensuring that the country is putting measures in place to provide the citizens with adequate water. The provision of water services has been delegated to the local Municipalities by Water and Forest affairs Department of Water Affairs, & Forestry (2005).

# (b) National Water Act (Act 36 of 1998)

Act 36 of 1988 reformed the law relating to water resources, this Act recognizes that the water is scarce and that it is unevenly distributed. The Act came about because of the previous discriminatory acts that favored provision of the service to selected few beneficiaries. The purpose of the Act is to ensure the protection of water resource and promoting fair and equitable provision of water services (Government Gazette, 1998).

# (c) Municipal Systems

Act 32 of 2000 (Government Gazette, 2000) it focuses on the municipalities internal administration and systems of the metro municipalities. This act provides the guidelines for making the bylaws and it covers the delivering of municipal services.

# (d) Local Government: Municipal Finance Management Act (Act 56 of 2003)

The Act aims at providing sound financial management control of the entities financial affairs. The Act covers both municipalities and municipal entities as well as management of revenue and debt, which to a large extend will affect the customers of the Unit (Water and Sanitation Business, 1998).

#### (e) Batho Pele Principles

The eight BATHO PELE principles also serve as a guideline to the public servants for the quality of servive that is expected from the States' organs (Public Service Charter, 2013)

# 2.5 Water and Sanitation Service Charter of eThekwini Municipality

The Water and Sanitation Service Charter of eThekwini Municipality communicates the vision and mission as well as the customer care policy detailing the unit's commitment to doing business with its customers. The eThekwini Municipality management has articulated a vision, which is centered on providing excellent water and sanitation services to the citizens of eThekwini Municipality as stated in the eThekwini Water and Sanitation Service Charter (2016). The vision is complimented by the mission that is geared towards providing proficient, effective, affordable and reasonable water and sanitation services to the general population of eThekwini in a customer friendly way (eThekwini Municipality: Water and Sanitation Service Charter, 2016). Furthermore, eThekwini Municipality's Water and Sanitation unit has endeavored to provide all its residents with access to water that is affordable, that is safe as well as acceptable quality of sanitation (eThekwini Municipality: Water and Sanitation Service Charter, 2016).

In addition to the vision and mission statements, the eThekwini Water and Sanitation Service Charter also spelled out the unit's commitment to its customers of providing a responsive and friendly service accompanied by the principles of respect, no discrimination as well as the provision of full explanations to its customers (eThekwini Municipality: Water and Sanitation Service Charter, 2016). Another good aspect of the Unit's service charter is the encouragement it gives to the Water and Sanitation Unit's customers to approach its Deputy Head in the event of being dissatisfied with the service received. Stoner (2013) emphasized the importance of the development of a well-crafted vision, he further added that it is not adequate on its own. Jones & George (2013) promote effective communication, understanding of strategic vision, and that everyone involved in the provision of water services must buy-in to the service quality vision and mission.

Stoner (2012) advised that for vision and mission statements to work, winning the support of the organization for the vision and its rationale to as many employees as is feasible is crucial for the achievement of service quality objectives. A closer examination of the Unit's Service Charter shows that it has striking similarities with the Customer Service Policy of the Municipality of the County of Cumberland whose service charter spells out a commitment to provide reliable and fiscally and affordable services to its customers. Similar to eThekwini Municipality, the City of Cumberland has similar goals such as treating all customers with equally, respectfully, friendly, timeously as well as listening to customer needs, recognizing the different needs of customers, provision of quality and affordable services (Holroyd City, 2010).

#### 2.6 Batho Pele Principles

The Batho Pele Principles are also outlined in the service charter (Public Service Charter, 2013) and they are:

- Consultation Citizens ought to be consulted with respect to the level and the
  quality of public services they get and where possible ought to be given a
  choice of the services offered. It is noticed that in the context of the Unit the
  choice of services is very limited in terms of the nature of services as they
  are influency by the parliamentary laws;
- Service Standards Citizens should be made aware of the level and standard of service to expect. The Unit's advertisments would usually cover this part;
- Access The citzens should have equal access to the services they are entitfled to; this is a very important principle that the Unit's Walk-in Centres office need to uphold as it services diverse and almost all the citizens of the country;
- Courtesy Citizens should be treated with courtersy and respect. No customer will be satisfied with the service if they did not get the respect they deserve;

- Information Full information should be given to the public for them to make their informed choices;
- Opennesss and transparency Information like who is incharge should be made transparent, the Unit's office has displayed a photograph, contact telephone number of the walk-in centre manager;
- Redress Where the organisation failed to deliver as required it should offer an apology to the affected citizens and also remedy the situation as soon as possible; and
- Value for money Public services should be delivered in efficient and economical manner to give the citizens the best value for money.

Batho Pele principles emphisises consultation; and that all government service should have standards, provide an opportunity to correct where poor service is provided, adequate access to information, transperreny and openness in (Twinomurinzi, Zwane, and Debusho, 2012).

#### 2.7 Customer Satisfaction

Olive (2015) views customer satisfaction as a pleasurable level of consumption fulfilment or over fulfilment is a result of the organisation to meet their expectation in the delivery of its mandate and services. Oliver further states that fulfilment is not necessarily limited to meeting the needs of the customer. Fulfilment to the service is when it is satisfying or when it gives more pleasure than what was expected. Customers expectation is the driving force for an organisation's management to provide good service quality and to ensure that the organisation's policies, procedures and structures supports continuous improvement in service quality (Aljasser & Sasidhar, 2016).

Based on the definitions of service quality that have been defined in this research customer satisfaction is mainly about providing the services in a manner that exceeds customers' expectations. Customer satisfaction is largely influenced by the feelings and attitudes that the users of the service hold about their experience. Customers' feelings and attitude are based on their expectation of the services.

Customer satisfaction like service quality is dependent on the service quality determinants which are: tangibility, reliability, responsiveness, assurance and empathy.

# 2.8 Importance of Measuring Customer Satisfaction

A company must know and understand its customers as this will help the company to improve its delivery of goods and services, it is also easier to sell to existing customers than to find new ones (Zeleke 2012). Zekele further maintains that knowing customer's satisfaction can, therefore contribute to building customer base and ultimately grow the company and increase market share. It is therefore important for a company to influence the expectations of its customers, knowing the customer's expectation helps to take actions to meet customers' expectations (Lankton & McKnight, 2012).

# 2.9 Assessing the Level of Customer Satisfaction

According to Yu and Goulden (2013) understanding customer expectations results to excellent customer service and high customer satisfaction. Yu and Goulden (2013) further propounded that the assessment of the level of customer satisfaction must involve asking guests whether their services or products has fulfilled or exceeded their expectations. This question is very significant because it serves as a reliable way of obtaining information from customers about their level of satisfaction arising from the services and products being offered (Deng Lu, Wei & Zhang, 2010). Neumann (2007) alluded to the importance of knowing the customer's demands and expectations as they assist in understanding how customers define service quality and will assist the entity to develop customer satisfaction questionnaire.

According to Yu and Goulden (2013) customers who had high expectations when they were vising a walk–in centre will likely be dissatisfied and will rate their experience as less than satisfying if the reality of their expectations fell short. Yu and Goulden (2013) further pointed out that the above issue often leads to walk-in centres receiving lower satisfaction ratings.

Deng et al. (2010) opined that customer expectations have a strong correlational effect on customer satisfaction because of its influence on repurchase decisions and customer loyalty. Thus, if customers believe that a service or product was not delivered as per expectation, customers have a negative perception of the walk-in centre. On the flip-side if customers believe services were delivered to their expectations or exceeded their expectations, there is higher probability that they will return once more (Deng et al., 2010). According to Lee, Graefe & Burns (2014) ninety-one percent of an organisation's unhappy customers never purchase services from that walk-in centre again. Thus, one way of assessing the level of customer satisfaction is to measure the repeat visit rate of previous guest. Many repeat visits by customers serves to confirm that there is a higher level of guest satisfaction with services and products being offered by a particular walk-in centre (Deng et al., 2010). Lee et al. (2014) asserted that assessing the level of customer satisfaction could help a municipality's walk-in centre to reduce the number of unhappy customers.

Andersson et al. (2014) pointed out that the assessment of customer expectation and level of satisfaction is not an exercise in futility. This is because customer expectation is inherently connected to guest satisfaction. It has several benefits that accrue to the service centres and other service providers. Andersson et al. (2014) listed the following benefits of assessing customer expectations:

- It enables the business to know the service levels expected by customers to keep them happy thereby influencing the business to come up with strategies that brings about high customer satisfaction;
- It diverts management and employees' attention towards fulfilling customer expectations';
- It provides an opportunity for the business to exceed customer expectations;
   and
- Lastly, assessing customer expectations helps to resolve customer complaints easily since their expectations are known beforehand.

According to Lee et al. (2014) there are several ways of assessing and measuring customer satisfaction. Some of these ways include putting suggestion boxes and complaints/books in strategic areas of a walk-in centre where they are visible and easily accessible to customers. They further recommend suggestion boxes as a feedback tool, whereby customers can deposit their suggestions and rate the service, they can also help to identify unhappy customers (Lee et al. 2014).

Suggestion boxes, complaints and compliments books allow customers to air their feelings, attitudes, perceptions freely about the services or products they received. There is a misconception that guests are always negative when making comments in suggestion boxes and compliments/complaints boxes. This is not always the case, customers at times give motivating and positive comments about the services they have received. They can also give some useful suggestions that can be adopted to improve both service and product quality.

Lee et al. (2014) further pointed out that the level of customer satisfaction could be ascertained through carrying out online or in walk-in centre satisfaction surveys. These walk-in centre satisfaction surveys satisfaction is more advantageous since customers make comments whilst their memories about the service or product is still fresh. Therefore, the credibility of the findings from carrying out satisfaction surveys inside the walk-in centre is higher because it gives a better reflection of the level of satisfaction of the guests. This is not discounting online customer surveys. Online customer surveys also enable respondents to freely express themselves away from any form of pressure such as those of the employees of a tourist resort area, thus, the feelings, perceptions that are reflected from data collected through online surveys reflect the truth about how customers feel or perceive the services they will have received Lee et al. (2014).

Another feedback tool that is used to get feedback from the customers is sending personalised email surveys to customers, this is the tool that is used by Ottawa Municipality in Canada, the emails are sent to its customers on a periodic basis, the responses from the surveys assist in measuring customer satisfaction (Dean & Bowen 2012). The results obtained from the surveys are analysed and assist Ottawa Municipality to focus on improving customer satisfaction.

In conclusion, the assessment and measurement of customers' satisfaction is a vital exercise that leads to the next process in the value chain, that of assessing the factors that contributes to guest or customer satisfaction.

# 2.10 Importance of Communication in Service Quality and Customer satisfaction

According to Dabbish & Kraut, (2012) proper strategies and channels of communication can go a long way in reducing customer complaints and increasing customer satisfaction. Dabish & Kraut (2012) further maintains that a good communication strategy by a municipality encompasses timeous communication of service interruptions so that customers/residents are not inconvenienced by being caught by surprise when a service is interrupted. It is important for a municipality walk-in centre to ensure that the medium of communication chosen is effective in terms of reaching as many customers as possible, where possible the use of multimedia channels to reach out to different customers from all walks of life is recommended (Dabbish & Kraut, 2012).

There are various medium of communication by which a municipality can utilise to reach out to its residents namely newspaper advertisements, radio announcements, television announcements, announcements through the local leadership like ward councilors, putting posters in strategic points in affected communities or mass radio loudspeaker announcements (Dabbish & Kraut, 2012). The Amathole District Municipality has got fixed loudspeakers mounted in strategic parts of communities where announcements of service interruptions are made five days before the anticipated day of interruption, this is meant to prepare the residents of communities for an interruption (Dabbish & Kraut, 2012). Dabbish & Kraut further maintains that the net effect of this will be fewer complaints from residents/customers as well as best practice for service provision, thus timely communication of service interruption is part and parcel of the realm of service quality provision.

However, for communication of service interruption to be effective, the communication must be made several days before, the communication must be repeated several times to reinforce the message and the understanding. Furthermore, the timing of the communication must be such that it is made when

the greatest number of people are paying attention or are most likely to be available (Dabbish & Kraut, 2012). In addition, the communication media must be cost effective to the municipality service centre and must have a wider coverage, for billboard announcements or posters, it is imperative that they must be put in areas where they are visible and accessible to everyone (Dabbish & Kraut, 2012). Lastly, the communication must be simple and easy to understand most preferably in a language where the particular community understands (Dabbish & Kraut, 2012).

# 2.11 Strategies for Improvement of Service Quality by Customer Walk-in Centres

#### 2.11.1 Clear Communication of Turnaround Expectations

Truchaud, Le Neel, Brochard, Malvaux, Moyon and Cazaubiel (2013) pointed out that the turnaround times and starting and end points must be clearly communicated to the staff at walk-in centres of municipalities. Truchaud et al. (2013) further maintains that management of the municipality should clearly define what is acceptable and unacceptable behaviour.

# 2.11.2 Performance Management Systems

Fattal, Tanasijevic & Winkelman (2013) suggested that municipalities should create performance management and monitoring systems that must cater for regular performance reviews. Fattal et al. (2013) further suggested that organisations should conduct regular performance reviews of their goals, update system workflows and obtain sophisticated computer software that allows for the worker to be done better and faster.

#### 2.11.3 Clear Communication Channels

Open lines of communication will encourage the employees to ask and talk when they are not clear or when they have challenges, management should conduct internal audits and benchmark the service against the quality of external organisations (Manors, 2012). Communication will ensure that the vision and values of the municipalities are well understood by the staff which will assist in executing the municipality services in line with organisational goals. Manors further maintains

that good communication will also assist in improving relations between the clients and walk-in centre staff.

#### 2.11.4 Implementing Service Ethics and Standards

Fattal et al. (2013) encouraged municipalities to embrace service ethics in their day-to-day operations, this places commitment to all staff in the municipality's walk-in centres to reduce any activity that have a potential of making the client doubt their competence, impartiality, judgment or operational integrity. Fatal et al. (2013) further states that walk-in centre environment should be friendly and accommodating to the customers.

# 2.11.5 Establishment of Service Level Agreements

As per Howanitz and Steindel (2014), a municipality ought to help build and strengthen relationship with customers to reduce perceptions and restructure expectations to align with service agreements, this can be encouraged through public participation forums whereby residents and municipality management engage and share concerns. Howanitz & Steindel (2014) suggested that the walk-in centres should enter into agreements with its customers, these agreements are known as service level agreements ("SLAs") with customers. SLAs consider the needs of the municipality customers. Howanitz & Steindel (2014) further maintains that these agreements will give the municipality an opportunity to know the customers desire in advance and this will improve service quality, customer satisfaction and service delivery by municipalities because the municipality will have prior knowledge of its customers' desires.

Howanitz and Steindel (2014) prescribed the foundation of administration concurrences with clients, which will consider the demand, data required on the demand shape, conditions to be met, prerequisites of customers in the region. These assertions will altogether enhance benefit conveyance and administration quality and consumer loyalty by districts since they will know ahead of time client desires Howanitz and Steindel (2014).

# 2.11.6 Strategies to Maximize Performance of staff for Improved Service Quality and Customer Satisfaction

Noe, Hollenbeck, Gerhardt & Wright (2014) suggested that management should apply effective situational approach to address and resolve employee performance issues to enhance provision of better service quality and customer satisfaction. As alluded earlier in the discussion Agbor (2013)'s research findings demonstrate that customer satisfaction is influenced by a wide variety of factors other than the SERVQUAL service quality determinants. Performance management is the tool that is used by most organisations and Municipalities to measure performance and performance gaps with the aim of closing those gaps Agbor (2013).

There are cases whereby customer service quality is poor because employees performing the service transactions are not performing their duties in a manner prescribed or expected, poor service quality might be as a result of employee laziness and poor attitudes (Noe et al., 2014). Failure to meet deadlines and targets due to negligence, chronic unwarranted absenteeism, poor work ethics or due to employees attending to personal business during work time, abuse of work manifested by spending prolonged hours on personal matters like answering personal calls, something which negatively leads to customers spending long times in the queues waiting for attention (Noe et al., 2014).

One of the ways that management can deal with the abuse of work time, laziness, failure to serve an acceptable number of customers or some of the vices explained in the paragraph above is the implementation of a performance management system to improve service quality and eventually customer satisfaction (Zisis, Garefalakis & Sariannidis, 2015).

Performance management is one of the key drivers of enhancing service quality and breeding customer satisfaction. Noe et al. (2014) maintains that performance management can apply the following seven factors being ability; clarity; help; incentive; evaluation; validity; and environment, these factors assist in furnish the mechanism to improve performance that will resultantly lead to the provision of higher service quality which is essential in bringing about customer satisfaction. In order for walk-in centre staff to improve customer service quality and customer

satisfaction it is essential for management to improve the performance of their staff. These factors assist management to assess and understand the competencies, experience and capabilities of each employee, thereafter set the goals to improve employee's ability to execute their tasks better (Noe et al., 2014).

# 2.12 Summary

This chapter examined the literature framework relating to factors affecting service quality and customer satisfaction. The SERVQUAL approach by Zeithaml et al. (1993) on service quality dimensions that enhances service quality in organisations was discussed. The chapter presented different scholarly views of service quality and customer satisfaction. The chapter also looked at the importance of striving for the delivery of good service quality in organisations. The chapter also discussed the association between service quality and customer satisfaction.

Furthermore, this chapter examined and discussed different techniques to enhance employee performance to effect better service quality and customer satisfaction. This part concluded by making suggestions on how organisations can by and large enhance employee performance for improved service quality and customer satisfaction. The following chapter examines the methods utilised to gather, process and analyse data.

### CHAPTER THREE

### **Research Methodology**

### 3.1 Introduction

This chapter describes the methodology that has been used in this study and the design strategies utilized to test the research objectives. The first part of the chapter provides a summary and background for the purpose of this survey. The second part of this chapter summarizes the setting of the survey, the research paradigms and the research design. The third part of this chapter outlines the methods that were used to accomplish the study objectives which include: the target population for the study. The fourth part of this chapter highlights the sample size and the sampling methods used in the study. Lastly, the chapter discusses the methods used to collect data, tools and instruments that were utilised in the gathering of information, information analysis, validity and reliability of the study, ethical issues and a detailed presentation of the research schedule.

### 3.2 Purpose of the Study

This survey conducted an assessment of the factors influencing customer service quality and satisfaction at four walk-in centres in eThekwini Municipality: Water and Sanitation Unit. The research adopted a quantitative research approach. The research problem concerning poor service quality and lower customer satisfaction required a research survey involving a large number of respondents, hence, the choice of a quantitative research approach. The focus of this research is to determine whether the Unit's customers get the service they expect at the four walk-in-centres selected for the study using the modified version of SERVQUAL. The research also focuses on identifying which service quality determinants/dimensions that the Unit is doing well on and which ones have a gap, assessing the effects of service quality on customers' satisfaction and finally examining how effective is the communication on water savings strategies.

The adoption of a quantitative research approach was deemed necessary because issues of service quality and customer satisfaction require the views of a larger sample to be able to generalize the findings on perceptions and levels of customer

service quality and satisfaction to the larger sample. Thus, a quantitative research approach fits this purpose because it utilises larger samples, hence generalisation can be applicable for the larger un-sampled population (Welman, Kruger & Mitchel, 2013).

### 3.3 Research Setting

The research setting is the area where the researcher intends to conduct the study that is suitable and feasible (Creswell, 2013). The research was carried out at the four walk-in–centres of the Unit. eThekwini Municipality is one of the major municipality in KwaZulu-Natal Province. The Unit has eight walk-in centres. Out of the eight walk-in centres only four were selected for the purposes of conducting the research, these were; Verulam Walk-in Centre, Pinetown Walk-in Centre, Prior Road Walk-in Centre (Head Office) and Mega City Walk-in Centre. As per the discussion with the Unit management the four centres would be a fair representation of the Unit's customers as it included: are suburban, mixed community, rural and informal settlement.

### 3.4 Research Philosophy

There are two main approaches that are utilised in conducting a research survey, these are qualitative and quantitative, there is also a third one which is a mixed method. A quantitative research method mainly deals with numbers and mainly deductive because it tested the relationships between variables that assist in predicting variables that determines customer service quality and customer satisfaction at the four walk-in centres (Creswell, 2013). Johnson and Christensen (2010) suggested that the main drive of a positivist research philosophy is to establish the objective truth (reality) about a theoretical framework with a view to either vindicate or disprove the theory to come up with a universal approach. A positivist research paradigm allowed the research to determine the factors contributing to service quality and to customer satisfaction at the four walk-in centres (Creswell, 2013).

Johnson and Christensen (2010) explained the existence of a qualitative phenomenological research philosophy, which is mainly concerned with getting an

understanding of human lived experiences as well as their views and perception about certain issues in a detailed manner.

### 3.5 Research Design

Welman et al. (2013:134) defines research design 'as a framework for action that serves as a vehicle to move from the research question to the execution of the research. As per Kothari (2012:55) research design is a structured plan of how the researcher intends to conduct the research survey. For Sekaran (2013) research design gives an opportunity to the researcher to carry out the study in such a manner that the researcher attains the objectives for the study. Welman et al., (2013) pointed out four main kinds of research designs namely cross—sectional research design, experimental research design, non-experimental research design and case study research design. A quantitative explanatory research design was selected for this study. This method is used to address the research questions in effectively and efficiently (Piergiorgio, 2013).

Quantitative empirical and deductive testing of theoretically pre-determined variables was utilized to determine the factors impacting on the customer satisfaction/dissatisfaction at each of the four walk-in centres of eThekwini Municipality: Water and Sanitation Unit. The results from the study were used to determine relationships between customer service quality and customer satisfaction through statistical analysis. An explanatory research design was chosen based on the main research objective which is the assessment of service quality and customer satisfaction of the service as experienced by the customers of the Unit at the four walk-in centres. Through this explanatory research design, it was relatively easy to identify significant factors contributing to service quality and customer satisfaction at the four walk-in centres of the Unit. Those factors that carry more weight are adopted as the main factors leading to customer satisfaction.

### 3.6 Targeted Population of the Study

The population for this survey consisted of 381 customers that visited the four walkin centres of the Unit.

### 3.6.1 Research Sample Size

The sample size refers to the targeted number of components in a sample (Rensburg, 2010). The sample size is important in deciding the accuracy and reliability of the research findings.

No sampling was done in this study since every customer that could be approached was requested to participate in the study by completing the questionnaire. A minimum number of two hundred and eleven (211) respondents were given a self-administered questionnaire to complete. The sample size was made up of the following data from the four walk-in centres in eThekwini municipality shown in the table below:

Table 3.1 Breakdown of population and number of respondents

Walk-in Centre	Respondents	Population	%
Verulam Walk-in Centre	40	93	43%
Pinetown Walk-in Centre	53	111	48%
Prior Road Walk-in (Centre Head Office)	107	154	69%
Mega City Walk-in Centre	11	23	48%
Total	211	381	55%

### 3.6.2 Sampling Technique

Sampling is the science of selecting a limited item out of population for research purposes with intention that the findings from the few items or elements will represent the characteristics, perceptions, opinions or otherwise of the whole unsampled population (Saunders, Lewis & Thornhill, 2009). Sekaran (2015:49) he also defined sampling as a process of selecting from the number of people or objects to be studied from the larger population to which they belong. A sample from the population was extracted from the sampling frame. The sampling frame simply involved all customers obtaining services at the four walk-in centres as shown in

Table 3.1, meaning the survey focused on all the customers of the Unit who visited the Walk-in centre on the day the data was collected at that specific walk-in centre.

### 3.7 Description of Data Collection Strategy

A survey questionnaire is a data collection tool that is prepared in advance with a set of both open ended and closed ended questions. A questionnaire was used in this study to determine which factors have an influence on customer service quality and customer satisfaction at the Unit. The questionnaire used questions derived from the guidelines of SERVQAL quality dimensions' tool that was developed by Parasuram et al. (1993) and from other measure of service quality mentioned in the literature review. The questions in the questionnaire were designed to prompt participants' responses regarding their perceptions of service quality. The structured questionnaire contained questions with guided responses on a Likert scale of 1 to 5 whose dimensions are discussed in sections below. The questions in the questionnaire were based on the five dimensions of service quality as discussed in the literature review being:

- Tangibles
- Reliability
- Responsiveness
- Assurance
- Empathy

Table 3.2 Construct of questionnaire

Section of Questionnaire	Content	Link to Objectives
А	Demographics	1, 2, 3 & 4
В	Service Quality Dimensions	1, 2, 4
С	Service quality perceptions	1, 2, 4
D	Communication	3
E	Customers' Expectations	4

### 3.8 Data Analysis

The results in the survey were analysed through the use of SPSS version 23.0 statistical analysis software running on Linux Ubuntu machine. In order to initiate the survey, the Likert scales used in the research instrument were analysed in order to determine the internal consistency and reliability of the scales through computations of respective Cronbach's alpha coefficient. Items in the instruments were individually dropped from the scale if by removing them the Cronbach's alpha coefficient would be increased and the reliability will be improved of the overall scale. Chapter 4 details the procedure and the results obtained. From the resulting items that were remaining in the scale the averages were calculated from Likert scale with points in the scale ranging from one to five for each of the concept items being measured. Through combining with the demographic variables collected in the survey from participants, the results were analysed using appropriate descriptive and inferential statistics, mostly nonparametric statistics including one-analysis of variance (ANOVA), Mann-Whitney U tests, median tests, Shapiro-Wilk and Kolmogorov-Smirnov normality tests and Pearson *r* correlations as emphasised in the next chapter.

### 3.9 Limitations of the Study

The application of the quantitative research method included a structured research tool with closed ended questions and guided responses. The closed ended

questions limited the participants' wishes to give more information and to support their responses, this failed to provide a platform for the participants to provide information and explanations that could enhance findings of the study. The findings from this study are, therefore, as correct as far as the questionnaire guided responses. The other limitation is that the data was only collected in four out of eight walk-in centres of the Unit. In addition, a limited data has been collected due to time limitation and resources.

### 3.10 Delimitation of the Study

The study did not cover the walk-in-clients or representative that were below 18 years of age. Some customers could not participate in the study because they were in a hurry.

### 3.11 Validity, Reliability and Elimination of Bias

Welman, Kruger, and Mitchell (2005) defines validity as the extent to which the findings of the study are accurately representing what had taken place in the study. In the study the researcher used a questionnaire which is based on a well-established model (SERVQUAL) used for assessing service quality and customer satisfaction.

Data was analysed using SPSS system to mitigate for the risk of the researcher misinterpreting or manipulating the results. The questionnaire was translated in IsiZulu as the population that was being studied was mostly Zulu speaking customers. The assistants that were assisting the researcher to administer the questionnaire were properly trained in order for them to have a thorough understanding of both versions (IsiZulu and English) of the questionnaire.

Elimination of bias is one of the most important considerations that a researcher must take into account when conducting a research. For the purposes of reducing biasness, the questionnaire avoided questions that required respondents to identify themselves by race or ethnic group because this was deemed discriminatory questions and not relevant.

### 3.12. Pre-testing and Pilot Study

Ten respondents were selected using purposive and convenience sampling method and they took part in the pretesting stage of the study. The idea of the pre-testing was to pre-test the questionnaire to identify potential problematic areas that may be sensitive, biased, ambiguous, ensure relevance of the questionnaire and find out if there were any other grey areas that the questionnaire may need to address before the pilot questionnaire is distributed to pilot respondents. The pre-testing helped the researcher to identify some patterns of non-verbal behaviours that might signal some discomforts from the way the questions in the questionnaire have been structured so as for timely corrective action to be undertaken before conducting the actual study. One flaw that was clearly observed was the discomfort and reluctance of the participants in responding to the question that required them to identify their race. This was found to be insensitive and such question was removed. A question that was asking the participants whether they have ever connected water illegally was also removed because it made participants very uncomfortable to complete the questionnaire and they thought that the researcher was trying to follow up illegal connections. Another correction pertained to the removal of questions that were asking the same thing.

The pilot study was also conducted on eleven participants. The purpose of the pilot study was to ascertain the willingness of the customers to participate in the study and to establish whether the length of the questionnaire was acceptable to the customers. The researcher established that most of the willing participants needed someone to help with the completion of the questionnaire. The researcher had planned one research assistance and had to add a second one to assist those participants that needed help to complete the questionnaire. In line with Welman, et al (2009)'s recommendations the respondents who participated in the pre-testing and the pilot study responses to the questionnaires were not included in the actual study.

### 3.13 Ethical Issues and consideration

The gatekeeper's letter obtained from the management of eThekwini Municipality: Water and Sanitation is shown in Appendix 1 and the Ethical clearance approval for this research was approved by the University of KwaZulu-Natal is shown in Appendix 2. The ethical considerations that were taken into consideration by the researcher include the following:

- Confidentiality and Anonymity Furthermore, confidentiality of respondent's information was safeguarded by making sure that the completed questionnaires were securely locked and keys kept solely by the researcher. The researcher ensured the anonymity of respondents by making sure that the questionnaires do not require the personal details of respondents such as contact numbers, physical addresses or names. Thus, the researcher ensured that any information that would lead to the identification of a respondent was not required.
- Informed consent Prior to conducting the actual interviews respondents
  were informed of the research objectives. The respondents were told of their
  right to withdraw from the interviewing processes as when they felt
  necessary.
- No harm to Participants The survey questionnaires were distributed to respondents inside the safe environment of the walk-in centres where there was tight security provided by the municipality of eThekwini.
- Management of Information Management of information is the collection and the management of information from one source or more sources, it includes both electronics and physical information. Management of information entails organizing, retrieving, acquiring, securing and maintaining information. For more sensitive information to be gathered the researcher and all concerned must treat the information extremely confidential during the research process.

### 3.14 Summary

This part being chapter 3 discussed the research methods, the rationale for choosing a descriptive analytical research design, the chosen research philosophy and research strategy appropriate for a quantitative research approach. Furthermore, data analysis methods were discussed. Items such as the research instrument, reliability, and validity of research data, pre-testing, pilot study and ethical considerations were also examined. The next chapter presents and discuss the findings of the data obtained from the study.

### CHAPTER FOUR

### **Presentation and Analysis of Results**

### 4.1 Introduction

Data collection for the research was completed on 1<sup>st</sup> of October 2016. A minimum of 211 questionnaires were completed by respondents. Respondents completed the questionnaire as instructed with the assistance from the researcher and her assistants. There were seven spoilt questionnaires that had to be discarded. Some of the subjects could not complete the questionnaire due to time constraints. Response rate is unknown since the questionnaire was manually administered. The responses are arranged in the following manner:

Table 4.1 The Likert scale used in the study is a 5-point scale

Rating Option	Score
Strongly disagree/very dissatisfied/never	1
Disagree/dissatisfied/ rarely	2
Neutral/never/sometime	3
Agree/satisfied/most of the time	4
Strongly/very satisfied/always	5

Ideally, management would want the customers to rate the service quality and customer satisfaction at a score of 5, however, a score of 4 would also be acceptable of looking at the scores on the face value.

### 4.2 Outcome and Statistics of the Survey Participation

Since the clients would not have been accessible otherwise, the questionnaire was manually administered. The survey period was four days, with one day allocated to each of the four walk-in centres. The information statistics relating to data collection is shown in Table 3.1.

### 4.3 Presentation of Data

The study presents the results of the survey conducted by providing an overview of the results, which can be broken down as follows:

- Reliability analysis;
- Demographic information;
- Inferential statistics

The results presented in this chapter will provide and form the basis to the recommendations on the study.

### 4.4 Reliability Analysis

Sekaran and Bougie (2015) define reliability as "a measure that indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument." Reliability therefore measures stability and consistency of the instrument that was used to collect data.

Cronbach's alpha is one of the reliability coefficient that is used to measure how well the items within a set are positively related to another. If Cronbach alpha is closer to one, it means a higher consistency to reliability (Sekaran and Bougie, 2015).

**Table 4.2 Reliability Statistics** 

Cronbach's Alpha score					
Cronbach's Alpha N of items					
0.934	36				

The reliability scores for the 211 responses exceed the recommended Cronbach's alpha value of 0.600. As shown in as shown in the table the Cronbach's alpha for the responses is 0.934 which is very close to 1 therefore there is high degree of consistent scoring on these responses.

### 4.5 Socio-demographic Analysis

This section summarises the socio-demographic characteristics of the respondents. The biographic characteristics of the respondents are contained in first part of the questionnaire survey (section A) which consists of ten (10) questions.

# 806020Account holder On behalf of someone

### Account holder or representative

Figure 4.1 Account holder or representative

Majority of the respondents were account holders (76%) whilst the remaining of 24% represented or came on behalf of the account holders.

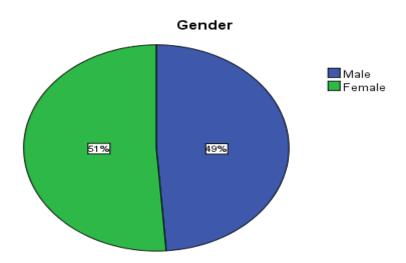


Figure 4.2 Gender

The male and female respondents made up 51% and 49% of the total respondents in the study respectively as indicated in Figure 4.2 above.

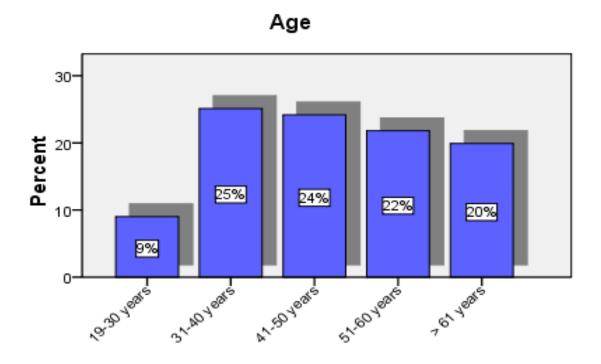


Figure 4.3 Age of the participants

Figure 4.3 above represents age categories of the respondents. Most the participants were aged from 31-60 years (71%), while age 19-30 years was 9% and over 61 years was 20%.

# 60-20-20-Zulu English Xhosa Afrikaans

Preferred language

Figure 4.4 Preferred language

Majority of the participants (69%) preferred to be serviced in isiZulu, followed by English with 26%. Xhosa and Afrikaans had low percentages of 2% and 3% respectively as indicated in Figure 4.4.

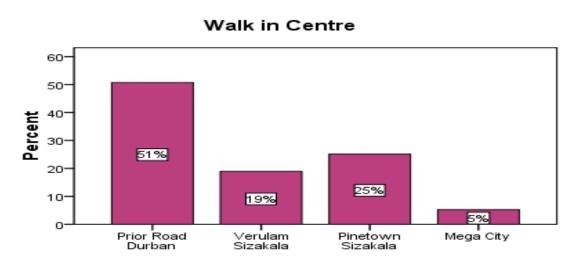


Figure 4.5 Walk-in centre where the participants completed the questionnaire

Respondents were mainly (51%) from the Prior Road Durban **Walk-in Centre**, followed by Pinetown (25%), then Verulam (19%) and the least participants came from Mega City (5%). This order proportional to the total number of the customers who visited each walk-in centre in the day of data collection as reflected in Figure 3.1.

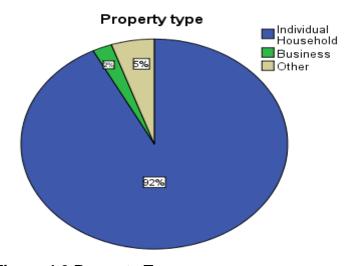


Figure 4.6 Property Type

The respondents raised queries mainly related to individual households (92%), Business and Other were low at 2% and 5% respectively as indicted in Figure 4.6.



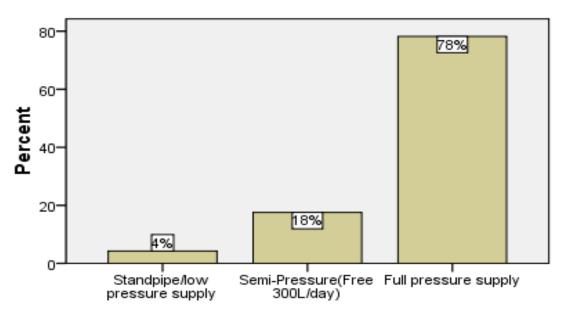


Figure 4.7 Type of Water Supply

Majority of the queries related to full pressure water supply (78%); followed by semi pressure at 18% and low pressure at 4% as indicated in Figure 4.7.

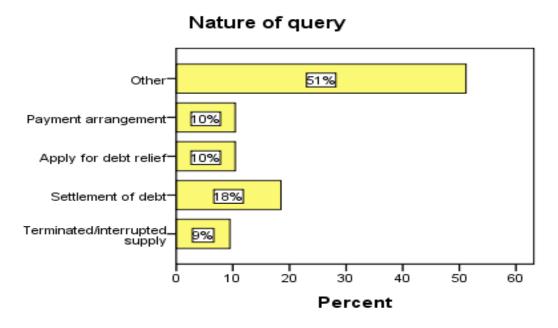
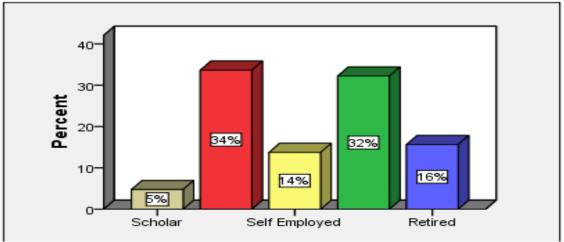


Figure 4.8 Nature of query

Majority of the queries (51%) were categorised under other, which was mainly about balances of accounts, printing of duplicate statements and water leakages, the researcher had grouped all these categories under other. Payments and settlement of debt enquiries were second highest at 18%. Payment arrangements and application of debt relief had 10% each.

## Employment status



**Figure 4.9 Employment Status** 

Figure 4.9 indicates the employment status. Employed participants were higher (34%) than the other categories followed by unemployed at 32% and retired participants at 16%.

### Period as a customer of Water and Sanitation

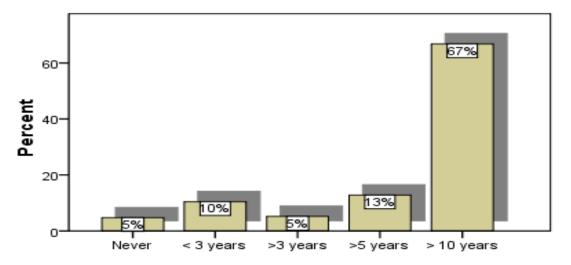


Figure 4.10 Period as a customer of the Unit

The customers that participated in the study have a long relationship with the Unit as 67% of the participants had been customers of the Unit for over 10 years. The second highest was over five years with 13%.

Table 4.3 Summary of descriptive statistics composite scores

Dimension	N	Mean	Standard
			Deviation
Tangibility	211	3.97	1.201
Reliability	211	4.25	1.089
Responsiveness	211	4.09	1.124
Assurance	211	4.25	1.085
Empathy	211	4.22	1.056
Service quality - dependent variable	211	3.91	1.156
Customers satisfaction – dependent variable	211	3.86	1.123

Table 4.3 tabulates the mean scores and standard deviations of each service quality dimension as independent variables. The table also includes mean scores of services quality and customer satisfaction as dependent scores.

### 4.6 Correlation analysis – Spearman's Coefficient

Spearman rank correlation between service quality and customer satisfaction was evaluated. The correlation coefficient between these two variables was calculated at 0.269, which indicates a strong relationship as it ranges between -1 and +1. The correlation is indicated in Table 4.4.

Table 4.4 Spearman's correlation coefficient

	Correlations				
Spearman's rho		Correlation Coefficient	1.000	0.269**	
	Service quality	Sig. (2-tailed)		0.000	
		N	211	211	
	Satisfaction	Correlation Coefficient	0.269**	1.000	
		Sig. (2-tailed)	0.000		
		N	211	211	

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

### 4.7 Service quality descriptive statistics and nonparametric test

This section captures the service quality descriptive analysis calculations that were performed. In this section, the study is going to look at the mean ranks and the chi-square. The Mann-Whitney Test mean ranks and Chi-Square were computed and used to calculate the p- asymptotic significance values. When p value < 0.05 it implies that there is a significant relationship between variables. The Mann-Whitney test is used to compare differences between two independent groups when the dependent variable is not normally distributed.

Table 4.5 Service quality against gender

				Asymp.sg
	Gender	N	Mean Rank	
Service	Male	103	106.49	
quality	Female	108	105.54	0.910
	Total	211		

The p-value is 0.910 implies that there is no significant relationship between service quality and gender as it is higher than 0.05. The average quality scores of males (106.49) were slightly higher than the females (105.54) as indicated in the table above.

Table 4.6 Service quality against age

	Age	N	Mean Rank	Chi- Square	Degrees of Freedom (df)	Asymp.sg
Service	19-30 years	19	106.00			
quality	31-40 years	53	99.61			
	41-50 years	51	98.99	4.400		2 224
	51-60 years	46	106.48	4.163	4	0.384
	> 61 years	42	122.05			
	Total	211				

The p-value of 0.384 implies that there is no significant relationship between service quality and age as it is higher than 0.05. The table above indicates that the highest mean rank is for the age category > 65 years and the lowest is category 51-60 years.

Table 4.7 Service quality per walk-in centre

Variable	Walk in Centre	N	Mean Rank	Chi- Square	Degrees of Freedom (df)	Asymp.sg
Service quality	Prior Road Durban	107	84.39	33.924		0.000
	Verulam Sizakala	40	108.66		3	
	Pinetown Sizakala	53	140.32			
	Mega City	11	141.14			
	Total	211				

The p-value between service quality and walk-in centre is 0.000 which implies a significant relationship between these variables as it is lower than 0.05. Table 4.7 also indicates that Mega City has the highest Mean Rank 141.14 followed by Pinetown (140.32, Prior Road has the lowest mean rank of 87.39.

Table 4.8 Service quality against employment status

Variable	Employment status	N		Chi- Square	I <b>—</b> .	Asymp.s g
	Scholar	10	91.45	2.782	4	0.595
	Employed	71	100.70			
Service	Self Employed	29	111.09			
quality	Unemployed	68	114.15			
	Retired	33	100.56			
	Total	211				

The p-value of service quality and employment status is 0.595 and it implies that there is no significant relationship between these two variables as it is greater than 0.05. As per the table above the category Unemployed (114.15) has the highest mean rank and the lowest is the scholars with 91.45.

Table 4.9 Customer satisfaction against gender

Variable	Gender	N	Mean Rank	Asymp.sg
	Male	103	111.79	
Satisfacti	Female	108	99.44	0.129
	Total	211		

There is no significant relationship between customer satisfaction and gender since the p value of these variables of 0.129 is greater than 0.05. The male gender has the highest mean rank of 111.79, as it is the case in the relationship between service quality and gender.

Table 4.10 Customer satisfaction against employment status

Variable	Employment status	N	Mean Rank	Chi- Square	Degrees of Freedom (df)	Asymp.s g
	Scholar	10	94.70	3.369	4	
	Employed	71	98.20			0.498
Ostisfastian	Self Employed	29	120.19			
Satisfaction	Unemployed	68	108.16			
	Retired	33	106.18			
	Total	211				

The p-value between Customer satisfaction and employment status is 0.0498 which implies that there is no significant relationship between them as p-value is higher than 0.05. Self-Employed category has the highest mean and the lowest Mean Rank is found the category of scholars.

Table 4.11 Customer satisfaction against age

Variable	Age	N	Mean Rank	Chi- Square	Degrees of Freedom (df)	Asy mp.s g	
	19-30	19	96.87				
	years						
	31-40	53	112.8	2.422	4	0.659	
	years		0				
	41-50	51	106.7				
Satisfaction	years		9				
	51-60	46	96.52	6.52			
	years						
	> 61 years	42	42	108.5			
	> 61 years		2				
	Total	211					

The table above indicates that the p-value is 0.659 higher than 0.05 therefore no significant relationship between customer satisfaction and age. The highest mean rank is the 31-40 years' category (112.8) followed by > 61 (108.52). The lowest mean rank is found in the 19-30 years' age category with 96.87.

**Table 4.12 Customer satisfaction per Walk in Centre** 

	Walk in Centre	N	Mean Rank
	Prior Road Durban	107	82.58
	Verulam Sizakala	40	125.00
Satisfaction	Pinetown Sizakala	53	136.35
	Mega City	11	110.68
	Total	211	

Table 4.12 show that the Pinetown Sizakala Walk-in Centre had the highest mean (136.35) score of customers' satisfaction, followed by Verulam. The lowest score was found in the Prior Road (Head Office) Walk-in Centre being (82.82).

Table 4.13 Service quality dimensions mean ranks per Walk-in Centre

	Walk-in Centre	N	Mean Rank
Tangibility	Prior Road Durban	107	91.20
	Verulam Sizakala	40	102.90
	Pinetown Sizakala	53	127.29
	Mega City	11	148.82
	Total	211	
Reliability	Prior Road Durban	107	91.24
	Verulam Sizakala	40	96.91
	Pinetown Sizakala	53	137.41
	Mega City	11	120.91
	Total	211	
Responsiveness	Prior Road Durban	107	81.49
	Verulam Sizakala	40	112.72
	Pinetown Sizakala	53	141.73
	Mega City	11	138.91
	Total	211	
Assurance	Prior Road Durban	107	86.98
	Verulam Sizakala	40	100.85
	Pinetown Sizakala	53	138.91
	Mega City	11	141.18
	Total	211	
Empathy	Prior Road Durban	107	86.28
	Verulam Sizakala	40	112.05
	Pinetown Sizakala	53	133.21
	Mega City	11	135.77
	Total	211	

It is noted from the table above that Mega City has the highest mean ranking in the Tangibility; Assurance; and Empathy service quality dimensions.

Pinetown has the highest mean ranking in the following service dimensions:

- Reliability; and
- Responsiveness.

Prior Road has the lowest mean ranking in all five service quality dimensions. Verulam's mean ranking is taking the third position in four out of five service quality, it took position 2 with one dimension being tangibility.

### 4.8 Descriptive Measures of the SERVQUAL Statements

The table below tabulates a breakdown of the descriptive measures of each statement within the five dimensions of service quality that were tested by the questionnaire.

Table 4.14 Descriptive statistics of service quality dimensions

Service Quality Dimension	Items	N	Mean
	Modern furniture and equipment availability		4.11
Tangibility	Visually appealing and easy instructional directions		4.37
3 ,	Staff appearance and professionalism		4.02
	Visibility of contact manager details	211	3.37
	Respect and friendliness to the customers	211	4.32
	Service being right the first time	211	4.22
Reliability	Sincere interest in solving problems	211	4.22
	Customer advised of the necessary requirements	211	4.22
	Staff prompt services	211	4.14
Dooponoivonoso	Immediate staff action to customer complain	211	4.01
Responsiveness	Staff willingness to always help customers	211	4.11
	Staff willingness to always listen to customer	211	4.10
	Staff knowledgeable to answer questions	211	4.17
Assurance	Greeting of customers with a warm smile	211	4.26
Assurance	Staff instilling confidence in the customers	211	4.30
	Staff consistently courteous to the customers	211	4.25
	Staff giving customers personal attention	211	4.28
	Staff listening carefully to the needs of customers	211	4.22
Empathy	Convenient operating hours to customers	211	4.24
panij	Staff has customers' best interest at heart.	211	4.13
	Continuing to visit the unit in the future	211	4.21
	Recommendation of the unit to other people	211	4.21

The analysis in table 4.14 shows that the lowest mean is 3.37 being visibility of branch manager contact details. The highest mean is 4.30 relating to the question asking whether the staff instils confidence in customers (assurance dimension). It is noted that other than the 3.37 mean all the other mean are over 4 out of 5 ranging from 4.01 to 4.30.

### 4.9 Summary

This chapter presented the results and analysed the data collected from the respondents. The key findings in relation to the objectives were also discussed. The results of the study indicate consistency and reliability in the instrument that was used to collect data, hence, it has a high and very close to 1 Cronbach's Alpha of .934. The socio demographics also show the participants were spread across different age group categories, males and females gender, different language speaking population and employment status. The statistical significance and relationships between variables was tested. The results presented and analysed in this chapter will form the basis of the discussion, conclusion and recommendations in the next chapter.

### CHAPTER FIVE

### **Discussions, Conclusions and Recommendations**

### 5.1 Introduction

The key findings in relation to the objectives will be discussed in this chapter, thereafter conclusions will be drawn and recommendations presented. The findings as outlined in the previous chapter are based on the questionnaire survey administered to respondents of the four walk-in centres. As shown in Appendix 1 the questionnaire includes questions aiming to answer the research questions objectives, and finally achieving the aim of the study. The findings cover most of the factors identified in the literature review in chapter 2 that have a bearing whether the Unit's customers get the services they expect at the four walk-in centres of eThekwini Municipality: Water and Sanitation Unit.

### 5.2 Research Objectives Overview

The research objectives are:

- To assess service quality that is provided by the Unit;
- To assess customers' satisfaction of Unit's service quality performance;
- To assess the performance of service quality dimensions/determinants in the Unit; and
- To recommend improvement initiatives for service quality and customer satisfaction to the Unit.

The outcome of the findings will be discussed and recommendations made. The report with recommendations will be sent to the management of eThekwini Municipality: Water and Sanitation Unit. It is expected that management of the Unit will consider the recommendations for implementation or sanction further research work to be done on the areas of improvements highlighted in the report.

### 5.3 Discussion and Findings and Conclusions

This research had several independent variables grouped under the following categories: tangibles, reliability, responsiveness, assurance and empathy. The

dependent variables were service quality and customer satisfaction. The respondents were approached to participate in the study as they walk into the walk-in centre, there was no prior knowledge or data base list of who was going to go to the walk-in centre. The respondents therefore represented the true population of eThekwini Municipality: Water and Sanitation customers, therefore, the results could be extrapolated as true reflection of the population of the Unit's customers.

### 5.3.1 Nature of the Queries

The questionnaire asked the respondents to state the nature of query they came to address. The breakdown of the responses is tabulated below:

Table 5.1 Breakdown of responses per nature of queries

Description	Number of responses	%
Terminated or interrupted service	20	9.48%
Payment and/or Settlement of debt	39	18.48%
Apply for debt relief	22	10.42%
Payment arrangement	22	10.42%
Other	108	51.20%
Total	211	100%

The above table reflect that most of the queries (51.20%) were grouped under other. The other category was used for the statement of accounts and almost all the other services were related to this. It is noted that the questionnaire should have categorised statement of accounts as a standalone category.

This study is going to refer to "" other service" as statement statements of accounts. This category further broken down per walk-in centre and the details are tabulated in the table below:

Table 5.2 Breakdown of "other services" (Statement of accounts)

Walk-in centre	Other services (statement of accounts) Responses	No. of respondents per walk-in centre	%
Prior Road	49	107	45.80%
Verulam	21	40	52.52%
Pinetown	30	53	56.6%
Mega-City	8	11	72.72%
Total	108	211	

The figures above clearly indicated that most of the nature of queries that were attend by each walk-in centre on the day of the data collection were mainly (more than 50%) in three of the four walk-in centres relating to statement of accounts.

In literature review we talk about the aim of the South African (Service Charter, 2013) which is to improve performance in the organs of the civil society. One of the objectives of the service charter is to ensure an effective and efficient service that is also responsive to the needs of the public. From the discussion above it is evident that the Unit needs to find effective and efficient ways of sending statements of accounts to its customers.

### 5.3.2 Service Quality per Walk-in Centre

In Table 4.7, Prior Road has the lowest service quality mean rank of 84.39, the highest mean rank (141.14) is in Mega-City closely followed by Pinetown with 140.32. Since there is a significant relationship with a p value of 0.000 (p <0.05), it is evident that the average quality rating is lower at Prior Road compared to the other walk-in centres that participated in the study.

According to Berman and Klefsjo (2012) they emphasized that in the modern-day world high performance and service quality must do with issues of timeliness, availability, cost and relevance. Valenstein (2013) also shares similar sentiments

that time is the most attributes that satisfies a municipality walk-in centre client. Although the research was not focusing on measuring the turnaround time, some of the respondents complained that the turnaround time at the Prior Road Walk-in Centre was very long and frustrating to the customers. The researcher and her assistants can report that there were at least two episodes of angry customers that were shouting at the staff because they had been waiting to be served for a long period of time. In that regard, the researcher and her assistants never witness any similar incidents at any of the other three walk-in centres. The research findings and observation is in line with Klefsjo (2012) theory that unsatisfactory delays in turnaround times often cause complaints from the clients.

### 5.3.3 Customers Satisfaction per Walk-in Centre

Prior Road customer satisfaction mean rank of 82.58 (Table 4.12) being lower than the other walk-in centres that participated in the study. It is noted that the highest mean rank is found in Pinetown Walk-in Centre being 136.35 (Table 4.12). The p value of these two variables is 0.000 which means a significant relationship as p is <0.05. The lower mean rank in Prior Road means that customer satisfaction is lower at this walk-in centre compared to the centres that participated in the study.

Furthermore, the study results show significant relationship between service quality and customer satisfaction with a p value of 0.000 as it is less than 0.05. This therefore means that service quality issues affect customer satisfaction. This proven with the mean rank of Prior Road service quality and customer satisfaction which are both much lower compared to the other three walk-in centres as stated in tables 4.7 and 4.10 respectively.

The Prior Road Walk-in Centre is the Head Office and only specialises in water and sanitation matters, while the other three walk-in centres are part of Sizakala Centres which are dealing with other municipal services. The fact that Prior Road is the Head Office it creates high expectation that they are equipped to resolve all water and sanitation queries efficiently and effectively. Similarly, to Yu and Goulden (2013) assertion that high expectations by customers of a walk-in centre will likely be dissatisfied if the reality of their expectations fell short.

### 5.3.4 Tangibles

Tangibles as a dimension of service quality came out with the lowest results with a mean of 3.97 (Table 4.3), this means that on average the customers are not fully satisfied with tangibles. According to Wan Yusoff, Ismail and Newell (2013) tangibles often include aspects, which constitutes the physical evidence, which comprised organisations facilities such as buildings, equipment, information processing hardware and software, the reception area and the transaction space of the walk-in centre. Panda (2014) refers to tangibles as those aspects of service that can be felt by a customer without buying the service.

The tangibles that were measured in the study are; furniture and equipment, queue management system, staff appearance and visibility of the contact walk-in centre manager's contact details. The question with the lowest mean is the visibility of the manager's contact details. The study followed a quantitative approach and the respondents were not required to justify their responses, however, some of them insisted on explaining to the researcher why they gave a particular score. In the case of the Pinetown and Verulam Walk-in Centres, the few that wanted to explain their scores advised that they did not see the contact details, however, they were not too concerned about that as the managers of the centres were available on the floor most of the time. It was noted that in Prior Road they did not comment about the manager. The researcher is not able to comment whether the manager of Prior Road is also walking the floor (like the other walk-in centres) as he was on half-day leave on the day of the data collection. The other questions under tangibles had good mean scores between 4.02 to 4.37, indicating that the customers were satisfied to very satisfied with those aspects of tangibility.

The findings in this study of the tangibility getting the lowest mean score are similar to the findings of the study conducted by Mhlongo, et al. (2016). Their study was looking at "Consumer Perceptions on Service Quality at eThekwini Municipality within Customer Service Centre", they also found that tangibility had the lowest gap score and that their participants were also indicating that the facilities were not visually appealing. The tangibility findings in this study were also similar to the studies that were conducted by Mokhlis et al. (2013) and SÁ & Sintra (2012)

independently, both studies concluded that tangibility was the area of concern that the management of those organisations needed to pay more attention on.

### 5.3.5 Reliability

According to Panda (2014) reliability of a service refers to the ability of a service provider to perform the promised service dependably and accurately. Reliability looks at aspects such as respect and friendliness, service being right first time, sincere interest in solving the problems and customers advised of all the necessary requirements and documentation required for service.

Reliability as a dimension of service quality had the highest average mean score of 4.25 (Table 4.3). The results of the study show that mean scores for all the statements under reliability were above 4, with the highest being respect and friendliness the customers (4.32) and the other three statements all had a mean score of 4.22 each.

The results of the study carried out by the researcher are similar to the findings of Mhlongo, et al. (2016), in their study reliability dimension had the second average gap score. It is noted that a few researchers like Omar, Bin- Saddan & Kamaruzziman (2014), Mokhils et al. (2013) have through research concluded that there a strong relationship between customer satisfaction and reliability dimension. The findings of this research support their view, in the current study the findings were that customer satisfaction per walk-in centre and tangible scores supported the view of the strong relationship between the two aspects. The highest reliability mean score was found in Pinetown being 137.41 (Table 4.13) and the highest customer satisfaction was also in Pinetown being 136.35 (Table 4.12). The lowest scores were in Prior Road, Reliability score of 91.24 (Table 4.13) and customer satisfaction score of 82.52 (Table 4.12).

### 5.3.6 Responsiveness

Responsiveness had the second lowest mean of 4.09, which on its own is a good score as the maximum possible mean score is 5. The mean scores for the other three statements were all above 4, ranging from 4.01 to 4.14. The statements under responsiveness covered aspects like: prompt service, immediate actioning of

customer complaints, willingness to always help and to listen to customers. The results of the study do not support the findings of similar studies carried out by Mhlongo, et al. (2016), whereby they found that responsiveness was rated the highest with a gap score of -.73. The discrepancy could be because Mhlongo's study was looking at all the services of the Sizaka Centre while the current study only focused at Water and Services division within the Sizakala centre, it was also noted that the water services queries in the Sizakala Centres were much lesser than those received by the Prior Road Walk-in Centre (Table 5.2).

### 5.3.7 Assurance

Assurance had the same mean score of 4.25 (Table 4.3) as reliability. Assurance dimension had four statements and each of the four statements had a mean of not less than 4, ranging from 4.17 to 4.30 (Table 4.3). The statements under this dimension were looking at knowledge, friendliness, confidence and courtesy of the staff servicing the customers. From the findings, Prior Road had the lowest score of 86.98 (Table 4.13) being a big gap from the top score of 141.1 (Table 4.13) found in Megacity. Prior Road is the office that attended to the highest number on the day the data was collected. This office also had one supervisor walking the floor and supporting the staff whenever they needed support. This could have an impact on the way they handle customers, if a customer is waiting because the supervisor is assisting another staff member, that could be viewed negatively by the customer hence they rated Prior Road lower.

### 5.3.8 Empathy

Empathy had a mean score of 4.22 being the middle score. Empathy covered the following statements: giving customers' personal attention, convenient operating hours, listening carefully to the needs of the customers and staff having customers' best interest at heart. Empathy as a dimension of service quality had four statements. Each of the statement had a mean score of not less than 4 ranging from 4.13 to 4.28. The statement that scored the highest in this service dimension was the one asking whether the staff was giving the customers personal attention at all times.

According to Howanitz and Howanitz (2013) Municipality walk-in Centres have a challenge that they often serve a wide variety of people with different dynamics. Prior Road Walk-in Centre is also experiencing the challenges as outlined by Howanitz and Howanitz (2013), its empathy average mean score of 86.98 was the lowest amongst the other three walk-in centres (Table 4.13).

### 5.4 Correlations

The following service quality dimensions have the highest association with the perceived service quality. Table 5.3 shows the service quality dimensions that have a significant impact on service quality ratings.

Table 5.3 Service quality dimensions with impact on service quality ratings

No	Spearman Co-efficient	Independent variable statement
22	0.5675	The Unit staff is always willing to listen to customers
29	0.5572	The Unit operating hours are convenient to its customers
19	0.5482	The Unit staff always provide prompt services

It is recommended that the Unit management should pay special attention to the above statements as they have a significant impact on service quality as perceived by the customers. Improving them will improve overall service quality as perceived by the customers and should the Unit slack on them a negative impact would result.

Spearman's correlation co-efficient proved a significant relationship between almost all 22 independent variables used in the study and service quality as a dependent variable. In the discussion, the researcher has selected the top three with highest correlation as shown in the table 5.4 below which shows that service quality dimension has significant impact on customer satisfaction ratings.

Table 5.4 Service quality dimensions that impact on customer satisfaction ratings

No	Spearman Co-efficient	Independent variable statement
21	0.5641	The Unit staff is always willing to help customers
19	0.5565	The Unit staff always provide prompt services
22	0.5564	The unit staff is always willing to listen to customers

- The highest correlation is the staff always willing to help customers, with a Spearman's coefficient of 0.5641, which is the highest correlation under service quality;
- The second highest is prompt service with a Spearman correlation ship of 0.5565
- The 3<sup>rd</sup> highest is listening to customer's problems with a Spearman correlation co-efficient of 0.5564.

### 5.5 Resolution of the Research Problem

The researcher established that:

- Overall service quality that is provided by the Unit is good;
- Overall, customers are satisfied with the service they receive from the Unit;
   and
- Overall performance on service quality dimension is good.

### 5.6 Key outcomes of the study

The main key outcome is that the reasons behind the long queues at the walk-in centres were mainly attributable to the printing of duplicate statements, which constituted 51% of the queries from the respondents who participated in the survey. The split between the customers who requested duplicate statements and those who did not receive any statements was not established;

Service quality and customer satisfaction were rated the lowest at Prior Road Walk-in Centre which is the Head Office and the branch that attends to more customers (50%) of the total respondents. The Prior Road Walk-in Centre is the central and perhaps the one that is easily accessible to most customers hence it attends to more customers than the other walk-in centres.

The second highest queries related to payments of debt that was 18% of the respondents. The study could not establish whether these respondents were aware of the alternative payments methods that are offered by the Unit.

### 5.7 Implications of the findings

- The Unit Management should pay more attention to the Durban Prior Road Walk-in Centre to investigate the actual reasons why service quality and customer satisfaction was rated low at this walk-in centre:
- Durban Prior road management should look at the staffing numbers and the number of supervisors walking the floor to support consultants and more staff to manage the queues;
- Management should look at more and efficient ways to send statements of accounts to its customers; and
- Management should adopt a more aggressive awareness campaign to inform its customers of the existing efficient and better ways of getting statement of accounts and payments without having to visit the walk-in centre in person.

### 5.8 Recommendation for future studies

It is recommended that a further study should be done to investigate the reasons for the delay in sending statements of account to the customers. It was noted that some clients were frustrated that they had to spend money and take time to visit a walk-in centre just to request a statement of account. Another area where a further study is recommended is on the service delivery side, being the delay in processing applications to attend to water and sanitation complaints like terminated service, water burst pipes.

### 5.9 Summary

The study has highlighted the service quality and customer satisfaction as rated by eThekwini Municipality: Water and Sanitation Customers. The issues that came up from the score ratings by respondents and during the data collection period have been highlighted and discussed. The study has detailed long queues contributing factors and made recommendations in improving effectiveness and efficiency.

The walk-in centre that received lowest score has been discussed and recommendations made to management. The study has also stated the service quality dimensions that management need to ensure that they carry on excelling on to maintain good service quality and customer satisfaction. These dimensions have a significant impact on service quality and customer satisfaction. It is believed that service quality and customer satisfaction that meets the perceptions of the Unit customers will result in the Units' customers supporting the Unit in its initiatives of water saving programs and this will improve service delivery. Gaining customers support will also help the unit to deliver on its mandate of providing safe and clean water to the citizens of eThekwini Municipality.

#### REFERENCES

Agbor, J., 2011. The Relationship between Customer Satisfaction and Service Quality: a study of three Service sectors in Umeå School of business.

Aljasser, I. & Sasidhar, B., 2016. Bank Customers' perception of Service Quality and Customer Satisfaction in Saudi Arabia.. *European Journal of Business and Social Sciences*, 4(11), pp. 130-141.

Andersson, R., Eriksson, H. & Torstensson, H., 2006. Similarities and differences between TQM, six sigma and lean. *The TQM magazine*, 18(3), pp. 282-296.

Bergman, B. & Klefsjo, B., 2012. *Quality: from customer needs to customer satisfaction.* Maidenhead, England: McGraw-Hill.

Bharwana, T. K., Bashir, M. & Mohsin, M., 2013. Impact of service quality on customers' satisfaction: a study from service sector especially private colleges of faisalabad, Punjab, Pakistan. *International Journal of Scientific and Research Publications*, 3(5), pp. 1-7.

Blanchard, P. H. & Johnson, K. D., 2010. *Management of organizational behaviour: Leading human resources*. New Jersey: Prentice-Hall.

COGTA, 1988. The White Paper on Local Government. [Online]
Available at: <a href="http://nutwo.cogta.gov.za/cgta\_2016/wp-content/.../whitepaper\_on\_Local-Gov\_1998.pdf">http://nutwo.cogta.gov.za/cgta\_2016/wp-content/.../whitepaper\_on\_Local-Gov\_1998.pdf</a>. [Accessed 17 November 2016].

Creswell, J. W., 2013. Research design: Qualitative, quantitative, and mixed methods approaches. 4th ed. California: Sage publications.

Dabbish, L. & Kraut, R., 2012. Controlling Interruptions: Awareness Displays and Social Motivation for Coordination.. *Human-Computer Interaction Institute*, 6(3), pp. 183-193.

Dean, J. W. & Bowen, D. E., 2012. Management theory and total quality: improving research and practice through theory development. *Academy of management review,* 19(3), pp. 392-418.

Deng, Z., Lu, Y., Wei, k. K. & Zhang, J., 2010. Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, 30(4), pp. 289-300.

Department of Water Affairs and Forestry, 2005. *Water and Sanitation Business:* The Roles and Responsibilities of Local Government Related Institutions, Pretoria: Government Publication.

Department of Water Affairs, 2010. *Guidelines for addressing Municipal Unauthorised Consumption*, Pretoria: Government Publication.

Dominici, G. & Guzzo, R., 2013. Customer Satisfaction in the Hotel Industry: A Case Study from Sicily. *International Journal of Marketing Studies*, 2(2).

Ekinci, Y. & Sirakaya, E., 2010. An Examination of the Antecedents and Consequences of Customer Satisfaction, Cambridge, MA: CABI Publishing.

EThekwini Municipality, 2011. *EThekwini Water and Sanitation Customer Service Charter*. [Online] Available at:

http://www.durban.gov.za/City\_Services/water\_sanitation/Customer\_Service\_Charter/Documents/Final%20Customer%20Service%20Charter%20for%20EWS%20English%202016%202017.pdf . [Accessed 3 January 2016].

EThekwini Municipality, 2016. *EThekwini Municipality Customer Care Policy*. [Online] Available at:

http://www.durban.gov.za/City\_Services/...customer\_care/.../1\_customer\_care\_pol\_icy.pdf. [Accessed 20 December 2016].

EThekwini Municipality, 2016. EThekwini Municipality Integrated Development Plan 5 Year Plan: 2012/13 to 2016/17. [Online] Available at: <a href="http://www.durban.gov.za/City">http://www.durban.gov.za/City</a> Government/City Vision/IDP/Documents/Final%20 2016\_17%20IDP%2029052016.pdf. [Accessed 3 November 2016].

Fattal, G. A., Tanasijevic, M. J. & Winkelman, J. W., 2011. Evolution beyond the shared services model of consolidated service provision. *Archives of Pathology & Laboratory Medicine*, Volume 119, pp. 701 - 705.

Fen, Y. S. & Lian, K. M., 2007. Service quality and Customer Satisfaction: Antecedents of Customer Re- Patronage Intentions. *Sunway Academic Journal*, Volume 4, pp. 59 - 80.

Government Gazette, 1998. Republic of South Africa. *National Water Act 36 of 1988*, 398(19182), p. 18.

Government Gazette, 2000. Republic of South Africa. *Local Government Systems Act* 32 of 2002, 425(21776).

Government Gazette, 2003. Republic of South frica. *Local Government:Municipal Finance Management Act 56 of 2003*, 464(26019), p. 22.

Hewitt, A., 2012. Trends in Global Employee Engagement. Aon Hewitt Corp.

Holroyd City, 2010. *Holroyd City Council Policy- Customer Service Policy (Councillors and Staff)*. [Online] Available at: <a href="http://www.holroyd.nsw.gov.au/PDFs/Your%20Council/Policies/Customer%20Relations/Customer%20Service%20Policy.pdf">http://www.holroyd.nsw.gov.au/PDFs/Your%20Council/Policies/Customer%20Relations/Customer%20Service%20Policy.pdf</a>. [Accessed 3 January 2016].

Howanitz, J. H. & Howanitz, P. J., 2013. Laboratory results. Timeliness as a quality attribute and strategy. *American Journal of Clinical Pathology*, 116(3), pp. 311-315.

Howanitz, P. J. & Steindel, S. J., 2014. Changes in emergency department turnaround time performance from 2008-2012. A comparison of two College of American Pathologists Q-probes studies.. *Arch Pathol Lab Med*, Volume 121, pp. 1031–1041.

Jamal, A. & Naser, K., 2012. Service Quality & Customer satisfaction: an Assessment of Some of the Key Antecedents of Customer Satisfaction in Retail Banking. *International Journal of Bank Marketing*, 20(4), pp. 146-160.

Johnson, B. & Christensen, L., 2010. *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. United Kingdom: SAGE.

Jones, G. R. & George, J. M., 2013. *Contemporary Management.* 9th ed. Rice University.

Kothari, C. R., 2014. *Research Methodology: Research and Techniques*. 3rd ed. New Delhi: New Age International.

Kotler, P. & Keller, K. L., 2009. *Marketing Management.* 14th ed. New Jersey: Prantice Hall.

Lankton, N. K. & McKnight, H. D., 2012. Examining Two Expectation Disconfirmation Theory Models: Assimilation and Asymmetry Effects. *Journal of the Association for Information Systems*, 13(2), pp. 88-115.

Lee, J., Graefe, A. R. & Burns, R. C., 2014. Service quality, satisfaction, and behavioral intention among forest visitors. *Journal of Travel & Tourism Marketing*, 17(1), pp. 73-82.

Lentel, L., 2010. Measuring service quality and service satisfaction: an empirical test of an integrative model. *Journal of Economic Psychology*, Volume 18, pp. 387-406.

Manor, P. G., 2010. Turnaround times in the laboratory. *A review of the literature.Clin Lab Sci*, Volume 12, pp. 85-89.

McDonald, D. A. & Pape, J., 2002. Cost recovery and the crisis of Service Delivery in South Africa. Human Sciences Research Council.

Mhlongo, B. B., Nzimande, T. I. & Munapo, E., 2016. Consumer Perceptions on Service Quality at Ethekwini Municipality within the Customer Service Centres. *Journal of Social Science*, 47(1), pp. 78-89.

Mokhlis, S., Aleesa, Y. & Mamat, I., 2013. Municipal Service Quality and Citizen Satisfaction in Southern Thailand. *Journal of Public Administration and Governance*, 1(1).

Mosahab, R., Mahamad, O. & Ramayah, T., 2010. Service quality, customer satisfaction and loyalty: A test of mediation. *International business research*, 3(4), p. 72.

Movik, S., 2014. A fair share? Perceptions of justice in South Africa's water allocation reform policy. *Geoforum*, Volume 54, pp. 187-195.

Mwelase, L. T., 2016. Non-Revenue Water: Most suitable business model for water services authorities in South Africa. Ugu District Municipality.

Naidoo, V. & Mutinta, G., 2014. An investigation into service quality delivery at the University of KwaZulu-Natal. *Journal of Social Sciences*, 38(3), pp. 219-229.

Neuberger, J. & Peters, M., 2011. The clinical interface - A British physician's view. *Clin Chim Acta.*, Volume 248, pp. 11-118.

Neuman, L. W., 2007. Social Research Methods: Qualitative and Quantitative Approaches. 7th ed. London: Pearson Education.

Noe, R. A., Hollenbeck, R., Gerhardt, B. & Wright, P. M., 2014. *Human Resources Management, Gaining a Competitive Advantage*. 4th ed. New York: McGraw-Hill.

Oliver, R. L., 2015. Satisfaction, a behavioral perspective on the consumer. 2nd ed. New York: Routledge.

Olorunniwo, F., Hsu, M. K. & Udo, G. D., 2014. Service quality, customer satisfaction, and behavioral intentions in the service factory. *Journal of Services Marketing*, 20(1), pp. 59-72.

Omar, H. F. H., Saadan, K. B. & Seman, K. B., 2015. Determining the Influence of the Reliability of Service Quality on Customer Satisfaction: The Case of Libyan E-Commerce Customers. *International Journal of Learning and Development*, 5(1), pp. 86-89.

Satyabrat, P., 2014. Service Quality & Customer satisfaction: an Assessment of Some of the Key Antecedents of Customer Satisfaction in Retail Banking. *International Journal of Bank Marketing*, 20(4), p. 146.

Parasuraman, A., Zeithaml, V. A. & Berry, L. L., 1993. More on improving service quality measurement. *Journal of Retailing*, 69(1), pp. 140-147.

Parasuraman, A., Zeithaml, V. A. & Berry, L. L., 1994. Reassessment of expectations as a comparison standard in measuring service quality: implications for further research. *The Journal of Marketing*, 58(1), pp. 111-124.

Piergiorgio, C., 2013. Social Research. Theory, Methods and Techniques. London: Routledge,.

Public Service Charter, 2013. *Public Service Coordinating Bargaining Council Resolution 1 of 2013. Republic of South Africa.* [Online]. Available at: <a href="http://www.dpsa.gov.za/documents/PUBLIC%20SERVICE%20CHARTER%202013.pdf">http://www.dpsa.gov.za/documents/PUBLIC%20SERVICE%20CHARTER%202013.pdf</a>. [Accessed 5 November 2016].

Rodríguez, P. G., Burguete, J. L., Vaughan, R. & Edwards, J., 2014. Quality dimensions in the public sector: municipal services and citizen's perception. *Journal of International Review on Public and Non-profit Marketing,* 6(1), pp. 75-90.

SALGA, 2013. South African Local Government Association - 2013 Annual Report, Pretoria: SALGA.

SÁ, P. M. E. & Sintra, O., 2011. Assessing service quality in a municipality: A study based on the perceptions of citizens and frontline employees. *Sinergie Italian Journal of Management*, Volume 78, pp. 17-28.

Saunders, M., Lewis, P. & Thornhill, A., 2009. Research Methods for Business Students. 5th ed. England: Pearson Education.

Sekaran, U. & Bougie, R., 2013. *Research Methods for Business.* 6th ed. United Kingdowm: John Wiley & Sons Ltd.

Sriyam, A., 2012. Customer Satisfaction Towards Service Quality Of STR Global: Americas results 2012. *The Encyclopedia Americana*, Volume 21.

Steindel, S. J. & Howanitz, P. J., 2011. Physician satisfaction and emergency department laboratory test turnaround time. *Arch Pathol Lab Med.*, Volume 125, p. 863–719.

Stoner, A. F., Freeman, E. R. & Gilbert, D. R., 2012. *Management.* 8th ed. California: Prentice-Hall International edition.

Sureshchandar, G. S., Rajendran, C. & Kamalanabhan, T. J., 2012. Customer perceptions of service quality: A critique. *Total Quality Management*, 12(1), pp. 111-124.

Truchaud, A. et al., 2013. New tools for laboratory design and management. *Clinical chemistry*, 43(9), pp. 1709-1715..

Twinomurinzi, H., Zwane, M. G. & Debusho, L. K., 2012. Servqual as a Socip - Technological Approachto Measuring e-Government Service Quality and Guiding e-Governance Strategies. *The African Journal of Information and communication,* Issue 12.

Valenstein, P., 2013. Turnaround Time: Can We Satisfy Clinicians' Demands for Faster Service? Should We Try?. *merican Journal of Clinical Pathology*, 92(5), pp. 705-706.

Wan Yusoff, W. Z., Ismail, M. & Newell, G., 2013. FM-SERVQUAL: a new approach of service quality measurement framework in local authorities. *Journal of Corporate Real Estate*, 10(2), pp. 130-144.

Welman, C., Kruger, S. J. & Mitchell, B., 2011. *Research Methodology.* 3rd ed. Cape Town: Oxford University Press.

Zeithaml, V. A., Bitner, M. J. & Gremler, D.D., D. D., 2013. Services marketing: Integrating customer focus across the firm. 4th ed. New York: McGraw-Hill.

Zeleke, T., 2012. *Impact of service quality on customer satisfaction at the public owned National Alcohol and Liquor Factory,* s.l.: University of South Africa.

Zisis, P., Garefalakis, A. & Sariannidis, N., 2015. The application of performance measurement in the service quality concept: the case of a Greek service organisation. Journal of Money. *Investment and Banking,* Volume 9, pp. 21-47.

#### **APPENDIXES**

### Appendix 1: Customer Survey Questionnaire (English version)

### Customer Survey Questionnaire: Page 1

	Respondent's Profile (pe	rson visiti	ng the Wa	ılk-in Cen	tre)					
	Note that questions 9 and 10 relates to the account holder's details									
1	Please indicate whether you are an account holder or you came on behalf of someone else	Accoun	nt holder		On behalf of account hold					
2	Indicate your gender	M	ale		Fer	nale				
3	Indicate your age category	19-30	31 - 40	41-50	51-60	61 and Over				
4	Indicate your preferred language	Zulu	Zulu English		Afrikaans	Other				
5	Indicate the name of the Walk-in Centre where you completed this questionnaire survey	Prior Road Durban	Verulam Sizakala Customer Centre			y Sizakala er Centre				
6	Indicate whether your inquiry/matter is for an individual household, business or public institution	Individual	Household	Business or Public Institution		Other				
7	If your visit is for an household inquiry or matter please indicate the type of water supply you are currently using.	tanks): Lo	(small water w Pressure pply	Semi- Pressure i.e. Free 300 litres per day		Full Pressure Supply				
8	Indicate the nature of the inquiry/matter you came to address or resolve today	Terminated or interrupted services	or Settlement interrupted of debt		Payment Arrange- ment	Other				
9	Indicate account holder's employment status	Scholar or Student Employed		Self Employed	Unemployed	Retired				
10	How long has the account holder been a customer of Water and Sanitation Unit	Never	Less than 3 years	More than 3 years	More than 5 years	More than 10 years				

	Т	angibility				
	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11	The Unit has modern furniture and equipment such as comfortable chairs, counters and computers	1	2	3	4	5
12	The physical facilities at this office are visually appealing and the customers find it easy to understand which queue they need to follow.	1	2	3	4	5
13	The staff appear professional, neatly dressed and they are easily identifiable	1	2	3	4	5
14	The contact details of the Unit manager are displayed and are visible	1	2	3	4	5

## Customer Survey Questionnaire: Page 2

	Reliability									
	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
15	Do you feel that the Unit treats everyone with consideration and respect by showing friendliness and care when serving the customers.	1	2	3	4	5				
16	The Unit staff perform service right the first time.	1	2	3	4	5				
17	When a customer has a problem the Unit staff show sincere interest in solving it	1	2	3	4	5				
18	When customers are requested to bring required information and documentation, the Unit staff will advise the customer of all required information, documentation and any specifications where necessary	1	2	3	4	5				

	Responsiveness									
	Statement Strongly Disagree Neutral Agree Agree Agree									
19	The Unit staff provide prompt services.	1	2	3	4	5				
20	The Unit staff action immediately when a customer makes a complaint.	1	2	3	4	5				
21	The Unit staff are always willing to help customers.	1	2	3	4	5				
22	The Unit staff is always willing to listen to customers' problems	1	2	3	4	5				

	Assurance									
	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				
23	The staff is knowledgeable to answer water and sanitation, accounts and debt relief questions asked by customers	1	2	3	4	5				
24	The Unit staff greets the customers with a warm smile	1	2	3	4	5				
25	The Unit staff instil confidence in the customers	1	2	3	4	5				
26	The Unit staff is consistently courteous to the customers	1	2	3	4	5				

# Customer Survey Questionnaire: Page 3

	Empathy								
	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree			
27	The Unit staff give customers personal attention	1	2	3	4	5			
28	The Unit staff listen carefully to the needs of its customers	1	2	3	4	5			
29	The Unit operating hours are convenient to its customers	1	2	3	4	5			
30	The Unit staff has customers' best interest at heart	1	2	3	4	5			

	Custon	ner Satisfa	action			
	Statement	Strongly Disagree	Disagree	Neutral	Neutral Agree	
31	I am satisfied with the communication that is sent by the Unit to the customers regarding changes in the water and sanitation services, different types of water supply and sanitation services and savings strategies that the Unit has introduced		Dissatisfied	Neutral	Satisfied	Very Satisfied
32	The Unit communicates the debt payment options and relief assistance for the customers who are financial difficulties	ce for the customers Never		Sometimes	Most of the Time	Always
33	Overall the Unit provides good quality service to it's customers.	Never	Rarely	Sometimes	Most of the Time	Always
34	I am satisfied with the services rendered by this Unit	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
35	I will continue visiting this Unit in the future	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
36	I would recommend this Unit to other people	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

### Appendix 2: Customer Survey Questionnaire (IsiZulu version)

#### Imibuzo yonhlolovo: Ikhasi 1

	Sicela imininingwane yakho								
	Sicela ugcwalise imininingwane yomnikazi we-akhawunti kwimibuzo namba 9 no 10								
	Sicela ugcwalise illillilliligwalie yolillilkazi we-akilawuliti kwillibuzo fiamba 9 fio 10								
1	Sicela usazise ukuthi iakhawunti yakho noma khona okuthumele	Ngingumn akhav			Ngith	unyiwe			
2	Sicela ukwazi ubulili bakho	Isili	sa		Isifa	nzane			
3	Iminyaka yami iphakathi kuka	19-30	31-40	41-50	51-60	61 Nanga- phezulu			
4	Ulimi ofisa ukulusebenzisa kulenhlolovo (kule-survey)	IsiZulu	IsiNgisi	IsiXhosa	IsiBhunu	Okunye			
5	Igama le-ofisi lapho ugcwalise khona Ienhlolovo	e-Prior Road eThekwini	e-Verulam Sizakala Customer Centre	e-Pinetown Sizakala Customer Centre		ity Sizakala er Centre			
6	Ingabe isidingo sakho siphathelene: nomuzi, noma nebhizinisi elithile noma nesigceme somphakathi esinjenge sikole, umtholampilo, noma okunjalo	Umuzi		Ibhizinisi noma isigceme somphakathi esinjenge sikole, umthilampilo, noma okunjalo		Okunye			
7	Uma isidingo sakho kungesomuzi, iluphi uhlelo lwamanzi okulo	Ithangi lama pha			awu 300 a ngosuku	Amanzi angakaliwe futhi			
8	Awusazise uhlobo lwesicelo oze ngaso ukuba sizoxazululwa namuhla.	Uvalelwe amanzi	Uzokhokha isikweletu	Uhlelo lwesaphulelo sesikweletu	Ukuzocela ukukhokha isikweletu kancane- kancane	okunye			
9	Ikhastoma likuliphi izinga lokuqashwa ngokomsebenzi?	Umfundi	Uqashiwe	Uyazisebenz a	Angisebenzi	Usuthathe umhlalaphan si			
10	Umikazi we-akhawunti usenesikhathi esingakanani eyikhastoma lomnyango Wamanzi nokuthuthwa kwendle	Angikaze	Ngaphansi kwemi- nyaka ewu 3	Ngaphezu kwemi- nyaka ewu 3	Ngaphezu kwemi- nyaka ewu 5	Ngaphezu kwemi- nyaka ewu 10			

	U	kubukeka /	Tangibility	1		
	Uvumelana kangakanani nalamazwi	Ngiyaphika impela	Angivumi	Ngiphakathi Nendawo	Ngiyavuma	Impela Ngivuma kakhulu
11	Lesisigceme sinefenisha esezingeni eliphezulu, njengama khompuyutha, nezihlalo ezithokomele, namatafula amahle	1	2	3	4	5
12	Isakhiwo salesisigceme sibukeka kahle futhi amakhastoma abonakalula ukuthi kumele alandele luphi uhele (queue)	1	2	3	4	5
13	Abasebenzi babukeka bengabasebenzi beqophelo eliphezulu, begqoke kahle futhi namagama abo ayabonakala	1	2	3	4	5
14	Imininingwane yokuxhumana nompathi sigceme ibekiwe obala ukuze amakhastoma ayibone	1	2	3	4	5

### Imibuzo yonhlolovo: Ikhasi 2

	Ukv	vethembeka	ı / Reliabili	ity		
	Uvumelana kangakanani nalamazwi	Ngiyaphika impela	Angivumi	Ngiphakathi Nendawo	Ngiyavuma	lmpela Ngivuma kakhulu
15	Ubona sengathi lesisigceme siphatha wonke umuntu kahle nangenhlonipho, sikhombise nokunakekela onke ama khastoma, njengokuzibophezela kwabo okubhalwe emgomweni wabo	1	2	3	4	5
16	Abasebenzi balesisigceme bayawazi umsebenzi wabo. Uma bekulungisela izinto ziphumelala nje ngehlandla lokuqala (abalokhu bezama behluleka)	1	2	3	4	5
17	Uma ikhastoma liza nenkinga, abasebenzi balesisigceme bakhombisa intshisekelo enkulu ukuyixazulula inkinga yekhastoma	1	2	3	4	5
18	amaphepha, abasebenzi balichazisesela kahle ikhastoma ngazozonke izimfanelo ekumele ikhastoma liziphathe	1	2	3	4	5

	Ukusheshisa / Responsiveness							
	Uvumelana kangakanani nalamazwi	Ngiyaphika impela	Angivumi	Ngiphakathi Nendawo	Ngiyavuma	lmpela Ngivuma kakhulu		
19	Abasebenzi balesisigceme bayasheshisa uma besiza ikhastoma	1	2	3	4	5		
	Abasebenzi balesisigceme basukumela phezulu uma ikhastoma liza nesikhalo	1	2	3	4	5		
21	Abasebenzi balesisgceme bahlale belangazelele ukusiza ikhastoma	1	2	3	4	5		
22	Abasebenzi balesisigceme bahlale belangazelele ukulilalela ikhastoma	1	2	3	4	5		

	Isiqinisekiso / Assurance								
	Uvumelana kangakanani nalamazwi	Ngiyaphika impela	Angivumi	Ngiphakathi Nendawo	Ngiyavuma	lmpela Ngivuma kakhulu			
23	Abasebenzi balesisigceme banolwazi lokuphendula imibuzo yamacustomer ephathelene namanzi, izikweletu kanye noshwele.	1	2	3	4	5			
24	Abasebenzi balesisigceme babingelela amakhastoma ngemfudumalo nangokumamatheka	1	2	3	4	5			
25	Abasebenzi balesisigceme bayawenza amakhastoma ukuthi azethembe	1	2	3	4	5			
26	Abasebenzi balesisigceme bawaphatha ngenhlonipho nentobeko amakhastoma	1	2	3	4	5			

# Imibuzo yonhlolovo: Ikhasi 3

	Uzwelo / Empathy								
	Uvumelana kangakanani nalamazwi	Ngiyaphika impela	Angivumi	Ngiphakathi Nendawo	Ngiyavuma	lmpela Ngivuma kakhulu			
27	Abasebenzi balesisigceme bayalinaka ikhastoma	1	2	3	4	5			
28	Abasebenzi balesisigceme bayazilalelisisisa izidingo ze khastoma	1	2	3	4	5			
29	Izikhathi zokuvula kwalesisigceme ziyavumela nathi makhastoma	1	2	3	4	5			
30	Abasebenzi balesisigceme bayalicabangela ngobubele ngempela ikhastoma	1	2	3	4	5			

	Ukugculiseka kwakho ngempatho / Customer satisfaction						
Uvumelana kangakanani nalamazwi		Ngiyaphika impela	Angivumi	Ngiphakathi Nendawo	Ngiyavuma	lmpela Ngivuma kakhulu	
31	Ngiyagculiseka ngemibiko ethunyelwa ilesisigceme kumakhastoma mayelana: - Nezinguquko kwizinkonzo zabo zamanzi - Nezinhlelo ezehlukene zokuphakela amanzi, kanye - Nezindlela ezintsha zokonga amanzi	Angigculiseka nga Neze neze	Angigculisek anga	Ngiphakathi Nendawo	Ngigculisekile	Ngigculiseke kakhulu	
32	Lesisigceme siyawazisa amakhastoma ngezindlela zokukhokha izikweletu kanye nosizo lukuxegisa umthwalo wesikweletu kulabo abashayekile ezimalini.	Neze neze	Akuvamile	Kwesinye isikhathi	Kuvamile	Njalo nje	
33	Singathi nje lesisigceme sihamba phambili ngokuletha izinkonzo ezisezingeni eliphezulu kumakhastoma	Neze neze	Akuvamile	Kwesinye isikhathi	Kuvamile	Njalo nje	
34	Ngiyagculiseka ukusebenza kwalesisigceme.	Angigculiseka nga Neze neze	Angigculisek anga	Ngiphakathi Nendawo	Ngigculisekile	Ngigculiseke kakhulu	
35	Ngiyobuye futhi ngisivakashele lesisigceme.	Cha Cha! Neze-neze! Lutho!	Cha - Ngiyaphika	Ngiphakathi Nendawo	Ngiyavuma	Ngivuma kakhulu	
36	Nabanye ngiyobakhuthaza ukusebenzisa lesisigceme.	Cha Cha! Neze-neze! Lutho!	Cha - Ngiyaphika	Ngiphakathi Nendawo	Ngiyavuma	Ngivuma kakhulu	

#### **Appendix 3: Permission Letter from eThekwini Municipality**

#### ETHEKWINI WATER

Durbon 4001 P O Box 1038 Durban 4000 Tel: (031) 311 1111 Fax: (031) 311 8699



12 September 2016

#### TO WHOM IT MAY CONCERN

We as the eThekwini Water and Sanitation Department (EWS) are aware and give permission to Ms Nonhlanhla Nxumalo a MBA student at the Graduate School of Business and Leadership within University of KwaZulu Natal, to visit our Customer Services Centres in the different Regions within the Municipality, and interview our customers as part of her research project titled "An assessment of service quality and customer satisfaction at EThekwini Municipality"

We are fully aware of the project and we have informed relevant stakeholders within our Unit Regards,

TEDDY GOUNDEN STRATEGIC EXECUTIVE

"We care, we belong, we serve

#### Appendix 4: Ethical Clearance



29 September 2016

Ms Nonhlanhla Crownia Nxumalo (200278737) **Graduate School of Business & Leadership Westville Campus** 

Dear Ms Nxumalo,

Protocol reference number: HSS/1527/016M

Project title: An assessment of Service Quality and Customer Satisfaction at eThekwini Municipality: Water and Sanitation Unit

Full Approval - Expedited Application

In response to your application received on 14 September 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Dr Muhammad Hoque

Cc Academic Leader Research: Dr Emmanuel Mutambara

Cc School Administrator: Ms Zarina Bullyraj

Humanities & Social Sciences Research Ethics Committee Dr Shenuka Singh (Chair)

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Website: www.ukzn.ac.za

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### **Appendix 5: Turnitin Report**

An Assessment of Service Quality and Customer Satisfaction at eThekwini Municipality: Water and Sanitation Unit

	ALITY REPORT	
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