

UNIVERSITY OF CAPE COAST

SERVICE QUALITY DELIVERY AND ITS EFFECT ON CUSTOMER
SATISFACTION AT GHANA WATER COMPANY LIMITED IN THE
TAKORADI TOWNSHIP

MUNIRET AWORTWE

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SATISFACTION IN GHANA WATER COMPANY LIMITED IN THE
TAKORADI TOWNSHIP

BY

MUNIRET AWORTWE

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Business, University of Cape Coast, in partial fulfillment of the requirements
for award of the Master of Business Administration Degree in General
Management

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: Date:

Name: Muniret Awortwe

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: Date:

Name: Dr. Samuel Kwaku Agyei

ABSTRACT

Customers' perceptions and expectations are continually evolving, making it difficult for the service providers to measure and manage the services effectively. It was against this background that the study was conducted to assess the service quality delivery and its impact on customer satisfaction in Ghana Water Company Limited (GWCL) in Takoradi. This study was a formal one adopting both qualitative and quantitative designs (Mixed method design) with a population comprising customers of the Ghana Water Company- Takoradi District. Semi-structured questionnaires were used for the data collection. The study concentrated on: customers' expectation and perception towards water service quality at the GWCL; the gap between customer expectations and perceptions using the gap analysis; and the effect of customer satisfaction on quality service delivery in GWCL. The results for the first two objectives were presented using descriptive statistics. Multiple regression model was used for the third objective. The results revealed that tangibility and assurance were the major determinants of overall customer satisfaction of GWCL service provision. The study revealed that the service quality dimensions have significant impact on customer satisfaction of GWCL. The result indicated that among the five service quality dimension; tangibility and assurance are the most significant predictors of overall satisfaction that customers derive from the services of the GWCL. It was thus recommended that, the management investigate and re-structure the delivery of quality service in the institution. Management and employees of GWCL also need to view servicing customers as a team effort and a good support service for all customer-contact personnel needs to be in place.

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DEDICATION

To my late mother, Madam Perpetual Fynn.

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ACRONYMS

- 1 GWCL – Ghana Water Company Limited
- 2 WOM – word of mouth
- 3 ANOVA – Analysis of Variance
- 4 GCCs – Guest Comment Cards
- 5 PURC – Public Utility Regulatory Commission

CHAPTER ONE

INTRODUCTION

Service quality and customer satisfaction are major components in the system of external relations of each organization and they largely contribute to the determination of the organization's competitiveness. The quest to manage relationship with customers leads to the fact that organizations give priority to the development and implementation of service standards.

. Customers' perceptions and expectations are continually evolving, making it difficult for the service providers to measure and manage the services effectively. Customer satisfaction can be the result of high quality services when management implements quality concepts and metrics properly (Hu, Juwaheer & Kandampully, 2009). Some firms struggle to be competitive because leadership does not know how to properly implement and use quality concepts to improve services. According to Foster (2010), firms have to be able to take into consideration the perceptions and expectations of their customers because their attitudes and behaviors will affect how they perceive service quality. If managers are not aware of how their customers perceive their services, it makes it difficult for them to know what areas need improvements.

Background of the Study

All service organizations try to provide the best possible and high quality services to their customers but still they very often fall short of the customers' expectations since the customers have become more aware of their requirements and demand higher standards of services.

The days of a customer adopting one product or company for life are long gone. With easy access and global competitiveness, customers are often swayed by advertising and a chance at a better deal. Quality levels and features between competing brands and organizations are often comparable. The level of quality service, therefore, separates competitors. It is not unusual for customers to switch back and forth between products or organizations simply because of pricing, a bad first impression from the organization or lack of quality service. This is sometimes referred to as service churn (Lucas, 2005).

Satisfaction is the customer's evaluation of a product or service in terms of whether that product or service has met their needs and expectations (Zeithaml & Bitner, 2003). Happy and satisfied customers behave in a positive manner. They will buy a lot and give a large share of their business. Customer satisfaction is derived largely from the quality and reliability of a company's products and services (Curry & Curry, 2000).

According to Lucas (2005), customer service is the ability of knowledgeable, capable, and enthusiastic employees to deliver products and services to their internal and external customers in a manner that satisfies identified and unidentified needs and ultimately results in positive word-of-mouth publicity and return business. Service companies such as the Ghana Water Company Limited are trying their best to improve their service quality in order to make customers satisfied with their services. Such companies now focus more on the standards in order to meet the basic needs and expectations of the customers. The more satisfied the customers are, the more likely they are to accept and pay hikes in utility tariffs (Choi & Chu, 2001).

It accounts for majority of the Ghana's employment and provides the greatest potential, as well as some of the greatest difficulties, for developing productivity measures. However, the Ghana Water Company faces challenges in meeting customer's expectation of services and customer satisfaction. It is against this background that the study would be designed to assess service quality delivery and its effect on customer satisfaction in Ghana Water Company Limited with particular reference to the Takoradi Township.

Statement of the Problem

During the last decade, service quality has gained tremendous attention from managers and academics due to its considerable influence on business performance, cost reduction, customer satisfaction, customer loyalty and profitability (Chang & Chen, 1998; Cronin & Taylor, 1992; Gammie, 1992; Gummesson, 1998; Guru, 2003; Hallowell, 1996; Lasser, Manolis & Winsor, 2000; Leonard & Sasser, 1982; Newman, 2001; Silvestro & Cross, 2000; Sureshchander, Rajendran & Anatharaman, 2002). Often, quality is considered as an investment for company, where the efforts for its improvement results in an increased clientele, increased levels of purchase from existing customers, and a rise in the company's profits (Parasuraman et al., 1985; Reichheld & Sasser, 1990; Rust et al. 1995).

In many service industries, purchasing power in the marketplace has shifted dramatically from a seller's market to a buyer's market. The nature of services in the utility industry is quite complex due to the length of the process and variety of variables affecting it. The level of quality of such a service is important since it contributes to the perceptions of the quality of the total experience (Foster, 2010).

The Ghana Water Company provides potable water to consumers for domestic and industrial purposes and is also committed to meeting the increasing demand for better services delivery through efficient and effective management of its core business which comprises of production, transmission, distribution of water and customer management. Available records at the Takoradi District of the Company indicates is a rise in customer complaints regarding services such as; quality of the product (potable water), comprising odour of the water, turbidity of water, and low flow of water. Other complaints includes, huge monthly water bills, unprofessional conduct of employees such as rude behavior towards customers, not attending to complaints of pipe bursts and leakages on time, inefficient distribution processes such irregular water supplies, unmetered pipes, estimated bills and few collection points. Also, no system is in place to monitor burst and leakages, over and under billing.

There are also inefficient communication systems to inform consumers when there is a problem of water supply and water shortages as well as poor state of some collection points and customers' inability to access these collection points.

A data of customer complaints from 2013 to 2015 obtained from the Customer Care Department of the Ghana Water Company Limited (GWCL), are presented below:

Table 1: Data of Customer Complaints from 2013 to 2015

Types of Complaints	Number of Complaints in the Year		
	2013	2014	2015
Pipe Leakage	750	816	824
Pipe Burst	453	492	507
Over Billing	70	72	78
No Flow	182	190	197
Late / No Delivery of Bills	20	12	10
Unreflected Payment	2	4	9
Estimated Water Bills	10	7	13
Stolen Meters	3	2	7
Wrong Disconnection	2	1	4
Wrong Category of Customers	2	3	5
Incorrect Balancing on Bills	2	2	4
Billed after Disconnection	1	2	5
Incorrect Meter Reading	3	4	7
Quality of Water	3	2	5
Total Number of Complaints	1503	1617	1675

Source: Customer Care Department of Ghana Water Company Limited (2015)

The complaints enumerated above indicate that the customers are not satisfied with the services of the Ghana Water Company Limited (GWCL).

The dissatisfaction of the customer currently presents a financial burden on the GWCL, Takoradi District. This is because customers refuse to pay their bills promptly due to what they perceive as poor services being rendered to them by the company. These same customers send their complaints to the Public Utility

Regulatory Commission (PURC), which sometimes freezes tariff increases of GWCL which in turn affects the funding of the operations of the Company.

In spite of the effort that the Company puts in handling the complaints, these complaints keep going up.

This indicates that the Ghana Water Company has faced challenges in recent times to achieve customer satisfaction with services rendered. It is against this background that the study was designed to assess service quality delivery and its impact on customer satisfaction in Ghana Water Company Limited with particular reference to the Takoradi Township.

Research Objectives

The main purpose of this study was to assess service quality delivery and its effect on customer satisfaction in Ghana Water Company Limited in the Takoradi township. Specifically; the objectives for this study were to:

1. identify customers' expectation and perception towards water service quality at the Ghana Water Company Limited in Takoradi;
2. determine the gap between customer expectations and perceptions using the gap analysis;
3. assess the effect of service quality on customer satisfaction at Ghana Water Company Limited in Takoradi township.

Research Questions

In order to achieve the above-mentioned objectives, the study will seek to answer the following questions:

1. What are customers' expectations and perceptions towards water service delivery by the Ghana Water Company Limited in Takoradi township ?
2. What is the gap between customer expectations and perceptions using the gap analysis?
3. What is the effect of service quality on customer satisfaction by Ghana Water Company Limited in Takoradi township?

Significance of the Study

The study will create a foundation for quality service delivery in the utility industry through the assessment of quality service delivery and its impact on customers' satisfaction at the Ghana Water Company Limited. In an era where competition continues to increase, there is emphasis on specific organizations to distinguish themselves within their respective industry. In view of this background, the study would be designed for a thorough and detailed work to be conducted towards the development of an invaluable document not only for Ghana Water Company Limited, but also for other service and utility industries in Ghana.

The outcome of the study would therefore, be useful to the company to continuously improve the quality of service rendered to customers. Improvement in the quality of service will also benefit the customers and the image of the company. The outcome of the research will add to enrich the existing literature on service quality and issues identified will be an invaluable document used for quality service delivery in the utility industry in Ghana. Finally, the study would serve as a basis to be built upon for any future

research and serve as a guideline for other utility and service organizations in their quality service delivery practices.

Delimitation of the Study

Ghana Water Company Limited (Western Region) operates in five districts with a large customer strength. Takoradi being the capital of Western Region has the largest customers. The researcher found out that a complete research on all the customers in the five districts will be impossible. Hence the scope was limited to accessing customer satisfaction through service quality delivery in the case of Takoradi Township.

Limitations of the Study

Research in our part of the world has always been headache for researchers due to the fact that access to information is a great challenge. This usually puts stress on the time limit and the financial resources used for the research for which this work was not exempted. Time and financial resources needed for the smooth achievement of the objective were constraint to the study.

Organization of the Study

The study was divided into five chapters. Chapter one dealt with the general introduction which- covers background of the study, problem statement, objectives as well as significance of the study. Chapter two reviewed literature in relevant areas of the study. Chapter three covered the methodological procedures that were used to conduct the study as well as the organizational profile of Ghana Water Company Limited. Chapter four presented the results and an analysis of the data obtained. Chapter five

presented summary of the findings, drew conclusions, and made recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter will deal with concepts and terms related to customer satisfaction and service quality. Effort will also be made to examine the SERVQUAL models as well as its application in various instances. This will be done to provide a conceptual framework for the study.

Service Quality

Service quality is a complex, elusive, subjective and abstract concept. It means different things to different people (Jamali, 2007). The most common definition of service quality is the comparison customers make between their expectations and perceptions of the received service (Parasuraman et al., 1988; Grönroos, 1982). Quality is a multi-dimensional concept. Lehtinen and Lehtinen (1982) defined three dimensions of service quality, namely, physical quality, interactive quality and corporate quality. Similarly, Grönroos (1984) argued that service quality comprises of technical quality, functional quality and corporate image.

On the other hand, Parasuraman et al. (1985; 1988) developed the SERVQUAL scale, which became the most popular instrument for measuring service quality. They identified five key dimensions of service quality – reliability, tangibles, responsiveness, assurance and empathy. The SERVQUAL scale consists of items for assessing customer perceptions and expectations regarding the quality of service. A level of agreement or

disagreement with a given item is rated on a seven-point Likert scale. The results are used to identify positive and negative gaps.

The gap is measured by the difference between perceptions and expectations scores and indicates the level of service quality. If the result is positive, perceived service exceeds expected service. A negative result means low quality of service. According to this instrument, service quality occurs when perceived service meets or exceeds customer's expectations.

The SERVQUAL instrument has been widely applied in a variety of service industries, including tourism and hospitality. Research related to this sector can be divided into measuring service quality in historic houses (Frochot and Hughes, 2000), hotels (Douglas and Connor, 2003; Antony et al., 2004; Juwaheer, 2004; Marković, 2004; Nadiri and Hussain, 2005; Olorunniwo et al., 2006; Wang et al., 2007), restaurants (Heung et al., 2000; Fu and Parks, 2001; Namkung and Jang, 2008), travel agencies (Atian et al., 2003; Martinez Caro and Martinez Garcia, 2008), diving (O'Neill et al., 2000), health spas (Snoj and Mumel, 2002; Marković et al., 2004; González et al., 2007), ecotourism (Khan, 2003), theme parks (O'Neill and Palmer, 2003), tourism and hospitality higher education (Marković, 2005; Marković, 2006). The instrument was used to measure hotel employee quality as well (Yoo and Park, 2007). It should be noted that service quality and customer satisfaction are distinct concepts, although they are closely related.

According to some authors, satisfaction represents an antecedent of service quality (Carman, 1990; Bolton & Drew, 1991). In this sense, satisfactory experience may affect customer attitude and his or her assessment of perceived service quality. Thus, satisfaction with a specific transaction may

result with positive global assessment of service quality. Other authors argue that service quality is antecedent of customer satisfaction (Churchill and Suprenant, 1982; Anderson et al., 1994; Oliver, 1997; Oh, 1999; Zeithaml and Bitner, 2003; Jamali, 2007). This group of authors suggests that service quality is a cognitive evaluation, which may lead to satisfaction. Hence, customer satisfaction is the result of service quality.

To sum up, the relationship between quality and satisfaction is complex. Some authors have described it as Siamese twins (Danaher and Mattsson, 1994; Jamali, 2007). Although there still remain a lot of unresolved questions, it can be concluded that service quality and customer satisfaction can be perceived as separate concepts that have causal ordering.

Measurement of Service Quality

Measuring service quality is difficult due to its unique characteristics: intangibility, heterogeneity, inseparability and perishability (Bateson, 1995). Service quality is linked to the concepts of perceptions and expectations (Parasuraman *et al.*, 1985, 1988; Lewis and Mitchell, 1990). Customers' perceptions of service quality result from a comparison of their before-service expectations with their actual service experience. The service will be considered excellent, if perceptions exceed expectations; it will be regarded as good or adequate, if it only equals the expectations; the service will be classed as bad, poor or deficient, if it does not meet them (Vázquez et al., 2001).

Based on this perspective, Parasuraman et al (1985), developed a scale for measuring service quality, which is most popularly known as SERVQUAL. This scale operationalizes service quality by calculating the difference between expectations and perceptions, evaluating both in relation to

the items that represent five service quality dimensions known as ‘tangibles’, ‘reliability’, ‘responsiveness’, ‘assurance’ and ‘empathy’.

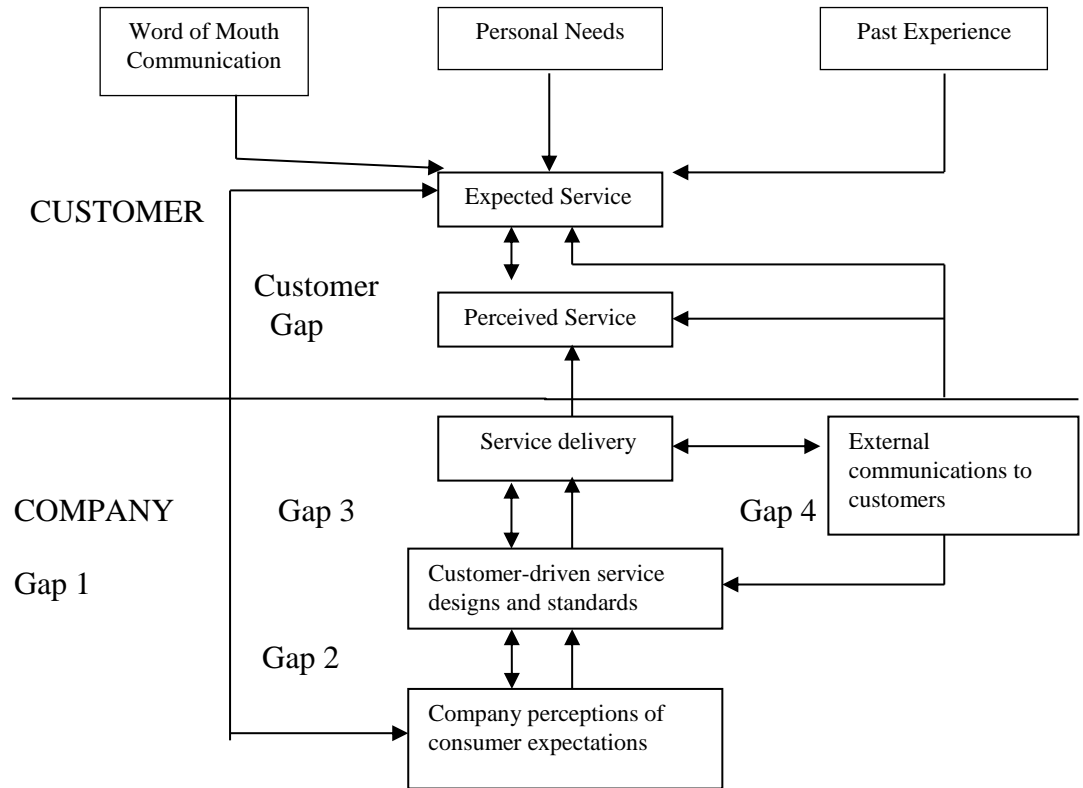


Figure 1: SERVQUAL Gap Model

Source: Parasuraman *et al.* (1985)

The SERVQUAL scale has been tested and/or adapted in a great number of studies conducted in various service settings, cultural contexts and geographic locations like the quality of service offered by a hospital (Babakus & Mangold, 1989), a CPA firm (Bojanic, 1991), a dental school patient clinic, business school placement center, tire store, and acute care hospital (Carman, 1990), pest control, dry cleaning, and fast food (Cronin & Taylor, 1992), banking (Cronin and Taylor, 1992; Spreng & Singh, 1993; Sharma and Mehta, 2004) and discount and departmental stores (Finn & Lamb, 1991).

All these studies do not support the factor structure proposed by Parasuraman et al. (1988). The universality of the scale and its dimensions has also been the subject of criticisms (Lapierre *et al.*, 1996) and it is suggested that they require customization to the specific service sector in which they are applied. The five dimensions are elaborated in Table 2.

Table 2: Five Broad Dimensions of Service Quality

Dimension	Definition
Tangibles	Appearance of physical facilities, equipment, personnel and written materials
Reliability	Ability to perform the promised service dependably and accurately
Responsiveness	Willingness to help customers and provide prompt service
Assurance	Employees' knowledge and courtesy and their ability to inspire trust and confidence
Empathy	Caring, easy access, good /communication, customer understanding and individualized attention given to customers

Source: Adapted from Zeithaml et al., (1990)

In SERVQUAL, both store service performance and consumer expectations of the store service, are explicitly measured to assess the 'gap'. Several researchers find the performance perceptions to be sufficient in assessing service quality as compared to the gap (Carman, 1990).

Measuring service quality has been one of the most recurrent topics in management literature, Parasuraman et al., (1988), Gronroos, (1984), Cronin et al., (1992). This is because of the need to develop valid instruments for the systematic evaluation of firms' performance from the customer point of view; and the association between perceived service quality and other key

organizational outcomes, Cronin et al., (2010), which has led to the development of models for measuring service quality. Gilbert et al., (2004) reviewed the various ways service quality can be measured. They include; 1) the expectancy-disconfirmation approach which is associated with the identifying of customer expectation versus what they actually experienced. It focuses on the comparison of the service performance with the customer's expectations.

The customer's expectations could be assessed after the service encounter by asking him/her to recall them. 2) Performance-only approach merely assesses service quality by merely asking customers about their level of satisfaction with various service features following a service encounter. 3) Technical and functional dichotomy approaches identify two service components that lead to customer satisfaction namely, the technical quality of the product which is based on product characteristics such as durability, security and physical features while functional quality is concerned with the relationships between service provider and customer such as courtesy, speed of delivery and helpfulness. 4) Service quality versus service satisfaction approach which mainly focuses on two service components that are interrelated; the transition-specific assessment which evaluates specific features of quality and the overall assessment which evaluates overall quality. This approach links perceived quality at the time of the service encounter or immediately after it and overall satisfaction with the service.

Perceived quality is based on attributes of the service over which the company has control and it is a measure of the consumer's assessments of the service's value without comparison to consumer's expectation. 5) Attribute

importance approach focuses on the relative weight on the importance the consumer places on attributes found to be linked with service satisfaction.

Parasuraman et al., 1985 developed a conceptual model of service quality where they identified five gaps that could impact the consumer's evaluation of service quality in four different industries (retail banking, credit card, securities brokerage and product repair and maintenance). These gaps were

Gap 1: Consumer expectation - management perception gap

Service firms may not always understand what features a service must have in order to meet consumer needs and what levels of performance on those features are needed to deliver high quality service. This results in affecting the way consumers evaluate service quality.

Gap 2: Management perception - service quality specification gap

This gap arises when the company identifies what the consumers want but the means to deliver to expectation does not exist. Some factors that affect this gap could be resource constraints, market conditions and management indifference. These could affect service quality perception of the consumer.

Gap 3: Service quality specifications – service delivery gap

Companies could have guidelines for performing service well and treating consumers correctly but these do not mean that high service quality performance is assured. Employees play an important role in assuring good service quality perception and their performance cannot be standardised. This affects the delivery of service which has an impact on the way consumers perceive service quality.

Gap 4: Service delivery – external communications gap

External communications can affect not only consumer expectations of service but also consumer perceptions of the delivered service. Companies can neglect to inform consumers of special efforts to assure quality that are not visible to them and this could influence service quality perceptions by consumers.

Gap 5: Expected Service – perceived service gap

From their study, it showed that the key to ensuring good service quality is meeting or exceeding what consumers expect from the service and that judgement of high and low service quality depend on how consumers perceive the actual performance in the context of what they expected.

Application of the SERVQUAL Model in Different Contexts

Kumar et al, (2009) used the SERVQUAL model in a research to determine the relative importance of critical factors in delivering service quality of banks in Malaysia (Kumar et al., 2009). In this article they modified the SERVQUAL model and considered six dimensions; tangibility, reliability, responsiveness, assurance empathy and convenience and these consist of 26 statements. They considered convenience because it is an important determinant of satisfaction for banking customers in Malaysia and contributes very highly in the customers' appreciation of the quality of services offered by the bank (Kumar et al, 2009). The respondents are asked questions based on the 26 statements and they seek to know about their expectations and experience. They carried this study on banking customers regardless neither of

which bank you use nor how you do your transactions, could be domestically, internationally among others (Kumar et al, 2009).

After they carried out their study, they realized that there are four critical factors; tangibility, reliability, convenience and competence. These variables had significant differences between expectations and perceptions with tangibility having the smallest gap and convenience has the largest gap. They end up with the recommendation that banks need to be more competent in delivering their services and fulfilling the assurance of customers and providing the banking services more conveniently (Kumar et al, 2009).

Curry et al., (2002) in an attempt to assess the quality of physiotherapy services used the SERVQUAL model and three physiotherapy services in Dundee, Scotland. They considered the ten original criteria for evaluation and combined them into five; tangibles, reliability, responsiveness, assurance (including competence, courtesy, credibility, and security) and empathy (including access, communication, and understanding). The quality gap is measured with these five dimensions with the application of an adaptable 22 item survey instruments. The survey involves questions relating to customers' expectations and perceptions. They sought to measure five gaps developed by Parasuraman et al., (1985). They found out that the services were highly appreciated by customers even though they realised that the perception gaps were slightly negative and the services could be improved. Their studies proved that assurance and empathy were very important in their research. In spite of the criticisms of the SERVQUAL model they confirm its potential applicability in measuring service quality in the public sector to determine consumer priorities and measure performance.

Badri et al., (2003) made an assessment and application of the SERVQUAL model in measuring service quality in information technology centre. For their research gap they used a larger sample which also differs from other studies that addressed the dimensionality problem of the IT centre-adapted SERVQUAL instruments. The second gap was to identify the gaps in service quality in the IT centres in the three institutions of higher education in the United Arab Emirates. Their findings showed that there was an inadequacy of dimensions for a perfect fit. On the other hand, based on their feedback, respondents felt that SERVQUAL is a useful indicator for IT center service quality in institutions of higher education. SERVQUAL identified gaps in service quality for the three institutions. Empirical results of SERVQUAL scores for the IT centers in the three institutions are also presented.

Negi, (2009) used the model to determine customer satisfaction through perceived quality in the Telecommunication industry and found out that reliability, empathy and network quality proved to significantly effective in contributing to overall service quality and overall customer satisfaction with mobile services. Akan, (1995) used the SERVQUAL model in the four stars hotels and found out that competence and courtesy combined with assurance where most important attributes influencing the perception of quality. These researches shows that SERVQUAL can reliably be used for measuring customers' perception of service delivery across the service industry including the Ghana Water Company Limited (GWCL)

Customers' Expectations of Service

“Customer expectations are beliefs about service delivery that function as standards or reference point against which performance is judged” (Zeithaml, & Bitner, 1996: 76). These authors develop an argument which is that customers hold different types of expectations for service performance (Zeithaml & Bitner, 2003:60). For example as a result the self-service approach used in food retail sector, supermarket customers may hold different expectations of service performance compared to those they would have when visiting a bank.

Customers compare their perceptions of service delivery with these reference points when evaluating service quality and therefore knowing what customers expects is critical in gaining competitive advantage (Zeithaml & Bitner, 2003:60). Failure to understand the levels of service customers expects can mean losing a customer to competitors who are able to meet customers' expectations and therefore be at a risk of losing business (Zeithaml & Bitner, 2003:60).

Levels of Expectations

Customers hold different types of expectations about service, the highest type of these are desired service and adequate service (Zeithaml, Bitner & Gremler, 2009:77) “Desired service is the level of service the customer hopes to receive” (Zeithaml, Bitner & Gremler, 2009:77). It is a combination of what customers believe “can be” and “should be” (Zeithaml, Bitner & Gremler, 2009:77).The expectations signal the level of customer hopes and wishes and belief that they may be fulfilled, thus failure to meet

these expectations may result to customers cutting down on purchase (Zeithaml, Bitner & Gremler, 2009:77).

Customers generally accept that the service would not always be performed according to their expectations and this is formerly known as adequate service (Zeithaml, Bitner & Gremler, 2009:77). Adequate service is the level of service that customers will accept (Zeithaml, Bitner & Gremler, 2009:77). Though customers' hopes and wishes may still be high, they however have a certain level of understanding in cases where receiving desired service does not seem possible at all (Zeithaml, Bitner & Gremler, 2009:77). For example customers are used to the self-service approach used in supermarket and therefore have certain levels of understanding or tolerance towards food retailers' service delivery.

The Zone of Tolerance

The zone of tolerance is defined as the degree to which customers recognize and are willing to accept service performance varies. Customers assess service performance on the basis of two boundaries: what they desire and what they consider acceptable. If service drops below adequate service level, customers get frustrated and this may cause dissatisfaction with the service provided by the company (Zeithaml, Bitner & Gremler, 2009:80). If service is above the zone of tolerance, that is when service performed by the business exceeds the desired level, customers will have favourable responses to the business. What becomes a problem is when service performance falls below what customers are willing to accept. The service rendered gets customers' attention in either positive or negative way. However, the zone of tolerance for supermarket may be justified by the argument presented by Elvy

(1995:7), that supermarket use the self-service approach on their customers, which result to them being more tolerable towards service quality that is below what they desire.

In addition different customers have different levels of service tolerance. Some customers have narrow zones of tolerance and expect a narrow range of service from providers; whereas on the other hand some customers have higher levels of service expectations that if not met cause dissatisfaction (Zeithaml, Bitner and Gremler, 2009: 80). Customer's zone of tolerance increases or decreases with the influence of a number of factors including price (Zeithaml, Bitner & Gremler, 2009:81). For example when prices are high customer expect quality service and therefore are less tolerant of poor or unreliable service.

Customers' service tolerance also varies for different service features or dimensions. The more important the service factor the less tolerant customers become towards bad or unreliable service. Thus this concludes the point that the higher the expectations of customers, the higher adequate service levels are, therefore the broader the zone of tolerance is likely to be.

Customer satisfaction

Customer satisfaction has been a popular topic in marketing practice and academic research since Cardozo's (1965) initial study of customer effort, expectations and satisfaction. Despite many attempts to measure and explain customer satisfaction, there still does not appear to be a consensus regarding its definition (Giese & Cote, 2000). Customer satisfaction is typically defined as a post consumption evaluative judgement concerning a specific product or service (Gundersen, Heide & Olsson, 1996). It is the result of an evaluative

process that contrasts pre-purchase expectations with perceptions of performance during and after the consumption experience (Oliver, 1980).

The most widely accepted conceptualization of the customer satisfaction concept is the expectancy disconfirmation theory (Barsky, 1992; Oh and Parks, 1997; McQuitty, Finn & Wiley, 2000). The theory was developed by Oliver (1980), who proposed that satisfaction level is a result of the difference between expected and perceived performance. Satisfaction (positive disconfirmation) occurs when product or service is better than expected. On the other hand, a performance worse than expected results with dissatisfaction (negative disconfirmation).

Studies show that customer satisfaction may have direct and indirect impact on business results. Anderson et al. (1994), Yeung et al. (2002), and Luo and Homburg (2007) concluded that customer satisfaction positively affects business profitability. Majority of studies have investigated the relationship with customer behaviour patterns (Söderlund, 1998; Kandampully and Suhartanto, 2000; Dimitriades, 2006; Olorunniwo et al., 2006; Chi and Qu, 2008; Faullant et al., 2008). According to these findings, customer satisfaction increases customer loyalty, influences repurchase intentions and leads to positive word-of-mouth.

Given the vital role of customer satisfaction, it is not surprising that a variety of research has been devoted to investigating the determinants of satisfaction (Churchill & Surprenant, 1982; Oliver, 1980; Barsky, 1995; Zeithaml & Bitner, 2003). Satisfaction can be determined by subjective (for example; customer needs, emotions) and objective factors (for example, product and service features). With regards to the hospitality industry, there

has been numerous studies that examine attributes that travellers may find important regarding customer satisfaction. Atkinson (1988) found out that cleanliness, security, value for money and courtesy of staff determine customer satisfaction.

Knutson (1988) revealed that room cleanliness and comfort, convenience of location, prompt service, safety and security, and friendliness of employees are important. Barsky and Labagh (1992) stated that employee attitude, location and rooms are likely to influence travellers' satisfaction. A study conducted by Akan (1995) showed that the main determinants of guest satisfaction are the behaviour of employees, cleanliness and timeliness. Choi and Chu (2001) concluded that staff quality, room qualities and value are the top three hotel factors that determine travellers' satisfaction in a hotel

Providing services those customers prefer is a starting point for providing customer satisfaction. A relatively easy way to determine what services a customer prefers is simply to ask them. According to Gilbert & Horsnell (1998), and Su (2004), guest comment cards (GCCs) are most commonly used in determining hotel guest satisfaction. GCCs are usually distributed in hotel rooms, at the reception desk or in some other visible place. However, studies reveal that numerous hotel chains use guest satisfaction evaluating methods based on inadequate practices to make important and complex managerial decisions (Barsky, 1992; Barsky & Huxley, 1992; Jones and Ioannou, 1993, Gilbert & Horsnell, 1998; Su, 2004).

The most commonly made faults can be divided into three main areas, namely, quality of the sample, design of the GCCs, and data collection and analysis (Gilbert & Horsnell, 1998). In order to improve the validity of hotel

guest satisfaction measurement practice, Barsky & Huxley (1992) proposed a new sampling procedure that is a “quality sample”. It reduces nonresponse bias by offering incentives for completing the questionnaires. The components of their questionnaire are based on disconfirmation paradigm and expectancy-value theory. In this manner, guests can indicate whether service was above or below their expectations and whether they considered a particular service important or not. Furthermore, Gilbert & Horsnell (1998) developed a list of criteria for GCC content analysis, which is adopted in this study as well.

Importance of Customer Satisfaction

Satisfying customers is one of the main objectives of every business. Businesses recognize that keeping current customers is more profitable than having to win new ones to replace those lost.

Management and marketing theorists underscore the importance of customer satisfaction for a business’s success (McColl-Kennedy & Schneider, 2000; Reichheld & Sasser, 1990). Accordingly, the prestigious Malcolm Baldrige National Quality Award recognizes the role of customer satisfaction as the central component of the award process (Dutka, 1993).

Good customer satisfaction has an effect on the profitability of nearly every business. For example, when customers perceive good service, each will typically tell nine to ten people. It is estimated that nearly one half of American business is built upon this informal, “word-of-mouth” communication (Gitomer, 1998). Improvement in customer retention by even a few percentage points can increase profits by 25 percent or more (Griffin, 1995). The University of Michigan found that for every percentage increase in customer satisfaction, there is an average increase of 2.37% of return on

investment (Keiningham & Vavra, 2001). Most people prize the businesses that treat them the way they like to be treated; they'll even pay more for this service.

However, a lack of customer satisfaction has an even larger effect on the bottom line. Customers who receive poor service will typically relate their dissatisfaction to between fifteen and twenty others. The average American company typically loses between 15 and 20 percent of its customers each year (Griffin, 1995). The cost of gaining a new customer is ten times greater than the cost of keeping a satisfied customer (Gitomer, 1998). In addition, if the service is particularly poor, 91% of retail customers will not return to the store (Gitomer, 1998). In fact, if the service incident is so negative, the negative effects can last years through repeated recollection and recounting of the negative experience (Gitomer, 1998; Reck, 1991).

The message is obvious - satisfied customers improve business and dissatisfied customers impair business (Anderson & Zemke, 1998; Leland & Bailey, 1995). Customer satisfaction is an asset that should be monitored and managed just like any physical asset. Therefore, businesses that hope to prosper will realize the importance of this concept, putting together a functional and appropriate operational definition (McColl-Kennedy & Schneider, 2000). This is true for both service-oriented and product-oriented organizations (Sureshchander, Rajendran, & Kamalanabhan, 2001).

The primary issue with developing an operational definition with the specific components of customer satisfaction is to clearly identify the nature of the organization's business. This further extends into the effective collection,

analysis, and application of customer satisfaction information. Services and products are the two major orientations of business.

Products – also referred to as goods, are the physical output of a business. These are tangible objects that exist in time and space. These are first created, then inventoried and sold. It is after purchase that these are actually consumed (Sureshchander, Rajendran, & Kamalanabhan, 2001; Berry, 1980). Products might include computers, automobiles, or food at a restaurant. Services, on the other hand, are less materially based. In fact, Bateson (cited in Sureshchander, Rajendran, & Kamalanabhan, 2001) noted that there is one major distinction between a service and a product. This differentiation is the intangible nature of a service – it cannot be touched, held, and so on.

Another difference is the issue that consists primarily of social interactions or actions (Berry, 1980). The consumption of a service involves the interaction between the producer and the consumer. Also, services are produced and consumed simultaneously (Carman & Langeard, 1980). Services might include computer repair, automobile sales, or the attendance of a server at a restaurant. Delivering quality service is a business necessity (Cullen, 2001).

Components and Requirements of Customer Satisfaction

The concept of customer satisfaction is composed of several components from distinct sources (McColl-Kennedy & Schneider, 2006). Customer satisfaction begins with clear, operational definitions from both the customer and the organization. Understanding the motivations, expectations, and desires of both gives a foundation in how to best serve the customer. It

may even provide information on making improvements in the nature of business. This is the heart of research into customer satisfaction (Naylor & Greco, 2002).

The importance of clearly defining the key concepts and elements of satisfaction provide a template by which information can be gathered about what is, and what is not, working. This includes both the hard measures – those that are more tangible and observable (that is, number of complaints, average wait time, product returns, etc) and the soft measures – those less tangible aspects (that is, friendliness, helpfulness, politeness, etc) (Hayes, 1998). These definitions often start with the most vague and general, and become more to the highly specified and precise examples. The bottom line is that in order to know about customer satisfaction, one needs to know what to look for (Mitchell, 1999). The organization needs to seek this information from both within and without.

The organizational requirements of customer satisfaction are the internally based processes, components, standards, and criteria that a business strives to achieve. These are the performance goals and benchmarks set forth by the business, for the business. These are the elements of corporate culture (Hayes, 1998). Meeting or exceeding these is often an indicator of success or failure. At times, these indigenous components of customer satisfaction may overlap with those set forth by the customer; at others they may be divergent. Those processes, components, and standards that are deemed important by the customer are another important source of information.

In order for a business to meet the needs and desires of the customer, the business must know the needs and desires of the customer. This

information is vital not only for successful business, but also for understanding and improving customer satisfaction. This important component helps to set the standards and components of satisfaction from the perspective of the consumer (Hayes, 1998).

Satisfaction dimensions are developed from the previously identified requirements. These are the specific components that make up the requirements. For example, if a customer and organizational requirement is for customer service, the satisfaction dimensions may include interactions, timeliness, and responsiveness. These are the clusters that define the requirements (Hayes, 1998). Critical incidents are the specific operations that relate to the satisfaction dimensions. These are often the concrete and measurable behaviours and actions of employees, groups, or organization. This may also include policies, procedures, and protocols in place within an organization (Hayes, 2008).

From this continued definition and distillation of various sources of data, the actual development of a customer satisfaction instrument or tool can begin in earnest. As usual, the planning of the research is the most important component in a successful information-gathering process. It is further helpful that a model of customer satisfaction that incorporates the organizational and customer requirements exists and is applicable in practice.

Factors that Affect Customer Satisfaction

Satisfaction which is vaguely defined as fulfilling the needs for which a good or service was made (Merriam websters Dictionary), is viewed differently in various industries, over various demographic backgrounds, as well as for individuals and institutions (Center for the study of Social Policy,

2007). Moreover, it has a totally different approach when it comes to services and products (Center for the study of Social Policy, 2007). All along we have been trying to understand quality of services, quality of products, and satisfaction both in the arena of comfort and in terms of utility. This is however very important but the fore mentioned intricacies about satisfaction cannot be under looked. Sahim et al. (2006) in an effort to find out whether customers were satisfied with the food services in the military hospital in Turkey realized that specific demographic characteristics were not of significance in determining the satisfaction of the patients but the appearance and taste of food. Their emphasis on demographic characteristics gives the reader the impression that they thought it was going to be an important factor.

Another study in Jiangsu province, China seeking to find out the differences in food preferences between students of different socio-demographic backgrounds and characteristics stated in their literature that societal and cultural factors as well as environmental and indigenous factors shape children's food choices, Shi et al., (2005). This makes them appreciate food quality differently and often because they are not used to it, or they do not like it at all or because of some traditional beliefs associated with the different demographic characteristics. It is however a little contradictory but depicts the complexities in the concept of satisfaction that some researchers seek to explain.

Bailey 1983) identified 38 factors that affected the satisfaction of computer users, among which were quality of the product, flexibility, reliability, priorities determination, security and expectations. In online education structure, transparency and communication potentials influence the

satisfaction of students and enhance the learning process, (Karen, 2001). It has however been identified that human needs, quality of services and products, the user friendly nature of product and services, and comfort assurance are some of the important determinants of customer satisfaction.

Even though different customers will require different levels and combinations of these variables, they generally are important factors that affect customer satisfaction. Matzler et al. (2002), went a step forward to classify factors that affect customers' satisfaction into three factor structures;

Basic factors

These are the minimum requirements that are required in a product to prevent the customer from being dissatisfied. They do not necessarily cause satisfaction but lead to dissatisfaction if absent. These are those factors that lead to the fulfilment of the basic requirement for which the product is produced. These constitute the basic attributes of the product or service. They thus have a low impact on satisfaction even though they are a prerequisite for satisfaction. In a nutshell competence and accessibility

Performance factors

These are the factors that lead to satisfaction if fulfilled and can lead to dissatisfaction if not fulfilled. These include reliability and friendliness.

Excitement factors

These are factors that increase customers' satisfaction if fulfilled but does not cause dissatisfaction if not fulfilled which include project management.

Relationship between Service Quality and Customer Satisfaction

Quality and customer satisfaction have long been recognized as playing a crucial role for success and survival in today's competitive market. Regarding the relationship between customer satisfaction and service quality, Oliver (1993) first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific. In relating customer satisfaction and service quality, researchers have been more precise about the meaning and measurements of satisfaction and service quality. Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service (Wilson *et al.*, 2008). Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml & Bitner, 2003). As said by Wilson *et al.* (2008), service quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy and tangibility while satisfaction is more inclusive and it is influenced by perceptions of service quality, product price and quality, also situational factors and personal factors.

According to Sureshchandar *et al.* (2002), customer satisfaction should be seen as a multi-dimensional construct just as service quality meaning it can occur at multi levels in an organisation and that it should be operationalized along the same factors on which service quality is operationalized. Parasuraman *et al.* (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports that

fact that service quality leads to customer satisfaction and this is in line with Saravana & Rao, (2007) and Lee et al. (2000) who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider.

According to Negi, (2009), the idea of linking service quality and customer satisfaction has existed for a long time. He carried a study to investigate the relevance of customer-perceived service quality in determining customer overall satisfaction in the context of mobile services (telecommunication) and he found out that reliability and network quality (an additional factor) are the key factors in evaluating overall service quality but also highlighted that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction. This study was based only on a specific service industry (mobile service) and we think it is very important to identify and evaluate those factors which contribute significantly to determination of customer-perceived service quality and overall satisfaction.

Fen & Lian, (2005) found that both service quality and customer satisfaction have a positive effect on customer's re-patronage intentions showing that both service quality and customer satisfaction have a crucial role to play in the success and survival of any business in the competitive market. This study proved a close link between service quality and customer satisfaction.

Su et al. (2002) carried a study to find out the link between service quality and customer satisfaction, from their study, they came up with the conclusion that, there exist a great dependency between both constructs and

that an increase in one is likely to lead to an increase in another. Also, they pointed out that service quality is more abstract than customer satisfaction because, customer satisfaction reflects the customer's feelings about many encounters and experiences with service firm while service quality may be affected by perceptions of value (benefit relative to cost) or by the experiences of others that may not be as good.

Empirical Analysis of Service Quality

The subject of service quality and customer satisfaction *inter alia*, has been explored by many authors locally and internationally, some of which are brought into perspective in this dissertation. Agyapong (2010) sought to examine the relationship between service quality and customer satisfaction in the utility industry (telecom) in Ghana. The study adapted the SERVQUAL model as the main framework for analyzing service quality. The main instrument for data collection was questionnaire. The questionnaire was developed based on the stated hypothesis and also based on the SERVQUAL model. Both open-ended and closed-ended questions were used.

The questions were on a 7-point Likert scale. The scores were coded 7 for strongly agree or strongly satisfied, 6 for moderately agree or moderately satisfied, 5 slightly agree or satisfied, 4 for neutral or indifferent, 3 for somehow disagree or slightly dissatisfied, 2 for disagree or moderately dissatisfied and 1 for strongly disagree or highly dissatisfied. Multiple regression analysis was used to examine the relationships between service quality variables and customer satisfaction. The results showed that all the service quality items were good predictors of customer satisfaction.

Kabir and Carlsson (2010) analysing expectations, perceptions and satisfaction about service quality in Destination Gotland used quantitative case-study on service quality and customer satisfaction. The case-study consists of questionnaires that were administered to people who have experience from travelling with Destination Gotland. A convenient sampling (non-probability sampling) was used where 120 questionnaires were distributed to respondents. The method for analysis was the SERVQUAL model. The results from the different dimensions showed that there was a gap between expectations and perceptions which means that the customers were not fully satisfied with the service quality at Destination Gotland. On the other hand, the main respondents said yes on the question of, 'if they think the service meet their expectations'. The result showed total gap at -0.39.

Agbor (2011) investigated the relationship between customer satisfaction and service quality: a study of three Service sectors in Umea. Similarly, convenience sampling technique was also used as in Kabir and Carlsson (2010) to collect quantitative data from 300 customers of Umea University, ICA Alidhem (a retail shop) and Forex Bank (100 customers each from Educational, financial and shop sectors) to get their satisfaction levels and meaning of service quality which were substituted in the SERVQUAL model. Chi-square test was rather used to test the hypotheses separately and in a group.

The study showed distinctive results for the relationship between service quality dimensions and service quality and customer satisfaction. ICA and Forex had significant relationship between service quality and customer satisfaction, but Umea University had no significant relationship between

service quality and customer satisfaction. Meanwhile the group result showed that: responsiveness, empathy and reliability were significantly related to service quality. Reliability and `empathy, were significantly related to customer satisfaction but `responsiveness` was not significantly related to customer satisfaction; meanwhile service quality was significantly related to customer satisfaction.

The findings imply that service quality is not the only factor that could lead to customer satisfaction in service sectors; that service quality dimension varies in the different service sectors. The findings suggest that to provide quality service in order to satisfy customers, organizations in this kind of service sectors need to improve on the dimensions of service quality. Also, to provide total satisfaction to customers, the service sectors need to improve on the other factors that were given as reasons for satisfaction. The researcher recommended that because the study did not consider employees who provide the services to customers, further research could be conducted to ascertain the relationship among customer satisfaction, service quality and job satisfaction with the use of all the five SERVQUAL dimensions at once, to see if satisfaction level of employees is related to their services and/or customer satisfaction.

Nimako, Gyamfi and Wandaogou (2013) empirically examined Customer Satisfaction (CS) with internet banking service quality (IBSQ) in the Ghanaian banking industry. The study was a cross-sectional survey that employed the use self-administered questionnaire to collect primary data from a sample of 200 respondents of two banks through personal contact. The findings were that customers of Merchant Bank, Ghana (MBG) were more

satisfied with the IBSQ than those of Ghana Commercial Bank (GCB). Moreover, income influenced the satisfaction of customers for IBSQ generally. It was found that, generally, customers of the two banks were dissatisfied with the promptness of reception of responses to customer request, the ability to be guided online to resolve problems, offering of preferentially lower fees/ rates and charges, and reasonability of the transaction fee for online banking transactions, but were less satisfied with the quickness of web pages loading when using online banking transactions.

On the contrary, Pina, Torres and Bachiller (2014) analysed the economic and technological factors that determine the quality of European telecommunications services. The paper tested whether the privatisation, the efficiency and the labour factor of telecommunications operators were determinants of service quality and whether competition, technology and infrastructure investment in the telecommunications sector influence that quality. Unlike the previous empirical review that used SERVQUAL dimensions, this study used the panel data methodology to analyse the factors that determine the quality of service of telecommunications.

The results indicated that the more efficient the company is, the more quality it will deliver. However, the paper finds no evidence that the privatisation and the restructuring of the labour force of the main telecommunications operators, or the competition, technology and investments in the sector led to greater quality. In order to foster higher quality, effective market competitiveness has to be established to avoid benefitting the incumbent company and to make the development of competition possible in the long run. The current study explores the relationship between service

quality and customer satisfaction using the Ghana Water Company as case study.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methodological procedures used in conducting this research and provides a justification for the steps taken. It covers the research design, population, sample and sampling technique, data collection methods or instrument and data analysis techniques.

Study Organization/Area

Pursuant to the statutory corporations conversion to companies, Ghana Water and Sewerage Corporation was converted in to a 100% state owned liability, Act 461 of 1993 was amended by LI 1648 on 1st July, 1999 which established Ghana water company Limited. Ghana Water was charged with the responsibility for urban water supply, urban water sector planning and development as well as providing quality and excellent customer service.

Currently the company operates 88 urban water supply systems throughout the country. Average production is about 871,496m³ per day which is 192 million gallons per day. Present potable water demand is estimated at about 1,131,818.18m³ per day which is 249 million gallons per day. Urban water supply coverage is therefore about 77%. Nationwide customer strength stands at 550, 654 of which 74% are metered and 26% unmetered (GWCL company's record 2016)

This study was conducted in the Sekondi Takoradi Metropolis. Sekondi-Takoradi Metropolitan Assembly is one of the 22 Districts in the Western Region. The Metro is bounded to the North by Mpohor-Wassa East,

to the South by the Gulf of Guinea, West by Ahanta West District and to the East by Shama District. It has a total land area of 49.78 km², with Sekondi as the administrative headquarters. The metropolis is located on the west coast; about 280km west of Accra and 130km east of La Cote D'voire. It is thus strategically located considering its closeness to the sea and the airports and accessibility to major cities by rail and road.

The current population is based on the 2000 population census and projected to be at 404,041 in 2010. These projections were based on the average growth rate of 3.2%. The age structure of the metropolis is as follows; 44.8% of the population is below the age of 14 with 51.9% between 15 and 64 while those above 65 are only 3.3%. The economically active population is about 60 percent of the population. Out of the lot 49.1% are males while 50.9% are females. With a land area of 49.78 km², the current population density of the Metropolis stands at 8,140 persons/km² (GDHS 2007).

(SOURCE: GSSD, 2009, Ghana Facts and Figures Report, 2010, Google, Wikipedia).

Research Design

A case study design was adopted for this research. According to Yin (2002), a case study is an empirical inquiry that conducts an in-depth investigation into a contemporary phenomenon in a real-life scenario. It is especially relevant when the boundaries between the phenomenon and its context are not clearly evident hence chose quantitative approach. The case study design was selected as appropriate for this research because of the following reasons:

1. Service Quality is a contemporary phenomenon with requires intensive examination. An in-depth investigation was conducted on the unit of enquiry.
2. Findings from this study can add strength to what is already known through previous research
3. Additionally, little is known about the impact service quality delivery on customer satisfaction in Ghana Water Company
4. The descriptive nature of the design was very useful during data collection, whereby respondents provided additional details and reasons for key choices made. Such qualitative responses supported the logic in quantitative analysis of field data in comparison with literature. This, in effect, enhanced the level of understanding of the phenomenon under study.
5. The case study approach was a good method for capturing data on the contemporary reality of service quality in a natural context. This enhanced the validity of research findings

Population of the Study

For the purpose of the study, the population comprised the customers of the Ghana Water Company- Takoradi Township. The customer base as the time of the research was 7,571.

Sample and Sampling Technique

Martínez-Mesa (2016) describe a sample as a portion or a subset of the research population selected to participate in a study, representing the research population. Since it was not possible to reach out to every individual in the

Takoradi Township, a sample was selected. This was done by grouping the population into seven zones.

Stratified random sampling technique was used to identify respondents under investigation. This helps the researcher represents all the categories in the population. The number of respondents selected from each zone by type is shown in Table 3.

Table 3: Sample Size for Takoradi District of GWCL as at June 2016

Stratum	Population	Sample Size
Zone 1	1,298	17
Zone 2	547	5
Zone 3	1,745	30
Zone 4	564	8
Zone 5	1,352	25
Zone 6	735	15
Zone 7	1,330	20
Total	7571	120

Source: GWCL, Takoradi District

Data Collection Instrument

Data collection instruments refer to devices used to collect data such as questionnaires, tests, structured interview schedules and checklists (Muchesa, 2015). In this study, questionnaires were used to obtain data relevant to the study's objectives and research questions. The main data collection instruments used for the study were semi-structured questionnaires. Semi-structured questionnaires were used for the data collection. Questionnaires were personally administered with the help of research assistants.

The study also made use of Secondary data which were data that had been collected by individuals or agencies for purposes other than those of this

particular research study. These included books, articles, journals and other sources necessary.

Ethical Consideration

The conducting of research requires not only expertise and diligence, but also honesty and integrity. To render the study ethical and in order to avoid physical and psychological harm and also to see that stakeholders' rights are not violated, the researcher shall take into account practices and procedures which lead to:

- Protection of human and non-human subjects,
- Appropriate use of methodology,
- Inference, conclusions and recommendations based on the actual findings and
- Complete and accurate research reporting.

Also, rights to self-determination, anonymity, confidentiality and informed consent were observed.

Hilla (2006) define informed consent as the prospective subject's agreement to participate voluntarily in a study, which is reached after assimilation of essential information about the study. Respondents were therefore informed of their rights to voluntarily consent or decline to participate, and to withdraw participation at any time without penalty.

Subjects were informed about the purpose of the study, the procedures used to collect the data, and assured that there was no potential risks or costs involved. Anonymity and confidentiality was maintained throughout the study. Craig (2005) define anonymity as when subjects cannot be linked, even by the researcher, with his or her individual responses.

In this study anonymity was ensured by not disclosing the customer's name on the questionnaire and research reports and detaching the written consent from the questionnaire. When subjects are promised confidentiality it means that the information they provide will not be publicly reported in a way which identifies them (Gross 2005). In this study, confidentiality was maintained by keeping the collected data confidential and not revealing the subjects' identities when reporting or publishing the study (Gross 2005). No identifying information was entered onto the questionnaires, and questionnaires were numbered after data was collected.

The ethical principle of self-determination was maintained. Subjects were treated as autonomous agents by informing them about the study and allowing them to voluntarily choose to participate or not. Lastly, information about the researcher was provided in the event of further questions or complaints.

Scientific honesty is regarded as a very important ethical responsibility when conducting research. Dishonest conduct includes manipulation of design and methods, and retention or manipulation of data. The researcher avoided any form of dishonesty by recording truthfully the answers of those subjects who could not read or write. Manipulation of data was not done as the researcher enters the data from the questionnaires into the SPSS computer software programme.

Procedure for Data Analysis

According to Welman and Kruger (2003), after a study has been conducted, according to its planned design, the obtained data must be coded, analysed and interpreted. The purpose of coding data is to render data in a

form which can be presented and analysed (Birley & Moreland, 1998). The quantitative data were analysed after coding using the Statistical Package for Social Science (SPSS) version 20.0. The results were presented using descriptive statistics (frequencies/percentage, tables, graphs and charts).

The qualitative data were analysed using thematic analysis. Thematic analysis was appropriately chosen because according to Miller and Crabtree, (1992), it is a useful tool in the analysis and interpretation; and allowed the data to be used in a systematic manner so as to increase the accuracy and sensitivity in the understanding and interpretation of the data. Thematic analysis is the process of encoding qualitative information with explicit codes. A thematic code is a pattern of recognition within data, where emerging themes become the categories for analysis. These can be a list of themes – a model with themes, indicators and qualifications (Crabtree & Miller, 1999).

To analyse the effect of service quality on customer satisfaction, the study adapted a multiple linear regression model. The ordinary least square technique was used. The SERVQUAL model suggest the difference between customer's expectation and assessment of actual service received, provide a measure of service quality (Parasuraman, Ziethaml & Berry, 1988). If the difference shows whether service quality is acceptable or not acceptable as perceived by customers, valuing their expectations against performance. This model however does not show the direct influence of the five service quality dimensions: tangibility, reliability, responsiveness, assurance and empathy on the overall customer satisfaction.

This is because a high degree of service quality from this gap analysis does not always bring about satisfaction. To able to assess the possible effect

and relative importance of service quality on overall customer satisfaction, a multiple regression model is considered appropriate for this study. Regression analysis is a statistical technique used to evaluate the relationship between a dependent variable and one or more independent variable. A multiple regression analysis therefore provides measure to predict the magnitude of the relative importance of the independent variables on the variation in the dependent variable. In this work, customer satisfaction as the dependent variable is regressed on the five component of service quality based on the SERVQUAL model as independent variables. The fitted multiple regression is explicitly specific in the equation 1:

$$CS_i = \beta_0 + \beta_1 TA_i + \beta_2 RB_i + \beta_3 RP_i + \beta_4 AS_i + \beta_5 EM_i + \varepsilon_i \quad (1)$$

Where:

CS_i : overall customer satisfaction

TA_i : tangibility

RB_i : reliability

RP_i : responsiveness

AS_i : assurance

EM_i : empathy

β_s : unknown parameters to be estimated

ε_i : stochastic error term

Measurement of Variables in equation 1

Service quality was measured using the variables in the SERVQUAL model: Tangibility, Reliability, Responsiveness, Assurance and Empathy. In using the SERVQUAL instrument, 22 statements measured the service quality across the five components, using a 5-point scale (1 to 5). Also using a 5-point

scales respondent were asked to rate their level of satisfaction. The summated mean score of the dependent variable was generated. The GAP theory developed by Parasuraman et al. (1985) was to generate gap score for each of the five service quality dimensions. The theory gives a quantitative measure of how customer perceived service performance of providers by comparing customer expectation and perceptions (actual service performance) on each of the five service quality dimensions proposed by the SERVQUAL model.

The gap scores of each dimension were used to generate performance score for each of the five dimensions. A negative score was assign a value of zero (that is non-satisfactory service performance) and a non-negative score is assigned a value of one (that is satisfactory service performance) for each of the five dimensions. The summated mean score for the dependent variables and performance score for the five main dimensions of service quality were then fitted into the regression model to address objective four the study. ANOVA test was used to examine the relative importance of the contribution of each determinant (the five quality dimensions) to the overall satisfaction level of GWCL customers.

Research Hypothesis:

- H₀: Service quality has no significant impact on overall customer satisfaction
- H₁: Service quality has significant impact on overall customer satisfaction

Reliability and diagnostic test

To test the reliability of the five dimensions of the SERVQUAL instrument, the Cronbach alpha computed for the individual elements in the SERVQUAL instrument: Tangibility, Reliability, Responsiveness, Assurance and Empathy. This was to validate whether the instrument accurately measures and represent the construct of service quality and customer satisfaction. In addition, since the regression model is multiple linear model, the following diagnostic test were carried to validate the fit of the model: Normality test, heteroscedasticity and multicollinearity test.

The results on the reliability statistics and diagnostic test is presented in Table 4.

Table 4: Results of Reliability Statistics and Diagnostic Test

Construct	Number of Items	Reliability test		Multicollinearity Test
		Cronbach Alpha		VIF
		Expectation Items	Perception Items	
Tangibility	4	0.805	0.841	1.5372
Reliability	6	0.871	0.892	2.2970
Responsiveness	4	0.926	0.804	3.4238
Assurance	4	0.912	0.824	1.7778
Empathy	4	0.911	0.827	3.2034
Customer's satisfaction	6	0.831		
Other diagnostic tests		Test statistics		P-value
Shapiro-Wilk normalitytest		W = 0.9807		0.3035
Goldfeld-Quandt test for heteroscedasticity		GQ = 0.684		0.852

Source: Field Data, Awortwe (2016)

Table 4 presents results on the reliability and regression diagnostic test. Given that the main objective of the study was to address the issue of utility user's assessment of service quality in a GWCL, it was necessary to test the

use of the adapted SERVQUAL instrument for measuring service quality within this service setting. The reliability of the scale was tested using Cronbach's alpha. As shown in Table 4, the alpha values of each constructs was above 0.70 indicating a good internal consistency for all the constructs. This suggests that the items included in the SERVQUAL instruments accurately measures the various constructs describing service quality and customer satisfaction. It must however be noted that the initial 7 item of customer satisfaction gave a value of 0.620 which was below the accepted value of 0.70 and above. The common practice to improve the value of alpha is by removing from the construct the item with the lowest corrected item-Total correlation. Thus, the item "Having the knowledge and the expertise to meet your needs" was deleted and Cronbach's alpha was re-estimated for the customer satisfaction construct which yielded an alpha of 0.831.

The p-value of the Shapiro-Wilk statistics implies that the data set was normally distributed. Furthermore, the Goldfeld-Quantest statistics also indicated the condition of homoscedasticity was not violated. Finally the VIF values shown in Table 4 were all found to be less than 4 and this gives an indication that multicollinearity is not an issue, hence one can go ahead to accept the results from the regression model.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

This chapter presents the data collected with the use of the SERVQUAL instrument, which was used to assess service quality delivery and its impact on customer satisfaction in Ghana Water Company Limited. The study looked at what customers perceive about the company; it also examined the gaps between customers' expectations and perceptions and calculated and measured the score for the five SERVQUAL dimensions, namely: tangibles, reliability, responsiveness, assurance and empathy. In all one hundred and twenty questionnaires were administered by the researcher to customers, of which seventy-six (76) were retrieved for analysis which represents 63 percent of rate of collection.

Socio-demographic Characteristics

Demographic variables are the most popular bases for classifying/segmenting customers. Consumer wants, preferences and usage rates are often associated with demographic variables since they are easy to measure (Kotler, 2003). Information on socio-demographic characteristics is essential for the interpretation and understanding of perceptions of service quality though there has been very little attempt to link the socio-demographic characteristics of customers to their perception of service quality (Mensah, 2009).

This section presents the socio-demographic characteristics of the respondents. These characteristics include gender, age, marital status, level of education and employment status as well as income levels and status in

household of the respondents. Simple frequencies and percentages were used in representing the socio-demographic characteristics of the respondents. A description of the statistics of respondents in relation to gender, age and marital status of respondents is presented in the table 4 below.

Table 5 shows that, there were 42 males representing 55.3 percent of the respondents and 34 females representing 44.7 percent of the respondents used for the study. These findings showed that majority of the customers of GWCL were males.

Table 5: Gender, Age and Marital Status of Respondents

	Variable	Frequency	Percent
Gender	Male	42	55.3
	Female	34	44.7
	Total	76	100.0
Age	18-29	13	17.1
	30-39	13	17.1
	40-49	23	30.3
	50+	27	35.5
	Total	76	100.0
Marital Status	Single	15	19.7
	Living with partner	2	2.6
	Married	53	69.7
	Separated	1	1.3
	Divorced	2	2.6
	Widowed	3	3.9
	Total	76	100.0

Source: Field survey, Awortwe (2016)

Table 5 shows the age categories of respondents. It was realized that 27 (35.5%) of the respondents were 50 years and above, 23 representing 30.3

percent were between the ages of 40 and 49 years while 13 representing 17.1 percent were between 30 and 39 years as well as 18 and 29 years respectively. This indicates that the customer base of the GWCL in the Takoradi district is spread across all age groups with the old and middle age groups being the majority. The marital status of respondents was also considered in this study and results from the table indicates that majority (53) representing 69.7 percent of the respondents were married, there were 15 respondents (19.7%) who single, 2 (2.6%) were living with their partners, one (1.3%) was separated, two others representing 2.6 percent were divorced and three representing 3.9 percent were widowed.

The results give credence to the fact that most households in the Takoradi district were occupied by married couples.

Table 6: Cross Tabulation for Employment Status and Level of Education

	Basic	Secondary/ Technical	Tertiary/Pr ofessional	Total
Unemployed	1	3		4
Full time employee of private firm		1	5	6
Full time employee of public firm		7	42	49
Self-employed without employees	1	2	2	5
Self-employed with employees		1	3	4
Casual worker			1	1
Apprentice		1		1
Domestic employee			2	2
Retired			4	4
Total	2	13	59	76

Source: Field survey, Awortwe (2016)

From Table 6 above, three (3) of the respondents who were unemployed had secondary/technical education, and one (1) had basic

education. A total of 49% of the respondents were full time employees of public firms with 7 and 42 having secondary/technical education and tertiary/professional education respectively.

Among the employees of private firm, 1 and 5 respondents had secondary/technical education and tertiary/professional education respectively. A total of 5% of the respondents were self-employed without employee(s) with two (2) having tertiary/professional educational background, 2 with secondary/technical educational background and 1, with basic educational background. Four (4) respondents representing 3% were self-employed with employee(s), of which three (3) had tertiary/professional educational background and one (1) had secondary/technical educational background. There was one casual worker who had tertiary/professional educational background and one apprentice who had secondary/technical educational background as well as two domestic workers who had tertiary/professional education. Again, there were four respondents who were retired and had tertiary/professional educational background.

In all, about 80% of the respondents had formal education up to tertiary/professional while 20% had formal education up to secondary school. This implied that all of respondents were literates which informed their understanding of the study.

Table 7: Monthly Take-Home Income

GHC	Frequency	Percent
less than 160	1	1.3
160-599	8	10.5
600-999	15	19.7
1000-1499	30	39.5
1500-1999	10	13.2
2000-2499	2	2.6
2500-2999	3	3.9
3000-3499	1	1.3
4500-4999	1	1.3
5000-5499	1	1.3
Other	4	5.3
Total	76	100.0

Source: Field survey, Awortwe (2016)

Table 7, gives an overview of the monthly disposable income earned by the respondents used in the study. The table indicates that a greater number of respondent (30) representing 39.5 percent earned a monthly take-home income of between GHC 1000 and 1499, ten (10) representing 13.2 percent earned between GHC 1500-1999, fifteen (15) which represent 19.7 percent earned between GHC 600-999, eight (8) which present 10.5 percent earned between GHC 160-599, A few (2) representing 2.6 percent earned between GHC 2000-2499, while three (3) which represent 3.9 percent earned between GHC 2500-2999 and four (4) representing 5.3 percent earned income other than the range provided by the study and this could either be greater or lesser than the range provided by the study. There were however, one (1) respondent each representing 5.3 percent for four other income ranges less than GHC160,

between GHC 3000-3499, GHC 4000-4499 and between GHC 5000-5499 respectively.

This implies that, most respondents earned good income and therefore would be able to afford better service quality if provided by the GWCL even at a reasonable cost.

Table 8: Status in Household

	Frequency	Percent
Owner(landlord/lady)	18	23.7
Tenant	40	52.6
Parent of owner	4	5.3
Wife of owner	4	5.3
Husband of owner	7	9.2
Child of owner	3	3.9
Total	76	100.0

Source: Field survey, Awortwe (2016)

The table 8 indicates respondents' status in the household in which they occupy. From the results, majority (40) of the customers of GWCL in the Takoradi district were tenants and this made a percentage of 52.6, there 18 representing 23.7 percent who either landlord or landladies.

There were others who also had ownership of such accommodation by virtue of their relationship with the real owners of such accommodation. These were parent of owner, 4 (5.3%), wife of owner, 4 (5.3%), husband of owner, 7 (9.2%), and child of owner, 3 (3.9%). This implied that, although there were some landlords and landladies who partook of the study, majority of the respondents were tenants.

Customers’ Expectation and Perception towards Water Service Quality by GWCL in the Takoradi Township based on the Servqual Model

This section presents analysis of results based on customers’ satisfaction or otherwise to service quality based on the servqual questionnaire, which dealt with the first objective of identifying customer’s expectation and perception of the quality of services delivered at the GWCL.

Tangibility Dimension

Tangibility is explained as the physical facilities, such as equipment, furniture, lighting, PVC pipes, state-of-the-art tools and equipment as well as the dress and grooming of staff of GWCL. These things should be visually appealing, modern and up-to-date, in the same way the employees should appear neat and smart. The study sort to find out an ideal situation where everything is well organised for effective service delivery and smooth running of water in the pipes of customers.

Table 9: Expected and Perceived Service Quality at GWCL on Tangibility

Dimension

Tangibility	Frequency	Percent
Expectation	2.64	38.8
Perception	4.17	61.2
Total	6.81	100

Source: Field survey, Awortwe (2016)

Table 9, illustrates that, with regards to tangible facilities, respondents expected the company to have quality level of approximately 2.64 which is 38.8 percent of quality, however, respondents were of the view that GWCL

actually had quality level of approximately 4.17, which is 61.2 percent. Respondents expectation is what is believed will be provided by the institution. It is this service quality expectation that is compared with the perceived service quality and which results in satisfaction or dissatisfaction. If perceived service falls below the expected service, respondents will be dissatisfied.

On the other hand, if service perception exceeds respondent's expectations, respondents become highly satisfied. With this result, it is clear that the physical facilities of the company with regards to the state of the art equipment and well-furnished office are appealing.

The tangible facilities of GWCL exceeded the normal expectation by approximately 1.53. In terms of the employees being well dressed and smart, GWCL scored high marks from the respondents, most respondents (35 percent) expected GWCL employees to be smart and neat-appearing. Twenty five percent of the respondents were uncertain in their response on this statement while 9% disagreed with the statement. This reason may be due to the fact the GWCL is a state owned institution and for that matter acquiring state-of-the art equipment may be easily acquired by the government.

The results thus prove that expected service of the customers with respect to tangibles have been exceeded by the GWCL leading to excited or delighted customers.

Reliability Dimension

Contextually, reliability measures the firm's ability to perform service dependably, accurately and consistently. The researcher aim was to find out some reliability dimensions such as: When employees of GWCL promise to

do something by a certain time, they do so, showing sincere interest in solving problems of customers, since all these dimensions lead to satisfied and delighted or excited customers or dissatisfied customers.

Table 10: Expected and Perceived Service Quality at GWCL on Reliability

Dimension

Reliability	Frequency	Percent
Expectation	3.96	58.1
Perception	2.85	41.9
Total	6.81	100

Source: Field survey, Awortwe (2016)

Table 10, shows respondents views on reliability dimension of services provided to clients of GWCL. Reliability dimension measures the trustworthiness as well as the sincerity of the firm in terms of the provision of services to clients. It can be inferred from the figure that clients of GWCL expected the firm to have a quality level of 3.96 .i.e. 58.1 percent. However, respondents were of the view that GWCL had a quality level of 2.85 .i.e. 41.9 percent.

This result indicates that the expectations of clients in matters relating to GWCL providing quality services exceeds perceived quality of services provided by GWCL, thus resulting in dissatisfied clients on the reliability dimension.

Responsiveness Dimension

This dimension measures how service is carried out promptly according to needs of the customers, that is, commitment of employees GWCL to help customers and provide service promptly.

Table 11: Expected and Perceived Service Quality at GWCL on

Responsiveness Dimension

Responsiveness	Frequency	Percent
Expectation	2.64	38.8
Perception	4.17	61.2
Total	6.81	100

Source: Field survey, Awortwe (2016)

Provision of quality water is useful in improving the well-being of people. One of the key things that work against provision of quality services especially among human institutions is carelessness. In view of this, the research sort to identify parameters implemented by GWCL in addressing complaints from clients of the firm.

Table 11, showed the level of commitment of staff of GWCL in the provision of services to clients which adds to the responsiveness dimension of the firm. It can be inferred from figure 4 that, clients of GWCL expected the firm to have a quality level of 2.64 .i.e. 38.8 percent. However, respondents were of the view that GWCL had a quality level of 4.17 .i.e. 61.2 percent.

This result indicates that the expectations of clients in matters relating to GWCL providing quality services was exceeded by perceived quality of services provided by GWCL, thus resulting in satisfied clients on the responsiveness dimension.

Assurance Dimension

This dimension measures employees' knowledge of service and courtesy towards respondents and the ability of employees to convey trust and confidence to respondents.

Table 12: Expected and Perceived Service Quality at GWCL on Assurance

Dimension

Assurance	Frequency	Percent
Expectation	2.62	38.5
Perception	4.19	61.5
Total	6.81	100

Source: Field survey, Awortwe (2016)

Table 12, shows respondents views on assurance dimension of services provided to clients of GWCL. Assurance dimension measures the ability of employees to convey trust and confidence to clients of GWCL. It can be inferred from the figure that clients of GWCL expected the firm to have a quality level of 2.62 .i.e. 38.5 percent. However, respondents were of the view that GWCL had a quality level of 4.19 .i.e. 61.5 percent.

This result indicates that the expectations of clients in matters relating to GWCL providing quality services was exceeded by perceived quality of services provided by GWCL, thus resulting in satisfied clients on the assurance dimension.

Empathy Dimension

Empathy dimension measures how employees pay attention, listen, adapt and are flexible in delivering what individual customers need as well as employees of GWCL being respectful in manner and action toward customers.

Table 13: Expected and Perceived Service Quality at GWCL on Empathy

Dimension

Empathy	Frequency	Percent
Expectation	2.72	39.9
Perception	4.09	60.1
Total	6.81	100

Source: Field survey, Awortwe (2016)

Table 13, shows respondents views on empathy dimension of services provided to clients of GWCL. Empathy dimension measures how employees pay attention, listen, adapt and are flexible in delivering what individual customers need as well as employees of GWCL being respectful in manner and action toward customers. It can be inferred from the figure that clients of GWCL expected the firm to have a quality level of 2.72 .i.e. 39.9 percent. However, respondents were of the view that GWCL had a quality level of 4.09 .i.e. 60.1 percent. This result indicates that the expectations of clients in matters relating to GWCL providing quality services was exceeded by perceived quality of services provided by GWCL, thus resulting in satisfied clients on the assurance dimension.

Gap Analysis to Determine the Gap between Customer Expectation and Perception.

This section deals with the second objective to determine the gap analysis of the quality of service assessed. Gap analysis is the difference between customers’ expectations of the service they will receive and what they perceive they have received (Parasuraman et al., 1988).

Table 14: Gap between Customer Expectations and Perception of Service Quality at GWCL

Question Number	Expectation Mean	Perception Mean	Gap	Dimension Score	Dimension
1	2.87	4.09	1.22	1.53	Tangibility
2	3.00	3.97	0.97		
3	3.25	4.03	0.78		
4	2.91	4.16	1.25		
5	3.63	2.62	-1.01	-1.15	Reliability
6	4.07	2.64	-1.43		
7	3.74	2.93	-0.81		
8	4.16	2.79	-1.37		
9	4.03	2.87	-1.16		Responsiveness
10	4.11	2.99	-1.12		
11	2.49	4.01	1.52	1.53	
12	2.58	4.16	1.58		
13	2.82	4.22	1.40		Assurance
14	2.68	4.28	1.60		
15	2.92	4.17	1.25	0.9	
16	3.33	4.17	0.84		
17	3.55	4.25	0.70		Empathy
18	3.34	4.16	0.82		
19	3.00	3.93	0.93	1.09	
20	3.17	4.13	0.96		
21	2.92	4.20	1.28		
22	2.89	4.09	1.20		

Source: Field survey, Awortwe (2016)

Table 14, shows the gap difference for the five dimensions of service quality. On the tangibility dimension, the highest statement gap score on

tangibles (1.25), related to materials associated service quality for the GWCL and the smallest gap score (0.78), related to the smart and neatly dressed employees for the company.

The highest statement gap score for the reliability dimension (-0.81) was linked to the timely execution of promises by staff of the GWCL and the smallest gap score (-0.43), related to the staff of GWCL showing sincere interest in stopping leakages when reported to them. This means that the GWCL needs to work hard in this area in order to avert tarnishing the hard earned reputation of the company.

The highest statement gap score for the responsiveness dimension (1.60), related to employees of the company being never too busy to respond to customers' request, while the smallest gap score (1.40) linked to staff being willing to help customers at no extra cost to whatever customers are already paying for the services they receive.

The highest gap score for the assurance dimension (1.25) related to staff GWCL using their behaviour to inspire confidence in customers, while the smallest gap score (0.70) was linked to employees of GWCL being consistently courteous with customers.

The highest gap score for empathy (1.28) related to the GWCL employees having customers' best interest at heart, while the smallest gap score for this dimension (0.93) was linked to company giving personal attention to individual customers.

After comparing the differences between customers' perceptions and expectations, the results have shown a positive score, as the customer's perception exceeded their expectation. It was found that all the service quality

dimensions scored higher service quality grades with the exception of reliability dimension which was graded consistently low. The results indicate that the majority of respondents expects the GWCL to deliver service quality that will exceed their expectations.

The respondents rated tangibility and responsiveness highest, followed by empathy, and then assurance. Reliability was rated the least important expectation according to the respondents. The results show that customers' perception of service quality at the Ghana Water Company Limited comes above their expectations, presenting a great challenge to the company to improve on such dimensions.

The gap analysis also indicates that customers of the Ghana Water Company are satisfied with majority of the service dimensions and thus the company needs to maintain or even improve on such dimensions. There is also the need by the company to put in measures to improve on its delivery of the reliability dimension in order to fully satisfy their customers.

Table 15: Customers' Satisfaction with the Service Quality Provided by GWCL

	Very satisfied		Fairly satisfied		Neither satisfied nor dissatisfied		Dissatisfied		Very dissatisfied	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Overall satisfaction with the quality and services	8	10.5	26	34.2	29	38.2	9	11.8	4	5.3
Courtesy and professionalism	8	10.5	30	39.5	17	22.4	17	22.4	4	5.3
Timelessness of getting back customers when needed	5	6.6	23	30.3	30	39.5	14	18.4	4	5.3
Knowledge and expertise to solve customers' needs	6	7.9	18	23.7	31	40.8	15	19.7	6	7.9
Providing clear, complete and accurate information and quotation	8	10.5	18	23.7	37	48.7	7	9.2	6	7.9
Fairness of pricing	11	14.5	26	34.2	21	27.6	8	10.5	10	13.2
Quality of service and product	7	9.2	21	27.6	32	42.1	11	14.5	5	6.6

Source: Field survey, Awortwe (2016)

Table 15, shows customers' satisfaction or otherwise with the service quality provided by GWCL. The results show a strong overall satisfaction (44.7%) with the service quality provided by the GWCL with just a minimum (17.1%) showing dissatisfaction for the service quality offered by the company. There was also greater satisfaction (50%) shown for courtesy and the professionalism exhibited by employees of the GWCL in carrying out their duties. On the timelessness and getting back to customers whenever needed, majority (36.9%) of the respondents showed a strong satisfaction towards the

service while 23.7 percent were dissatisfied with the service and about 40% were neither satisfied nor dissatisfied with the service.

With respect to having the knowledge and expertise to solve customers' needs, most (31.6%) of the respondents were satisfied with the service, 27.6% were dissatisfied with the service and a greater percentage (40.8%) was neither satisfied nor dissatisfied. This implies that most of the respondents were indifferent with employees of GWCL having the requisite knowledge and expertise to solve customers' needs or not. Concerning the provision of clear, complete and accurate information and quotation, more respondents (31.2%) were both satisfied and fairly satisfied with the service while 17.1 percent were dissatisfied and a greater percentage (48.7%) were neither satisfied nor dissatisfied. The indifference shown by respondents indicates that the provision of information and quotations were not clear, complete and accurate.

With regards to fairness of pricing by GWCL, it was revealed that 48.7 percent of the respondents were satisfied with the service, 27.6 percent neither satisfied nor dissatisfied with the service while 23.7 percent were dissatisfied with the service. In connection with the quality of service and product, as many as 36.8 percent were either satisfied or fairly satisfied, 21.1 percent were either dissatisfied or very dissatisfied with the service and a greater number (42.1%) were neither satisfied nor dissatisfied with the service. This implies that, the quality of products and services from the GWCL was not so clear from the stand point of most customers.

The results indicate that, customers were generally satisfied with the quality of services provided by the GWCL and the company needs to do more maintain or even exceed customers' level of satisfaction.

Table 16: Customers' Responsiveness to Satisfaction of Services of GWCL

	Frequency	Percent
Prompt payment of bills	52	68.4
Positive word of mouth	5	6.6
Very loyal to GWCL	5	6.6
Reporting illegal water activities to the company	14	18.4
Total	76	100.0

Source: Field survey, Awortwe (2016)

Table 16, reveals customers' responsiveness to the satisfaction of the services they receive from the GWCL. It was realized that, majority (52) representing 68.4 percent indicated their responsiveness by promptly paying their monthly bills sent to them by the company, others (14) representing 18.4 percent indicated their satisfaction by reporting illegal water activities to the company and (5) which represent 6.6 percent indicated their satisfaction by a positive word-of-mouth, meaning that they tell their friends about the excellent services of the GWCL and remaining loyal to the GWCL respectively.

The results imply that, customers' satisfaction of service quality by the GWCL went long way to improve the company's fortunes since customers were motivated to do things that would continue to improve the profit levels of the company as alluded to by Churchill and Surprenant (1982) that, financial

gains are created after satisfying needs and wants of customers. GWCL thus needs to sustain or improve such quality service.

Table 17: Customers' Reaction to Poor Services by GWCL

	Frequency	Percent
Non-payment of water bills	13	17.1
Negative word of mouth	28	36.8
Switching to alternative sources	35	46.1
Total	76	100.0

Source: Field survey, Awortwe (2016)

Table 17, indicates customers' reaction to poor quality of services by the GWCL. The table reveals 35 out of a total 76 representing 46.1 percent reacted to the poor service by switching to alternative sources of water other than the GWCL, twenty-eight (28) representing 36.8 percent reacted to poor quality of services by speaking ill (negative word-of-mouth) about the GWCL to their friends and relatives and 13 respondents which is 17.1 percent reacted to poor quality of services by not paying their monthly water bills sent to them by the company.

These are reactions that could have negative effect on the operations and profitability of the company if not dealt with effectively as shown by Best (2009), who observed that dissatisfied customers usually exit, walk and talk. They start producing negative word-of-mouth (WOM). Sometimes the situation gets worse. Dissatisfied customers may become "customer terrorists. They try to ease their dissatisfaction by telling and trying to affect the other potential customer thereby destroying the reputation of the firm in the market place.

Table 18: Tariff Increment to Expand the Operations of GWCL

	Frequency	Percent
Yes	15	19.7
No	61	80.3
Total	76	100

Source: Field survey, Awortwe (2016)

Table 18, indicates that customers' loyalty to the GWCL was not complete since a greater majority (80.3%) of the respondents were not willing to make any financial commitment by way increased tariffs towards the operations and expansion projects needed to render superior quality of services to the general public. There a few minority (19.7%) who were willing to accept any tariffs increment by the GWCL provided it would bring about improvement in the quality of service expected by the customers. The results shows that, although customers of the GWCL expected superior quality of services from the company, most of them were not willing to pay bills that commensurate with the services expected.

Table 19: Bill Payment

	Frequency	Percent
Monthly	59	77.6
Bi-monthly	15	19.7
Quarterly	2	2.6
Total	76	100.0

Source: Field survey, Awortwe (2016)

Table 19, presents the bill payment patterns of customers used in the study. The table shows that more than half (59) representing 77.6 percent paid

their bills monthly, while 15 respondents which represents 19.7 percent paid their bills bi-monthly and a few (2) representing 2.6 percent paid their bills quarterly.

Assessing the effect of service quality on customer satisfaction

This third objective sought to find out the effect of service quality on customer satisfaction. This section therefore deals with the effect of service quality on customer satisfaction on the operations of the GWCL.

Table 20: Regression output of effect of service quality on customer's satisfaction

Variable	Parameter Coefficient	Std. Error	t-value	P-value
Tangibility	1.9419*	0.8020	2.421	0.0180
Reliability	0.5824	0.9359	0.622	0.5357
Responsiveness	-1.6682	1.1963	-1.394	0.1675
Assurance	2.1080*	0.7904	2.667	0.0095
Empathy	1.3036	1.2328	1.057	0.2939
R-square = 0.3535		F-statistics = 7.764		P-value = 7.151 ^{e-06}
Significance level = 0.05 Alpha level; “*”, significant at 5%”				

Source: Field Data, Awortwe (2016)

Table 20 presents the multiple regression results on the influence of the five dimension of service quality: tangibility, reliability, responsiveness, assurance and empathy on the overall customer satisfaction on the service performance of GWCL. It has been proven from several empirical research that the five determinant of service quality as proposed by the SERVQUAL model: tangibility, reliability, responsiveness, assurance and empathy, has serious influence on customer satisfaction (see for example, Ramseook-

Munhurrun, 2010; Arthur, Sekyere, Marlle, & Banuenumah, 2016; Qian & Wang, 2011). The purpose of this study was to find out the extent to which customer satisfaction can be predicted from dimension of service quality delivery by the GWCL.

In service quality evaluation studies, customer satisfaction is said to depend on the service provider's performance in relation to customer's expectation (see for example, Osei Mensah, Owusu Damoah, & Aidoo, 2012; Ghada Abd-Alla, 2007). From Table 20, the R-square of 0.3535 implies that the five SERVQUAL dimensions on a whole explains about 35% of the total variance in the customer satisfaction on the utility service of GWCL provided to them. The significant F-statistics reported in Table 20 reveals that in general the regression model is adequate and reliable for assessing the effects of service quality on overall customer satisfaction.

This also indicates that the overall model was reasonably fit and there was a statistically significant relationship between service quality dimensions and customer satisfaction. Additionally, this also implies that the null hypothesis is rejected and alternative hypothesis is accepted. Hence it can be concluded that service quality dimensions have significant effect on customer satisfaction of GWCL. Moreover, because the independent variable was dummy in nature, the ANOVA test was used to test the relative importance of the contribution of each service quality dimension on the overall customer satisfaction regarding the utility service provision by GWCL. A look at the results as presented in Table 20 also shows that with the exception of the coefficient of responsiveness, all the service quality dimension had a positive coefficient. The negative coefficient implies that a marginal change in the

quality performance of responsiveness, will result in a marginal reduction of in overall customer satisfaction. Furthermore, the positive beta coefficient of tangibility, reliability, assurance and empathy means that a marginal change in the four quality dimension will result in marginal improvement in customer satisfaction on the utility provision by GWCL.

Furthermore, the results revealed that the beta coefficient of tangibility and assurance were significant at 0.05 alpha level. This gives indication that when it comes to customer satisfaction, among the five service quality dimension, tangibility and assurance are the most important predictors or determinants of customer satisfaction on the service delivery by GWCL.

As stated above, tangibility was found to be a significant determinants of customer satisfaction. Tangibility as service quality dimension indicates all physical facilities, equipment, personnel and communication materials primarily visible in an organization. From the results as portrayed in Table 20, marginal improvement in any of the tangibility items will increase the degree of customer satisfaction by a margin of 1.9419. For instance, equipping GWCL with the state-of-the-art equipment will result in a marginal improvement in customer satisfaction. Additionally, making the physical facilities to be visually more appealing will leads to a marginal increase in the level of customer satisfaction.

It can also be said that when employees of GWCL improve their smartness level and neatness of dress, it will inferably result in improving customer satisfaction. Last but not the least, when materials such as meters, faucet socket, safety valves and the like are improved, the satisfaction level of customer stands to increase. The findings of this study were found to be

consistent with that of previous studies. For instance, Tefera and Govender, (2017) found out that tangibility of service quality had a significant positive effect on the satisfaction level of Ethiopian hostel guest.

Furthermore, as noted above, assurance was also found to be a significant determinant of customer satisfaction when it comes to service delivery by GWCL. Assurance shows the knowledge and courtesy of employees in bringing trust and confidence. Thus, the findings from this study imply that marginal improvement in any of the assurance items will significantly increase the degree of customer satisfaction by a margin of 2.1080. Specifically, when employees at GWCL are able to better instill confidence in customers, it will in tend leads to a significant marginal increase in the level of customer satisfaction. Likewise, when employees of GWCL are able to make customers feel safe in their transaction with the company, customer satisfaction may see a marginal increase.

It can further be said that when customers perceived that employees at GWCL are consistently courteous with them, it stands to increase their customer satisfaction level. In addition to this, when employees at GWCL are able to knowledgeably answer queries from customers, the level of satisfaction customers may increase. The finding of this study was found to be consistent with that of previous studies. For instance, Jamaluddin and Ruswanti, (2017) reported that assurance had a significant positive effect on customer satisfaction of patients who patronize the services of a private hospital in Indonesia.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents an overview of the study. It gives a summary of the findings, draws conclusions and makes recommendations for the management of the company as well as other service companies. It also shows the limitations encountered during the conduct this study and suggestions for future studies.

The study was conducted to assess the service quality delivery and its impact on customer satisfaction in Ghana Water Company Limited in Takoradi. Specifically, the study concentrated on: customers' expectation towards water service quality at the GWCL; customers' perception on the water service quality at the GWCL; the gap between customer expectations and perceptions using the gap analysis; and the effect of customer satisfaction on quality service delivery in GWCL.

Summary of Findings

The study showed that the customer base of the GWCL in the Takoradi township is spread across all age groups with the old and middle age groups being the majority. It was also revealed that majority of the respondents were married, giving credence to the fact that most households in the Takoradi township were occupied by married couples, and that all of the respondents for the study were literates which informed their understanding of the study.

Objective One: Identify customers' expectation and perception towards water service quality at GWCL in Takoradi Township

It was realized that, with regards to tangible facilities, respondents expected the company to have quality level of approximately 2.64, however, respondents were of the view that GWCL actually had quality level of approximately 4.17. It was clear that the physical facilities of the company with regards to the state of the art equipment and well-furnished office are appealing. In terms of the employees being well dressed and smart, GWCL scored high marks from the respondents, most respondents (35 percent) expected GWCL employees to be smart and neat-appearing. The tangible facilities of GWCL exceeded the normal expectation by approximately 1.53.

It was also inferred from the study that customers of GWCL expected the company to have a quality level of 3.96 .i.e. 58.1 percent. However, respondents were of the view that GWCL had a quality level of 2.85 .i.e. 41.9 percent. The result implies that the expectations of customers of providing quality services exceeds perceived quality of services provided by GWCL, thus resulting in dissatisfied clients on the reliability dimension.

With respect to the responsiveness dimension, customers of GWCL expected the firm to have a quality level of 2.64 .i.e. 38.8 percent. However, respondents were of the view that GWCL had a quality level of 4.17 .i.e. 61.2 percent indicating that the expectations of customers in matters relating to GWCL providing quality services was exceeded by perceived quality of services provided by GWCL, thus resulting in satisfied clients on the responsiveness dimension.

In relations to the assurance dimension which measures the ability of employees to convey trust and confidence to customers of GWCL. It was revealed that customers of GWCL expected the firm to have a quality level of 2.62 .i.e. 38.5 percent. However, respondents were of the view that GWCL had a quality level of 4.19 .i.e. 61.5 percent indicating that the expectations of customers in matters relating to the provision of quality services was exceeded by perceived quality of services provided by the GWCL, thus resulting in satisfied clients on the assurance dimension.

The empathy dimension measures how employees pay attention, listen, adapt and are flexible in delivering what individual customers need as well as employees of GWCL being respectful in manner and action toward customers. The study thus revealed that, customers expected the company to have a quality level of 3.72 .i.e. 39.9 percent. However, respondents were of the view that GWCL had a quality level of 4.09 .i.e. 60.1 percent indicating that customers' expectations of quality services was exceeded by perceived quality of services provided by GWCL, thus resulting in satisfied customer on the assurance dimension.

Objective two: Determine the gap between customer expectations and perceptions using the gap analysis

After comparing the differences between customers' perceptions and expectations, the study showed a positive score, as the customer's perception exceeded their expectation. It was found that all the service quality dimensions scored higher service quality grades with the exception of reliability dimension which was graded consistently low. This indicates that the majority of respondents expected the GWCL to deliver service quality that

will exceed their expectations. The respondents rated tangibility and responsiveness highest, followed by empathy, and then assurance. Reliability was rated the least important expectation according to the respondents. The results show that customers' perception of service quality at the Ghana Water Company Limited comes above their expectations, presenting a great challenge to the company to improve on such dimensions.

Customers' responsiveness to the satisfaction of the services they receive from the GWCL varied. It was realized that, majority (68.4%) indicated their responsiveness by promptly paying their monthly bills sent to them by the company, about 18 percent indicated their satisfaction by reporting illegal water activities to the company while others did that by positive word-of-mouth which has the potential of improving the company's fortunes and profitability.

That study revealed that most customers reacted to poor quality of services by switching alternative sources of water such as borehole and wells, negative word-of-mouth and not paying their monthly water bills sent to them by the company. However, these reactions that could have negative effect on the operations and profitability of the company if not dealt with effectively.

It was also seen from the study that although customers wanted high quality of services from the company, a greater majority (80.3%) of the respondents were not willing to make any financial commitment by way of increased tariffs towards the operations and expansion projects needed to render superior quality of services to the general public. There were a few minority (19.7%) who were willing to accept any tariffs increment by the

GWCL provided it would bring about improvement in the quality of service expected by the customers.

Objective three: Assess the effect of Service Quality on Customer

Satisfaction at GWCL in Takoradi Township

The study further employed a regression analysis to assess the effect of service quality on customer satisfaction. The aim was to find out the extent to which customer satisfaction can be predicted from dimension of service quality delivery: Tangibility, responsiveness, reliability, assurance and empathy. The results revealed that with the exception of responsiveness, all the other four service quality dimension had a positive influence on customer satisfaction. Furthermore, it was realized that among the five service quality dimension; tangibility and assurance are the most significant predictors of overall satisfaction that customer derive from the services of the GWCL

Conclusions

The results have shown that customers' perceptions about the service they receive from GWCL exceed their expectations. These results present challenges to staff and management of the GWCL as the company is expected to offer its customers excellent service at all times and consistently improve or maintain the quality of services rendered. Excellent service can happen if management and staff employ teamwork, excellent communication and share ideas on improving service quality, which will result in improving customers' satisfaction.

The service quality dimensions that showed the largest gaps proved to be tangibility and responsiveness. Management and staff need to focus their

attention on these dimensions so that they can increase the service quality that they offer their customers, thereby meeting or exceeding customer expectation. However, irrespective of the higher grading of the service quality dimensions, there is be the need to tackle some of the criteria that falls below the expected mark.

The results obtained from the regression analysis revealed that tangibility and assurance were the major determinant of overall customer satisfaction of GWCL service provision. The results also revealed that with the exception of responsiveness, all the other four service quality dimension had a positive relationship with overall customer satisfaction

Recommendations

Based on the findings from the study, the researcher makes the following recommendations to the GWCL; the recommendation includes the following:

Management needs to investigate and re-structure the delivery of quality service in the institution. Key contributing factors to this include role ambiguity, which requires that the correct information and training be provided to all staff enabling them to handle customers' requests and problems, employee-job fit which relates to the match between the skill of employees and the jobs they are required to perform. Technology-job fit could include all GWCL employees being trained in modern technology, thereby boosting efficiency and performance standards of service delivery.

Management and employees of GWCL need to view servicing customers as a team effort and a good support service for all customer-contact personnel needs to be in place. Moreover, the dimensions which were rated as

good should be maintained such as the tangibility, responsiveness, empathy and assurance. Those that need a critical look to maintain its quality delivery; measures should be put into place to address some of the criteria under the reliability dimension to improve its quality. Reliability dimension includes delivering on your promise, showing sincere interest in solving customers' problems, performing service right the first time and insisting on error-free.

Since customer expectations keep evolving each passing day, it would be prudent that capacity building training be organized at least once a year for the staff to be abreast with new and innovative ways of meeting customer expectation.

It is important that the management GWCL get a better understanding of what their customer needs are and what the customers expect from the services they provide in terms of quality. Based on the regression result, it is recommended that in order to improve customer satisfaction from the services of GWCL, the GWCL should develop internal measures to improve on their ability to meet customer expectation, given critical attention to tangibility and assurance. This when done will generate higher customer loyalty.

Suggestions for Further Research

Similar research could be carried out in all the remaining districts in the Western Region, namely Axim, Tarkwa and Sekondi Districts, where Ghana Water Company Limited operates to also obtain their perception in order to evaluate on a wider scale, the nature of the quality of service rendered by GWCL in the Region.

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APPENDIX A

UNIVERSITY OF CAPE COAST SERVICE QUALITY DELIVERY AND ITS IMPACT ON CUSTOMER SATISFACTION IN GHANA WATER COMPANY LIMITED IN THE TAKORADI TOWNSHIP.

Dear Sir/ Madam

I am conducting a research on service quality delivery and its effect on customer satisfaction at the Ghana Water Company limited. A clear understanding of the issues and concerns, will contribute to better service delivery at Ghana Water Company.

Your assistance is therefore, requested in helping to make this study successful by completing the questionnaire provided. Your participation is highly valued and you are assured of complete confidentiality.

Thank you

SECTION A: Socio-demographic characteristics of respondents

This section deals with the socio-demographic characteristics of respondents for data analysis and interpretation.

1. Gender: (a) Male (b) Female
2. Age (years)(a) 18 – 29 (b) 30 – 39 (c) 40 – 49
(d) 50+
3. Marital status (a) Single (b) Living with partner
(c) Married
(d) Separated (e) Divorced (f) Widowed

4. Highest level of educational qualification achieved/completed

(a) Basic [] (b) Secondary/Technical [] (c) Tertiary/Professional []

(b) (d) others (specify).....

5. What is your employment status? (a) Unemployed [] (b) Full time employee of private firm []

(c) Full time employee of public firm [] (d) Self-employed without employee(s) []

(e) Self-employed with employee(s) [] (f) Casual worker [] (g) Apprentice []

(h) Domestic employee [] (i) Retired [] (j) Other (specify).....

6. What is your monthly take-home income in Ghana cedis (GH¢)?

(a) <160 [] (b) 160 – 599 [] (c) 600 – 999 [] (d) 1,000 – 1,499 []

(e) 1,500 – 1,999 [] (f) 2,000 – 2,499 [] (g) 2,500 – 2,999 [] (h) 3,000 – 3,499 []

(i) 3,500 – 3,999 [] (j) 4,000 – 4,499 [] (k) 4,500 – 4,999 [] (l) 5,000 – 5,499 []

(m) 5,500 – 5,999 [] (n) ≥ 6,000 [] (o) Other (specify).....

7. What is your status in the household? (a) Owner (landlord/lady) [] (b) Tenant [] (c) Parent of owner [] (d) Wife of owner [] (e) Husband of owner [] (f) Child of owner []

(f) Other (specify).....

SECTION B: Based on your experiences as a customer of the Ghana Water Company Limited, please put a tick (√) in the box which mostly explains the attitude of your EXPECTATIONS towards service quality delivery at Ghana Water Company Limited. The score levels are described as 5 = highest, 4 = high, 3 = moderate, 2 = low and 1 = lowest

CUSTOMERS' EXPECTATIONS QUESTIONNAIRE						
S/No	Statement	1	2	3	4	5
	TANGIBILITY					
1.	Ideal utility companies are expected to work with state-of-the-art equipment.					
2.	The physical facilities in an ideal utility company would be visually appealing.					
3.	Employees of an ideal utility company should be smart and neatly dressed.					
4.	Materials associated with service delivery in an ideal utility company should be visually appealing.					
	RELIABILITY					
5.	When ideal utility companies promise to deliver service by a certain time, they will do so.					
6.	When a customer reports of leakage, staff of an ideal utility company should show sincere interest in stopping it.					
7.	Employees of an ideal utility company perform services right the first time.					
8.	Employees of an ideal utility company should provide services at the time they promise to do so.					
9.	Employees of an ideal utility company should insist on error-free records.					
10.	Employees of an ideal utility company insist on effective delivery of service					

	RESPONSIVENESS					
11.	Employees of an ideal utility company should tell customers exactly when services will be performed.					
12.	Employees of an ideal utility company should give prompt service to customers.					
13.	Employees of an ideal utility company should always be willing to help customers					
14.	Employees of an ideal utility company should never be too busy to respond to customers' requests.					
	ASSURANCE					
15.	The behaviour of employees in an ideal utility company should instill confidence in customers.					
16.	Customers of an ideal utility company should feel safe in their transactions with employees of the company.					
17.	Employees of an ideal utility company should be consistently courteous with customers.					
18.	Employees of an ideal utility company should have the knowledge to answer customers' questions.					
	EMPATHY					
19.	Employees of an ideal utility company should give individual attention to customers.					
20.	An ideal utility company should have operating hours convenient to all their customers.					
21.	Employees of an ideal utility company should have customers' interest at heart.					

22.	The employees of an ideal utility company should understand the specific needs of their customers.					
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SECTION C: Based on your experiences as a customer of the Ghana Water Company Limited, please put a tick (√) in the box which mostly explains the attitude of your PERCEPTIONS towards service quality delivery at Ghana Water Company Limited. The score levels are described as 5 = highest, 4 = high, 3 = moderate, 2 = low and 1 = lowest

CUSTOMERS' PERCEPTIONS QUESTIONNAIRE						
s/no	Statement	1	2	3	4	5
	TANGIBILITY					
1.	Ghana Water Company Limited works with state-of-the-art equipment.					
2.	Ghana Water Company Limited's physical facilities are visually appealing.					
3.	Employees of Ghana Water Company Limited are smart and neatly dressed.					
4.	Materials associated with the services at the Ghana Water Company Limited (such as safety valves, faucet socket, metres) are visually appealing.					
	RELIABILITY					
5.	When employees of Ghana Water Company Limited promise to do something by a certain time, they do so.					

6.	When a customer reports a problem (leakages, burst, interruptions, over billing), staff of Ghana Water Company Limited show interest in solving it.					
7.	Employees of Ghana Water Company Limited perform service right the first time.					
8.	Ghana Water Company Limited provides its services at the time it promises to do so.					
9.	Employees of Ghana Water Company Limited insist on error-free records.					
10.	Employees of Ghana Water Company Limited insists on effective delivery of service					
	RESPONSIVENESS					
11.	Employees at Ghana Water Company Limited tell me exactly when services will be delivered.					
12.	Employees at Ghana Water Company Limited give me prompt services.					
13.	Employees at Ghana Water Company Limited are willing to help me at no extra cost.					
14.	Employees at Ghana Water Company Limited are never too busy to respond to my requests.					
	ASSURANCE					
15.	The behaviour of employees at Ghana Water Company Limited instills confidence in me.					
16.	I feel safe in my transactions with employees of Ghana Water Company Limited					

17.	Employees at Ghana Water Company Limited are consistently courteous with me.					
18.	Employees at Ghana Water Company Limited have the knowledge to answer my questions.					
	EMPATHY					
19.	Ghana Water Company Limited gives me individual attention.					
20.	Ghana Water Company Limited has operating hours convenient to all its customers.					
21.	Ghana Water Company Limited has my best interests at heart.					
22.	Ghana Water Company Limited understand my specific needs.					

SECTION D: Customer Satisfaction on the quality of service by GWCL

This section examines the effects of customer satisfaction on GWCL's performance. Please rate your satisfaction with the services and products provided by GWCL on each of the following attributes. (Very satisfied =1 Fairly satisfied = 2 Neither satisfied nor dissatisfied =3 Dissatisfied = 4 Very dissatisfied = 5

	Variable	1	2	3	4	5
1	Overall satisfaction with the quality and services provided by GWCL					
2	Courtesy and professionalism					
3	Timeliness of getting back to you when needed					

4	Having the knowledge and the expertise to meet your needs					
5	Providing clear complete and accurate information and Quotation					
6	Fairness of pricing					
7	Quality of service and products					

8. If you are satisfied with the services of GWCL, what do you do to support the company?

- (a) Prompt payment of bills
- (b) Positive word of mouth
- (c) Very loyal to GWCL
- (d) Reporting illegal water activities in the community
- (e) Other (specify).....

9. If you are dissatisfied, how do you react to the poor services of GWCL?

- (a) Non-payment of water bills
- (b) Negative word of mouth
- (c) Switching to alternative sources
- (d) Customer terrorism
- (e) Other (specify).....

10. Do you think water tariff should be increased to enable GWCL carry out expansion projects? (a) Yes (b) No

11. Please assign reasons to your answer to question 10

.....

12. How often do you pay your water bills? (a) Monthly (b) Bi-monthly

- (c) Quarterly
- (d) Annually
- (e) Others (specify).....

13. Please give suggestion(s) that you think could improve the service quality, customer satisfaction and performance of
GWCL.....