

UNIVERSITY OF CAPE COAST

SERVICE QUALITY AND CUSTOMER SATISFACTION OF GHANA  
WATER COMPANY LIMITED: A STUDY OF CUSTOMERS IN THE  
ACCRA METROPOLIS

JOHN BADU

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WATER COMPANY LIMITED: A STUDY OF CUSTOMERS IN THE  
ACCRA METROPOLIS

BY

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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: John Badu

### Supervisors' 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: Mr. Samuel Kwaku Agyei

## ABSTRACT

Customers buy goods and services for value and utility (quality and satisfaction). Ghana Water Company Limited (GWCL) as a utility company is mandated to provide portable or quality water for human consumption in the urban areas of Ghana but it had been criticized over time for poor services. This study was therefore undertaken for the purpose of examining the relationship between service quality and customer satisfaction of GWCL in the Accra Metropolis. The design for the study was a descriptive survey. The purposive sampling, stratified random sampling technique and the convenience sampling method were used in selecting the sample. In all, 125 customers of GWCL's were used. Questionnaire was the main instrument used for the collection of data. Data were analysed using frequencies, percentages, means, standard deviations and the one-sample t-test.

Results of the study revealed that customers were not satisfied with the quality of service by GWCL in the Accra metropolis. It was also indicated that the level of average satisfaction was quite low with respect to GWCL monthly billing and physical facilities. However, with regards to providing complete and accurate information and quotation, customers had their complaint unresolved. It also revealed that GWCL occasionally notified its customers for major repairs and maintenance schedules while majority of their service interruptions were not communicated to its consuming populace. It was recommended that Management should ensure accurate monthly billing and improve upon its physical facilities especially offices and major installations and should inform customers before supply is interrupted to improve public relations to ensure service quality.

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**DEDICATION**

To my late wife, Mrs. Christiana Badu

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## CHAPTER ONE

### INTRODUCTION

#### **Background to the Study**

The world around us is not only changing but also evolving rapidly; no one disagrees about that. World changes are also reflected in world markets and thus affect the way businesses are conducted, products and services are produced and delivered, and customer relationships are built and managed. The major change that cannot be ignored is globalization. Globalization is defined as “the intensification of world-wide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa” (Giddens, 1990). To thrive in a market characterized by globalization, strong and ruthless competition, and fast technological advancements, companies need to be more customer-focused to survive, let alone to lead.

Trends that accompany the 21st century's business markets include rapid globalization, a call for more ethics and social responsibility, increased diversity, a focus on and demand for quality, competition and of course digitalization (Schermerhorn, 2007; Kotler & Armstrong, 2010). Technology is one of the major macro-environmental factors that affect today's businesses (Armstrong & Kotler, 2011) in terms of what they provide, how they provide it, and what the customer really wants. Political and economic instabilities also affect businesses' need to secure their position and ensure sustainability. Not

to forget the influence of changing demographics of the market place, the evolving customer needs, and the necessity to comply with the different cultures of the various markets.

Great variations are accompanying the economic changes where the main characteristics of the past economy were mass production and mass consumption of products; while the current economy depends on producing and consuming goods and services that are more differentiated (Fornell, Johnson, Anderson, Cha, & Bryant, 1996). There is substantial support in the literature reviewed for both market share and customer satisfaction to be leading to profitability although there is no certainty that these two are related positively but more likely to be related negatively (Fornell, 1992); this means that poor satisfaction is associated with poor profitability.

Generally, customers occupy a great share of consideration in business strategies. Business strategies constitute offensive and defensive strategies where the objective of offensive strategies is to acquire new customers or to capture market share, and the objective of defensive strategies is to maintain current customers and avoid losing them to the competition by creating customer satisfaction (Fornell & Wernerfelt 1987, 1988 and Fornell, 1992). These strategies are used when there is no hope for the company to grow except by snatching business from rivals due to slow growth and saturated markets (Fornell, 1992). Therefore, customer needs and causes for satisfaction should not be ignored when designing business strategies. To protect one's market share, markets, and products, companies aim to have customers who are highly satisfied as a form of defensive strategy to minimise

the number of customers exiting or switching to competitors (Fornell & Wernerfelt, 1987; 1988; Fornell, 1992).

Such strategies seek customer turnover reduction and customer retention maximization (Fornell & Wernerfelt, 1987, 1988) in two ways: increasing switching barriers and increasing customer satisfaction (Fornell, 1992). Given the slowly growing markets that are characterized by intense competitiveness, defensive strategies are necessary since some companies try to grow by capturing market share from others. So companies with no strong defense; that is, defensive strategy, will eventually be the primary losers of market share (Fornell, 1992). Not all industries are affected in the same way by customer satisfaction in terms of loyalty and repeat purchases (Fornell, 1992).

While Oliver (1997) declares that customer satisfaction is linked to customer retention and customer loyalty, Fornell (1992) declares that there is no proof that customer loyalty leads to satisfaction although there is evidence that the opposite is true: satisfied customers eventually become loyal customers (Fornell, 1992). Moreover, Lovelock & Wirtz (2011) confirm that customer satisfaction and service quality are antecedents of customer loyalty. In addition to customer loyalty, customer satisfaction significantly affects repeat sales and word-of-mouth (Bearden & Teel, 1983; Anderson & Sullivan, 1993).

The importance of achieving high levels of customer satisfaction has increased as world markets are becoming more competitive and service industries are continuously growing (Anderson, Fornell, & Rust, 1997). It is evident that the role that service industries play in contributing to the whole

economy, in almost all economies, is significant (Ndhlovu & Senguder, 2002). Given the fierce competition among service companies, many are attempting to find new means of differentiation in hope to be set apart from rivals (Ndhlovu & Senguder, 2002).

As a result, service quality has emerged as the new way of differentiation, leading to the creation of a new competitive advantage (Ndhlovu & Senguder, 2002). In general, quality is regarded as a competitive precedence for managers and a driver of growth; therefore, quality improvement has become a mission for most firms (Legcevic, 2008). With respect to services, it is obvious that one indicator of a company's success is how its customers perceive the level of service quality, where perceived service quality appears to be an antecedent of perceived value (Kumar, Kee, & Manshor, 2009)

Business success depends on a firm's understanding and meeting customers' needs and demands. In Ghana, utility provision has always suffered a setback as utility firms have always been criticized for poor quality of services of which Ghana Water Company Limited (GWCL) is no exception. Service quality and customer satisfaction are inarguably the two core concepts in marketing theory and practice (Spreng & Mackoy, 1996). One important utility in an economy is water service and the provision of quality water for human consumption in an economy cannot be over emphasised. It is the most essential necessity of life after oxygen. Anything that disturbs the provision and supply of water therefore tends to disturb the very survival of humanity.

In this vein, the World Health Organisation (WHO) came out with drinking water standards in 1993 to ensure quality water production. The

Ghana Standards Authority (GSA) and Public Utility Regulatory Commission (PURC) were also established by the Government of Ghana to regulate public utility organisations within the frame work of set standards. Both GSA and PURC ensure that water produced by GWCL meets the required chemical and bacteriological parameters. PURC also regulates the activities of GWCL so that customers are fairly treated. GWCL is mandated to meet the ever increasing demand for better service delivery through efficient and effective management of its core business of production and distribution of portable water management in the urban areas of Ghana (GWCL, 2014).

However, the company is beset with lots of customer/consumer complaints with respect to quality of service including poor water quality, pipe burst, leakages, no flow, high billing, un-reflected payments and unlawful disconnection among others. It has been noticed of late that customers/consumers of GWCL in poor/no flow areas spend much of their hard earned income on satchet/bottled water, expensive tanker services and borehole construction. This indicates that there is a gap between customers' expectation of water services and the perceived delivery of water by GWCL.

One definition of customer satisfaction obtained from Kotler and Armstrong (2004) states that customer satisfaction is the extent to which a product's perceived performance matches a buyer's expectation. In today's world of intense competition, the key to sustainable competitive advantage lies in delivering high-quality service that will in turn lead to customer satisfaction. Customer satisfaction has become one of the most critical marketing priorities because it is generally assumed to be a significant



determinant of repeat sales, positive word-of-mouth, and customer loyalty (Shemwell, Yavas, & Bilgin, 1998).

In order for a company's offer to reach customers, there is a need for services. These services depend on the type of product and services and differ in the various organisations. Service is an intangible offer by one party to another in exchange of money for pleasure. Thus, total water service delivery in the utility industry encompasses both tangible (water and physical facilities) and intangible (employee-customer interaction) components. A proper combination of the tangible and intangible aspects should result in a customer's perception of high service quality, which in turn should lead to attaining customer satisfaction and positive behavioural intention in the utility industry.

This implies that in a marketing context, quality means a product's ability to satisfy a customer's need or requirements. The focus of this definition is on the customer and how the customer thinks a product would satisfy some purpose. Quality and satisfaction are dependent on the total product offering. What are the qualities of services provided to customers? Are the customers satisfied with these services? In fact, their satisfaction is the most important tool that helps to increase sales and generate profits in the business environment. Moreover, the importance of customer satisfaction and service quality has been proven relevant to help improve the overall performance of organisations (Magi & Julander, 1996).

Several researches have been conducted in the service sector mostly in the financial and telecommunication industries but very limited researches have been conducted on the services provided by a utility company like

GWCL especially linking service quality to customer satisfaction with portable water services. Agyapong (2010) studied the relationship between service quality and customer satisfaction in the utility industry (telecom) in Ghana. 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) also studied the expectations, perceptions and satisfaction about service quality in Destination Gotland by using quantitative case-study on service quality and customer satisfaction. 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 about the service quality at Destination Gotland.

Throughout the researcher's observation, it looks customers were not satisfied with the service rendered to them in terms of water supply. Accra being the capital town of Ghana and a cosmopolitan in nature, it is also faced with customers dissatisfied with services of GWCL. It is therefore necessary to conduct a study about the service quality and customer satisfaction of Ghana Water Company Limited in the Accra metropolis.

### **Statement of the Problem**

Over the last few years, companies have focused on satisfying their customers by improving and observing set standards to ensure quality service. Most companies are adopting quality management programmes which aim at improving the quality of their products and marketing processes, because it has been proven that quality has a direct impact on product performance, and thus on customer satisfaction (Kotler, 2002). Similarly, many organisations

have formalised their interest in providing quality products by undertaking total quality management (TQM) programmes. TQM is an organisation-wide commitment to satisfying customers by continuously improving every business process involved in delivering products or services (Boachie-Mensah, 2009). Are the companies providing the actual qualities perceived by the customers/consumers? Are the customers satisfied because of the products or service quality? The reason for this is to satisfy the customers.

Ghana Water Company Limited (GWCL) is a utility organisation which is mandated to meet the ever increasing demand for better service delivery through efficient and effective management of production and distribution of portable water and customer management in the urban areas of Ghana. It has a vision to become a world class utility company delivering quality and acceptable services based on its distinctive and best practice in the water industry in Ghana. However, there are lots of water shortages, customer complaints to PURC in urban areas including Accra Metropolis. Intermittent water flow leads to loss of customers and revenue to the company.

Also, available statistics show that Ghana's major cities of Accra and Tema consume 150 million gallons of water per day but the current infrastructure can only provide 93 million gallons (McTernan, 2013). This means that there is a deficit of 57 million gallons of water to be produced per day. When the company improves the gap between customers' expectation and their experience, it will result in higher customer satisfaction and customer loyalty/retention which will consequently lead to improved performance and healthy lifestyle of its customers since it is said that 'Water is life'.

With relevant development in water delivery in Accra following the construction of the Desalination plant at Teshie and the Kpong plant expansion project which promises increase in production volumes to the Adentan Municipality and many areas with low or no flow of water, the recent increase in water tariff as a result of the depreciation of the cedi and inflation, the expectation of customers has risen. To what extent are GWCL able to meet these expectations? As posited by Kotler et al (2002), quality can be defined as the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. The study therefore seeks to find out the extent to which GWCL is able to meet the expectation of its customers in the Accra Metropolis.

### **Research Objectives**

The general objective of the study was to examine the relationship between service quality and customer satisfaction of GWCL in Accra Metropolis. In order to achieve the general objective, the following specific objectives were pursued:

1. Ascertain customers' satisfaction of the quality of service offered by GWCL in Accra Metropolis;
2. Assess the relationship between service quality and customer satisfaction of GWCL in Accra Metropolis and
3. Examine customers' perception of the quality of service delivery at GWCL in Accra metropolis.

### **Research Questions**

In order to achieve the above objectives, the following research questions were used:

1. What is the extent of customer satisfaction of quality of service offered by GWCL in Accra Metropolis?
2. What is the relationship between service quality and customer satisfaction of GWCL in Accra Metropolis?
3. What are customers' perception regarding the quality of service delivery at GWCL in Accra metropolis?

### **Significance of the Study**

The findings of this study will contribute to the available literature in service quality and customer satisfaction in the water sector. It will form a basis of recommendation which will serve as policy guide to policy makers in the water sector. This study will enlighten customers to appreciate the challenges of GWCL and persuade them to remain loyal to the company. It is expected to provide scientific justification for not only the continuous existence and expansion of GWCL's projects, but also its water coverage nationwide. Finally the study will help GWCL to be customer centric in terms of water quality and service delivery to meet customer satisfaction.

### **Delimitation of the Study**

In carrying out this research, the researcher found out that GWCL operates in all the 10 regions and major cities in Ghana with large customer base. Also the city of Accra being the capital city of Ghana and assuming cosmopolitan status, a complete research on all GWCL customers would be

very difficult if not impossible. Hence, the scope of this study was limited to customer satisfaction through quality service delivery in the water sector with particular attention to GWCL in the Accra Metropolis.

### **Organisation of the Rest of the Study**

This dissertation was organised into five main chapters. Chapter two reviewed available literature related to the study. It focused on the theoretical and empirical framework of service quality and customer satisfaction. Chapter three dealt with the research methodology which included the study organization/area, research design, population, sample and sampling procedure, instrument for data collection, data collection procedures, ethical considerations and data analysis. Chapter four looked at the results and discussion while chapter five completed the report with summary of key findings, conclusions and recommendations of the study.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **Introduction**

The purpose of this chapter was to undertake both theoretical and empirical review of literature that relates to the topic. It covered the definition of service quality, characteristics of service, service quality model, dimensions of SERVQUAL (service quality) model. The rest were meaning of customer satisfaction, importance of satisfaction, relationship between quality service and customer satisfaction, and the empirical review.

#### **Theoretical Review**

Theory is the coherent group of assumptions put forth to explain the relationship between two or more observable facts and to provide a sound basis for predicting future events. It is also a set of principles on which one activity is based (Essaw, 2014). Theoretical review therefore means delving into the existing knowledge base or writings by experts in the field, to find out what have been written about the topic the researcher is interested in investigating. In this regard, this section will delve into writings about service quality and customer satisfaction to form a base on which this research would be founded.

The significance of customer satisfaction is increasingly growing for both consumer researchers and marketers from the theoretical and managerial point-of-view (Mishra, 2009). Hundreds of studies have researched customer

satisfaction in different industries across various countries. Several research studies uncovered the different types of satisfaction (Oliver, 1980), approaches and concepts (Westbrook & Reilly, 1983; Oliver, 1993), antecedents (Fornell et al., 1996), and consequences (Fornell & Wernerfelt, 1987; Fornell et al., 1996). Moreover, from the managerial point-of-view, customer satisfaction has become a strategic goal for most corporations (Mishra, 2009). In a nutshell, customer satisfaction is “fundamental to the well-being of individual consumers, to the profits of firms supported through purchasing and patronization, and to the stability of economic and political structures” (Oliver, 2010).

As for service quality, it is becoming an increasingly serious and important concern across all service industries and as a major means for creating and sustaining a competitive advantage in the market (Marla, 1996). Once again, numerous studies were conducted on service quality in different industries such as banking, general retailing, telecommunications, and utilities. Moreover, service quality was investigated across various countries; to name a few: USA, India, UK, UAE, China, Malaysia, Cyprus, South Korea, and Bangladesh. Several studies concluded with service quality models and presented them as instruments to measure service quality, such as SERVQUAL (Parasuraman, Berry, & Zeithaml, 1988) and SERVPERF (Cronin & Taylor, 1992).

Theoretically, service quality was confirmed as a major antecedent of customer satisfaction in several research studies such as that of Woodside, Frey, and Daly (1989), Cronin and Taylor (1992), Oliver (1993), Spreng and MacKoy (1996), and Lee, Lee and Yoo (2000). Managerially, service quality



is becoming a major component integrated into firm's competitive strategies (Newman, 2001). Legcevic (2008) asserted that for organisations to effectively and efficiently deal with the areas that contribute to their competitive advantage, they need to be knowledgeable about perceived service quality in terms of its constituencies and foundation. More importantly, it has been suggested that service firms who experienced poor performance did not know their customers well in terms of their expectations of service quality (Zeithaml, Berry, & Parasuraman, 1993).

### **Definition of Service Quality**

Service quality has been the main focus of many studies in the field of services marketing (Karatepe, 2011); nevertheless, there is no universally agreed upon definition of service quality (Legcevic, 2008), although most of them are close in meaning. Before presenting the different definitions of service quality, the term "quality" should be discussed. Quality has been generally defined as the customer's overall impression of the relative inferiority or superiority of the organisation and its services (Spathis, Pteridou, & Glaveli, 2004). Whereas service quality is considered the "perceived quality" of services (Lee & Hwan, 2005) and a "complex construct" (Karatepe, 2011). It is distinct from "objective or actual quality" since it is based on consumer judgment (Lee & Hwan, 2005).

Lewis and Bernard (1983), in their definition of service quality declared that it is "a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis" (p. 99-107). However, according to Spathis et al. (2004), perceived service quality is a customer's "judgment on

the overall service”; hence, it is an “attitude”. Moreover, Fogli (2006) present a similar definition declaring that service quality is “a global judgment or attitude relating to a particular service” and add that service quality is “a cognitive judgment”. Therefore, the focus in this study is on the subjective perception of service quality; that is, from the point of view of customers trying to understand their own perceptions and find a better way to serve them.

Furthermore, as stated in Nam (2008), Zeithaml, Berry, and Parasuraman (1990) defined service quality as: “the customer’s overall impression of the relative inferiority or superiority of the organisation or its services”; thus, it can be concluded that the reputation of the organisation is implicit. Gronroos (1983) defines service quality as “the fulfillment of customers’ expectations” (Al-Tamimi, Lafi, & Uddin, 2009). This is very similar to what Boomsma (1991) suggested, as cited in Legcevic (2008), declaring that, to be effective in providing good quality, companies must deliver services that meet to a maximum extent what the customer requires.

In contrast, Lewis (1989) and Zeithaml and Bitner (1996) regard quality as providing a service superior to what customers expect. Moreover, as cited in Legcevic (2008), Peters and Austin (1985) present a simple definition of service quality saying that it is “the superiority or excellence as perceived by the customer” and the “product of the effort that every member of the organisation invests in satisfying customers”. Wicks and Roethlein (2009) who examined the different definitions and related concepts of quality came to a conclusion that quality – applicable to goods and services - should be defined as: “the summation of the affective evaluations by each customer of each attitude object that creates customer satisfaction, where the term

customer is defined as any internal or external stakeholder of the organisation and an attitude object is defined as the particular entity of interest”.

Parasuraman et al. (1988) present perceived service quality as “a global judgment, or attitude, relating to the superiority of the service”. Customer-perceived service quality or perceived service quality has been defined theoretically as customers’ views or evaluations of the discrepancy between previous expectations and the actual service delivered based on various components of the service experience (Brown & Lam, 2008), a very similar definition to that presented in Wisniewski (2001). This is very close to Fornell’s (1992) definition of customer satisfaction that “customer satisfaction is expressed as a function of pre-purchase expectations and post-purchase perceived performance (of the respective product/service)”; noting that expectations may be due to the effect of advertising and/or other customers’ recommendations through word-of-mouth communication.

It is important to differentiate between “expectations” as a term used in service quality literature and a term used in the customer satisfaction literature. Parasuraman et al. (1988) present this differentiation by declaring that expectations, as used in customer satisfaction literature, represents the “predictions” made by consumers about what might occur during a forthcoming exchange or transaction; for example, according to Oliver (1981), “it is generally agreed that expectations are consumer-defined probabilities of the occurrence of positive and negative events if the consumer engages in some behavior” (Oliver, 1981). While in service quality literature, expectations represent consumer wants or desires and what they “feel” they

should be offered by a service provider instead of what they feel would be offered (Parasuraman et al., 1988).

Parasuraman, Zeithaml, & Berry (1985, 1988) present service quality as an antecedent of customer satisfaction while Bitner (1990) and Bolton and Drew (1991a) argue that service quality is an outcome of customer satisfaction. But Cronin and Taylor (1992) conducted a thorough analysis and provided empirical support that service quality leads to customer satisfaction, the notion taken in this study. Customer-perceived service quality and customer satisfaction have been both related to perceived performance in comparison to expectations; that is, actual performance compared to expected performance. Dominantly agreed is that they represent separate but strongly related concepts where customer-perceived service quality represents the cognitive aspect of the service offered and customer satisfaction represents the "affective response" emotional reaction as a result (Brady, Knight, Cronin, Hult, & Keillor, 2005; Brown & Lam, 2008; Oliver, 2010).

It is said that communication and relations between customers and front-line employees, in different service environments, is expected to significantly have an effect on how customers perceive their purchase and consumption experience (Brown & Lam, 2008). Because of that, contact employees' attitudes and behaviors play a great role in shaping service quality perceptions of customers (Kohli & Jaworski, 1990; Lee et al., 2000). Shahin and Janatyan (2011) declare that the evaluation of service quality is formed during the process through which that service is delivered and thus, each time a customer is in contact with the service provider, there exists an opportunity to create a satisfying or dissatisfying encounter with that customer.

Therefore, customers are often satisfied when engaging in superior interactions with service providers even if problems exist in the delivery of the service. Moreover, when customers are dissatisfied with the interaction there is a probability that the service encounter be impaired (Brown & Lam, 2008). Since perception of service quality influences customer satisfaction, it ultimately affects purchase intentions. Lee et al. (2000), suggest that the responsiveness of contact employees is significantly related to whether companies have a culture that values excellent services. Because customers usually perceive service providers as the organisation, where their attitude is communicated directly and indirectly during the interactions, this may have a long-term impact on customers' satisfaction, repeat purchases, and the profitability of the organisation, which is not often valued by the service providers and company managers (Schneider & Bowen, 1995; Brown & Lam, 2008).

Consequently, service providing companies, especially those that are people-based, need to work on boosting employees' responsiveness through incentive programs to increase motivation, enhance selling skills, improve attitudes, clarify role perceptions, and increase the level of knowledge about the service itself and organisational policies that value the customer. Accordingly, service quality would improve dramatically and thus organisational effectiveness will increase as sales grow and new customers are attracted (Bush, Bush, Ortinau, & Hair, 1990; Lee et al., 2000).

A service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product (Kortler, 2002).

Services are economic activities offered by one party to another in exchange for money, time, and effort. Service customers expect value from access to goods, labour, professional skills, facilities, networks and systems; but they do not normally take ownership of the physical elements involved (Lovelock & Wirtz, 2011).

Quality can be defined as the totality of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs (Kotler, Armstrong & Saunders, 2002). It is evident that quality is also related to the value of an offer, which could evoke satisfaction or dissatisfaction on the part of the user. According to Boachie-Mensah (2009), quality is the degree of excellence or superiority that an organisation's product possesses. Quality can encompass both the tangible and intangible aspects of a firm's products or services. In a technical sense, quality can refer to physical traits such as features, performance, reliability, durability, aesthetics, serviceability, and conformance to specifications. Although quality can be evaluated from many perspectives, the customer is the key perceiver of quality because his or her purchase decision determines the success of the organisation's product or service.

### **Characteristics of Services**

Services have four major characteristics that greatly affect the design of marketing programmes: intangibility, inseparability, variability, and perishability (Kotler, 2002). Services are intangible. Unlike physical products, services cannot be seen, tasted, felt, heard, or smelled before they are bought. The person who is getting a face lift cannot see the exact results before the purchase, just as the patient in the psychiatrist's office cannot know the exact

outcome before treatment. To reduce uncertainty, buyers will look for signs or evidence of the service quality. They will draw inferences about quality from the place, people, equipment, communication material, symbols, and price that they see. Therefore, the service provider's task is to manage the evidence to tangibilise the intangible.

Services are inseparable in that services are typically produced and consumed simultaneously, unlike physical goods, which are manufactured, put into inventory, distributed through resellers, and consumed later. If a person renders the service, then the provider is part of the service. Because the client is also present as the service is produced, provider-client interaction is a special feature of services marketing—both provider and client affect the outcome. Often, buyers of services have strong provider preferences. Several strategies exist for getting around this limitation. One is higher pricing in line with the provider's limited time. Another is having the provider work with larger groups or work faster. A third alternative is to train more service providers and build up client confidence.

Services depend on who provides them and when and where they are provided, they are highly variable. Knowing this, service firms can take three steps toward quality control. The first is recruiting the right service employees and providing them with excellent training. This is crucial regardless of whether employees are highly skilled professionals or low-skilled workers.

The second step is standardising the service-performance process throughout the organisation. The third step is monitoring customer satisfaction through suggestion and complaint systems, customer surveys, and comparison shopping. Services are perishable and cannot be stored; once an airplane takes

off or a movie starts, any unsold seats cannot be held for future sale. Perishability is not a problem when demand for a service is steady, but fluctuating demand can cause problems.

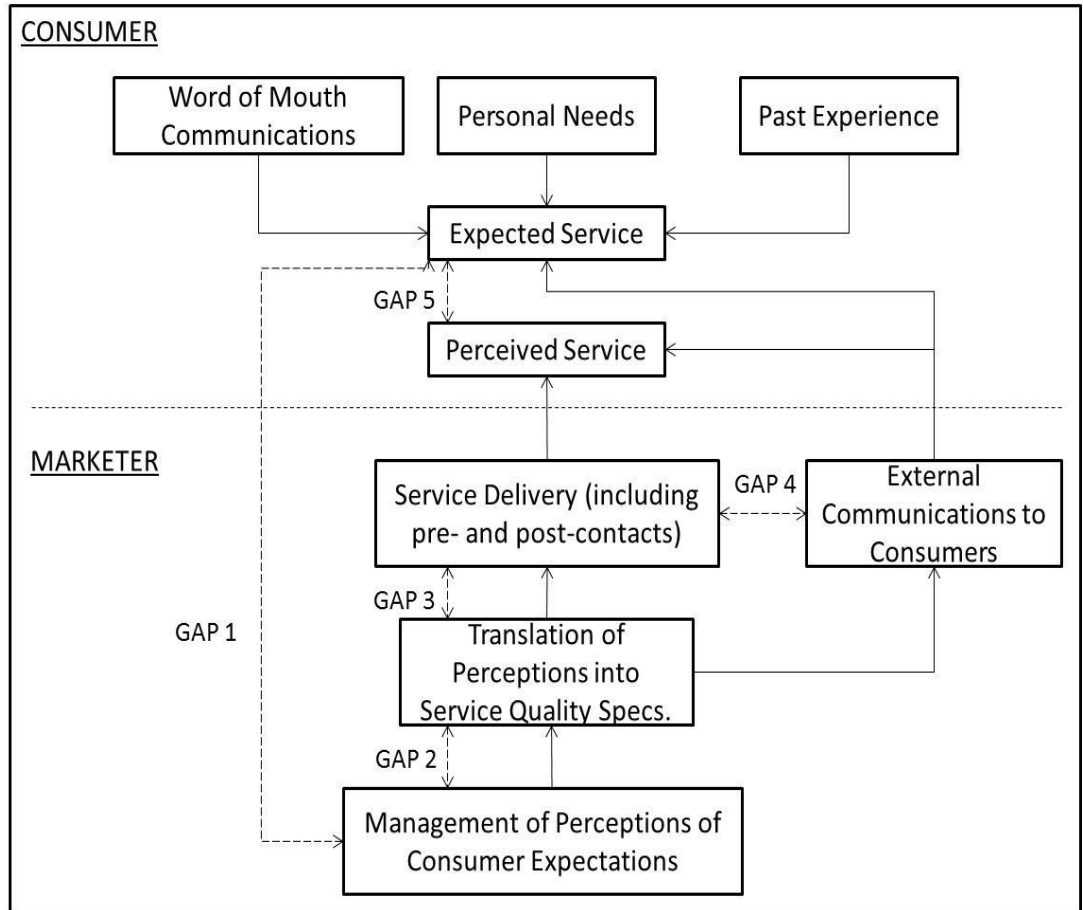
In servicescape, because the service is generally produced and consumed simultaneously, the consumer is "in the factory", often experiencing the total service within the firm's physical facility. The factory (or the place where the service is produced) cannot be hidden and may in fact have a strong impact on customers' perceptions of the service experience. Research suggests that the physical setting may also influence the customer's ultimate satisfaction with the service (Bitner, 1992). Service inseparability means that services cannot be separated from their providers, that is, services are produced and consumed simultaneously. This implies that the service provider (people or machines) is a part of the service. Service variability means services are variable while goods are usually uniform. This means that the quality of services depends on who provides them, as well as when, where and how they are provided. Service perishability means that services, unlike physical goods, cannot be stored or inventoried for later use or sale. This perishability nature of services means that unused service capacity and revenue is lost forever.

### **The Service Quality Model**

This model has five gaps that present service quality as the result of the discrepancy between customer's perception and expectation of the service and the real performance based on certain quality dimensions. The main focus of the gap model is the customer gap (Gap 5 of fig. 1) which represents the difference between customer expectations; the reference points customers have as they begin the service experience, and perceptions; the service as



actually received by these customers. The idea of this model is that marketers should close this gap for the purpose of boosting customer satisfaction and building long-term relationships with them. This gap can be closed if the four other gaps, which are at the marketer's side, are closed.



**Figure 1: The gaps model of service quality**

Gap 1 represents not knowing what customers expect, Gap 2 represents not selecting the right service designs and standards, Gap 3 represents not delivering up to the service standards while Gap 4 represents not matching performance to promises (Zeithaml & Bitner, 2000). Parasuraman et al. (1988) said that in service and retail business, SERVQUAL is a multi-item scale which is developed to assess customer perceptions of service quality. The author also argued that SERVQUAL must be reliably assessed and

measured in order to improve services quality. He mentioned that SERVQUAL is an important model to identify the gaps between customer expectations of the service and their perceptions of the actual performance of the service.

### **Dimensions of SERVQUAL Method**

Zeithaml, Berry and Parasuraman (1990) identified 10 criteria used by consumers in evaluating service quality. In subsequent research they found a high degree of correlation between several of these variables and so consolidated them into five broad dimensions. These authors described that tangibles are about the physical facilities, equipment, and appearance of personnel and presence of users and it is also important for creating a good atmosphere. This dimension aspect of a service is one of the few dimensions that a potential service provider can know and evaluate in advance of participation.

Reliability means that the service company has to be able to perform the promised service dependably and accurately. It also creates organisation's promotional effort which can contribute to participant expectations. Generally, performance at the highest standard is crucial to reliability. Responsiveness refers to the willingness to help participants and give prompt attentiveness. The customers expect their request to be solved quickly and perfectly. Assurance means that the customers want to rely on courteous and knowledgeable employees who convey trust and confidence.

The last dimension, empathy is associated with caring, personnel that takes care of users. Empathy also indicates good understanding of the customer's needs and wants. Zeithaml et al. (1990) mentioned that Assurance

and Empathy contain items that are representing seven original dimensions: communication, credibility, security, competence, courtesy, understanding/knowing customers, and access. They did not remain distinct throughout the several refinements over the years which led to the extended service quality model. Parasuraman et al. (1988) mentioned that, the purpose of SERVQUAL is to serve as a diagnostic tool for identifying an organisation's service quality, weakness and strengths which are uncovered. The SERVQUAL instrument creates a systematic, multi-stage and interactive process that consist of verifying the dimensions and items which correspond to the certain company and industries.

### **Meaning of Customer Satisfaction**

A customer is a person, company, or other entity which buys goods and services produced by another person, company, or other entity. According to Solomon (2007), those who buy the goods or services provided by companies are customers. In other words, a customer is a stakeholder of an organisation who provides payment in exchange for the offer provided to him by the organisation with the aim of fulfilling a need and to maximise satisfaction. Sometimes the term customer and consumer are confusing. A customer can be a consumer, but a consumer may not necessarily be a customer. A customer is the person who does the buying of the products and the consumer is the person who ultimately consumes the product.

Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including

levels of under or over-fulfillment (Oliver, 2010). Customer satisfaction is a term frequently used in marketing. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as the number of customers or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals (Wiki-Loves-Earth, 2014).

When a consumer/customer is contented with either the product or services, it is termed satisfaction. Satisfaction can also be a person's feelings of pleasure or disappointment that results from comparing a product's perceived performance or outcome with their expectations (Kotler & Keller, 2009). As a matter of fact, satisfaction could be the pleasure derived by someone from the consumption of goods or services offered by another person or group of people; or it can be the state of being happy with a situation. Satisfaction varies from one person to another because it is a utility.

“One man's meal is another man's poison,” an old adage stated describing utility; thus highlighting the fact that it is sometimes very difficult to satisfy everybody or to determine satisfaction among group of individuals. Customer satisfaction has been a subject of great interest to organisations and researchers alike. The principal objective of organisations is to maximise profits and to minimise cost. Profit maximisation can be achieved through increase in sales with lesser costs. One of the factors that can help to increase sales is customer satisfaction, because satisfaction leads to customer loyalty, recommendation and repeat purchase (Wilson, Zeithaml, Bitner & Gremler, 2008).

A nation whose industry generates high levels of customer satisfaction is probably better protected against cost increases as well as foreign competition (Fornell, 1992). Churchill and Surprenant (1982) stated that the notion of customer satisfaction is focal to the science of marketing and its applications. Satisfaction is a critical result of any marketing activity since it ties the procedures terminating in the acquisition and usage of goods and services with post purchase experiences like a change in attitude, buying recurrences, and loyalty toward the brand. Anderson and Fornell (1994) declare that “customer satisfaction drives future profitability”. The importance of this phenomenon to marketing is that financial gains are created after satisfying needs and wants of customers (Churchill & Surprenant, 1982).

In a similar context, customer satisfaction has become a focal point in business such that it forms part of the marketing concepts. According to the Chartered Institute of Marketing (CIM) of the UK, “marketing is the management process responsible for identifying, anticipating and satisfying consumer requirements profitably” (CIM Marketing Dictionary, 1996). The key feature of this definition is that it places the consumer at the centre of the organisation’s activities. It could be simplified as: Identifying consumer requirements + Anticipating consumer requirements + Satisfying consumer requirements = Profitability. If consumers are not satisfied they would seek alternatives elsewhere. Consumers want their requirements to be met. They will look for particular benefits. They will want the right goods or services, available at the right price, at the right time, and in the right place (Boachie-Mensah, 2009).

### **Importance of Satisfaction**

Customer Satisfaction is today considered as a valuable marketing performance metric. Customer satisfaction measurement has been gaining importance in business practices especially for the last decade. The metric is getting popular since, customer satisfaction is a forward looking indicator of business success that measures how well customers will respond to the company in the future. Other measures of market performance, such as sales and market share, are backward looking measures of success. They tell how well the firm has done in the past, but not how well it will do in the future (Byrne, 1993).

From the view of operations management, it is obvious that customers play important roles in the organisational process (Lee & Ritzman, 2005). Before the placement of strategies and organisational structure, the customers are the first aspect considered by managements. The questions asked in the strategic planning ranges from who will need to consume these offers? Where are they and for how much can they buy? How to reach the customers and will it yield them maximum satisfaction? After these questions, the organisations will then design the product, segment the markets and create awareness. This does not only show the importance of customers in the business environment but also the importance of satisfying them.

Customers are always aiming to get maximum satisfaction from the products or services that they buy. Winning in today's marketplace entails the need to build customer relationship and not just building the products; building customer relationship means delivering superior value over competitors to the target customers (Kotler et al., 2002). Whether an

organisation provides quality services or not will depend on the customers' feedback on the satisfaction they get from consuming the products, since higher levels of quality lead to higher levels of customer satisfaction (Kotler & Keller, 2009).

### **Relationship between Service Quality and Customer Satisfaction**

Several studies found a strong relationship between service quality and performance, market share, profitability, competitiveness, or word-of-mouth recommendation (Parasuraman, Berry, and Zeithaml, 1991b; Newman, 2001). Service quality entails a point of differentiation from competitors, leading to various opportunities to enhance long-term customer relations and corporate image, through customer satisfaction, and customer retention which cultivates favorable word-of-mouth (Lewis, 1991; Newman 2001). Accordingly, service quality is universally acknowledged as a victorious competitive strategy which is healthy for both service providers and their respective customers (Newman, 2001).

Moreover, in a study by Cronin and Taylor (1992), service quality was found to be an antecedent of customer satisfaction refuting the suggestions of Bitner (1990) and Bolton and Drew (1991b) that satisfaction is an antecedent of service quality. Lee et al. (2000) found further support to Cronin and Taylor's (1992) conclusion in addition to that of Woodside et al. (1989), Oliver (1993), and Spreng and MacKoy (1996). Lee et al.'s (2000) results revealed that service quality leads to satisfaction which in turn leads to purchase intention and the link between satisfaction and purchase intentions is stronger than the link between service quality and purchase intentions. Their

justification was that customers might not purchase services because of their high quality but because they lead to higher satisfaction.

According to Cronin and Taylor (1992), factors like price, convenience, or availability may have an effect on satisfaction and consequently purchase intention; but may not at all affect the perception of service quality (Cronin & Taylor, 1992, Lee et al., 2000). Lee et al. (2000) suggest that because of this, service managers should not only focus on service quality improvement, but also try to locate and control variables that are related to customer satisfaction but not necessarily related to service quality. Regarding the relationship between service quality and customer satisfaction, Oliver (2010) suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific.

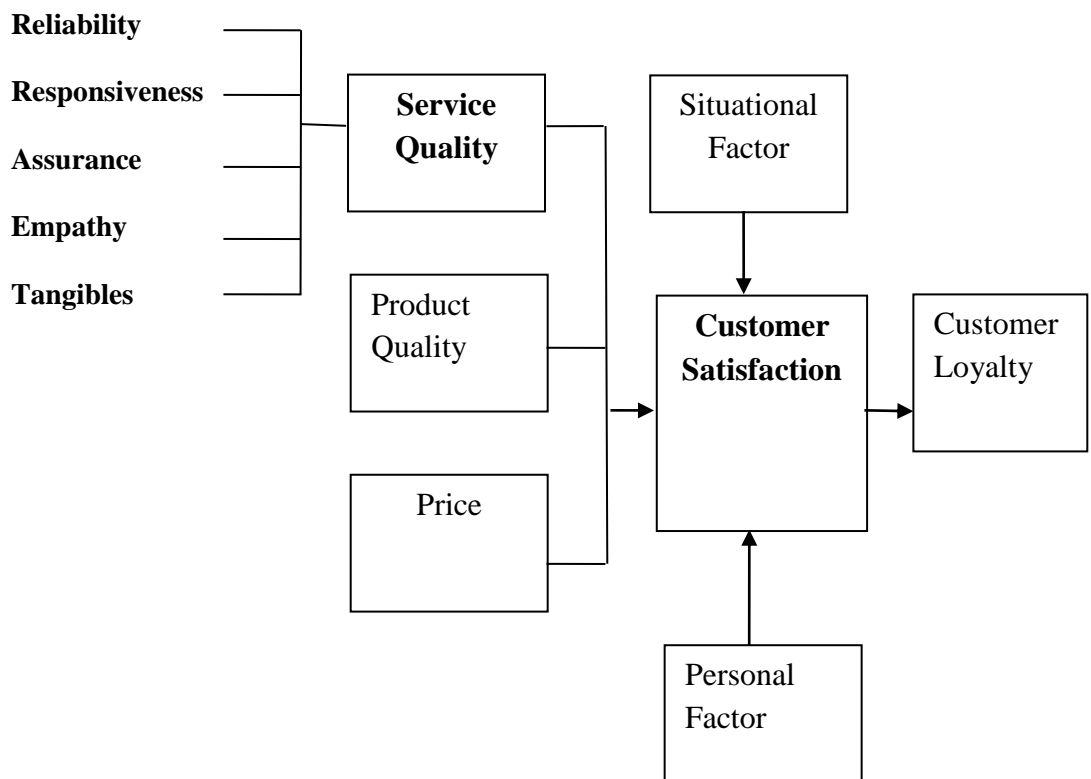
According to Agbor (2011), some researchers have found empirical supports for the view of the point mentioned above (Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Spreng & Mackoy 1996) where customer satisfaction came as a result of service quality. Moreover, Lee, Lee and Yoo (2000) examined the direction of causality between service quality and satisfaction. The findings showed that perceived service quality was an antecedent of satisfaction, rather than vice versa.

Agbor (2011) noted that in relating service quality and customer satisfaction, researchers have been more precise about the meaning and measurements of satisfaction and service quality. Service quality and satisfaction 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 & Gremler, 2006). This theory complies with the idea of Wilson et al. (2008) and has been confirmed by the definition of customer satisfaction presented by other researchers.

Figure 2 shows the relationship between service quality and customer satisfaction. The author presented a situation that, 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 quality and price, also situational factors and personal factors (Wilson et al., 2008).



**Figure 2: Customer perceptions of quality and customer satisfaction**

**Variable identification.** The main variables were Customer satisfaction and service quality from customers’ perspectives. The identification of service quality that determines customer satisfaction from past researches resulted to a better understanding of how service quality could be a factor affecting customer satisfaction. Looking at it in this sense, it means customer satisfaction is a dependent variable and service quality and its dimensions are independent variable. Also if the service quality dimensions could act as influence on service quality that will go to determine customer satisfaction, it will mean these dimensions could be independent of service quality. Hence service quality is the dependent and its dimensions independent variables in the latter case as summarised in Table 1.

**Table 1: Variable identification**

Relationship	Dependent Variable	Independent Variable
Customer satisfaction and Service quality dimensions	Customer satisfaction	Service quality dimensions
Service quality and Service quality dimensions	Service quality	Service quality dimensions
Service quality and Customer satisfaction	Customer satisfaction	Service quality

Source: Agbor (2011)

### **Empirical Review**

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.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **Introduction**

This chapter describes the procedure adopted in conducting the study. It specifically discusses the study organization/study area, the research design, population, sample and sampling procedures. It further describes the instrument for data collection, data collection procedures, ethical considerations and data analysis.

#### **Study Organisation/Study Area**

Ghana Water Company Limited (GWCL) was established on 1<sup>st</sup> July 1999, following the conversion of Ghana Water and Sewerage Corporation into a state-owned limited liability company under the Statutory Corporations (Conversion to Companies) Act 461 of 1993 as amended by LI 1648. Ghana Water Company Limited (GWCL) is a utility organisation which has a vision to become a world class utility company delivering quality and acceptable services based on its distinctive and best practice in the water industry.

The company is mandated to meet the ever increasing demand for better service delivery through efficient and effective management of its core business of production and distribution of portable water and customer management in the urban areas of Ghana (GWCL, 2014).

As at the end of 1<sup>st</sup> quarter of 2015, GWCL operated 86 urban water supply systems throughout the country with the installed capacity of about

1,112,921m<sup>3</sup> per day. Average production was about 709,090m<sup>3</sup> per day and this puts plant capacity utilization at 61%. Portable water demand in the urban areas was estimated at about 1,131,818.18m<sup>3</sup> per day and therefore effective urban water supply coverage was about 63.37%. Nationwide customer strength stood at 529,709 of which 42.8% were metered and 57.2% unmetered (GWCL, 2014).

Regarding customer service, the company (GWCL) shall respond in writing to written complaints within five (5) working days on receipt of complaint. The waiting time to a customer to file a complaint or make a payment at a GWCL facility will be thirty (30) minutes. In terms of communication, the company shall publish and review periodically a rationing programme for areas without regular supply, review and publish periodically non-tariff charges with respect to new services connection. In terms of complaint resolution, GWCL shall resolve complaints associated with billing, un-reflected payments and meter reading errors within one (1) billing cycle (two months). Complaints associated with water quality and wrongful disconnection shall be addressed within twenty-four (24) hours on receipt of complaint (GWCL, 2015).

The Accra Metropolis District (study area) is one of the ten (10) districts in the Greater Accra Region of Ghana. It is considered the city proper and has an area of 185km<sup>2</sup> with an estimated urban population of 2.269 million as of 2012. It is also the capital of the Greater Accra Region and of the Accra Metropolitan District, with which it is coterminous. Accra is furthermore the anchor of a larger metropolitan area, the Greater Accra Metropolitan Area (GAMA), which is inhabited by about 4 million people,



making it the second largest metropolitan conglomeration in Ghana by population, and the eleventh-largest metropolitan area in Africa.

Accra stretches along the Ghanaian Atlantic coast and extends north into Ghana's interior. Originally built around a port, it served as the capital of the British Gold Coast between 1877 and 1957. Once merely a 19th-century suburb of Victoriaborg, Accra has since transitioned into a modern metropolis; the city's architecture reflects this history, ranging from 19th-century architecture buildings to modern skyscrapers and apartment blocks (En.wikipedia.org/wiki/Accra-Metropolis-District).

### **Research Design**

The researcher used the descriptive survey to examine service quality and customer satisfaction of GWCL in the Accra Metropolis. Fraenkel and Wallen (2000) described the descriptive survey as “a research that attempts to describe existing situation without actually analysing relationships among variables” (p.70). Descriptive survey is designed to obtain information concerning the current situation. This design was adopted because it has the merit of gathering various responses from a wide range of people. It also enables one to have a clear picture of events and people’s behaviour on the basis of data collected for a particular period of time.

Furthermore, descriptive survey helps to present the true state of affairs of a given situation after data have been collected from a number of people who respond to the same set of questions about a given situation (Gay, Mills, & Airasian, 2006). However, the use of this method could create problems if questions to respondents were misleading. It could also produce unreliable results since enquiries into private matters may make respondents feel

reluctant to co-operate (Gay et al., 2006). Despite these limitations, the researcher believed that this research design was the most appropriate one which could help draw useful and meaningful conclusions from the study.

### **Population**

Population is a group of elements or cases, whether individuals, objects or events, that conforms to specific criteria and to which a researcher intends to generalize the results of the research (Asamoah & Duodu, 2006). Accra Central District of GWCL which covers the Accra Metropolis District or the City proper has customer strength of 12,384 as at July 2014 (GWCL, 2014). The target population from which information was solicited comprised the above customer strength.

### **Sample and Sampling Procedures**

A sample is a representative unit or subset of a universe (population). Sampling procedure is the process or steps taken to select samples from a study population. Sampling enables a researcher study a relatively small number of units in place of the target population, as well as obtaining data that are representative of the target population (Sarantakos, 1988). Since it was very difficult or practically impossible to allow all the members of the three different population types (domestic, commercial and government customers) respond to the questionnaire due to inadequate resources and time constraint, samples were selected for the study.

The researcher purposively selected 125 respondents from GWCL's customers. In purposive sampling, researchers purposely chose subjects who, in their opinion, are thought to be relevant to the research topic. In this case,

the judgement of the investigator is more important than a probability sample (Sarantakos, 1988). The sample (customers) were drawn from a stratum of three by their type of category which was domestic, commercial and government as shown in Table 2.

**Table 2: Stratified sample size for Accra Central District of GWCL as at July 2014**

Stratum	Population	Sample Size
Domestic Customers	6,770	60
Commercial Customers	5,119	25
Government Departments	495	20
<b>Total</b>	<b>12,384</b>	<b>125</b>

Source: Field Survey, 2015.

The selection was to ensure that customers were selected across all the areas in the Accra Central District and for that matter, Accra Metropolis. Stratification was used to help lower known variances in the population. Thus the use of stratified random sampling helps to increase precision and representativeness. Indeed where the population is heterogeneous, a stratified sample is required. This will increase the accuracy of the results, provided the strata relevant to the investigation are chosen (Agbesinyale & Anoff, 2002). However, the disadvantages are that; the use of unequal proportion can compromise representativeness and can be very expensive. After the sample for each category has been identified, the convenience sampling method was used to select the respondents for the study. The convenience sampling involves choosing the nearest or available individuals to serve as respondents and continuing the process until the required sample size has been obtained (Sarantakos, 1988).

### **Instrument for Data Collection**

The instrument used for the study was a set of questionnaire for the selected respondents. Kerlinger (1973) observed that the questionnaire is widely used for collecting data in educational research because it is very effective for securing factual information about practices and conditions of which the respondents are presumed to have knowledge. Questionnaire is a useful and widely used instrument for collecting survey information, providing structured and often numerical data. Also, it is useful for the collection of data without the presence of the researcher, and it is often comparatively straight forward to analyse (Cohen, Manion & Morrison, 2005).

After intensive review of literature, the questionnaire was designed based on the salient points in the literature review and the research questions formulated. The questionnaire was administered to the respondents who could read, understood and responded to the items accordingly. The questionnaire was divided into three sections. Section A comprised of 7 items structured to find out the socio-demographic characteristics of respondents. Section B consisted of 7 items structured that sought customers satisfaction on the quality of service by GWCL. Section C consisted of 12 items structured to find out the general perception of customers on the quality of service by GWCL. The questionnaire consisted of closed-ended and open ended questions and some categorical questions relevant to the research topic.

Before executing the survey questions, it was evaluated by the researcher's mentors who were knowledgeable in research methods and finally the researcher's supervisor who determined the appropriateness of the wording and responding categories for the survey population. Where respondents were

found illiterate, the researcher and other trained assistants turned the questionnaire into interview schedule and read it to the research discussants for their responses.

### **Data Collection Procedures**

Data collection procedures are the approaches, principles, procedures and protocols employed to obtain data relating to a particular problem or phenomenon. Before the questionnaires were taken to the field to collect data, the researcher took an introductory letter from the Department of Accounting and Finance of the School of Business, University of Cape Coast. On arrival in the Accra Central District of GWCL, I first introduced myself to the officer in charge and then handed over to him/her a copy of the introductory letter. This was followed by a brief explanation about the purpose of the visit. Immediately after the briefing, I personally distributed the questionnaires to the officers in charge to be distributed to the customers. They were given some few days to distribute the questionnaire to the customers to complete them. In order to ensure a high return rate of the answered questionnaires, follow-up visits were made to the district officer to collect questionnaire from the officers in charge. Interviews were also organised to some of the customers who visited the office to solicit information about them on the quality of service of GWCL in the Accra metropolis. The data collection was done within 2 weeks.

### **Ethical Considerations**

Research principles that include ethics of social research were critically observed. According to Essaw (2014), social research involves other people, groups, respondents, readers, sponsors and other gate-keepers

(stakeholders) including researchers who have various degree of interest or would be affected by the outcome of the research. Ethical issues deal with the relationships between the power differentials (sponsors, gate-keepers and researchers). Ethics are norms, values, standards or behavior that guides moral choices about our behavior and relationships. Ethical issues are highly relevant and require due consideration in any research (Sarantakos, 2005). The researcher was obliged to respect the rights, values and desires of the respondents. Fraenkel and Wallen (2000) suggested that a responsible researcher should be considerate, should not injure or harm the participants of the research, keep data collected from respondents confidentially and record information accurately among others.

In order to avoid physical and psychological harm and to see that stakeholders' rights are not violated, the researcher took 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. Based on these ethical issues, the researcher went through the following steps to reach the respondents to ensure their rights were not violated. The administration of the questionnaire was preceded by display of a letter of introduction from the School of Graduate Studies, Accounting and Finance Department to convince respondents to understand the background of the research.

To ensure right to informed consent, the potential research participants were given sufficient information to make knowledgeable decision to participate or withdraw from participation at any stage of the data collection

process. Anonymity and confidentiality were ensured since questionnaire to respondents did not require them to write their names and addresses. The respondents were allowed to withhold any information they felt uncomfortable in order to ensure their right to privacy. Also, appropriate methodology was employed to conduct the research systematically and objectively. The researcher was obliged to report findings, conclusions and recommendations in both positive and negative manner.

### **Data Analysis**

The study used both qualitative and quantitative data analysis. Analysis of the responses was done in the order of the research questions. Responses from the various categories of respondents were discussed systematically in line with the research objectives and questions. Thus the data that was collected was coded and sorted into themes (thematic analysis) and the analysis and discussions were generally based on the thematic areas. The responses to the questions were coded and entered into the SPSS computer software for analysis and interpretation.

Coding is used where observation categories have been developed and the items of observation are clear, specific and known in advance. Codes serve as symbols, a shorthand recording, where actions and behaviours are replaced by numerals or keywords (Sarantakos, 2005). To enhance visual appreciation of the data collected, descriptive statistical tools such as percentages, univariate and cross tabulation were used to present data collected in summarized tables where necessary. The researcher then used interpretive, discursive and narrative analytical methods in ascribing meaning to the data collected.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **Introduction**

This chapter presents the findings and discussion of results of field data obtained from the survey conducted at GWCL in Accra Metropolis. One hundred and twenty-five (125) questionnaires were sent out to be administered to customers in Accra Metropolis. All the 125 customers accepted to answer the questionnaires, thus giving a response rate of 100%. The analyses were done using frequencies, percentages, mean and standard deviation. The chapter covers results and discussion of socio-demographic characteristics of respondents and research objectives. In discussing the results of this study, the researcher adopted the practice of following the research objectives and questions systematically after the respondents' socio-demographic data, with the sequence of the research questions forming the order of the discussion.

#### **Socio-demographic Characteristics**

This section presents the general characteristics of the respondents. These include gender, age, marital status, educational background and the occupation and income levels of the respondents. Frequencies and simple percentages have been used in representing the socio-demographic characteristics. The statistics of respondents in respect to gender, age and marital status of respondents is presented in Table 3.



*Table 3: Gender, age and marital status of respondents*

	Variable	No.	%
Gender of Respondent	Male	110	88
	Female	15	12
	<b>Total</b>	<b>125</b>	<b>100</b>
Age of Respondents	18-29years	20	16
	30-39 years	20	16
	40-49 years	35	28
	50+	50	40
	<b>Total</b>	<b>125</b>	<b>100</b>
Marital Status	Married	100	80
	Single	25	20
	<b>Total</b>	<b>125</b>	<b>100</b>

Source: Field survey, 2015.

Results from Table 3 revealed that with respect to the gender, there were 110 males representing 88% out of the 125 respondents. The female counterparts constituted 12%. These findings showed that majority of the clients of GWCL were males. These outcomes also showed that majority of the household head in Ghana are men. The data from the study indicated that majority of GWCL's clients were above 50 years old. This age group formed 40% of the clients. Also, 28% of the clients were between the ages of 40 and 49 years old. The 30-39 age groups formed 16% of the participants in the study while 16% were between 18 -29 years. This implied that GWCL clients in the Accra metropolis are made up of the old, middle class, youthful and energetic age group.

It was realized that the adult class in the economy which were the majority were well represented, showing their interest in knowing the impact of customer satisfaction on the performance in GWCL. Majority of the respondents were married (80%) while the rest (20%) were single. The occupation, qualification and income of respondents were also examined under the socio-demographic data. The information is presented in Table 4.

**Table 4: Cross tabulation for employment status, educational qualification and monthly income**

Employment status	Educational qualification	Monthly income in GHS				%
		600–999	1,000–1,499	1,500–1,999	2,000–2,499	
Unemployed	secondary/technical	26				
	<b>Total</b>	<b>26</b>				<b>21</b>
Full time employee of private firm	secondary/technical	20	19		0	
	tertiary/professional	8	19		4	
	<b>Total</b>	<b>28</b>	<b>38</b>		<b>4</b>	<b>56</b>
self-employed without employee(s)	tertiary/professional	20	5			
	<b>Total</b>	<b>20</b>	<b>5</b>			<b>20</b>
self-employed with employee(s)	tertiary/professional			4		
	<b>Total</b>			<b>4</b>		<b>3</b>

Source: Field survey, 2015.

From Table 4, 26 of the respondents who were unemployed earned average income between GHS600.00 - GHS999.00 and had secondary/technical education. A total of 56% of the respondents were full time employees of private firm with 28 and 38 having secondary/technical education and tertiary/professional education respectively. Among the employees of private firm, 28, 38 and 4 respondents earned between

GHS600.00 – GHS999.00, GHS1, 000.00 – GHS1, 999.00 and GHS2, 000.00 – GHS2, 499.00 respectively.

A total of 20% of the respondents were self-employed without employee(s) with tertiary/professional educational background of which 5 respondents earning a salary between GHS600.00- GHS1, 499.00. Four respondents representing 3% were self-employed with employee(s) and had tertiary/professional educational background. These respondents earned a salary between GHS1, 500.00 - GHS1, 999.00. About 48% of the respondents had formal education up to tertiary/professional while 52% had formal education up to secondary school. This implied that all of respondents were literates which informed their understanding of the subject matter.

### **Customers' Satisfaction of the Quality of Service offered by GWCL in Accra Metropolis**

This objective ascertained customers' satisfaction of the quality of service offered by GWCL in Accra Metropolis. Data were collected by means of a questionnaire. The frequency, mean and standard deviation were used for the analysis. Table 5 illustrates the information concerning the findings.

Results from Table 5 showed that a strong majority of the respondents (32%) were dissatisfied with the quality of service by GWCL although 20% were fairly satisfied or very satisfied. With regards to courtesy and professionalism of the GWCL workers, majority of the respondents (65%) were very satisfied or fairly satisfied with their service although 40% were dissatisfied or very dissatisfied with the service. This shows that customers believe that the staff of GWCL shows some courtesy and professionalism in their work.

*Table 5: Customers satisfaction about the quality of service by GWCL*

Statement	Very Satisfied	Fairly Satisfied	Neither Satisfied/ dissatisfied	Dissatisfied	Very dissatisfied
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
1a. Overall satisfaction.	15 (12)	10 (8)	30 (24)	40 (32)	30 (24)
1b Courtesy and professionalism	25 (20)	20 (16)	20 (16)	40 (32)	20 (16)
1c. Timeliness	25 (20)	30 (24)	10 (8)	50 (40)	10 (8)
1d. Knowledge and expertise.	25 (20)	20 (16)	20 (16)	40 (32)	20 (16)
1e Clear information	10 (8)	15 (12)	30 (24)	40 (32)	30 (24)
1f Fairness of pricing.	15 (12)	10 (8)	30 (24)	50 (40)	20 (16)
1g Quality of service.	15 (12)	20 (16)	20 (16)	50 (40)	20 (16)

Source: Field survey, 2015.

Concerning “timeliness of getting back to you when needed”, a high number of the respondents (48%) were dissatisfied or very dissatisfied with the statement while 45% were very satisfied or fairly satisfied. This shows that GWCL fails to get back to customers quickly when needed. With regards to whether GWCL provides clear, complete and accurate information and

quotation, a strong majority of the respondents were dissatisfied or very dissatisfied with the service while 20% were very satisfied or fairly satisfied with the service. This revealed that information and quotations were not clear and accurate to the customers. With regards to fairness of pricing by GWCL, 70% of the respondents were very dissatisfied or dissatisfied with service although 20% were very satisfied or fairly satisfied. This indicates that when it comes to pricing, GWCL is not fair in their service.

The findings from the above analysis implied that customers were not satisfied with the quality of service by GWCL in the Accra metropolis. This confirms Kabir and Carlsson (2010) study on customers' satisfaction about service quality in Destination Gotland. The findings also supports TARP (1988) assertion that dissatisfied customers usually do not complain, they usually exit, walk and talk. They start producing negative word-of-mouth (WOM). According to Best (2009), dissatisfied customers may become "customers terrorists. They try to ease their dissatisfaction by telling and trying to affect the other potential customers by destroying the reputation of the firm in the market place.

### **Customers' Responsiveness to Satisfaction and Dissatisfaction**

Majority of the respondents constituting 84% said their satisfaction with the services of GWCL would make them pay their bills promptly, 8% of the respondents said their satisfaction with the services of GWCL would make them become very loyal to GWCL while the rest (8%) of the respondents said that their satisfaction with the services of GWCL would make them speak positive word of mouth. Further study revealed that satisfied customers supported the company to meet its targets and also loyal to the company. They

also paid their bills promptly to increase revenue, boost morale and enhance the company’s image. The information is illustrated in Table 6.

**Table 6: Customers’ responsiveness to satisfaction**

Variables	No	%
Prompt payment of bills	105	84
Positive word of mouth	10	8
Very loyal to GWCL	10	8
<b>Total</b>	<b>125</b>	<b>100</b>

Source: Field survey, 2015.

This finding confirmed Anderson and Fornell’s (1994) declaration that “customer satisfaction drives future profitability”. The result was also supported by Churchill and Surprenant (1982) that financial gains are created after satisfying needs and wants of customers. Majority of the respondents constituting 79% said that their dissatisfaction with the services of GWCL would make them not to pay their bills promptly while 9% said that the unsatisfactory services by GWCL would make them speak negative word of mouth to other potential customers. Other respondents (8%) said that their dissatisfaction with the services of GWCL would make them switch to alternative sources while the rest (4%) of the respondents did not respond. This is shown in Table 7.

According to Best (2009), 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 7: Customers' responsiveness to dissatisfaction**

Variables	No	%
Non-payment of water bills	99	79
Negative word of mouth	12	9
Switching to alternative sources	10	8
Non responses	4	4
<b>Total</b>	<b>125</b>	<b>100</b>

Source: Field survey, 2015.

Majority (60%) of the respondents did not think water tariff should be increased to enable GWCL carry out expansion because there were lots of wastes in the system citing leakages that took a lot of time before repairs. The rest (40%) of the respondents agreed that water tariff should be increased to enable GWCL carry out expansion works.

### **Relationship between Service Quality and Customer Satisfaction of GWCL**

The second objective sought to find out if there is any relationship between customer satisfaction and the quality of service by GWCL in the Accra metropolis. The mean (M), standard deviation and Durbin Watson D-statistic were used for the analysis. The information with regards to the descriptive statistics about customers' satisfaction rate is presented in Table 8.

**Table 8: Customers' satisfaction ratings**

Variables		Std.		
		Mean	Deviation	N
1	The impression of customers about the services provided by GWCL	2.1600	0.46537	125
1a	Overall satisfaction with the quality and services provided by GWCL	1.9200	0.63054	125
1b	Courtesy and professionalism	2.0800	0.48576	125
1c	Timeliness of getting back to you when needed	2.5200	0.75852	125
1d	Having the knowledge and the expertise to meet your needs	2.4400	0.64071	125
1e	Providing clear complete and accurate information and Quotation	2.8000	0.80403	125
1f	Fairness of pricing	2.5200	0.81004	125
1g	Quality of service and products	2.1200	0.43298	125

Source: Field survey, 2015.

In Table 8, the descriptive statistics showed that overall satisfaction with the quality and services provided by GWCL was 1.92. Courtesy and professionalism (2.08), Timeliness of getting back to you when needed (2.52), Having the knowledge and the expertise to meet your needs (2.44), Providing clear complete and accurate information and Quotation (2.80), Fairness of pricing (2.52) and Quality of service and products (2.12). Table 9 also presented the model summary.

**Table 9: Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.646 <sup>a</sup>	0.417	0.372	0.36866	2.300

Source: Field survey, 2015.



- a. Predictors: (Constant) 1a, 1b, 1c, 1d, 1e, 1f and 1g
- b. Dependent Variable: 1 (i.e. the impression of customers about the services provided by GWCL).

Information in the Model summary table indicated that the value of R-square for the model was 0.417. This meant that 41.7% of the variation in the impression about the services provided by GWCL (Dependent variable) could be explained from the seven independent variables. In general, R square always increases as independent variables are added to a multiple regression model. To avoid overestimating the impact of adding an independent variable to the model, some analysts prefer to use the adjusted R-square value. It recalculates the R-square value based on the number of predictor variables in the model. This makes it easy to compare the explanatory power of regression models with different numbers of independent variables. The adjusted R-square for the model was 37.2%, which indicated only a slight overestimate with the model.

The existence of autocorrelation was diagnosed using the Durbin Watson (D-statistic). The model recorded a DW value of 2.3 at a significance level of 5% for a one-sided test. The test for first order auto correlation therefore proved inconclusive since the value was very close to 2.00 for a Decision rule of

$0 \leq d \leq 4$  where if;

$d = 0$  (extreme positive serial correlation)

$d = 2$  (no serial correlation)

$d = 4$  (extreme negative serial correlation)

The DW value of 2.3 therefore meant that there was a negative correlation between the dependent variable and the independent variables employed in the study. The results shown a positive relationship between the other variables not captured in the model but explained the dependent variable (Customers' impression about the services provided by GWCL). Furthermore, all other things held constant, the constant coefficient ( $B_0$ ) in the model was 0.436 if all the variables used were equal to zero. The coefficient of the constant explained the other variables which were not included in the model. The results suggested that, a unit change in the other variables which were not included in the model would bring about a 0.436 increase in Customers' impression about the services provided by GWCL. On the other hand, if the other variables which were not included in the model should increase by a unit, customers' impression about the services provided by GWCL would increase by about 0.436. It was statistically insignificant at 5% degree of significance.

The coefficient of overall satisfaction with the quality and services provided by GWCL was negative. It was statistically significant at 5 percent significance level. Specifically, a one percent increase in overall satisfaction with the quality and services provided by GWCL would cause Customers' impression about the services provided by GWCL to fall by 0.599 percent approximately, *ceteris paribus*. The coefficient of the Courtesy and professionalism of the staff of GWCL was positive. It was statistically significant at 5 percent significance level. Specifically, a one percent increase in the courtesy and professionalism of the staff of GWCL would cause

Customers' impression about the services provided by GWCL to increase by 0.419 percent approximately, *ceteris paribus*.

This study found that there was an inverse relationship between Timeliness of getting back to customers when needed and impression about the services provided by GWCL in Ghana though it was statistically insignificant at the 5 percent significance level. Specifically, one percent increase of getting back to customers when needed would cause impression about the services provided by GWCL to fall by 0.027 percent approximately, all other things being equal. The potency of having the knowledge and the expertise to meet customers' needs in explaining the impression about the services provided by GWCL in the country was positive and statistically significant at 5 percent significance level. A one percent increase in impression about the services provided by GWCL would cause having the knowledge and the expertise to meet customers' needs to increase by 0.414 percent, *ceteris paribus*.

The study found that the coefficient of providing clear, complete and accurate information and Quotation had a negative impact on the impression about the services provides by GWCL. It was statistically significant at 5 percent insignificance level. A one percent increase in providing clear complete and accurate information and Quotation would lead to a fall in the impression about the services provided by GWCL by 0.062 percent approximately, all other things remaining the same. Interestingly, the study found that there was a positive relationship between fairness of pricing and the impression about the services provided by GWCL, though statistically insignificantly at the 5 percent significance level. Thus the results indicated

that, if fairness of pricing should increase by one percent, then the impression about the services provided by GWCL would significantly increase by 0.087 percent, *ceteris paribus*.

The findings confirmed Agbor (2011) assertion that service quality is not the only factor that could lead to customer satisfaction in service sectors; that service quality dimension varies in different service sectors. The findings noted that to provide quality service in order to satisfy customers, organisations in service sector need to improve on the dimension 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. According to Oliver (2010), service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific.

### **Customers' Perception Regarding the Quality of Service Delivery at GWCL in Accra Metropolis**

The third objective of the study sought to find out the general perception of customers towards the quality of service by GWCL in the Accra metropolis. Data were gathered by the means of closed-ended questionnaire format. Respondents were asked to select the alternatives which were applicable to them about their perception of GWCL in the Accra metropolis. The analysis was done using the descriptive statistics. The information regarding the respondents' water usage was presented in Table 10.

**Table 10: Respondents' water usage category**

Category	Frequency	%
Domestic	75	60
Commercial/ industrial	30	24
Government	20	16
<b>Total</b>	<b>125</b>	<b>100</b>

Source: Field survey, 2015.

Result from Table 10 showed that majority (60%) of the respondents used the water produced by GWCL for domestic purposes while 24% of the respondents used the water produced by GWCL for commercial or industrial purposes. The rest (16%) of the respondents used the water produced from GWCL for government purposes. This implies that most of the domestic categories were the respondents view in this study. Respondents' perception indicators were also examined and the information was presented in Table 11.

**Table 11: Major consumer perception indicators**

Variables	N	Mean	Std. Deviation	Std. Error Mean
Customers' impression about their monthly water billing	125	2.8800	0.95642	0.09564
Customer perception about the physical facilities (surroundings, installations, buildings, etc.) of GWCL	125	2.8400	0.54532	0.05453
Customers impression about the quality of services provided by GWCL	125	2.1600	0.46537	0.04654

Source: Field survey, 2015.

Table 11 displayed the mean (M), standard deviation and standard error mean (M) for three variables: customers' impression about their monthly water

billing, Customers' perception about the physical facilities (surroundings, installations, buildings etc.) of GWCL and customers' impression about the services provided by GWCL. The respondents indicated their perceptions using the scale between 5 for strongly agree and 1 for strongly disagree. The researcher took the null hypothesis to be, customers are not satisfied with the quality of service offered by GWCL in Accra Metropolis when the mean (M) value is more than average satisfaction level of 2.5. Therefore, the alternative hypothesis was that customers were satisfied when the mean (M) value was less than the average satisfaction level.

The results showed that the customers were not satisfied with the monthly water billing and their perception about the physical facility which showed mean (M) values of more than 2.5. The null hypothesis was accepted and it was strongly significant. The result did not favour the alternative hypotheses. However, customers' impression about the quality of services provided by GWCL had a mean (M) value of 2.16. This meant that majority of the respondents were quite impressed about the quality of service by GWCL. From this study, it could be concluded that the level of average satisfaction was quite low with respect to GWCL monthly billing and physical facilities.

The results for the first two variables in Table 11 fell short of Kortler's (2002) submission that buyers will look for signs or evidence of the service quality in order to reduce uncertainties. He said they will draw inferences about quality from the place, people, equipment, communication material, symbols, and price that they see. Therefore, the service provider's task is to "manage the evidence," to "tangibilise the intangible". This implied that

appreciable level of such evidence or cues was very influential in communicating the firm's image and purpose to its customers which ultimately influenced their satisfaction with the service. The one-sample t-test was also used to find the mean difference between the respondents perception. The information was illustrated in Table12.

**Table 12: One-sample t-test**

Test Value = 0						
Variables	T	Df	Sig. (2- tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Customers' impression about their monthly water billing	30.112	99	0.000	2.88000	2.6902	3.0698
Customer perception about the physical facilities (surroundings, installations, buildings etc.) of GWCL	52.080	99	0.000	2.84000	2.7318	2.9482
Customers impression about the services provided by GWCL	46.415	99	0.000	2.16000	2.0677	2.2523

Source: Field survey, 2015.

Result from Table12 showed that the mean (M) level of customers' impression about their monthly water billing from respondents according to degree of satisfaction with five-scale ranking was 2.88. It was more than the average mean (M) response of 2.5. The t-test statistics for customers' impression about their monthly water billing was 30.112 and the significance level was 0.000. This meant that the null hypothesis was accepted and the alternative hypotheses rejected with a high level of confidence. The customers

were not satisfied with the high pricing of water consumed since there was erratic water supply.

The mean (M) level of customers' perception about the physical facilities (surroundings, installations, buildings) of GWCL according to degree of satisfaction with five-scale ranking was 2.84. It was assumed that the null hypothesis was the mean (M) response to customer perception about the physical facilities (surroundings, installations, buildings) of GWCL which was more than 2.5. The t-test statistics for customers' impression about the physical facilities was 52.080 and the significance level was 0.000. This meant that the null hypothesis was accepted and the alternative hypotheses rejected with high level of confidence. The customers were dissatisfied because some of the pipe lines passed through gutters and unhealthy places. In the event of pipe bursts or leakages, other foreign material like bacteria might enter the lines.

The mean (M) level of Customers impression about the services provided by GWCL according to degree of satisfaction with five-scale ranking was 2.16. It was assumed that the null hypothesis was the mean (M) response to Customers impression about the services provided by GWCL was less than 2.5. The t-test statistics for customers' impression about the services provided by GWCL was 46.415 at a significance level of 0.000. This meant that the null hypothesis was rejected and the alternative hypotheses accepted with a high level of confidence. The general perception of customers on the quality of service by GWCL was also examined and the information is presented in Table 13.



**Table 13: Customers’ perception on the quality of service provided by GWCL**

Variable	N	Mean	Std. Deviation	Std. Error Mean
Notified before service is interrupted	125	1.9600	0.19695	0.01969
Type of billing problem	125	2.1600	0.36845	0.03685
customers’ impression about their monthly water billing	125	2.8800	0.95642	0.09564
Customers bill reflect their consumption	125	3.6000	0.49237	0.04924
Customers made complaint to GWCL	125	1.2800	0.45126	0.04513
Customer perception about the physical facilities (surroundings, installations, buildings etc.) of GWCL	125	2.8400	0.54532	0.05453
Area GWCL is doing well	125	3.4000	0.94281	0.09428
Customers impression about the services provided by GWCL	125	2.1600	0.46537	0.04654

Source: Field survey, 2015.

From Table 13, it was realized that the mean (M) value for the ‘Notified before service was interrupted’ was 1.96 which meant majority of the respondents said that GWCL did not inform or notify their customers before their services were interrupted. The mean (M) value for ‘Type of billing problem faced by customers of GWCL’ was 2.16 which meant majority of the respondents agreed that high estimate was one major problem facing GWCL in the Accra Metropolis. The mean (M) value for ‘Customers bill reflect their consumption’ was 3.6 which showed majority of the respondents said their monthly water bill did not reflect their consumption.

Also, the mean (M) value for ‘Customers had complaint about the services provided by GWCL was 1.28 which meant majority of the respondents said they had complaint about the services provided by GWCL. All of the respondents who had complaint said they were physically present in

the offices of GWCL. The mean (M) value for 'Area where GWCL is doing well' was 3.4 which meant majority of the respondents said that the area where GWCL was doing well was Staff polite/friendly.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

This chapter gives an overview of the study. It also presents the summary of the major findings, conclusions, recommendations and limitations of the study and suggestions for future studies. The primary objective of the study was to find out the service quality and customer satisfaction of GWCL in the Accra metropolis. The study concentrated on the customers' satisfaction of the quality of service offered by GWCL in Accra Metropolis, relationship between service quality and customer satisfaction of GWCL in Accra Metropolis and customers' perception of the quality of service delivery at GWCL in Accra metropolis.

#### Summary of Findings

The study revealed that GWCL clients in the Accra metropolis were made up of the old, middle class, youthful and energetic age group. It was realized that the adult class in the economy which were the majority were well represented, showing their interest in knowing the impact of customer satisfaction on the performance in GWCL. It was also revealed that customers believe the staff of GWCL shows some courtesy and professionalism in their work. Again, the study revealed that GWCL fails to get back to customers quickly when needed. With regards to whether GWCL provides clear, complete and accurate information and quotation, a strong majority of the

respondents were dissatisfied or very dissatisfied with the service. This revealed that information and quotations were not clear and accurate to the customers.

The study also revealed that when it comes to pricing, GWCL was not fair in their service. Also, the complaints made by the customers of GWCL on the quality of service took longer time to be resolved. But it was identified that GWCL trained its staff to efficiently handle customer complaints and serve them better. It had a standby and rapid response teams to repair leakages and burst. The company also gave prior notice to customers before major service interruptions. The study found out that there was an inverse relationship between Timeliness of getting back to customers when needed and impression about the services provided by GWCL in Ghana though it was statistically insignificant at the 5 percent significance level. The potency of having the knowledge and the expertise to meet customers' needs in explaining the impression about the services provided by GWCL in the country was positive and statistically significant at 5 percent significance level.

The study found that the coefficient of providing clear, complete and accurate information and Quotation had a negative impact on the impression about the services provided by GWCL. It was statistically significant at 5 percent insignificance level. Interestingly, the study found that there was a positive relationship between fairness of pricing and the impression about the services provided by GWCL, though statistically insignificantly at the 5 percent significance level. Thus the results indicated that, if fairness of pricing should increase by one percent, then the impression about the services

provided by GWCL would significantly increase by 0.087 percent, *ceteris paribus*.

The results showed that the customers were not satisfied with the monthly water billing and their perception about the physical facility which showed mean (M) values of more than 2.5. However, customers' impression about the quality of services provided by GWCL had a mean (M) value of 2.16. This meant that majority of the respondents were quite impressed about the quality of service by GWCL.

### **Conclusions**

The following conclusions were offered concerning the analysis of the data and compilation of information gathered from the review of literature. The customers were not satisfied with the quality of service by GWCL in the Accra metropolis. It could be concluded that the level of average satisfaction was quite low with respect to GWCL monthly billing and physical facilities. However, with regards to providing complete and accurate information and quotation, customers had their complaint unresolved. It could be deduced that GWCL occasionally notified its customers for major repairs and maintenance schedules while majority of their service interruptions were not communicated to its consuming populace. The customers were not satisfied with the high pricing of water consumed since there was erratic water supply. They were also dissatisfied because some of the pipe lines passed through gutters and unhealthy places. In the event of pipe bursts or leakages, other foreign material like bacteria might enter the lines.

### **Recommendations for Policy and Practice**

In the light of the above research findings and conclusions, the following recommendations are made:

- Management of GWCL should improve their service by replacing old and weak pipe lines, obsolete plant and equipment with new ones. Pressure management should be strengthened by GWCL to check pipe burst.
- Management should ensure accurate monthly billing and improve upon its physical facilities especially offices and major installations.
- Management of GWCL should inform customers before supply is interrupted to improve public relations to ensure service quality.
- Frontline staff of GWCL should attend to customer complaints and give prompt feedback to customers. Also all complaints should be resolved within 48 hours if possible.
- Provision of the necessary logistics, staff training/motivation and equitable management decisions for staff welfare should be encouraged to improve organisational climate which would eventually enhance employee-customer interactions.
- Management should also apply contemporary customer service concepts to ensure service quality and customer satisfaction which would ultimately lead to profitability. GWCL should establish a research unit that would be proactive to investigate service quality and customer satisfaction levels.

### **Limitations of the Study**

Every research has limitations and this particular one is no exception. Financial difficulty constrained the researcher to gather information from a small sample size instead of the entire population of the chosen area for the study.

### **Suggestion for Further Research**

Similar research could be carried out in all the remaining districts especially in areas where water used to flow frequently but are now having problems leading to some form of rationing to also obtain their perception. The research could be extended to other major cities like Tamale, Kumasi, Tema and Sekondi-Takoradi in order to evaluate on a wider scale, the nature of the quality of service rendered by GWCL in Ghana.

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## APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

SCHOOL OF GRADUATE STUDIES – BUSINESS SCHOOL

MASTER OF BUSINESS ADMINISTRATION (GENERAL  
MANAGEMENT)

QUESTIONNAIRE FOR CUSTOMERS

As part of the requirement for the award of MBA (General Management), I am conducting a survey into “**Service Quality and Customer Satisfaction of Ghana Water Company Limited in Accra Metropolis**”.

I would be very grateful if you could support this survey by completing this questionnaire and your candid response would be very much appreciated. The research does not probe into your private affairs but I am interested in your personal perception and experience of water supply in the Accra Metropolis. Your answers would only be used for empirical analysis in the framework of this research. Your **anonymity is assured** and any information you provide would be used for academic purpose and treated as **strictly confidential**.

Please indicate your response number in the box provided at the end of the response options or write your response where appropriate. Thank you.

**SECTION A: Socio-demographic characteristics of respondents**

**Introduction**

This section deals with the socio-demographic characteristics of respondents for data analysis and interpretation. Kindly tick (✓) the alternative which applicable to you.

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  
(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 (b) Wife of owner (d) Husband of  
Owner (e) Child of owner (f) Other (specify).....

**SECTION B: Customers satisfaction on the quality of service by GWCL**

**Introduction:** This section examines the customers' satisfaction on the quality of service by GWCL's. Kindly tick (√) the alternative which applicable to you

1. 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 and Very dissatisfied = 5

Variables	1	2	3	4	5
1a) Overall satisfaction with the quality and services provided GWCL					
1b) Courtesy and professionalism					
1c) Timeliness of getting back to you when needed					
1d) Having the knowledge and the expertise to meet your needs					
1e) Providing clear, complete and accurate information and Quotation					
1f) Fairness of pricing					
1g) Quality of service and products					

2. If you are satisfied with the services of GWCL, what do you do to support GWCL? (a) Prompt payment of bills (b) Positive word of mouth (c) Very loyal to GWCL (d) Reporting illegal water activities in the Community (e) Others (specify).....
3. 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).....
4. Do you think water tariff should be increased to enable GWCL carry out expansion projects? (a) Yes (b) No
5. Please assign reasons to your answer to question F4.....  
.....
6. How often do you pay your water bills? (a) Monthly (b) Bi-monthly (c) Quarterly (d) Annually (e) Others (specify).....

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

**SECTION C: Perception on the quality of service to consumers**

**Introduction:** This section explores the general perception of quality of service to consumers. Kindly tick (✓) the alternative which applicable to you.

1. Respondent's water usage category:

- (a) Domestic (b) Commercial/Industrial (c) Government  
(d) Other (specify).....

2. Are you notified before service is interrupted? (a) Yes (b) No

3. What is your impression about your monthly water bill?

- (a) Low (b) Average (c) High (d) Very high

4. Does your bill reflect your consumption? (a) Yes (b) No

5. Have you ever made a complaint to GWCL? (a) Yes (b) No

6. If **NO** to question 5, Skip 7, 8 and 9. If **YES** to question 6, what

was the mode of communication? (a) Phone (b) Physical presence

- (c) Letter (d) Email

7. How long did it take to hear from GWCL? (a) Within 24 hours

- (b) 2 - 6 days (c) one week (d) 2 - 3 weeks (e) one month and above

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

8. What was the result of your complaint? (a) Resolved (b) Pending

- (c) Unresolved

9. If resolved, what is your impression about the results? (a) Very satisfied

- (b) Fairly satisfied (c) Neither satisfied nor dissatisfied (d) Dissatisfied

(e) Very dissatisfied

10. How do you perceive the physical facilities (surroundings, installations, Buildings etc.) of GWCL? (a) Excellent (b) Good (c) Average

(d) Poor

11. Which of the following areas do you consider GWCL does well?

(a) Good/efficient service (b) Prompt response

(c) Staff polite/friendly (d) Staff helpful/Supportive

(e) Staff efficient/Knowledgeable (f) Easy/Quick to contact

12. In general, what is your impression about the services GWCL provide

to you? (a) Very satisfied (b) Fairly satisfied (c) Neither

satisfied nor dissatisfied (d) Dissatisfied (e) Very dissatisfied