SERVICE QUALITY AND CUSTOMER SATISFACTION IN THE TELECOMMUNICATION INDUSTRY. A CASE OF MILICOM GHANA LIMITED (TIGO)

BY

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MPHIL MARKETING DEGREE

JULY, 2013
DECLARATION

I hereby declare that this is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged.

I bear sole responsibility for any shortcomings.

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MAGDALING ODAME DANKWAH
STUDENT

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DATE
CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University of Ghana.

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DR ADELAIDE KASTNER  Date
(SUPERVISOR)

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DR BEDMAN NARTEH  Date
(CO-SUPERVISOR)
DEDICATION

To my dear husband;

I dedicate this piece of academic work to Mr. Saforo Obeng who has been my source of support and inspiration in life. Mr. Edward Odame Boye and Mrs. Ellen Odame my wonderful parents cannot in anyway be left out. To you all I say a very big thank you for your support and prayers, without which it would have been impossible for me to complete this work. I am very proud of you all.
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Above all, I thank the Almighty Lord for the strength and knowledge He gave me to carry out the academic work.
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<td>ACSI</td>
<td>American Customer Satisfaction Index</td>
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<td>ADP</td>
<td>Accelerated Development Programme</td>
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<td>CPA</td>
<td>Consumer Protection Authority</td>
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<td>CS</td>
<td>Customer Satisfaction</td>
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<td>EMEA</td>
<td>European Medicines Evaluation Agency</td>
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<td>GLO</td>
<td>Global Communication Limited</td>
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<td>ICT</td>
<td>Information and Communication Technologies</td>
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<td>ISDN</td>
<td>Integrated Service Digital Network</td>
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<tr>
<td>ISO</td>
<td>International Standardization Organization</td>
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<td>MoC</td>
<td>Ministry of Communications</td>
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<td>MTN</td>
<td>Mobile Telecommunication Network</td>
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<td>NCA</td>
<td>National Communications Authority</td>
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<td>NCS</td>
<td>Network Computer Systems</td>
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<td>NTP</td>
<td>National Telecommunication Policy</td>
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<td>SMS</td>
<td>Short Message Sending</td>
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<td>SPSS</td>
<td>Statistical Package for Service Solutions</td>
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<td>STD</td>
<td>Subscriber Trunk Dialing</td>
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ABSTRACT

This project was undertaken to examine the overall customer satisfaction (CS) with service quality delivered by TIGO Ghana and to also ascertain whether service quality exerts a strong influence on the level of customer satisfaction; the case of customers of TIGO Ghana in the University and its environs. Service quality today has become not only the rhetoric of every business enterprise, but also occupies eminent position in every discourse. No business organization can survive without building its customer satisfaction; likewise no organization can make a healthy living without meeting the needs of its customers.

Two types of data were collected; Primary Data and Secondary Data. This was necessary since it helped to add to the findings of the researcher. A simple random sampling and purposive sampling method were used. This ensured that every member of the population had equal chance of being part of the sample. The sample size chosen was 120 customers.

It was revealed in the survey carried out that customers of TIGO did not think that TIGO provided a more competitive service in terms of quality. They expressed their dissatisfaction with the services and products of TIGO by stating emphatically that they would not recommend the company to other people. In addition they mentioned some of the problems they have with the company and these included; unresponsive nature of the company’s call centre, sending across to customers, unsubscribed messages, poor internet services and charging for calls not made amongst others.

On their recommendations for improvement in the services and products of TIGO, they indicated that the company must not charge for calls that have not been made, call centre should respond promptly to calls and follow up on customer complaints till they are resolved, reward loyal customers to keep them and stop sending unsubscribed messages to customer and improve on the internet services of the company.
CHAPTER ONE
INTRODUCTION

1.0 Background to the Study

The difference between delivering exceptional customer service and merely providing acceptable service is pronounced. Differentiating on service, especially in service-centric industries such as finance and telecommunications, is how enterprises can retain their customers in today’s challenging business climate. Keith Pearce, senior director of European Medicines Evaluation Agency (EMEA) Marketing at Genesys, also said that most businesses understand that turning the customer experience into an emotional engagement adds value to their brand and results in consumers who are more loyal and satisfied. With the goal of customer services being to please customers and satisfy their needs, the opportunities for delivering good service to a company’s customer base are endless.

Service experiences are the outcomes of interactions between organizations, related systems/processes, service employees and customers. Considerable research in marketing and management has examined customer satisfaction with service experiences (e.g. Arnold & Price, 1993; Bitner, Booms & Mohr, 1994; Bitner, Booms & Tetreault, 1990). Service quality and customer satisfaction goes hand in hand, when a service is delivered exceptionally, it then follows that the customer will be satisfied and will be loyal to the services rendered.

Service quality taps into business, marketing, and psychological research and practices to provide a satisfied customer. Customer service quality also provides a framework for customer service as a process and an outcome.
Service quality today has become not only the rhetoric of every business enterprise, but also occupies eminent position in every discourse. No business organisation can survive without building its customer satisfaction and brand loyalty; likewise no organisation can make a healthy living without meeting the needs of its customers. That is what organisations do: they serve people’s needs. Service quality helps in cementing the relationship between customers and the organisation and it is a two-way flow of value. This means that customer derives real value from the relationship which translates into value for the organisation in the form of enhanced profitability and sustainability over a long period of time.

The concept of quality, efficiency, productivity, growth and survival pose a great challenge for the survival and growth of all corporate bodies. These growth and survival demands are further deepened by the need to attract and retain customers, as customers are the main focus of any successful business (Agypong, 2010). The success of a business depends on how the firm understands and meets its client’s demands. In Ghana, utility provision has always suffered a setback as utility firms have always been criticized for poor quality of services.

One of such important utility firms is telecommunication. The telecommunication industry’s role in an economy cannot be overemphasized. This is because it is the means through which all daily transactions and activities are undertaken. It aids decision making, helps in providing feedback, and promotes interpersonal and business relationships as well as exchange of information. All social, economic, political, cultural, trade and commercial activities are undertaken using telecommunication. The nature of a country’s telecommunication industry affects its pace of commercial and domestic activities. Due to
the poor performance of many of these telecommunication firms, particularly in the developing countries, governments have had to intervene through divestiture and privatization programs (Frempong & Henten, 2004). Also due to privatization and liberalization of policy, the telecommunication sector is experiencing phenomenal global change all over the world (Beard & Hartmann, 1999).

Because of this, there is a stiff competition among companies who are trying to capture and maximize their share of the market by providing various services to satisfy and possibly exceed the customer’s needs and demands. As competition has escalated among the operators, so it is necessary for them to learn about the consumer’s perception about the service quality, brand image and customers satisfaction.

Service quality has been found in the literature to be a competitive tool for many companies. This is even much more pronounced in today’s highly globalised, industrialized and competitive markets. As has already been mentioned, the growth and survival of companies depend on their customers which the telecommunication industry is no exception.

1.1 Statement of Problem

Competition in Ghana’s Telecommunication Industry has called for telecommunication firms to improve their corporate performance not only in terms of the “teledensity” (the number of subscribers out of every 100 people), which also is a measure of their market share, but also to be more concerned with the quality of their service delivery.
The Ghanaian Telecommunication players however, have come under criticism for a number of reasons. Concerns have been raised about the seemingly unregulated services provided by telecommunication companies and the poor nature of service delivery in the country. Critics have also questioned over subscription to telecommunication services without expansion of the capacity of service providers, high charge rates and the problem of poor interconnectivity among networks.

The gravity of the problem was accentuated in October 2007 when the National Communications Authority (NCA) ordered two of Ghana’s most popular mobile telephone network operators, MTN and Onetouch (now Vodafone Ghana) to halt the activation of new access lines until the networks of the two operators increased their capacity for new subscribers.

The complains of consumers were also articulated in May 2010 when the Consumer Protection Agency (CPA), an advocacy group in Ghana, called for all cell phone users in the country to switch off their phones for six hours in protest against "poor services" by the cell phone operators. This action was intended to highlight the level of frustration consumers are going through in the use of their cell phones.

In 2013, the NCA directed mobile telecom operator MTN to submit a compensation plan for all its subscribers who were affected by their poor service delivery from August 15th to 20th. MTN was slapped with over GH¢ 1 million fine for inaccurately charging for incoming international calls. During that week in August, subscribers could not make calls, top up credit or use data bundles, the situation which was described as very frustrating by many. Glo, another telecom operator was slapped with GH¢ 200,000.00
fine for defaulting call set up time, call completion and signally congestion in Central and Western regions during that period as well. Tigo Ghana also paid a GH¢ 50,000.00 fine for defaulting call congestion obligation in the Central region.

Cognisances of the above, questions need to be answered as far as Tigo Ghana’s service quality and satisfaction in Ghana’s telecommunication industry is concerned. Thus, this study seeks to find answers to the following questions.

1.2 Objectives of the Study

In view of the above, this paper seeks to,

- Find out if customers are satisfied with the service quality delivered by TIGO in Ghana?
- To also ascertain whether service quality exert a strong influence on the level of customer satisfaction.

1.3 Research Questions

- Does customer service have a relationship with service quality perception?
- Does service quality have a relationship with customer satisfaction?
- How can overall customer satisfaction (CS) with service quality be described in Ghana’s TIGO with and without respect to customers’ mobile telecom network?
1.4 Significance of the Study

The study brings to bear, a balanced discussion on the service quality and customer satisfaction of Tigo Ghana’s subscribers and also from the viewpoints of the major stakeholders in Ghana’s telecommunication industry. This will help to develop responsive approaches by way of policy-measures by the Government to address the concerns of customers and service providers.

The study also, recognizes that the private sector must play a major role to achieve the policy objectives of Ghana as far as access to telecommunication services and the contribution of the industry to the country’s development agenda are concerned. It is therefore a contribution to help realize government’s policy objective of ensuring that every citizen and resident of the country obtains high quality and affordable access to information and communication service and to harness the potential benefits of integrating and growing the wealth of indigenous social and technical knowledge to inform and sustain the socio-economic development of the country (NCA, 2003).

To the management of Tigo Ghana, the findings and results that will be reported in this study will provide a more reliable scientific measure and perspective for describing and evaluating the overall customer satisfaction with the services they offer. It will particularly, identify the challenges of the company, exposes its weaknesses and how these affects the quality of service delivery and consumer satisfaction.

It will further discuss the importance of service quality and satisfaction to the customers. The paper will also contribute to the body of knowledge in the area customer satisfaction (CS) in the Ghana’s Mobile Telecom Industry. Management can therefore, based on these
and together with the company’s strength and opportunities develop responsive measures that can well position TIGO to acquire a competitive advantage in Ghana’s telecommunication industry and to provide satisfactory services to its customers.

Finally, the study will come out with suggestions to help improve the use of customer service quality as a competitive tool that stakeholders like investors, shareholders, employees, pressure groups, consumer associations, among others, will use to provide invaluable information that will allow them to provide useful suggestions to the improvement in service delivery of their respective mobile network operators in Ghana. It will also be a contribution to the wide range of literature and scholarly works in the field of studies and research as far as telecommunication is concerned. It therefore provides the framework and sets the stage for further empirical studies to be conducted into the telecommunication industry in Ghana.

1.5 Delimitation of study

The researcher has to define the scope of research in order to make things clear. The researcher is focusing the study on the telecommunication industry in Ghana. It will not include all the communication firms except for TIGO. The researcher is interested in evaluating whether consumers are actually satisfied or not. This study is limited to consumers in and around the University of Ghana because the sample was created from those living in there and do have experiences with that particular phone network. In this study, the word consumers’ will refer to students in and around the University of Ghana who can be considered customers as well.
1.6 Disposition of thesis

This is an outline of the thesis. This gives a summary of each chapter of the thesis.

Chapter 1: Introduction

The aim of this chapter is to introduce the topic to the reader. The need for the study is introduced in order to get a clear idea of the study and what it is focused on. Here, the researcher identifies the research gap and thereby setting the research questions and purpose as the road map of the study. The research questions raised are; does customer service have a relationship with service quality perception? Does service quality have a relationship with customer satisfaction? How can overall customer satisfaction (CS) with service quality be described in Ghana’s TIGO with and without respect to customers’ mobile telecom network

By answering these questions, we will attain our objectives which the researcher is theoretically trying to find and also identify what dimensions of service quality consumers are satisfied with in the telecommunication industry. Hence finding out the overall perceived service quality and customer satisfaction.

Chapter 2: Literature review

In this chapter, the researcher presents all the concepts that are important to her study. Concepts such are service, quality, service quality, customer satisfaction, customer’s expectations and perceptions are discussed. Also, a proper explanation of the SERVQUAL model is outlined in this chapter. The various dimensions (tangibles, reliability, responsiveness, assurance, empathy) of the SERVQUAL model are discussed. Models measuring service quality and customer satisfaction are discussed as well. The researcher tries to bring out the relationship between service quality and customer satisfaction. The
main reason for covering this chapter is to enhance the understanding of the main theories involved in the study and to answer her research questions.

**Chapter 3: Context of the study**

In this chapter, the researcher sheds more light on the telecommunication industry in general, the history behind the industry, how it started in Ghana and where it is now.

**Chapter 4: Research methods**

This chapter sheds more light on the methods used for the study. In this chapter, the researcher mainly discusses how she carried out the study, also emphasizes about the measurement of the constructs, the way she coded the data collected.

**Chapter 5: Empirical results and analysis**

This chapter discusses the data collected from the field that would enable her answer the research questions. The data collected was mainly based on respondents’ expectations and perceptions of the various items under the SERVQUAL model. Also, some demographic description of the respondents was collected. A general description of the consumers’ expectations and perceptions of the various dimensions was done using descriptive statistics.

**Chapter 6: Conclusions**

In the final chapter, a summary of the findings are outlined and thereby providing answers to the researchers research questions. She also discusses some theoretical, managerial implications and possible recommendations from the findings. Also some suggestions for further research are mentioned in this chapter.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

In recent times Mobile telecom operators play an important role which enhance social interactions between and among individuals, groups, organizations, and the governments alike and which ultimately create a strong network of global environment. That is why Deutsch (1953) states this trend as “a web of nations”. Today’s development of communication technology ignores the global border and makes the world as “global village” (McLuhan, 1964). This chapter will review literature relevant to the study on Service Quality and Customer Satisfaction in the Telecommunication Industry in Ghana; a case of Millicom Ghana Limited (TIGO). The study will also look at some of the conceptual framework that will be used in this research.

2.1 Service Concept

Service is different from physical products. Compared with physical products, service is thought to be intangible, heterogeneous, produced and consumed simultaneously, unable to be kept in stock, etc. International Standardization Organization (ISO) defines a service as a part of the total production concept. A study carried out by Johns, (1998) points out that the word ‘service’ has many meanings which lead to some confusion in the way the concept is defined in management literature, service could mean an industry, a performance, an output or offering or a process. He further argues that services are mostly described as ‘intangible’ and their output viewed as an activity rather than a tangible object which is not clear because some service outputs have some substantial tangible components like physical facilities, equipments and personnel.
Edvardsson, (1998) thinks that the concept of service should be approached from the customer’s perspective because it is the customer’s total perception of the outcome which is the ‘service’ and customer outcome is created in a process meaning service is generated through that process. He points out the participation of the customer in the service process since he/she is a co-producer of service and the customer’s outcome evaluated in terms of value added and quality meaning the customer will prefer service offered to be of high value and quality.

Services are often “invisible” and thus difficult for the supplier to explain and for the customer to assess. This places special demands on marketing to prevent wrong, often excessive expectations of the market. The expectations which are created by marketing affect the customer’s perception of the outcome. I believe that the concept of service should be approached from a customer perspective. It is the customer’s total perception of the outcome which is “the service”. It forms the perception of quality and determines whether a customer is satisfied or not.

According to a study carried out by Johns, (1998), service is viewed differently by both the provider and the consumer; for the provider, service is seen as a process which contains elements of core delivery, service operation, personal attentiveness and interpersonal performance which are managed differently in various industries. While customers views service as a phenomenon, meaning the customer sees it as part of an experience of life which consists of elements of core need, choice, and emotional content which are present in different service outputs and encounters
and affect each individual’s experience differently other customers disagree. However, factors that are common for both parties include; value (benefit at the expense of cost), service quality and interaction.

A widely accepted definition of service is proposed by Grönroos (1990) as: “A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems” (Grönroos, 2000,).

2.2 Understanding the Concept of Quality

The search for a universal definition of quality has yielded inconsistent results. Quality is perceived differently by different people. Yet, everyone understands what is meant by “quality” in their own way. Which means that such a global definition does not exist; rather, different definitions of quality are appropriate under different circumstances. Quality has been described as "the single most important force leading to the economic growth of companies in international markets" (Feigenbaum, 1982:). Quality is also the keyword for survival of organizations in the global economy. Organizations are undergoing a shift from a production-led philosophy to a customer-focused approach.

In a manufactured product, the customer as a user recognizes the quality of fit, finish, appearance, function, and performance. The quality of service may be rated based on the degree of satisfaction by the customer receiving the service. The relevant dictionary meaning of quality is “the degree of excellence.” However, this definition is relative in nature. The ultimate test in this evaluation process lies with the consumer. The customer’s needs must be translated into measurable characteristics in a product or service. Once the
specifications are developed, ways to measure and monitor the characteristics need to be found. This provides the basis for continuous improvement in the product or service.

The ultimate aim of quality is to ensure that the customer will be satisfied to pay for the product or service. This should result in a reasonable profit for the producer or the service provider. The relationship with a customer is a lasting one. The reliability of a product plays an important role in developing this relationship.

The definition of quality varies between manufacturing and services industries and between academicians and practitioners. These variations are caused by the intangible nature of its components since it makes it very difficult to evaluate quality which cannot be assessed physically, implying other ways must be outlined in order to measure this quality. Quality has been considered as being an attribute of an entity (as in property and character), a peculiar and essential character of a product or a person (as in nature and capacity), a degree of excellence (as in grade) and as a social status (as in rank and aristocracy) and in order to control and improve its dimensions it must first be defined and measured (Ghylin, K.M., Green, B. D., Drury, C. G., Chen, J., Schultz, J.L., Uggirala, A., Abraham, J.K. & Lawson, T.A. (2006). Quality has been variously defined as value (Abbott, 1955; Feigenbaum, 1951), conformance to specifications (Gilmore, 1974; Levitt, 1972), conformance to requirements (Crosby, 1979), and meeting and/or exceeding customers' expectations (Gronroos, 1983; Parasuraman, Zeithaml, & Berry, 1985). Some definitions of quality pointed out by Hardie & Walsh (1994, p.53) include;

“Quality: the totality of features and characteristics of a product that bear on its ability to satisfy stated or implied needs”– International Standards Organization (ISO).
“Quality is the degree or grade of excellence etc. possessed by a thing” – (Oxford English Dictionary).

Another frequently used definition says Quality is fitness for use.

This definition stresses the importance of the customer who will use the product.

“Quality is defined as the summation of the affective evaluations by each customer of each attitude object that creates customer satisfaction”- (Wicks & Roethlein, 2009, p.90).

A definition attributed to quality by Crosby (1979) states that Quality is conformance to requirements. The preceding definition assumes that the specifications and requirements have already been developed. The next thing to look for is conformance to these requirements. W. Edwards Deming defined quality as follows: Good quality means a predictable degree of uniformity and dependability with a quality standard suited to the customer.

The underlying philosophy of all definitions is the same consistency of conformance and performance, and keeping the customer in mind. Another definition that is widely accepted is Quality is the degree to which performance meets expectations. This definition provides a means to assess quality using a relative measure. Quality denotes an excellence in goods and services, especially to the degree they conform to requirements and satisfy customers. This definition assimilates the previous ones and is our definition of choice.

Reliability implies dependability; reliability introduces the concept of failure and time to failure: Reliability is the probability that a system or component can perform its intended function for a specified interval under stated conditions. Quality and reliability go hand in hand. The customer expects a product of good quality and is reliably. Ability of features and characteristics in a product or service that bear upon its ability to satisfy needs” (Haider, 2001).
The above definitions of quality shed light on the concept and also point out that quality has many views. As concerns this study, quality is seen both in terms of product quality and service quality because the researcher is dealing with the telecommunication industry that provides services and carries out other sales assistance services to customers. Therefore, most of the definitions are relevant to this study because they make mention of both products and services and how customers will like to become satisfied when quality is high.

Some definitions focus on the development of a set of categories of quality in multidimensional terms. An example provided by Wicks & Roethlein (2009,) is that of Garvin (1988), who outlined quality into five categories:

(1) Transcendent definitions. These definitions are subjective and personal. They are eternal but go beyond measurement and logical description. They are related to concepts such as beauty and love.

(2) Product-based definitions. Quality is seen as a measurable variable. The bases for measurement are objective attributes of the product.

(3) User-based definitions. Quality is a means for customer satisfaction. This makes these definitions individual and partly subjective.

(4) Manufacturing-based definitions. Quality is seen as conformance to requirements and specifications.

(5) Value-based definitions. These definitions define quality in relation to costs. Quality is seen as providing good value in relation to cost. In this article, Garvin combines all three approaches (excellence, conformance to specifications, and customer focus) into his five definitions of quality.
According to Ghylin et al., (2008) since company managers believe that the power of quality guarantees high profits in business, companies try to understand how to keep the quality level high at every point within production, manufacturing, and even providing services. Thus, they see the product-based, user-based and manufacturing based approaches have been the most popular in reported research. The researcher will apply the user based approach because she is interested in finding out what dimensions of service quality in telecommunication that customers are satisfied with and how they perceive this service quality.

2.3 Service Quality

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). Service quality was initiated in the 1980s as the worldwide trend when marketers realised that only a quality product could guarantee and maintain competitive advantage (Boshoff & Gray 2004). The definition of quality may vary from person to person and from situation to situation. Parasuraman (1988) define service quality as the degree and direction of discrepancy between the consumer’s perceptions and expectations, or the extent to which a service meets or exceeds customer expectations. Mevvis & Janiszewski, (2002 as cited in .Bahin & Nantel 2000) states that the quality of a service depends on that service consistently conforming to the customers’ expectations

In service marketing literature, service quality is generally defined as the overall assessment of a service by the customers, (Eshghi, A., Roy, S. K., & Ganguli, S. 2008) or the extent to which a service meets customer’s needs or expectations, (Asubonteng, P., McCleary, K.J. & Swan, J.E.,1996). Parasuraman, A., Zeithaml, V. A., & Berry, L. L.
1985, (1985) define service quality as “The discrepancy between consumers’ perceptions of services offered by a particular firm and their expectations about firms offering such services”. If what is perceived is below expectation, consumer judges quality as low and if what is perceived meets or exceeds expectation then consumer sees quality to be high.

Again service quality is considered as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman et al., 1985; Lewis and Mitchell, 1990). Quality of a service is also subjectively perceived by customers during the interactions with a firm (Grönroos, 2000). Parasuraman et al. (1988) again defined service quality as the consumers’ judgment about a firm’s overall excellence or superiority. What happens and is perceived by customers in the interaction process will obviously have critical impacts on customers’ evaluation of service quality (Grönroos, 2000).

The definitions of service quality also varies only in wording but typically involve determining whether perceived service delivery meets, exceeds or fails to meet customer expectations (Cronin & Taylor, 1992; Parasuraman, Zeithaml, & Berry 1993). Service quality is commonly noted as a critical prerequisite and determinant of competitiveness for establishing and sustaining satisfying relationships with customers. Previous studies suggest that service quality is an important indicator of customer satisfaction (Spreng & Machoy, 1996). Lewis and Mitchell, 1990; Asubonteng et al., 1996; define service quality as the extent to which a service meets customers’ needs or expectations. Attention to service quality can make an organisation different from other organisations and gain a
lasting competitive advantage (Boshoff & Gray, 2004). It has become a distinct and important aspect of the product and service offering (Caruana, 2002).

According to Brady & Robertson (2001) service quality helps to create the necessary competitive advantage by being an effective differentiating factor. Again, according to Parasuraman et al. (1985), service quality can be defined as the consumer’s comparison between service expectation and service performance. They proposed service quality to be a function of pre-purchase customer expectations, perceived process quality, and perceived output quality. Based on their statement in 1985, they then suggested that service quality is determined by differences between customers’ expectation of the service and their perceptions of the service experience. Parasuraman et al (1988) define service quality as the degree and direction of discrepancy between the consumer’s perceptions and expectations, or the extent to which a service meets or exceeds customer expectations. Mevvis & Janiszewski, (2002 as cited in Arnold & Price 1997) states that the quality of a service depends on that service consistently conforming to customers’ expectations.

Parasuraman, Zeithaml, & Berry (1988, 1990) projected a service quality model that identified perceived service quality into five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. There is general agreement that the aforementioned constructs are important aspects of service quality, but many scholars have been skeptical about whether these dimensions are applicable when evaluating service quality in other service industries (Cronin & Taylor, 1992). Firms with high service quality pose a challenge to other firms. According to Douglas & Connor, (2003,), Parasuraman et al., (1985,), and Ladhari, (2009), the intangible elements of a service (inseparability, heterogeneity and perishability) are the critical determinants influencing
service quality perceived by a consumer. This means that a service must be well defined by the provider in terms of its characteristics in order to understand how service quality is perceived by consumers. According to Johns, (1999), a service could mean an industry, a performance, an output, an offering or a process and it is defined differently in various service industries. The differences in service industries are based on the characteristics of service which include:

intangibility, heterogeneity, perish ability and inseparability. Intangibility means there is no physical product, nothing to be touched, tasted, smelled or heard before being purchased and this therefore means that it is difficult for consumer to understand the nature of what they receive. An example would be a telecommunication company offering mobile services to consumers; here the consumer makes just calls and does not receive any physical product.

Always there exists an important question: why should service quality be measured? Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear standards for service delivery. Edvardsen et al. (1994 as cited in Johns 1999) state that, in their experience, the starting point in developing quality in services is through analysis and measurement. Service quality can be measured in terms of customer perception, customer expectation, customer satisfaction, and customer attitude (Sachdev & Verma 2004). Ekinci (2003 as cited in Bohia & Nantel 2000) indicates that the evaluation of service quality leads to customer satisfaction. Gronroos, (1982), developed the first model to measure service quality. He identified three components of service quality; the technical quality is concerned with what is delivered (outcome), the functional quality deals with the process of service delivery (how it is delivered) and the image quality which is identified as corporate image
of company resulting from both technical and functional qualities of service components. The SERVPERF model developed by Cronin & Taylor, (1992), uses the performance approach method which measures service quality based on customer’s overall feeling towards a service. Teas & Willso (1988) developed the Evaluated Performance model which measures the gap between perceived performance and the ideal amount of a dimension of service quality, rather than the customer’s expectation. This was to solve some of the criticism of some previous models Gronroos, (1984); Parasuraman et al., (1985, 1988). Parasuraman et al., (1985), also developed a model of service quality after carrying out a study on four service settings: retail banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. The SERVQUAL model represents service quality as the discrepancy between a customer’s expectations of service offering and the customer’s perceptions of the service received Parasuraman et al., (1985).

In the context of telecommunication industry, the researcher is not only interested in learning more about the factors associated with service quality perceived by customers and how service quality is measured but also provide a direction for improvement of service quality in order to bring customer satisfaction. Organizations can achieve business excellence through quality control in services (Shahin, 2010). Customers are requiring and demanding better services and the goals of all Telecoms must be to make the customers feel special. This will lead to customer’s perceptions exceeding their expectations and greater customer satisfaction.

According to (Saravanan & Rao, 2007), the need for survival and growth in ever increasing competitive markets are the main critical factors in the search for providing
superior service quality and achieving customer satisfaction. Researchers have proven that providing good service quality to customers retains them, attracts new ones, enhances corporate image, positive word-of-mouth recommendation and above all guarantees survival and profitability, Negi, (2009); Ladhari, (2009).

Organizations that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customers’ loyalty, Wicks & Roethlein, (2009). This is why it is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed and thereby evaluating customer satisfaction can be done.

2.4 Customers’ Expectations compared to Perceptions

Gronroos (1982); Parasuraman et al., (1985) have proposed that customer’s perception of service quality is based on the comparison of their expectations (what they feel service providers should offer) with their perceptions of the performance of the service provider. Parasuraman et al., (1988,) point out that expectation is viewed differently in both satisfaction literature and service quality literature. In satisfaction literature, expectations are considered as ‘predictions’ by customers about what is likely to happen during a particular transaction while in service quality literature, they are viewed as desires or wants of consumers, that is, what they feel a service provider ‘should’ offer rather than ‘would’ offer.

For this study, the researcher will define expectations as desires or wants of customers because this allows her to know exactly what service providers offer and this is based on
past experience and information received (Douglas & Connor, 2003,). It is important to understand and measure customer’s expectations in order to identify any gaps in delivering services with quality that could ensure satisfaction, (Negi, 2009). Perceptions of customers are based solely on what they receive from the service encounter (Douglas & Connor, 2003,).

This study is mainly based on this discrepancy of expected service and perceived service from the customer’s perspective. This is in order to obtain a better knowledge of how customers perceive service quality in the telecommunication industry. The researcher is not focusing on the 1st four gaps because they are mainly focused on the company’s perspective even though they have an impact on the way customers perceive service quality in the telecommunication industry and thus help in closing the gap which arises from the difference between customer’s expectation and perception of service quality dimensions.

Parasuraman et al., (1985,) identified 10 determinants used in evaluating service quality; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer, and tangibles. Most of these determinants of service quality require the consumer to have had some experience in order to evaluate their level of service quality ranging from ideal quality to completely unacceptable quality. They further linked service quality to satisfaction by pointing out that when expected service is greater than perceive service, perceived quality is less than satisfactory and will be totally unacceptable quality; when expected service equals perceived service, perceived quality is satisfactory; when expected service is less than perceived service, perceived quality is more than satisfactory and will tend towards ideal quality (Parasuraman et al., 1985,).
2.5 Customer Satisfaction

Customer satisfaction (CS) is a term that has received considerable attention and interest among scholars and practitioners perhaps because of its importance as a key element of business strategy, and goal for all business activities especially in today’s competitive market (Anderson, Fornell, & Lehmann, 1994; Gro´nroos, 1984; Lovelock & Wirtz, 2007). This is because several researchers have looked at the concept from different perspectives. According to Rust & Oliver (1994 as cited in Negi 2009) suggest that customer satisfaction or dissatisfaction a “cognitive or affective reaction” emerge as a response to a single or prolonged set of service encounters. In the words of Giese & Cote (2000), consumer satisfaction comprises three basic components including the type of response (cognitive, affective or conative); the centre of interest or the subject on which the response is focused; and the moment in time at which the evaluation is made. But Anderson & Fornell (1994) are of the view that the literature is not very clear about the distinction between quality and satisfaction.

Satisfaction is a person’s feeling of pleasure or disappointment resulting from comparing a product’s performance (outcome) in relation to his or her expectation (Kotler & Keller, 2006). Satisfaction is a “psychological concept that involves the feeling of wellbeing and pleasure that results from obtaining what one hopes for and expects from an appealing product and/or service” (WTO, 1985). Satisfaction can be understood as a person’s approach towards diverse aspects of his or her life – for example, the persons Job (Judge et al., 2001) or a service received from a company(Wilkie, 1990).Satisfaction can be conceptualized as either an emotional or cognitive response. Satisfaction is viewed as a judgment that depends on cognitive frames of references. These frames of references are culturally unique. There is an alternative affective view that holds that satisfaction draws
on hedonic experiences. Satisfaction is a psychological term largely understood to define gratification one feels when one's desire, need or expectations are fulfilled.

A clear understanding of satisfaction is (a) for conceptualization and comprehension purpose and (b) for the purpose of understanding. Various theorists attempted to clarify the concept of satisfaction. Day (1980) said that "while everyone knows what satisfaction means, it clearly does not mean the same thing to everyone". Westbrook & Oliver (1991) defined Satisfaction as "a post choice evaluative judgment concerning a specific selection".

Geise & Cote (2000) identified three general components of satisfaction. They opined that
1. Satisfaction is a response (emotional or cognitive);
2. The response pertains to a particular focus (expectations, product, consumption experience, etc.); and
3. The response occurs at a particular time (after consumption, after choice, based on accumulated experience, etc) there is no single concept of satisfaction.

There has been a debate on satisfaction, whether satisfaction is a process or an outcome. Several researchers argued that satisfaction is an evaluation process (e.g. Fornell 1992 and Hunt 197). Others considered satisfaction as a response to a process (Howard & Sheth, 1969; Oliver 1981). Howard & Sheth (1969 as cited in Day 1984) considered satisfaction as a Buyer's cognitive state while Westbrook & Reilly (1983) referred to it as an emotional response. The state of satisfaction is dependent on both psychological and physical variables. Satisfaction is viewed as a latent construct that is not observed directly and can only be estimated through indicators.

Customer satisfaction (CS) is "as an attitude like judgment following a purchase act or a series of consumer product interactions" Yi (1990) cited in Lovelock & Wirtz 2007).
Customer satisfaction (CS) is “a consumer’s post purchase evaluation and affective response to the overall product or service experience” (Oliver, 1992). “Satisfaction is merely the result of things not going wrong; satisfying the needs and desires of consumers.” (Besterfield 1994); Customer satisfaction (CS) is “an experience-based assessment made by the customer of how far his own expectations about the individual characteristics or the overall functionality of the services obtained from the provider have been fulfilled” (Bruhn, 2003 as cited in Gray 2004).

Admittedly, satisfaction is more complex to define to accurately fit every context and measure. In the words of Oliver (1997), “everyone knows what [satisfaction] is until asked to give a definition. Then it seems, nobody knows”. From marketing perspectives, customer satisfaction has multi-dimensionality. The object of customer satisfaction may be varied and can be related to different dimensions of multiple experiences with product/service provider (Surenschandar et al. 2002 cited in Satari, 2007).

Customer satisfaction is also conceptualized as been transaction-specific meaning it is based on the customer’s experience on a particular service encounter, (Cronin & Taylor, 1992) and also some think customer satisfaction is cumulative based on the overall evaluation of service experience (Jones & Suh, 2000 as cited in Hausknecht 1990). These highlight the fact that customer satisfaction is based on experience with service provider and also the outcome of service. Customer satisfaction is considered an attitude, Yi, (1990). In the case of telecommunication, there is some relationship between the customer and the service provider and customer satisfaction will be based on the evaluation of several interactions between both parties. Therefore the researcher will consider satisfaction as a part of overall customer attitudes towards the service provider that makes up a number of measures (Levesque & McDougall, 1996).
Satisfaction is a “post consumption” experience which compares perceived quality with expected quality, whereas service quality refers to a global evaluation of a firm’s service delivery system (Anderson & Fornell, 1994; Parasuraman et al., 1985). Giese & Cote, (2000,) clearly state that there is no generic definition of customer satisfaction and after carrying a study on various definitions on satisfaction they came up with the following definition, “customer satisfaction is identified by a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time (i.e. post-purchase, post consumption)”. From this definition, it is clear that the customer’s satisfaction is determined from his/her service experience in using the network and this is supported by Cicerone et al., (2009,as cited in Agyapong 2010) and Suresh hander et al., (2002,) who believe customers’ level of satisfaction is determined by their cumulative experience at all of their point of contact with the industry.

According to Besterfield (1994), Barsky (1995) and Kanji and Moura (2002), customer satisfaction is a complex construct as it has been approached differently. Satisfaction can be defined as the extent of the emotional reaction from a service experience (Oliver, 1980). Buchanan (1985) said “the positive feelings of contentment results from the satisfaction of felt or unfelt need of the individual”. It can also be defined as an evaluative summary of (direct) consumption experience, based on the discrepancy between prior expectation and the actual performance perceived after consumption (Yi,1990).

Lin and Chen (2006 as cited in Day 1984) explored that product knowledge and product involvement all has a significantly positive effect on consumer’s purchase decision. Meanwhile product evaluations based on direct experience are strong predictors of behavior (Fazio & Zanna, 1978, 1981). Satisfaction is based on direct past experience; it is likely to be accessible and to affect behavioral intentions independent of other considerations. However, little empirical evidence had shown that customer satisfaction
actually translates into loyalty (Jones & Sasser 1995). Oliver (1997, 1999) reviewed satisfaction as pleasurable fulfillment which is sensed by customers in the consumption. It means that “the consumer senses that consumption fulfills some need, desire, goal, or so forth and that this fulfillment is pleasurable” (Oliver, 1999).

In relationship marketing literatures, customer satisfaction has also been thought to be a key performance indicator for evaluating the quality of a relationship between service provider and customers. Customer’s satisfaction holds the potential for increasing an organization’s customer base, increase the use of more volatile customer mix and increase the firm’s reputation (Fornell, 1992, Levesque & McDaugall, 1996). One path to achieving customers’ satisfaction is through customer service. Customer service varies by product, industry and customer. It however, assume important dimension in service delivery and sales of product. This is because service firm such as Telecommunication firms, have no inventory of finished goods to buffer production from random demand variability (Dutta and Roy, 2006). Nevertheless, it is a demand for a corporation’s survival, profitability and growth that service firms hold their own in competition.

Furthermore satisfaction can be related to attribute-specific and overall performance. It is attribute-specific where it relates to a specific product or service (Cronin & Taylor, 1992). For example, with mobile telecommunication, satisfaction can be related to a specific attribute such as: Multimedia Messaging Service, Mobile TV or Mobile Internet Service or satisfaction with the voice quality, picture quality, speed, and the like. On the other hand, customer satisfaction can be related to the overall performance of a product/service or the overall performance of an organisation’s products/services (Cronin & Taylor, 1992).

According to Wicks & Roethlein, (2009,), customer satisfaction can be formed through an affective evaluation process and this affective evaluation is done following the purchase
experience by the consumer. Organisations that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customers’ loyalty, Wicks & Roethlein, (2009,).

It has however been identified that human needs, quality of services and products, the user friendly nature of product and services, and comfort assurance (Bailey et al., 1983,); (Karen, 2001,) are some of the important determinants of customer satisfaction. Even though different customers will require different levels and combinations of these variables, they generally are important factors that affect customer satisfaction. Matzler et al., (2002 as cited in Day 1984), went a step forward to classify factors that affect customers’ satisfaction into three factor structures;

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

2. **Performance factors**: these are the factors that lead to satisfaction if fulfilled and can lead to dissatisfaction if not fulfilled. These include reliability and friendliness.

3. **Excitement factors**: these are factors that increase customers’ satisfaction if fulfilled but does not cause dissatisfaction if not fulfilled which include project management.

This is why it is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed and thereby evaluating customer satisfaction. In this study, I will use customers to evaluate service quality by
considering several important quality attributes in the telecommunication industry and I think firms must take improvement actions on the attributes that have a lower satisfaction level. This means customer satisfaction will be considered on specific dimensions of service quality in order to identify which aspects customers are satisfied with.

2.6 Relationship between Service Quality and Customer Satisfaction

According to Sureshchandar et al., (2002,), customer satisfaction should be seen as a multi dimensional construct just as service quality meaning it can occur at multi levels in an organisation and that it should be operationalized along the same factors on which service quality is operationalized. Parasuraman et al., (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports that fact by stating that service quality leads to customer satisfaction and this is in line with Saravana & Rao, (2007,) and Lee et al., (2000,) who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider.

According to Negi, (2009,), the idea of linking service quality and customer satisfaction has existed for a long time. He carried a study to investigate the relevance of customer-perceived service quality in determining customer overall satisfaction in the context of mobile services (telecommunication) and he found out that reliability and network quality (an additional factor) are the key factors in evaluating overall service quality but also highlighted that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction. This study was based only on a specific service industry (mobile service) and i think it is very important to identify and evaluate those factors which contribute significantly to determination of customer-perceived service quality and overall satisfaction.
Fen & Lian, (2005,) also found that both service quality and customer satisfaction have a positive effect on customer’s re-patronage intentions showing that both service quality and customer satisfaction have a crucial role to play in the success and survival of any business in the competitive market. This study proved a close link between service quality and customer satisfaction.

Furthermore, Su et al., (2002 as cited in Agyapong 2010,) carried a study to find out the link between service quality and customer satisfaction, from their study, they came up with the conclusion that, there exist a great dependency between both constructs and that an increase in one is likely to lead to an increase in another. Also, they pointed out that service quality is more abstract than customer satisfaction because, customer satisfaction reflects the customer’s feelings about many encounters and experiences with service firm while service quality may be affected by perceptions of value (benefit relative to cost) or by the experiences of others that may not be as good.

A study carried out by Magi & Julander, (2009,), among grocery stores in Sweden showed a positive relationship between perceived service quality, customer satisfaction and customer loyalty. It was proven that customer satisfaction results from high perceived service quality and this makes the customer loyal. But is there a consensus among researchers, as they argue over whether high degree of service quality always brings about satisfaction. The work of Bitner et al (1990) proposed an alternative method and defined service quality as the customer’s overall impression of the relative inferiority/superiority of a firm and its service offerings.
Antreas (1997) found that service provider perceptions about customer satisfaction are a function of perceived service quality. According to Anderson & Sullivan (1993), there are strong linkages between service quality dimensions (e.g. courteous service providers) and overall customer satisfaction. However, little empirical research has examined the importance of service quality dimensions in determining customer satisfaction (Fisk, Brown & Bitner, 1993). While the number of underlying dimensions has been shown to vary with the service setting, it appears reasonable to suggest that the service core and relational dimensions will emerge in nearly all cases as they form the basis for the service.

One of the most critical elements in a service market such as the advertising industry is the development of client relationships.

The complexity of the products and services and the long-term nature of business relationships in the advertising industry mean that effective and satisfactory business relationships are of the greatest importance in the marketing of advertising services. According to the principles of relationship marketing, successful business relationships enhance client satisfaction and thus enhance the performance of firms. In the past, relationship satisfaction has been conceptualised as a prerequisite for relationship quality. Crosby & Stevens (1987) identified three levels of relationship satisfaction and these are interactions with personnel, core service and the organisation.

In their study of Insurance customers, Crosby & Stevens (1987) found that all three levels contribute to overall satisfaction with the relationship. In a business context, relationship satisfaction has been defined as a positive affective state resulting from a firm’s appraisal of all aspects of its working relationship with another firm (Anderson & Narus, 1990; Ganesan, 1994; Dwyer et al., 1987). Satisfaction with the relationship is important, but
satisfaction per se does not automatically lead to repurchase (Reichheld & Aspinall, 1993). Some studies have investigated the relationship between service quality and consumer satisfaction, and although they have highlighted the antecedent role of consumer satisfaction in perceptions of service quality (Bolton & Drew, 1991; Boulding et al., 1993), most findings actually support a reverse cause-and-effect relationship (Dick & Basu, 1994). Mittal & Lassar (1998) found that there was a relationship between service quality and customer satisfaction.

Elnan & Andersen (1999) proved a positive relationship between service quality and customer satisfaction in the bus industry in Norway. A study by Ojo (2010) in the telecommunication industry showed that a positive relationship exists between the service quality dimensions (empathy, reliability, responsiveness, tangibility, assurance) and customer satisfaction. The same relationship is demonstrated by Cook (2008) and Oyeniyi & Abiodun (2008). Fornell et al. (1996) argued that perceived quality, which had been explained as the served market’s evaluation of recent consumption experienced, would have a direct and positive impact on overall customer satisfaction. In addition, Gallarza & Saura (2006 as cited in Day 1984) confirmed a clear pattern in which satisfaction is the behavioral consequence of quality.

2.7 Conceptual Framework

Various models have been developed to measure service quality following these approaches either attitude-based measures or disconfirmation models. According to (Shahin,), it is very important to measure service quality because it allows for comparisons before and after changes, identifies quality related problems, and helps in developing clear standards for service delivery.
The SERVPERF model developed by Cronin & Taylor, (1992), uses the performance approach method which measures service quality based on customer’s overall feeling towards service. This model is good to measure service quality but does not provide information on how customers will prefer service to be in order for service providers to make improvements. Teas, (1993), developed the Evaluated Performance model which measures the gap between perceived performance and the ideal amount of a dimension of service quality, rather than the customer’s expectation. This was to solve some of the criticism of some previous models Gronroos, (1984); Parasuraman et al., (1985, 1988).

Parasuraman et al., (1985), developed a model of service quality after carrying out a study on four service settings: retail banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. The SERVQUAL model represents service quality as the discrepancy between a customer’s expectations of service offering and the customer’s perceptions of the service received Parasuraman et al., (1985).

This makes it an attitude measure. What this model strives to measure exactly is the consumer perception of the service quality which depends on the size of the gap between expected service and perceived service which in turn, depends on the gaps under the control of the service provider such as delivery of service, marketing, (Parasuraman et al., 1985). This measurement of service quality is based on both on how consumer evaluates the service delivery process and the outcome of the service, (Parasuraman et al., 1985,).

Buttle, (1996,) makes mentions of several researchers that have used the SERVQUAL model in various industries (retailing, restaurants, banking, telecommunication industry, airline catering, local government, hotels, hospitals, and education). He further suggests
that service quality has become an important topic because of its apparent relationship to costs, profitability, customer satisfaction, customer retention and positive word of mouth and it is widely considered as a driver of corporate marketing and financial performance.

A good service quality is also considered as one which meets or exceeds consumer’s expectation of the service (Parasuraman et al., 1985,). The SERVQUAL model was made of ten dimensions of service quality when created; tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer, and access, Parasuraman et al., (1985,) but later on these dimensions were reduced to five because some dimensions were overlapping (communication, credibility, security, competence, courtesy, understanding customers and access) and they included,

- **Tangibles-** physical facilities, equipments, and staff appearance.
- **Reliability-** ability to perform the promised service dependably and accurately.
- **Responsiveness-** willingness to help customers and provide prompt service.
- **Assurance-** knowledge and courtesy of employees and their ability to inspire trust and confidence.
- **Empathy-** caring, individual attention the firm provides its customers (Parasuraman et al., 1988,).

These dimensions mainly focus on the human aspects of service delivery (responsiveness, reliability, assurance, and empathy) and the tangibles of service. In this study, the researcher is more interested in service quality and customer satisfaction by using the SERVQUAL model to assess these responses in telecommunication industry, TIGO to be precise. The framework for this study is therefore, adopted and from the modified empirical study by Dehghan, (2006 as cited in Agyapong 2010) depicted in Figure 1.
figure illustrates the relationship between service quality and customer satisfaction and the characteristics or variables that determines each of them. According to a study carried out by Ladhari, (2009), it is recommended that the SERVQUAL model is a good scale to use when measuring service quality in various specific industries but that it is appropriate to choose the most important dimensions of this model that fit to that particular service being measured in order to assure reliable and valid results. In this regard, we will use this model because it takes into account customer’s expectation of a service as well as perceptions of the service which is best way to measure service quality in service sector (Shahin, 2005).

The framework indicates that perceived quality is considered an antecedent of customer satisfaction (Woodside et al., 1989; Reidenbach & Sandifer-Smallwood, 1990; Cronin &Taylor, 1992; Fornell, 1992; Anderson & Sullivan, 1993; Gotlieb et al., 1994; Spreng & Mackoy, 1996). It indicates that the quality of service measured by the SERVQUAL variables may lead to customer satisfaction.

A vast number of specific constructs have been used in conceptual discussions and empirical examinations of customer satisfaction, yet they seem to have at least one thing in common (at a very high level of aggregation): they refer to the customer’s relationship over time toward one specific object (a vendor, a brand, a service supplier, etc.) (Soderlund, 2005).

In addition, Mittal & Lassar (1998) found that there was a relationship between service quality and customer satisfaction. Elnan & Andersen (1999) proved a positive relationship between service quality and customer satisfaction in the bus industry in Norway. A recent study by Ojo (2010) in the telecommunication industry showed that a positive relationship
exists between service quality and customer satisfaction. The same relationship is demonstrated by Cook (2008) and Oyeniyi & Abiodun (2008). Fornell et al (1996) argued that perceived quality, which had been explained as the served market’s evaluation of recent consumption experienced, would have a direct and positive impact on overall customer satisfaction. In their development of the American Customer Satisfaction Index (ACSI), they concluded that overall customer satisfaction, especially for ASCI, has three antecedents, which are: perceived service quality, perceived value and customer expectation.

![Diagram](image)

**Figure 1. Relationship between service quality and customer satisfaction**

*Source: Adopted from Dehghan, (2006)*
CHAPTER THREE
CONTEXT OF THE STUDY

3.0 Introduction
This chapter reviews articles, magazines as well as internet publications on the Ghanaian telecommunication industry. It begins with a brief historical background to the telecommunication industry. Subsequent sections include background of telecommunication, their services in Ghana, their subscriber base and a brief about Millicom Ghana limited (TIGO)

3.1 History of Telecommunication
Telecommunication Defined
Telecommunication refers to the specific services that support the exchange of information over significant distances by electronic means. It includes the activities of providing telecommunications and related service activities (i.e. transmitting voice, data, text, sound and video). The transmission facilities that carry out these activities may be based on a single technology or a combination of technologies (International Telecommunication Union, 2010). Telecommunication is also communication at a distance by technological means, particularly through electrical signals or electromagnetic waves.

The term telecommunications was first used for wired telephony. Today, telecommunications are one of the most important of the contemporary ICTs. They include wired and wireless telephony; different mobile services, such as cellular telephones and paging; voice and data transmission; and Integrated Services Digital Networks (ISDN), which provide a very high quality of voice as well as high data communication rates. Early telecommunication technologies included visual signals, such as beacons, smoke signals, semaphore telegraphs, signal flags, and optical heliographs.
Other examples of pre-modern telecommunications include audio messages such as coded drumbeats, lung-blown horns, and loud whistles. Electrical and electromagnetic telecommunication technologies include telegraph, telephone, and teleprinter, networks, radio, microwave transmission, fiber optics, communications satellites and the Internet.

3.2 Overview of the Global Telecommunications Industry

The Telecommunication industry has gone through some significant and revolutionary changes in the past two decades the world over. The industry used to be regarded as a natural monopoly before 1980s. In telecommunications industry this was mainly due to the exceptionally large infrastructure requirements of delivering the telephone services right into households. The monopolistic nature of the industry also meant that the provider could charge excessive prices and gain monopoly profits. Therefore, the need for price regulation also became apparent. It thus became commonplace, all over the world, to have a monopoly company owned by the state for providing telecommunication services (Bandaranayake, 2005).

Due to the problems in state owned enterprises, an essential need was seen to reform them. A combination of restructuring, privatization and establishing regulatory mechanisms were adopted in reforming these public enterprises (Kessides, 2004). The restructuring started in US in 1980s where the monopolist AT&T was dismantled into a number of smaller companies. Competition was introduced into long distance communications and then to local communications. Further, companies were allowed to operate in both broadcast and communications markets simultaneously. The next country to follow was UK with the opening up of their market which was the monopoly of British Telecom. Many countries in the European Union thereafter followed suit (Bressie et al, 2005).
Globally, the Telecommunication industry has become a vital revenue generation sector. For instance, at the end of 2008, worldwide mobile service revenues stood at USD 912.1 billion; outperforming the respective revenues generated by the pharmaceutical, IT hardware and semi-conductor sectors. While software and services generated more revenue than mobile services, mobile surpassed this sector in terms of year-on-year growth, and was the only industry of the aforementioned five to register double digit growth (of 17.4 percent) in terms of overall revenue between 2007 and 2008. It is estimated that by the end of 2008, worldwide mobile subscribers will total 4.6 billion (International Telecommunication Union, 2010).

3.3 Historical Development and Structure of Ghana’s Telecommunication Industry

History of the Industry

The telecommunications industry in Ghana has been on a very progressive journey and it has covered a great distance in a very short period of time. Allotey and Felix (2000), trace the history of telecommunication in Ghana to the pre-colonial period when the first telegraph line in Ghana, (then the Gold Coast), was a ten mile link installed in 1881 between the castle of the colony’s then governor in Cape Coast and Elmina.

In 1882, the first publics telegraph line, stretching over a distance of 2.5 miles, was erected between Christiansburg and Accra. The extension of telegraph services to the middle and northern parts of Ghana into the territory of the Ashantis was carried out in 1886. In order to improve communications in the southern part of the country, the first manual telephone exchange (70 lines) was installed in Accra in 1892. Twelve years later, in 1904, a second manual exchange consisting of 13 lines was installed in Cape Coast.
Ghana’s telecommunication infrastructure was laid down and expanded by the colonial administration mainly to facilitate the economic, social, and political administration of the colony. Before the beginning of World War I in 1914, 170 telephone subscribers had been served in Ghana. By 1930, the number of telephone exchange lines in Ghana had grown to 1,560, linking the coastal regions with the Central and Northern parts of the country. In 1953, the first automatic telephone exchange with 200 lines was installed in Accra to replace the manual one erected 63 years earlier. Three years later, in 1956, the trunk lines connecting Accra, Kumasi, Takoradi, and Tamale were upgraded through the installation of a 48- and 12-channel VHF network.

The attainment of Independence by Ghana in 1957 brought new dynamism to the country’s telecommunications development as a second new automatic exchange in Accra in 1957. By the end of 1963, over 16,000 telephone subscribers and 32,000 rotary-type telephones were in use in Ghana. The management of Ghana’s telecommunication institutions was also transferred from Public Works Department to the Post Office following the enactment of the Post Office Ordinance in 1886 and later to the Post and Telecommunications Department until the early 1970s.

Satellite communication was not an integral part of the Ghanaian communications system until the early 1980s. The construction of a satellite earth station at Kuntunase in the Eastern region of Ghana in 1981, and related communication reforms of the early 1990s marked a dramatic shift towards greater use of satellite communications technology over the next two decades (Boateng, 2000).

According to Osiakwan (2003), Ghana was one of the African countries who in the late 1990’s were in the forefront of the liberalisation of the telecommunications sector to
attract investments and improve competition within the communication sector. Not long ago very few people had private telephones that worked. As recently as 1996, the telephone density of Ghana was 0.26% meaning that there were 2.6 telephone lines for every 1,000 people including 35 payphones in the entire country out of which 32 were located in Accra. This was one of the lowest in Africa. Today there is one phone for every four Ghanaians!

This tremendous increase in the teledensity has been a result of the establishment of the National Communications Authority (NCA) in 1997 and the subsequent deregulation of the telecom industry, which brought about the growth of wireless telephony as a result of significant investment by operators. For the consumer, being in touch simply means being able to purchase a mobile handset and subscribing to a wireless service. Deregulation also meant opportunities for ambitious entrepreneurs and large telecom companies to establish operations in Ghana and participate in what was to become the biggest boom in Ghana’s recent economic history.

The communications sector was deregulated in 1994 when the government initiated the implementation of the Accelerated Development Programme (ADP) a five year programme for the restructuring of the communication industry. The ADP Programme ended in 2000 with the following achievements: teledensity increasing from 0.34 lines for 1000 inhabitants in 1994 to 1.16 lines in 2000; public phones per 1000 inhabitants increasing from 0.001 in 1994 to 0.16 in 2000; creation of the National Communications Authority (NCA) in 1996; liberalization of the communication sector; and the partial privatization of Ghana Telecom with Government maintaining 70% share. These were achieved primarily through the entrance of new telecommunication companies following the deregulation and privatization of the sector.
3.4 Brief Background of Milicom Ghana Limited

Millicom Ghana Ltd Millicom Ghana Limited, operators of TIGO cellular phone network, is a subsidiary of Millicom International Cellular S.A. (“MIC”) UK/Luxembourg, a leading global operator of cellular telephony services with several investments across the world. TIGO cellular network is one (1) of six (6) mobile voice services providers licensed to operate in Ghana. The company started its operations in Ghana in 1991 and was the first cellular network operator in the country. Millicom Ghana uses the ETAC System, and it had over 22 000 subscribers in 1998 with a market share of above 70 per cent of the mobile market.

The company expanded and in 2002 Millicom Ghana introduced its GSM service under the brand name MOBITEL/Buzz GSM. Buzz GSM with its trendy lifestyle image offered very exciting services to its numerous clientele. Mobitel has, over the years, been able to maintain a fast rate of subscriber and revenue growth and a very high quality of service, acclaimed by most users as being second to none. In 2006, TIGO was launched in Ghana to replace the old national brand MOBITEL with a new international brand. Currently TIGO network coverage reaches all the ten regions in Ghana and it is fast expanding to rural areas (www.tigo.com.gh).

The brand name was launched in 2006 and the company adopted her vision and mission as follows:

**Our Vision**

Our objective is to provide people in emerging markets the freedom to access today's world. To make this happen we create 'A world where mobile services are affordable, accessible and available everywhere and to all'.
**Our Mission**

We provide services for people who want to stay in touch, to belong to communities and to be informed and entertained, enabling them to express their emotions and enhance their lives. We deliver the 3 A’s, Affordability, Accessibility and Availability; providing affordable services, good coverage and ease of purchase and use. We focus on consistently meeting and exceeding customer’s expectations and developing an inspirational brand.

**3.5 Structure of the Telecommunication Market in Ghana**

The main elements of the current and emerging market structure of the telecommunication industry in Ghana as contained in the National Telecommunication Policy can be captured under five major market segments.

**3.5a International Telecommunication Segment**

The international market segment of Ghana consists of telecommunication facilities and services which carry communications signals across the country’s international borders. These include licensed gateway operators with official authorisation to maintain physical gateway connections to internal destinations. There are two such licensed gateway operators namely, Ghana Telecom (now Vodafone Ghana) and Westel. Others within this segment include SAT-3 access, Private licensed VSAT systems and unlicensed international bypass services.

The latter refer to unauthorised service providers utilising new technologies to connect international voice calls to the local public network, bypassing the gateway facilities and charges of licensed international operators.
3.5b Domestic Public Telephone Services

This segment of Ghana’s telecommunication market includes all facilities and services that connect to telephone calls between users within Ghana. This segment consists of fixed wireless networks, wireless mobile networks and Public telephone and tele-centers.

3.5c Dedicated Transmission Network

The dedicated transmission network segment of the countries telecommunication market includes all forms of point-point transmission networks which connect to two or more dedicated locations. These are used to provide wholesale capacity for use by other public network operators, for private, closed-user-group communication services or for public signal distribution.

3.5d Internet Services

This category consists of services that link end users to the internet and its various applications such as e-mail and web. Internet services do not by themselves involve installation of physical telecommunication networks but typically rely on use of other existing networks, through either dial-up or dedicated connections.

3.5e Broadcasting Systems

Operators under this segment of the market include public radio and television stations; operated by publicly-owned statutory bodies, commercial radio and television stations and community radio and television stations.

A number of telecom value added providers have emerged with the liberalisation of the telecommunication sector. Notable among them are the Mobile Phone Operators most of which were licensed before the establishment of the NCA. Millicom Ghana Limited began
its operations in 1992/93 with Mobitel as its network name. Celltel started its operation in
1995 with a network name “Celltel” which was later changed to “Kasapa”. Scancom also
entered the market in the same year using a network name “Spacefon”. In 2001, Ghana Telecom introduced its mobile phone services under a network name “One Touch”, now Vodafone.

The three larger operators then were MTN, TIGO and Vodafone, accounting for about 95
per cent concentration ratio (Ahotor, 2003). Now there is MTN, Vodaphone, Kasapa, Airtel, Glo and TIGO

Aside the mobile phone providers, there are internet and public data providers of which Network Computer Systems (NCS), Africa Online, Internet Ghana Ltd and Ghana classifieds are the leading companies among 46 internet services providers that are licensed to operate. They have a combined subscriber base of about 150,000. Other value added providers are the public pagers that include City Pagers, American Telecom Systems, Punch Communications Ltd and Page One Communications Ltd (ISSER, 2003).

For the period ending July 2012, Vodafone, which has been gaining subscribers since it entered the country, experienced the first subscriber base decline from 4,819,700 in June, to 4,758,272 subscribers. Vodafone's loss of 61,428 subscribers left it with 20.1% market share, which is a 0.5% fall from 20.6% market share. Expresso also decreased its subscriber base to 182,845, which represents 0.8% of the total market share, a 0.17% dip. Glo also continued chipping away market share from the other players, increasing its subscriber base further to 1,152,474, representing 4.9% of the total market share, an increase from 4.2%
MTN had a marginal increase and maintained its position as the market leader with a subscriber base of 10,828,585 representing 45.8% of total market share, a further 0.2% dip. Airtel also increased its subscriber base to 3,037,336 representing 12.8% of the total market share, a 0.1% dip. Subscriber base figures from the National Communication Authority (NCA) for the period ending 22nd April 2013 however indicates Ghana reached 26.33 million at the end of February 2013, a growth of 1.1% over the previous month. Mobile market leader MTN Ghana maintained its dominant position at that date, as its subscriber database reached 11.94 million, corresponding to 45.30% of the wireless sector. Meanwhile, number two operator Vodafone had signed up 5.55 million users by 1 March, an increase of 130,000 month-on-month, and a 21.09% market share.

For the period ending July 2012 indicates Millicom Ghana Company Limited (Tigo) has gained a further 145,911 subscribers to reach 3,699,185 in two consecutive months of turnaround after eight months of decline. Tigo experience the first turnaround in June this year gaining over 195,000 subscriber from in 3,457,427 May to 3,553,274 in June, according subscriber base and market share report from the National Communication Authority. With the further gain in July, Tigo commands some 15.6% market share of the total mobile subscription of 23,658,697. This is a marginal increase of 0.4% from the 15.2% market share in June this year. The new Tigo Ghana Boss, Youssefi had said in an early interview with Adom News "we have figured out what the challenges are and what need to be done to fix it and so you will see the results of our strategies in the subsequent months." Youssefi was also confident that his experiences from other markets in Europe, Asia and elsewhere in Africa, plus Tigo Ghana's own innovative products, network quality and affordable tariff would tell on its performance going forward. Airtel had 3.34 million connections (12.69%). Glo, the last to launch its commercial services in April 2012, and Expresso also increased their market shares to 6.13% and 0.62% respectively.
3.6 Policy and Regulatory Frameworks for the Telecommunication Industry in Ghana

3.6a National Telecommunication Policy

Following widespread liberalisation in basic telecommunication services in 1994, the government of Ghana, ten years later in 2004, formulated a comprehensive national communication policy with the vision of building upon developments that have been facilitated by the former in the telecommunication sector. The purpose is to define the framework within which Ghana’s Telecommunication sector will evolve towards its set vision. Specific objectives that the policy aims to promote include:

- Universal access for all communities and population groups in Ghana to telephone, internet and multimedia services by 2010;

- National penetration of universal telecommunication service to reach 25% of the population, including 10% in rural areas by 2010;

- Connection of all schools, medical clinics, Government offices and public and community broadcasting stations to advanced telecommunication services;

- Fully open private and competitive market for all telecommunication services;

- Streamlined, efficient and effective regulation of the telecommunication industry on a fully transparent, technologically neutral and competitively balanced basis;

- Affordable prices for telecommunication services particularly for low income citizens;
• Profitable investment opportunities for businesses in all segment of the market; and

• Ghana shall be seen as a first-class hub for international telecommunication and information industry investment, jobs and development and a leader in the transformation of Africa towards full participation in the information society.

The achievement of these policy goals and objective depends on the performance of the private sector since Ghana’s telecommunication industry is dominated by private telecom service providing companies.

3.6b Ministry of Communications

The Ministry is primarily responsible for the definition and elaboration of Government policy regarding telecommunications. In this regard, the Ministry is charged with the responsibility to periodically review the effectiveness and success of the present policy on telecommunication and consider amendments and updates as appropriate.

Again, the Ministry has the responsibility to participate in a consultative capacity in all National Communications Authority public regulatory proceedings in an open and transparent manner. It is the mandate of the Ministry of Communication to monitor development of the telecommunication sector, and progress toward achieving the objectives of the national policy and to represent the Government of the Republic of Ghana in all international negotiations and proceedings relating to the country’s telecommunication policies.
3.6c The National Communication Authority

As the telecommunication sector in Ghana underwent privatization and liberalization, there was the need to assign the regulatory roles to an independent body that will oversee the development of the sector. Consequently, the National Communications Authority Act (Act 524) was promulgated in 1996 for the establishment of the NCA.

Ghana's regulator, the NCA, has operated for years with scanty financial resources and no management board. Spectrum management has been messy; mobile operators were allowed to offer services using "authorizations" rather than formal licenses with clearly defined service obligations (Guy, 2002).

The NCA according to the National Communication Policy have the primary responsibility of regulating the telecommunication sector and implementing the terms of the National Transportation policy among the roles of the Authority as contained in the National Transportation Policy are:

- Issuing of licenses, establishing terms and conditions;
- Regulation of competition including interconnection;
- Allocation of scarce resources including management of the frequency spectrum;
- Implementation of Universal Access Policy;
- Tariff regulation consistent with Ministry Policy;
- Consumer protection;
- Technical standards, quality of service oversight; and
- Monitoring of operators activity, performance and compliance.
3.7 Future Plans For Ghana’s Telecommunications Infrastructure

The STP is the first phase of the Telecommunications Master Plan encompassing a twenty-year horizon (1987 - 2006), with each phase extended over a period of five years. It is expected that the Third and Fourth Telecommunication Projects—involving an investment of about $400 million—will have been completed by the year 2000. This will improve Ghana’s telephone density from the current level of 0.31 per one hundred people to 0.534, with a corresponding increase in connected direct exchange lines of 52,000 (from 48,000).

These two projects plan to meet customer requirements through the following measures:

- executing an accelerated program to implement district center telecommunication facilities to support the government’s decentralization policy;
- rehabilitating, expanding, and modernizing the switching, transmission, and local networks;
- digitalizing the telecommunications network;
- implementing a paging system;
- instituting packet switching (data networks); and
- Introducing an Integrated Service Digital Network (ISDN) and Intelligent Networks.
CHAPTER FOUR
METHODOLOGY

4.0 Introduction

This chapter treats the methodology that was adopted for the entire study. It consists of research design, research population, sample and sampling techniques, data collection instruments, administration of the instrument, validity and reliability of the research instrument, method of data analysis and the problems that was encountered on the field in the course of this study.

4.1 Choice of Study

Telecommunication caters for everybody’s needs because it is the means through which all daily transactions and activities are undertaken. It aids decision making, organizing, influencing activating, instructing, providing feedback, promoting interpersonal and business relationships as well as exchange of information. All social, economic, political, cultural, trade and commercial activities are undertaken using telecommunication. The nature of a country’s telecommunication industry affects its pace of commercial and domestic activities. This pinpoints the importance of telecommunication and the role they play in the economies of countries. These telecommunication industries have undergone many changes over years with the evolution of technology and changing characteristics of consumers. Consumers’ needs do change constantly and so there is a need for the industry to constantly study their consumers and identify their needs and satisfy them.

Due to innovative technology and other global challenges, telecommunication industries are now striving hard to offer better services to their customers in a profitable way. Telecommunication industries face competition among themselves because of the similar
products and services they offer. This is why there is a need for these industries to focus on delivering superior service quality to achieve high levels of customer satisfaction. Competing services often become similar in design and, as customers become more aware of service quality dimensions, they also become more price sensitive and value oriented (Bojanic & Rosen, 1994). This clearly highlights the impact of service quality in the telecommunication dealing with customer activities. It is very vital to measure service quality and find out how consumers perceive it in order to know dimensions that need improvement in case weaknesses are found.

In order to do this, firms must know what service quality is and how it is measured so that data can be used for quality management. This is why we chose to use the modified SERVQUAL instrument to enable us to assess service quality and customer satisfaction in the telecommunication industry TIGO to be precise. This model seeks to know the difference between consumers’ expectations of how a telecommunication should be like and their perceptions in terms of performance in the industry visited using various dimensions (tangibles, reliability, responsiveness, assurance and communication, assurance, security, courtesy and empathy). Trying to meet or exceed consumer expectations helps telecommunication to maintain a high quality image. This shows the relevance of knowing much about the consumers’ perceptions by telecommunication industry in order to survive in a competitive environment.

We chose to focus our study on service quality and customer satisfaction because it plays an important role in most service firms and it is antecedent to other constructs, profitability, customer loyalty and repurchase. All these concepts help companies have a
competitive advantage in case they have a proper understanding of service quality and customer satisfaction and how they are measured.

4.2 Research Design

A research design is a framework for conducting marketing research (Malhotra, 1996). A good research design will ensure that the information collected will be consistent with the purpose of the study and that the procedures regarding data collection is accurate and efficient. (Kinnear & Taylor, 1996). Two (2) basic approaches (or designs) to research exist, both of which are used extensively in the field of marketing: exploratory (qualitative) and conclusive (quantitative) (Boyd et al., 2002). Both approaches/designs have their respective benefits and uses in respect of the fundamental objective(s) of any research, and neither of them is better than the other (Cassell & Symon, 2006). For instance an exploratory/qualitative approach to research is employed when the objective of the research is to discover new relationships, whereas when the objective is to make decisions, a conclusive/quantitative method is best (Boyd et al., 2002; Malhotra, 2007).

Quantitative and qualitative methods will be combined for this research. The quantitative method was chosen to make it easy for conversion of information obtained into statistical models for general analyses to be made and the research questions to be answered base on the statistical models and the qualitative method was chosen to be used for in-depth information.

A decision was taken to combine the two methods because, it has been seen necessary to have the figures from the field to deal with the broader perspectives of the topic using the quantitative method so that the qualitative method, defined by Wilson (2006) as “research
which is undertaken using an unstructured research approach with a small number of carefully selected individuals to produce non quantifiable insights into behaviors motivation and attitudes” will deal with detail account of individual experiences and their detail point of view about the topic under study.

4.3 Population

The study population consisted of the customers of TIGO Ghana in the University of Ghana, Legon. With a current student population of about 29754 (representing male/female ratio of about 2:1) the University of Ghana is the oldest and largest of the six public Universities in Ghana. Breakdown in terms of programmers’ are as follows: Post-Graduate students – 1,816; Bachelors’ Degrees – 26,154; Sub-Degrees – 1,784. International students currently enrolled in the University are also 1142. Senior Members engaged in research and teaching number 865. Senior Administrative and Professional staff also number 128. The researcher sampled 200 students from this population of various ethnicities and nationalities. This is because the researcher thought that using the students will produce valuable knowledge to the telecommunication industry in Ghana. This is also because the, 27 000 inhabitants in and around the University represent a good market force.

4.4 Data Collection

Data can be classified as either primary or secondary in nature. Secondary data essentially includes information found within books, journal articles, websites and catalogues and which provides information which may have been collected for other purposes (Ghauri & Grønhaug, 2005). Primary data on the other hand is gathered in the event that secondary data is not available to answer a specific research problem the researcher seeks to solve.
This form of data can be gathered in numerous ways such as through observations, experiments, surveys, and interviews, depending on the research design/approach adopted for the study (Ghauri & Grønhauge, 2005).

4.5 Data Gathering Instruments

The tool to collect data is the questionnaire. According to Kumekpor (2002), self-administered questionnaire is less expensive than sending interviewers to the field, especially when respondents are scattered over a wide area. Also, no interviewer controls the sequence of questions. This allows respondents to skip some questions and come back to them later. In addition, the respondent has ample time to reflect over questions before filling in his/her answers. The advantages of self-administered questionnaire stated are the reasons for the selection of that tool for collection of the quantitative data.

4.5a The Questionnaire

The data collection instrument employed in this study was a semi-structured questionnaire. The researcher first of all revisited her research objectives and determined what information she needed to collect data on. The researcher used the SERVQUAL 5 dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) which are subdivided into 22 statements. The researcher represented these dimensions with technical support, access, quality, delivery, product quality, competitiveness and responsiveness which were directed to measuring service quality in Millicom Ghana Limited (TIGO) in this case. These dimensions are in line with the technical quality dimension proposed by Gronroos, (1982) which could be used to measure service quality and this is very relevant in the case of Millicom Ghana Limited (TIGO) that mostly deal with services.
A few questions were left open for study respondents to fill; the rest of the questionnaire had pre-determined answers from which respondents had to choose.

As stipulated by the SERVQUAL model, the statements are divided into three parts; the first part was the demographic part that provides general information about respondents on gender and number of years the respondent has been a customer of Millicom Ghana Limited (TIGO). This is to enable us get a better understanding of the type respondents and relate it to how they perceive service quality in Millicom Ghana Limited (TIGO). The second part seeks to measure the expectations of customers and the third part seeks to measure their satisfaction.

In the questions the researcher used 5-point Likert-scale where the respondents are asked to select the most appropriate number that corresponds to extent to which they agree with a question. The scales in the survey questions is 1 to 5 with “1” denoting “excellent” and “5” denoting “very poor”, for the second part of the questions. The original scale of Likert-type scale was developed by Rensis Likert. He reported very satisfactory reliability data for the scales.

Majority of the questions were closed- ended and multiple-choice in nature making the results of the questions easy to compare, tabulate and analyze easier. Closed questions offer efficiencies to researchers. They are certainly easier to analyze and are usually quicker to administer and ask. Thus, they are often used in large samples and in self-completion interviews. The consistency in the response categories allows trends to be tracked over time if the same questions are used.
This questionnaire was discussed with the supervisor and then tested. From the testing, respondents were quite comfortable with the questionnaire. We used the SERVQUAL model as the basis for the structured questionnaire because it provided information on our research questions in which we were trying to know how consumers perceive service quality in Millicom Ghana Limited (TIGO) by assessing the difference between the expectation and perception of services experienced. This enable the researcher know over perceived service quality by customers and identity what items of the SERVQUAL dimensions consumers are satisfied with.

4.6 Sample and Sampling Technique

When conducting research one cannot study everybody everywhere doing everything (Miles & Heberman, 2002). Denscombe (2003) stated that, it is not possible for researchers to collect data from all those categories being investigated; however, a researcher attempts to get evidence from a section of the category through sampling techniques.

The study populations consist of the customers of TIGO Ghana in the University. A simple purposive sampling method was used. This was to ensure that every member of the population had equal chance of being part of the sample, and also according to Zikmund (2000) it is difficult to determine the size of the sample, and in order to make the right decision different factors must be considered. The nature of the research is such a factor.

The University has a population of approximately 29754 students of which more than 9000 of these are taking courses through distance education or off-campus giving a total of roughly about 27 000 students studying on campus. The researcher sampled 200 students.
from this population. This is because the researcher thought that using the students will produce valuable knowledge to telecommunication industry in Ghana because of the inhabitants, 27,000 are students in the University not considering other institutions of learning. This is a good market force that is worth researching on because they form a segment that telecommunication firms could target.

4.7 Data Collection Procedure

Sources of the data were both secondary and primary sources. The secondary source of the data was literature from any credible source that was relevant to the study objectives. This included published books, working papers, articles from journals and others. A self-administered, structured questionnaire was used to collect data from respondents as recommended for a large survey (Saunders et al. 2000; Cooper & Schindler 2006; Malhotra & Birks 2007). The questions sought respondents’ feelings about overall service quality and customer satisfactions.

The questionnaire was pre-tested to a sample of twenty (20) subscribers selected by simple random method. This small size was guided by the suggestion by Fink (2003b in Saunders et al. 2007) that the minimum of ten (10) members for pre-testing is adequate. Each of them was told the purpose of the questionnaire and assured of anonymity and confidentiality of responses before they were given the questionnaire to respond to. Finally, after adjustments were made to get more effective instruments, the questionnaire was administered. As mentioned earlier in the study, the researcher used a purposive sampling technique.
The researcher stood in front of the University’s main library and the various halls in order to get a more representative sample of the entire target population. The researcher approached any person whom she judged available and proposed to him/her to help her fill a questionnaire. Again, respondents were first informed of the purpose, assured of anonymity and confidentiality of responses. The researcher explained to all her respondents that she was seeking to measure the gap between what they want from Millicom Ghana Limited (TIGO) in terms of service quality and what they perceive in terms of service quality offered by Millicom Ghana Limited (TIGO). The researcher did this because she thought it was important to keep them focus so that they do not go astray since some people could possibly ignore reading the instructions and it could render the work null and void. This was between the periods of 19th April 2013 and 17th May 2013.

4.7a Response rate

The researcher had 200 questionnaires to administer and it took the researcher 29 days to administer these 200 questionnaires but unfortunately the researcher only received 180 questionnaires that were complete. This is because some people got the questionnaires and went away with them and others did not completely answer the questions and so the researcher considered them invalid. This however was handled by trying to verify if the respondents completed the questionnaire in order to increase the number of completed questionnaires.

4.8 Data Handling

After collection of the primary data, it was properly edited. The quantitative data was coded. The quantitative data analysis was done using SPSS.
4.9 Data Analysis method

We are carrying out a quantitative research and this will involve some quantitative analyses. There are several software packages for the analysis of quantitative data some of which are broader in scope and user friendly such as the SPSS. SPSS may obviously not be the best but its user friendly nature and the mastery of the researcher of the program automatically makes it better for the researcher. To achieve the objective of this study, that is to examine the impact of service quality on customer satisfaction in telecommunication industry in Ghana, Probit regression analysis was carried out. Probit regression, also called a probit model, is used to model dichotomous or binary outcome variables. In the probit model, the inverse standard normal distribution of the probability is modeled as a linear combination of the predictors.

The fitted regression model is:

\[ C_i = \alpha + \sum_{i=1}^{n} \beta_i X_i + \epsilon_i \]

................................. (1)

Where \( C_i \) is Customer satisfaction (a dichotomous variable) with a value of one (1) if the customer is satisfied and zero (0) if the customer is dissatisfied, \( X_i \) is a vector of service quality variables (responsiveness, access, technical support, product quality, delivery, competitiveness and quality), \( \alpha \) is the intercept and \( \beta_i \) are the respective coefficients measuring the effect of each service quality variable on customer satisfaction. Presentations of data were done using tables.
4.10 Limitations of the Study

The major challenges that were encountered in undertaking this research work include; the use of the purposive sampling technique design. This technique had its limitation of difficulty in using its findings for generalisation since only a part cannot be used to represent the whole. In this case, the performance of TIGO on the campus of university of Ghana and its environment could not be used to generalise the service quality and customer satisfaction of the company in the entire nation. To reduce this limitation however, literature works were widely consulted to make references to issues being discussed which are of relevance to the other areas of the country where the company is operating.

Difficulty in the collection of primary data from relevant institution. This challenge was the result of the seemingly reluctance of student to provide information relevant to the study. This was taken care of by talking to them and showing them relative research’s that served as evidence that this study was just for academic purpose. Thus, the information given was treated with utmost confidentiality.

Finally, the issue of consumers’ perceptions could be questioned because the sample size consisted of respondents that come from both developing and developed economies that may differ. However, the above limitations are less significant compared to the importance of carrying out this type of study. Such a study should be carried out frequently in order to monitor service quality and find out satisfaction levels of customers and hence make necessary adjustments in case of any weaknesses or strengths.
CHAPTER FIVE
RESULTS AND ANALYSIS

5.0 Introduction

This chapter will analyze results obtained from the survey carried out at the University of Ghana, on the topic “Service Quality and Customer Satisfaction in the Telecommunication Industry in Ghana” the Case of Millicom Ghana Limited (TIGO).

5.1 Analysis of Customer Data

Gender Disposition of Respondents

Data was collected on the gender disposition of the respondents who answered the questionnaire. Out of 180 respondents, 113, representing 62.8% were males and 67 representing 37.2 were females.

Sex of respondent

<table>
<thead>
<tr>
<th>Sex of respondent</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Female</td>
<td>67</td>
<td>37.2</td>
<td>37.2</td>
<td>37.2</td>
</tr>
<tr>
<td>Male</td>
<td>113</td>
<td>62.8</td>
<td>62.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>180</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Gender Disposition of Respondents

Source: Field Data, 2013
5.2 Number of Years Respondents have been Customers of TIGO

To enable the researcher get accurate data on the questions asked in this survey, the researcher felt that it would be in its proper place if data is collected on how long the respondents have been customers of TIGO. In the view of the researcher this will help to know if the respondents have had ample time with TIGO in order to make their judgments on issues and to give answers to questions asked. It was recorded that 62.2% had been customers of TIGO between 1-5 years. 31.1% had been with TIGO as customers between 6-10 years and 6.7% had been TIGO customers between 11-15 years. None of the respondents had been with TIGO above 15 years. According to Cronin & Taylor (1992) customer satisfaction is based on the customer’s experience on a particular service encounter. This highlights the fact that customer satisfaction is based on experience with service provider. This is the reason why the researcher felt that the number of years of experience will be of benefit to the survey since it will throw more light on the aptness of information given by the respondents as supported by Cronin & Taylor (1992).

Years of being a customer

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td>62.2</td>
<td>62.2</td>
<td>62.2</td>
</tr>
<tr>
<td>56</td>
<td>31.1</td>
<td>31.1</td>
<td>93.3</td>
</tr>
<tr>
<td>12</td>
<td>6.7</td>
<td>6.7</td>
<td>100.0</td>
</tr>
<tr>
<td>180</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Number of Years Respondents have been Customers of TIGO

Source: Field Data, 2013
5.3 Data analysis

In order to examine the effect of service quality on customer satisfaction, we run a probit regression using responsiveness, access, technical support, product quality, delivery, competitiveness and quality as predictors of customer satisfaction. Thus, we specify the probit model as follows;

\[ C_i = \alpha + \sum_{i=1}^{n} \beta_i X_i + \varepsilon_i \]

.............................................................................................................................. (1)

Where \( C_i \) is Customer satisfaction (a dichotomous variable) with a value of one (1) if the customer is satisfied and zero (0) if the customer is dissatisfied, \( X_i \) is a vector of service quality variables (responsiveness, access, technical support, product quality, delivery, competitiveness and quality), \( \alpha \) is the intercept and \( \beta_i \) are the respective coefficients measuring the effect of each service quality variable on customer satisfaction. The probit model in equation (1) can be written empirically as;

\[ \text{Prob}(C_i = 1/ X_i) = \alpha + \beta_1 \text{Responsiveness} + \beta_2 \text{Access} + \beta_3 \text{Tech.Support} + \beta_4 \text{Prod.Quality} + \beta_5 \text{Delivery} + \beta_6 \text{Competitiveness} + \beta_7 \text{Quality} + \varepsilon \] .................................(2)

The above equation (equation 2) measures the probability of customer satisfaction associated with each service quality variable. Table 3 shows the results of the probit regression.
Table 3: Probit Regression Results.

Number of observation = 180
LR chi2(7) = 38.81
Prob> chi2 = 0.000
Pseudo R2 =

Log likelihood = -98.950229
Pseudo R2 = 0.1640

<table>
<thead>
<tr>
<th>Dep. Variable</th>
<th>Coeff.</th>
<th>Std. Err.</th>
<th>z</th>
<th>P-Value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-0.324</td>
<td>0.171</td>
<td>-1.89</td>
<td>0.058</td>
<td>[0.660, 0.011]</td>
</tr>
<tr>
<td>Access</td>
<td>0.636</td>
<td>0.209</td>
<td>3.05</td>
<td>0.002</td>
<td>[0.227, 1.045]</td>
</tr>
<tr>
<td>Technical support</td>
<td>-0.324</td>
<td>0.180</td>
<td>-1.8</td>
<td>0.072</td>
<td>[0.678, 0.029]</td>
</tr>
<tr>
<td>Product quality</td>
<td>0.039</td>
<td>0.133</td>
<td>0.29</td>
<td>0.77</td>
<td>[0.223, 0.301]</td>
</tr>
<tr>
<td>Delivery</td>
<td>0.106</td>
<td>0.182</td>
<td>0.58</td>
<td>0.561</td>
<td>[0.251, 0.464]</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>-1.079</td>
<td>0.395</td>
<td>-2.73</td>
<td>0.006</td>
<td>[1.852, 0.305]</td>
</tr>
<tr>
<td>Quality</td>
<td>0.441</td>
<td>0.193</td>
<td>2.28</td>
<td>0.023</td>
<td>[0.062, 0.819]</td>
</tr>
<tr>
<td>Constant</td>
<td>3.410</td>
<td>2.626</td>
<td>1.3</td>
<td>0.194</td>
<td>[1.737, 8.557]</td>
</tr>
</tbody>
</table>

However, since the parameters obtained from the probit regression above represent the coefficients of the index function, we estimate the marginal effect of each service quality
variable on customer satisfaction for interpretation purposes (see Greene, 2011). Table 3 shows the marginal effects of each of the service quality variables.

Table 4: Marginal Effects after Probit Regression

\[ y = \text{Pr(Customer satisfaction)} \]

(predict)

\[ y = 0.66160077 \]

<table>
<thead>
<tr>
<th>Predictors of Customer Satisfaction</th>
<th>Marginal Effects</th>
<th>Std. Err.</th>
<th>z</th>
<th>P-Value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness</td>
<td>-0.119*</td>
<td>0.062</td>
<td>-1.90</td>
<td>0.057</td>
<td>-0.241 to 0.004</td>
</tr>
<tr>
<td>Access</td>
<td>0.233***</td>
<td>0.076</td>
<td>3.07</td>
<td>0.002</td>
<td>0.084 to 0.381</td>
</tr>
<tr>
<td>Technical support</td>
<td>-0.119*</td>
<td>0.066</td>
<td>-1.80</td>
<td>0.071</td>
<td>-0.247 to 0.004</td>
</tr>
<tr>
<td>Product quality</td>
<td>0.014</td>
<td>0.049</td>
<td>0.29</td>
<td>0.770</td>
<td>-0.081 to 0.110</td>
</tr>
<tr>
<td>Delivery</td>
<td>0.039</td>
<td>0.067</td>
<td>0.58</td>
<td>0.561</td>
<td>0.092 to 0.169</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>0.394***</td>
<td>0.141</td>
<td>-2.79</td>
<td>0.005</td>
<td>0.672 to -0.117</td>
</tr>
<tr>
<td>Quality</td>
<td>0.161**</td>
<td>0.071</td>
<td>2.28</td>
<td>0.023</td>
<td>0.022 to 0.300</td>
</tr>
</tbody>
</table>

*** Significant at 1%, ** Significant at 5%, * Significant at 10%

From table 4, it could be seen that access and quality have positive and significant effects on customer satisfaction. Specifically, an improvement in access by 1% increases the chance of customer satisfaction by 23.3% (0.233) all things being equal. Similarly, an improvement in quality by 1% increases the chance of customer satisfaction by 16.1%.
(0.161) all things being equal. This means that if TIGO Ghana Limited improves its access and quality, customers will be satisfied.

Responsiveness, technical support and competitiveness have negative and significant effects on customer satisfaction. Specifically, an improvement in responsiveness by 1% reduces the chance of customer satisfaction by 11.9% (0.119) all things being equal. Also, an improvement in technical support by 1% reduces the chance of customer satisfaction by 11.9% (0.119). Similarly, an improvement in competitiveness by 1% reduces the chance of customer satisfaction by 39.4% (0.394) all things being equal. This result indicates if TIGO Ghana Limited improves it is responsiveness, technical support and competitiveness, customers will be dissatisfied.

However, the result indicates that product quality and delivery have positive effects on customer satisfaction but they are not significant. This means that product quality and delivery are not important predictors of customer satisfaction in the case of TIGO Ghana limited.

5.4 Suggestions on How to Improve Service Quality

Respondents were asked to suggest ways by which TIGO can improve on their service quality. The following serve as a fair representation on respondents’ suggestions;

- Help lines should be accessible
- Improve sound quality on in and outgoing calls
- Lowering cost on internet connectivity
- Less text messages from TIGO
- Data services on blackberry should be improved
Stop charging for calls not made and for missed calls

These were responses given by 75% of respondents. The other 25% did not make any suggestions. About 50.3% of the 75% of the respondents who gave suggestions indicated that help lines should be improved, there should be fewer messages from TIGO and that TIGO should stop charging for calls that have not been made.

5.5 Products and Services of TIGO that customers like and Dislike

Respondents were asked which of TIGO’s products and services, they like and how it adds value to their lives and business. The following were some of the responses gathered from 75.2% of the respondents.

- Reduced tariff on talk time
- Provision of easy money transfer through TIGO cash
- Bonuses given to customers

About 54.9% out of the 75.2% of the respondents mentioned that they liked the company’s reduced tariffs and that it helped them to calls flexibly.

On the question of which of the company’s products that customer’s dislike, all of the 75.2% who mentioned the products and services they like referred to the following:

- Unsubscribed messages from TIGO to customers’ phones
- Modem that is difficult to use
- Non performing help line

5.6 Ways by which Customers will Remain Customers of TIGO

Wicks & Roethlein, (2009) is of the view that it is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions. In the same vein, respondents were asked to suggest ways by which TIGO
may have to respond in order to keep them as customers of the network. The following responses were gathered from 79.2% of the respondents. 20.8% indicated no response

- Calls to the call centre must not be charged
- Call centre must respond promptly to calls
- Follow up on customer complaints till they are resolved
- Rewarding loyal customers to keep them
- Stop sending unsubscribed messages to customers’ phones

### 5.7 Discussion of findings

The regression model showed that of the observed variability in total customer satisfaction is explained by the total service quality variables. Further, the regression model shows how the individual service quality variables affect customer satisfaction. The result indicates that all the service quality items; responsiveness, access, technical support, product quality, delivery, competitiveness, quality are good predictors of customer satisfaction.

The significance of variables indicates that there is a relationship between the dependent variable customer satisfaction (CS) and the seven independent variables (service quality factors). In other words, an improvement in or decrease in one performance will affect customer satisfaction. An improvement in access by 1% increases the chance of customer satisfaction by 23.3% (0.233) all things being equal. Similarly, an improvement in quality by 1% increases the chance of customer satisfaction by 16.1% (0.161) all things being equal; it indicates that the service quality items are the main factors that affect customer satisfaction of TIGO (Ghana).
The regression equation shows that if no initiatives are taken to increase the level of the identified variables (i.e. access and quality) the level of customer satisfaction will decrease. In addition, TIGO (Ghana) must put more effort into improving the competence of staff and also making their services more tangible to customers’ needs since the two are the most significant factors influencing customer satisfaction.

Furthermore, it has been found in this study that generally customer satisfaction with service quality is low or less than expected and desired in the Ghana MTNs. This imply that policy makers and industry regulators such as the Ministry of Communication and National Communication Authority in Ghana, need to be awakened to this empirical fact and take pragmatic steps to ensure that mobile telecom network operators in Ghana improve their efficiency and effectiveness in the provision of telecommunication services that meet and exceed customer need, desire and expectation.

It is recommended that industry regulators such as National Communication Authority (NCA) should make it part and parcel of their monitoring activities to establish and implement an independent periodic survey to assess customer satisfaction of the service quality delivered by MTNs in Ghana. Such surveys should not only seek the overall satisfaction of customers but also satisfaction in the various service quality dimensions. The results of such satisfaction surveys should be published with the companies named for the public to take knowledge of the respective performance of MTNs, which has the potency of triggering change in the quality of service delivered by the lowly rated companies. Such surveys also give the NCA and other industry regulators that scientific basis for any sanctions, queries and addressing poor service quality issues in the industry.
Finally, the findings of this study imply that the management of the company must seriously take knowledge of customer dissatisfaction with their service quality and make serious efforts to develop effective strategies to improve the situation. Their customers are typically dissatisfied with their service quality; therefore it is recommended that the management should keep improving upon the network quality as well as other dimensions of service quality until customers’ are satisfied.

5.8 Discussion In Relation To Objectives

The researcher discussed this research work in line with the objectives of the research. The main problem was to know if customers are satisfied with service quality delivered by TIGO in Ghana, and also to ascertain whether service quality exert a strong influence on the level of customer satisfaction.

The researcher recorded the fact that customers of TIGO viewed the service quality of TIGO as acceptable and agreeable as far as they are concerned but on the whole customers were not satisfied with the company’s services and that was the reason they indicated that they would not recommend the company to other customers or be prepared to provide a testimonial for use in the company’s marketing.

With respect to second objectives, customers that were investigated mentioned that service quality exerts a strong influence on the level of satisfaction of customers. This is evident in the analysis. In their opinion there is direct relationship between service quality and customer satisfaction. It could be seen that access and quality have positive and significant effects on customer satisfaction. Specifically, an improvement in access by 1% increases the chance of customer satisfaction by 23.3% (0.233) all things being equal. Similarly, an
Improvement in quality by 1% increases the chance of customer satisfaction by 16.1% (0.161) all things being equal. This means that if TIGO Ghana Limited improves its access and quality, customers will be satisfied.
CHAPTER SIX
SUMMARY, CONCLUSION AND RECOMMENDATION

6.0 Introduction
Organizations are increasingly being customer-centric and are embracing customer-driven initiatives that seek to understand, attract, retain and build intimate long term relationship with profitable customers (Kotler, 2006; Gro¨nroos, C 1994; Narver and Slater, 1990). When dealing with companies and clients, exceptional customer service quality is what tends to solidify a sale, make a business deal, score a contract or make a client wish he/she comes back again.

This research sought to examine the overall customer satisfaction (CS) with service quality delivered by TIGO Ghana and also to also ascertain whether service quality exert a strong influence on the level of customer satisfaction. This chapter summarizes, concludes and makes appropriate recommendations.

6.1 Summary
This paper sought find out if customers are satisfied with the service quality delivered by TIGO in Ghana and also to also ascertain whether service quality exert a strong influence on the level of customer satisfaction. Out of the 200 sample population, 180 responded to the questionnaire administered.

The study found that access and quality have positive and significant effects on customer satisfaction. Specifically, an improvement in access by 1% increases the chance of customer satisfaction by 23.3% (0.233) all things being equal. Similarly, an improvement
in quality by 1% increases the chance of customer satisfaction by 16.1% (0.161) all things being equal. This means that if TIGO Ghana Limited improves its access and quality, customers will be satisfied.

In their opinion, there is a direct relationship between quality service and customer satisfaction. Finally they indicated that they would not recommend Tigo to other people.

6.2 Conclusion

A well managed telecommunication system has proven to be part of the nexus of factors in accelerating the development of a nation. Millicom Ghana Limited (TIGO) contribution to the successes chalked by Ghana’s telecommunication industry has been significant. The conclusion drawn from the survey was that TIGO is doing fair in terms of service quality and customer satisfaction and that remains a major factor in not only competing favorably in the telecommunication market, but also, in augmenting the companies contribution to the socio-economic development of the nation.

Assessing service quality and customer satisfaction in the telecommunication industry as the focus of this study has revealed some findings, that customers generally had the following problems with the network;

- Advertisements are over emphasized. The company’s advertisements that are run usually portray quality and delivery of the company’s products beyond what it actually is.
- Blackberry Phones services are very poor
- TIGO sends too many messages to customers which are so unimportant and waste our batteries
• Internet services are often poor
• Network inconsistency when travelling from one region to the other
• Modems which are difficult to use
• Call Centre/Customer service does not respond promptly to calls made to the centre regarding customer complaints.

However they mentioned that they preferred the following services and products from Tigo:

• Reduced tariff on talk time
• Provision of easy money transfer through Tigo cash
• Bonuses given to customers

Most of the respondent indicated that they subscribe to the products and services of other telecommunication companies. They usually subscribed to modems and the wireless internet services of other telecommunication companies mainly because the services offered by these other companies were better.

In effect, most of them did not have any intention of recommending Tigo to others. This was because it was observed from their response that they found a direct positive relationship between quality service and customer satisfaction.

These findings as discussed have provided the necessary platform in making recommendations in improving on the service quality of TIGO

6.3 Recommendations
In view of the findings that evolved from the study, the following recommendations have been made for policy considerations in improving on the service quality and customer satisfaction of Millicom Ghana limited as well as other telecommunication companies operating in Ghana.
Industry Regulators

It is recommended that in spite of the level of satisfaction expressed by customers of TIGO, industry regulators such as the Ministry of Communication and the National Communications Authority should be awakened to take pragmatic steps to ensure that customers get value for their money spent on the products and services offered by these telecommunication companies. The above can be done by encouraging and sensitizing mobile companies to focus their attention and resources on service quality dimensions for which customers are not satisfied while paying little attention on other trivial dimensions. Efforts in this regard should be channeled towards technical efficiency, empathy, reliability and economy of service quality delivered.

Telecommunication Industries

The study’s findings revealed that TIGO like all the other telecommunication companies take knowledge of their customer’s dissatisfaction with their service quality and work hard to improve the situation. Management of TIGO Ghana and the other telecommunication companies must understand that generally their customer satisfaction is only equal to and not better than expected, and that they ought to work towards exceeding the expectation and desired service quality of their customers. This is with respect to charges on products and services as well as network stability and reliability in the network when people are travelling from one region to the other.

These findings also imply that recruiting competent staff may be a critical aspect for customers in judging the quality of telecommunication services. There is a positive relationship between service quality and customer satisfaction. Obtaining customer satisfaction depends to a large extent on ensuring that the firm maintains high service quality standards. Putting in place quality mechanisms has significant effect on the level of
customer satisfaction. The management of Tigo must understand that generally their customer satisfaction is only equal to and not better than expected, and that they ought to work towards exceeding customer expectation and desired service quality. There is the need for management to work at their marketing strategies in order to exceed customer expectation.

Again, TIGO Ghana should consider as very important, the likelihood of customers switching to other networks due to dissatisfaction with certain services especially the internet service which is popularly alleged by many users. It is thus recommended that, the company in addition to its current introduction of the 3G network should aim at securing its customers by offering not only a high speed and reliable internet service but an affordable one as well.

Furthermore, the present study found a positive relationship between Image quality and customer satisfaction (CS). This implies that overall Customer Satisfaction in TIGO may be influenced significantly by the reputation of the service provider. The performance of a service provider over a time period could have a positive impact on Customer Satisfaction and intention to switch, stay and recommend. Therefore, managers should use effective marketing communications (mass media), compliance to industry, legal and ethical guidelines, and strategic investment in quality management to build favorable image, strong reputation and a unique identity in the mind of actual and potential customers towards achieving customer loyalty.

Finally, in the event of taking decisions, it is best that the views of all categories of workers and department be taken into consideration. Encouraging a much participatory form of decision-making which considers the views of all persons especially that of the
lower rank officers is a necessity in improving on the operational performance of the company.

6.4 Recommendations for Further Research

On the academics front, it is recommended that, customers’ satisfaction level of e-distribution of the company should be assessed, since e-distribution alone forms a major part of the entire service delivery in the telecommunication industry in Ghana.

Also, one can conduct a study that will compare all the other telecommunication companies so to each other as to truly assess the strengths and weakness of each telecommunication industry.

Finally a research can be done to separately examine customer satisfaction with regards to fixed lines and prepaid services.
REFERENCES


83


85


**WEBSITES**

http://www.telegeography.com/products/commsupdate/articles/2013/04/22/ghanas-mobile-subscribers-reached-26-33m-at-end-february


http://ugspace.ug.edu.gh

**BOOKS**


WTO (1985). Identification and Evaluation of those Components of Tourism Services which have a Bearing on Tourist Satisfaction and which can be Regulated, and State Measures to Ensure Adequate Quality of Tourism Services, World Tourism Organization, Madrid.
APPENDIX

QUESTIONNAIRE

Customer Service Quality and Customer Satisfaction

I am a student of the University of Ghana pursuing an MPhil in Marketing. As part of the requirement for the award of the degree I am undertaking a research into the topic ‘Service Quality and Customer Satisfaction in the Telecommunication Industry in Ghana; a case of Millicom Ghana Limited (TIGO)’. This questionnaire is designed to solicit for information on the above topic. I would be grateful if you could spare a few minutes to complete this Questionnaire to help me obtain my degree.

Customer Data

Gender  Male (   )  Female (   )
How many years have you been a customer with TIGO  1-5 years (   )  6-10 years (   )
11-15 (   )  16-20 (   )

1. Customer Service Quality

The service quality of TIGO is measured in terms of Responsiveness, Access, Professionalism, Technical Support, Product Quality, Delivery, Competitiveness and Quality. Kindly state your degree of satisfaction.

Please tick the appropriate box to indicate your degree of satisfaction.
Where: 1 = Excellent, 2 = Good, 3 = Satisfactory, 4 = Poor 5 = Very Poor

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsiveness:</strong> How do you rate their willingness and readiness in dealing with you? Are they willing to help and respond to calls on time?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Access:</strong> How approachable and easy are you able to contact their centers, do you have to wait for long hours and are there convenient locations of service facilities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical Support:</strong> If you received any technical support, how do you rate the technical competence of their engineers and their response time?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product Quality:</strong> How do you rate their products and services and did they meet your needs and expectations regarding quality and performance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Delivery:</strong> How do you rate their delivery on time performance and their commitment to meet your delivery expectations?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Competitiveness:</strong> How do you rate the competitiveness of their products and do they represent best value for total cost of lifetime ownership?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Quality:</strong> How do you rate their approach to quality management to ensure complete customer satisfaction? Do they have up to date equipment?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. In your opinion do you think that the quality of the services and products that TIGO offers can be determined by how satisfied you are with the service/product?
   YES ( )  NO ( )

3. In your opinion as a customer, do you think that the power of quality guarantees high profits in business?
   YES ( )  NO ( )

4. How does your perceived quality match up with expected quality that you actually receive from TIGO
   a) Closely  b) Fairly close  c) unsatisfactory

5. Do you think TIGO is doing better than other companies in the telecommunication service in terms of the quality?  YES ( )  NO ( )

6. Do you have any comments or suggestions that would help them improve their quality of customer service?
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
7. **Customer Satisfaction**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do have adequate knowledge on TIGO’s products and services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think that the company puts in much to educate its customers on the company’s products?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What do you like about their products and services, and how do they add value to your life and business?</td>
<td>..........................................................</td>
<td></td>
</tr>
<tr>
<td>What do you dislike about their products and services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What could you buy from them but choose to buy from a different network?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. **Do you see any direct relationship between service quality of TIGO and customer satisfaction**  
   YES ( )  NO ( )

9. **Do you measure their performance?**  
   YES ( )  NO ( )

10. **How would you rate TIGO?**  
    A) Excellent  
    b) Good  
    c) Satisfactory  
    d) Poor

11. **Would you be prepared to recommend TIGO to others?**  
    YES ( )  NO ( )

12. **In the next 3-5 lines please state how they will have to respond to your needs for you to remain a customer?**
    ..................................................................................................................