# Service quality and customer Loyalty: The case of the Mobile Telecommunication industry in Ghana.

By

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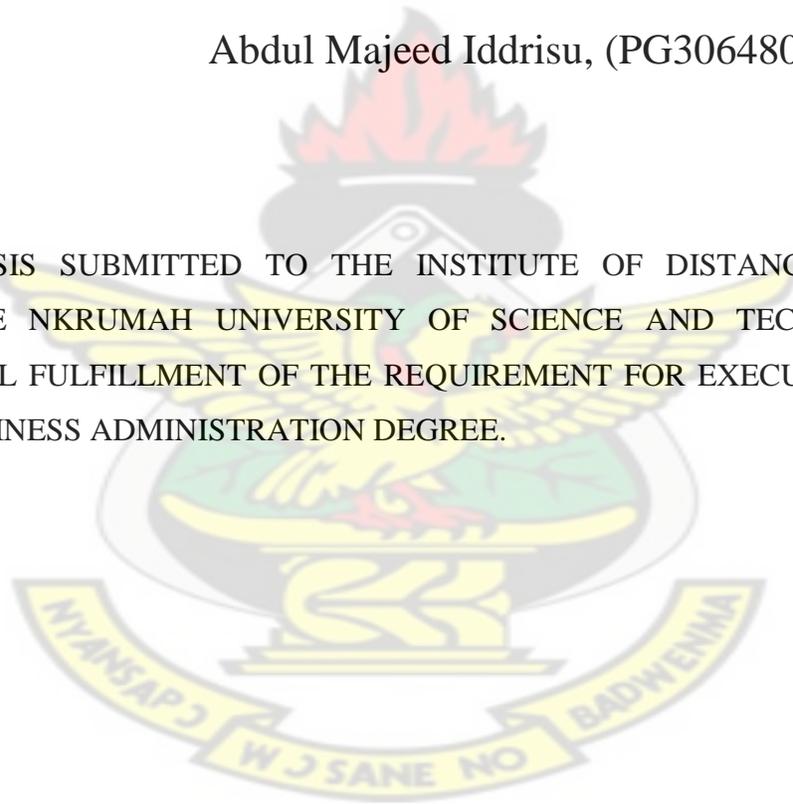
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1

DECLARATION

I hereby declare that this submission is my own work toward the award of Commonwealth Executive Masters in Business Administration (CEMBA) and that to the best of my knowledge, it contains no material previously published by another person or any material which has been accepted for the forward of any other degree of the university, except where due acknowledgement has been made in the text

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DEDICATION

This work is dedicated to dedicated to my lovely wife Sakrata Lamini and my two lovely

daughters-Suad Tipagya and Khanita Timtooni

ACKNOWLEDGEMENT

To God be the glory for seeing me through this programme.

I am greatly indebted to my supervisor, Mr. Jonathan Welbeck, who devoted valuable time to guide this work and placing at my disposal his splendid academic judgment, thoroughness and usually fine research talents which were of enormous assistance in bringing this study into completion

ABSTRACT

4

The study investigated the relationship between service quality and customer loyalty in the Mobile Telecommunication industry in Ghana. The research was conducted at the time when Ghana has just introduced the Mobile Number Portability (MNP) system which provides dissatisfied customers the opportunity to port to other networks in search for better mobile services. The literature review revealed that although quality is an elusive and indistinct construct which may vary from one person to another or even from one situation to another it can be assessed by probing whether perceived service delivery meets, exceeds or fails to meet customer expectations. The SERVQUAL instrument postulated by Parasuraman, Zeithaml and Berry was used to measure service quality. Customer satisfaction and customer loyalty construct were also established relying on studies done by Zhang and Feng, Mouri and Aydin and Özer. A total of 400 questionnaires were administered out of which 311 valid responses were obtained for the study. The findings from the study revealed that service quality variables such as Tangibles, Responsiveness, Reliability, Assurance and Empathy have a positive influence on customer loyalty through customer satisfaction. Besides, customer satisfaction was found to have a direct relationship with customer loyalty. The study recommends that mobile operators should endeavour to improve the quality of mobile services offered to clients in order to achieve brand Loyalty.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Service quality today has become not only the rhetoric of every business enterprise, but also an important concept in service research. It is virtually impossible for a business organization to survive without building customer satisfaction and brand loyalty. Research has shown repeatedly that service quality influences organizational outcome such as performance superiority (Poretla and Thanassoulis, 2005), increasing sales profit (Kish, 2000; Duncan and Elliot, 2002) and market share (Fisher, 2001), improving customer relations, enhance corporate image and promote customer loyalty (Newman, 2001; Caruana, 2002; Ehigie, 2006). In recent times, the search for quality is debatably the most important consumer trend as consumers are now demanding higher quality in products and services than ever before.

Ghana's mobile telecommunication industry is perhaps one of the fastest growing sectors of the Ghana economy and there is fierce competition within the sector made up of six telecom operators namely, MTN, TIGO, Vodafone, Airtel, Expresso and Glo[1]. Despite the high number of Mobile Telecommunication service providers in Ghana,

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[1] Glo is yet to fully set up their operations in Ghana, despite been licensed as far back 2007.

10

complaints from customers with regards to their dissatisfaction of provided services have increased in recent times. The dissatisfaction of consumers has been attributed largely to poor quality service delivery by the operators and it is often highlighted in the media and widely discussed among the general public. The country's telecom watchdog, the National Communications Authority has threatened to crack down on mobile network providers if they fail to tackle the chronic problem of poor quality service. As part of the measures to promote further competition and improve upon service delivery the NCA has introduced the Mobile Number Portability (MNP)[2] in July, 2011. As at 31st July, 2011, 25 days of implementation of MNP, as many as 21,000 mobile phone subscribers have successfully ported their mobile numbers (National communication Authority (NCA), 2011). The high number of subscribers who ported within this short period of time confirms the high level of dissatisfaction with the existing service provided and the desire to seek better services elsewhere. Panda (2003) asserted that the success of a service provider depends on the high quality relationship with customers which determines customer satisfaction and loyalty (Lymperoulos et al., 2006).

Most of the studies on service quality and customer loyalty have been conducted in industrialized economies such as the United States, United Kingdom and Japan. There is a dearth of relevant literature on developing economies, and there is the need for a study to cover this literature gap. Despite the existence of some studies on service quality and

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[2] Number portability means you will leave your current mobile service provider and join a new provider. The MNP system will move your phone number from your old service provider to the new provider. Your account at your old service provider will be closed.

11

customer satisfaction in the telecommunication instry in Nigeria, there is virtually no study on service quality and customer loyalty for the tecommunication industry in Ghana. It is thus the purpose of this study to investigate the relationship between service quality and customer loyalty in Ghana's mobile telecommunication industry using the SERVQUAL[3] instrument developed by Parasuraman, Berry and Zeithmal (1991). The SERVQUAL instrument comprised of 10 dimensions with 97 items and later reduced to 5 dimensions with 22 items. The dimensions are tangibility, reliability, responsiveness, assurance and empathy. Is customer loyalty to an existing mobile network influenced by perceived service quality? To what extent does customer satisfaction influence customer loyalty in the telecommunication industry in Ghana? The study attempts to find answers to these questions, thereby contributing to literature on service quality and customer loyalty in the Telecommunication industry.

1.1 Problem Statement

Notwithstanding the existence of fierce competition in the mobile telecommunication industry in Ghana, complaints of poor service quality is on the increase. The level of dissatisfaction of customers with mobile telecommunication services have been further corroborated by the recently introduced Mobile Number Portability (NMP) which witnessed about 21,000 subscribers porting from one mobile network to another in search for better services.

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[3] SERVQUAL stands for service quality questionnaire originally developed by Parasuraman et al., 1985.

Some studies have revealed that service quality influences organizational outcome such as performance superiority (Poretla and Thanassoulis, 2005), increasing sales and profit (Kish, 2000; Duncan and Elliot, 2002), enhancing customer relations, improving corporate image among other. It is also argued that the success of a service provider depends on the high quality relationship with customers, which determines customer satisfaction and loyalty (Panda, 2003). This study therefore attempts to investigate the relationship between service quality and customer loyalty in the telecommunication industry in Ghana using SERVQUAL instrument by Parasuraman, Berry and Zeithmal (1991).

1.2 Objectives of the study

The general objective of the study is to investigate the relationship between service quality and customer loyalty in the Mobile Telecommunication industry in Ghana.

Specifically, the study seeks to:

- ❖ Examine the effect of service quality dimensions on customer loyalty
- ❖ Determine the relationship between customer satisfaction and customer loyalty

1.3 Research Questions

The study will answer the following research questions;

- ❖ What is the effect of service quality dimensions on customer loyalty in the Mobile Telecommunication industry in Ghana?

- ❖ Is there any relationship between customer satisfaction and customer loyalty in Ghana's Mobile Telecommunication industry?

1.4 Justification of the study

Competition in Ghana's mobile telecommunication industry is stiff with operators adopting a plethora of promotional strategies to maintain existing customers and attract new ones. However, regulators and telecommunication experts have express worry about the fact that the intense competition is not being matched by the necessary improvements in service quality. Complaints of poor quality mobile services are on the increase and this has often been highlighted by the media. The recently introduced Mobile Number Portability offered opportunity to customers to express their dissatisfaction to their existing telecom operators by porting to other networks. But, the challenge is that, there seems to be little difference in service quality offered by the telecom operators. As such, consumers may sometimes be reluctant to port to another network although the quality of service offered is bad. It is therefore necessary to investigate the relationship between service quality and customer loyalty in the telecommunication industry in Ghana. The study is very timely and contributes to knowledge on service quality and customer loyalty and it is expected to be of great benefit to telecom operators, regulators as well as customers.

1.5 Research Methodology

The study adapted the SERVQUAL instrument by Parasuraman, Zeithaml and Berry (1991) to measure service quality. The survey method is employed while correlation and regression analysis is used to examine the relationship between service quality and customer loyalty. Detailed methodology is provided in chapter three.

1.6 Organization of the Study

The study is in five chapters. This current chapter discussed the background, statement of the problem, objectives, research questions, justification and research methodology of the study. Chapter two presents a summary of the existing theoretical and empirical literature. Chapter three deliberates on the methodology used for the study. Chapter four presents the empirical results obtained during the study and lastly, chapter five is devoted to the summary of the various findings of the study and their implications. It also highlights the limitations of the study and makes recommendations for future research.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

2.0 Introduction

This chapter presents literature on service quality and customer loyalty with the aim of providing the framework based on which a suitable methodology for the study is developed. Besides, the review of relevant literature will serve as a yardstick for comparing the findings from the study to those undertaken elsewhere. The literature review is conducted under two main captions, theoretical and empirical literature. Under theoretical literature, the various dimensions of service quality are discussed, followed by customer loyalty. The

empirical literature provides a survey of studies on service quality and customer loyalty around the globe.

2.1 Service Quality

It is very difficult if not impossible to arrive at a universal definition of what constitute quality. Quality is an elusive and indistinct construct (Parasuraman et al, 1985) and it is often construed to mean imprecise adjectives like goodness, or luxury or shininess or weight (Crosby, 1979). Unlike a product whose quality can be determined largely by examining its physical features like style, hardness colour, texture, packaging among others, three main characteristics possessed by a service - *intangibility, heterogeneity and inseparability* - makes it difficult to measure its quality. First, Zeithaml (1981) noted that most services cannot be measured, counted, inventoried, tested and verified in advance of sale to ensure quality. Thus, the intangible nature of services means, firms may find it difficult to understand how consumers perceive their services. Second, the heterogeneous nature of services - performance often varies from producer to producer, consumer to consumer or from day to day - makes it difficult to ensure consistency in its delivery (Booms and Bitner,

17

1981). Third, production and consumption of many services are inseparable (Carmen and Langeard, 1980), and such quality in services cannot be engineered at the manufacturing plant and delivered to the customers. The concept of quality may therefore be likened to the popular saying "beauty lies in the eye of the beholder", meaning what one person may perceive as quality may be different from what another perceives.

Though the definition of service quality may vary from one person to another and even differs in different situations, it can be assessed by probing whether perceived service delivery meets, exceeds or fails to meet customer expectations (Cronin and Taylor, 1992; Oliver, 1999). Lewis and Booms (1983) postulated that service quality is a measure of how well the service level delivered matches consumer expectations. Thus, delivering quality service means conforming to customer expectations on a consistent basis. Similarly, Parasuraman et al. (1985) defined service quality as the consumer's comparison between service expectation and service performance. The authors then undertook an exploratory qualitative study to investigate the concept of service quality intended to provide a conceptual framework for its assessment.

18

2.2 Dimensions of service Quality

From their path breaking exploratory research in 1985, Parasuraman, Zeithaml and Berry developed the SERVQUAL instrument and laid down a conceptual framework for the measurement of service quality. The SERVQUAL instrument has become the most dominant instrument for measuring service quality and it originally comprises 10 dimensions with 97 items but later reduced to 5 dimensions with 22 items in 1991. The five dimensions are tangibles, reliability, responsiveness, assurance and empathy.

Tangibles entail the physical evidence of the service. Specifically, the concept explores the physical facilities of the service provider, the appearance of personnel, the tools and equipment used to provide the service including other customers in the service facility. Tangibles are used by firms to convey image and signal quality (Zeithamal et al, 2006).

The service dimension of reliability measures the consistency of performance and the dependability of the service. According to Zeithaml et al. (2006) reliability is "the ability to perform the promised service dependably and accurately" or "delivering on its promises" Does the firm perform the service right at the first time? Does the firm honours it promises? These are some of the questions which need to be answered by service providers if they are to achieve reliability. The accuracy in billing, proper record

19

keeping and performing the service at the designated time all constitute an attempt to achieve reliability.

Assurance entails the knowledge and courtesy of employees and their ability to convey trust and confidence. It also includes competence, courtesy, credibility and security. Andaleeb and Conway (2006) noted that assurance may not be so important relative to other industries where the risk is higher and the outcome of using the service is uncertain. For instance, in the medical and healthcare industry, assurance is an important dimension that customers used as criteria in assessing a hospital or a surgeon for an operation. The trust and confidence may be represented in the personnel who connect the customer to the organization (Zeithaml et al., 2006).

Responsiveness concerns the willingness or readiness of employees to provide service (Parasuraman et al., 1985). This dimension is concerned with dealing with the customer's requests, questions and complaints promptly and attentively. A firm is known to be responsive when it communicates to its customers how long it would take to get answers or have their problems dealt with. To be successful, companies need to look at responsiveness from the view point of the customer rather than the company's perspective (Zeithaml et al., 2006).

Empathy entails caring and provision of individualized attention to customers by personnel of the firm (Zeithaml et al., 2006). In this respect, the customer feels unique and special. In an attempt to develop empathy, personnel of the firm should endeavour to know the names of their customers, their preferences and needs and take steps to satisfy them. Small Scale enterprises through the provision of customized services to clients are in a better position to achieve empathy than large firms.

2.3 Customer Satisfaction

There is a general consensus among customer relationship marketing practitioners that no business survives without customers. It is therefore critical that organizations form a close working relationship with their clients to ensure that they are satisfied with the services being provided for them.

In service management literature customer satisfaction is viewed as the result of a customer's perception of the value received in a transaction or relationship – where value equals perceived service quality relative to price and customer acquisition costs (Heskett *et al.,* 1990) – relative to the value expected from transactions or relationships with competing vendors (Zeithaml *et al.,* 1996).

Customer satisfaction refers to the extent to which customers are happy with the products and services provided by a business. Gaining high levels of customer satisfaction is very important to a business because satisfied customers are most likely to

21

be loyal and to make repeat orders and to use a wide range of services offered by a business.

Gerpott et al. (2001) noted customer satisfaction is measured by that a customer's estimated experience of the extent to which a provider's services fulfil his or her expectations. A number of benefits are associated with customer satisfaction; Satisfied customers are less price sensitive, buy additional products, are less influenced by competitors and stay loyal longer (Zineldin, 2000).

Ovenden (1995) caution organizations to pay particular attention to the way they treat their customers since some customers may not openly display their dissatisfaction with the kind of treatment meted them immediately. One important component in the concept of satisfaction is complaint management. Nyer (2000) investigated the relation between consumer complaints and consumer satisfaction and found that encouraging consumers to complain increased their satisfaction, and this was especially the case for the most dissatisfied customers. Research has also found that the more intensely a customer complains the greater the increases in satisfaction. Johnston (2001) argued that complaint management not only results in customer satisfaction, but also leads to operational improvement and improved financial performance.

2.4 Customer Loyalty

Customer loyalty can be defined in two distinct ways. First, loyalty is an attitude. Different feelings create an individual's overall attachment to a product, service, or

organization. These feelings define the individual's (purely cognitive) degree of loyalty. The second definition of loyalty is behavioural. Examples of loyalty behaviour include continuing to purchase services from the same supplier, increasing the scale and or scope of a relationship, or the act of recommendation (Yi, 1990).. Customer loyalty is developed over a period of time from a consistent record of meeting, and sometimes even exceeding customer expectations (Teich, 1997). Kotler et al. (1999) asserted that the cost of attracting a new customer may be five times the cost of keeping a current customer happy. Furthermore, Gremler and Brown (1996) noted that the degree to which a customer exhibits repeat purchasing behavior from a service provider, possesses a positive attitudinal disposition toward the provider, and considers using only this provider when a need for this service exists.

Bloemer & Kasper (1995) hold a contrary view about customer loyalty. According to the authors, Loyalty may be interpreted as true loyalty rather than repeat purchasing behavior, which is the actual re-buying of a brand, regardless of commitment. Zeithaml et al. (1996) states loyalty is a multi-dimensional construct and includes both positive and negative responses. However, a loyal customer may not necessarily be a satisfied customer. Colgate et al. (1996) also noted that it is not always the case that customer defection is the inverse to loyalty, while Levesque and Mc Dougall (1993) suggested that, "even a problem is not solved, approximately half of the customers would remain with the firm".

2.5 Conceptual Framework

23

From the literature review above, there seems to be a convergence between service quality dimensions, customer satisfaction and customer Loyalty.

What seems to be a key factor which links the various service quality dimensions and customer loyalty is customer satisfaction. Customer satisfaction is therefore considered as an intermediate variable or a conduit through which service quality affects customer loyalty.

Based on the literature review, the study develops the conceptual framework below to analyze the relationship between service quality and customer loyalty.

Figure 2.1 Conceptual framework for service quality and customer satisfaction
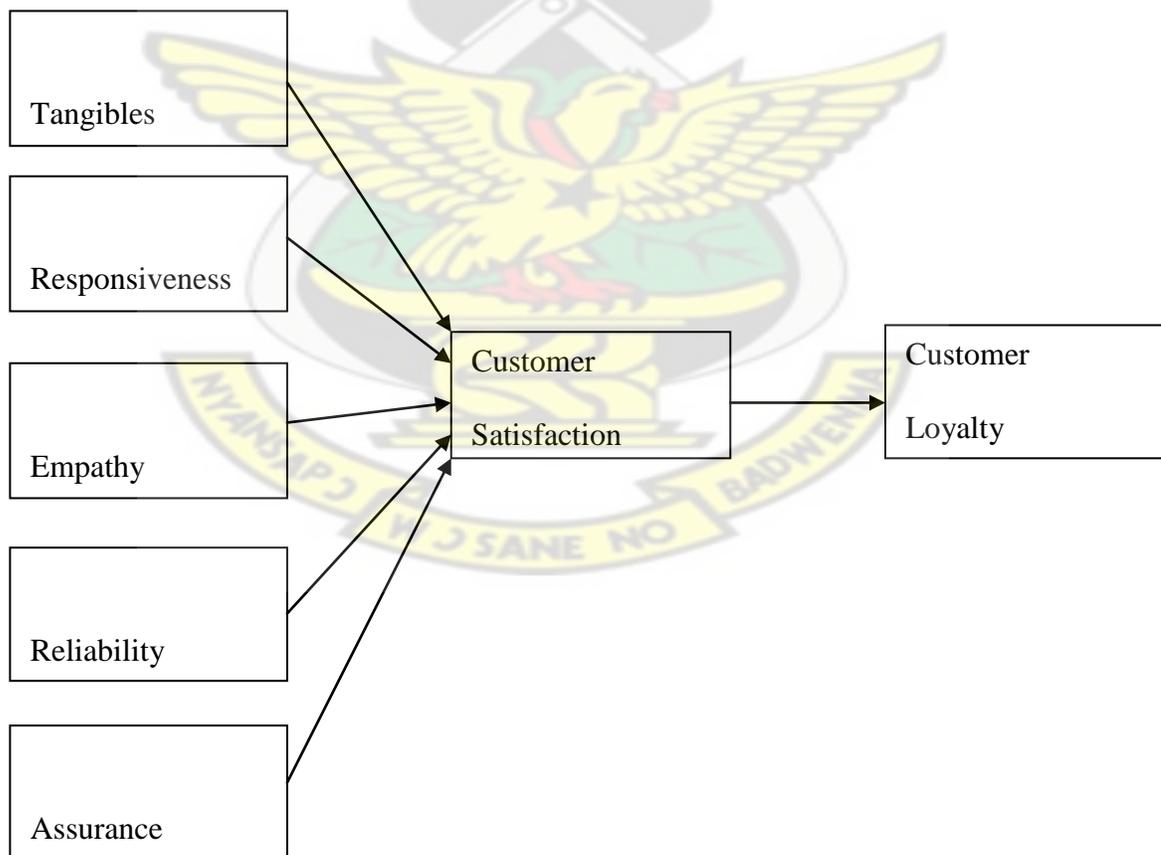
Source: Author's view

2.6 Empirical Literature

Rahaman et al. 2011, explored service quality of the private commercial banks in Bangladesh. The findings from their study revealed that, one of the primary causes of service quality design failure is the lack of understanding of the evolving need and preferences of targeted customers.

Ilhaamie (2010) examined the level of service quality, expectation and perception of the external customers towards the Malaysian public services using the SERVQUAL instrument. The study found that tangible is the most important dimension. It also has the lowest scores of perception. On the other hand, service quality gap is neither the lowest nor the highest. Finally, these external customers have the highest expectation on the reliability of the Malaysian public service.

Ojo (2010) investigated the relationship between service quality and customer satisfaction in the telecommunication industry with a focus on Mobile Telecommunication Network (MTN) Nigeria. A total of 230 respondents participated in the study. Regression analysis and Pearson product moment correlation coefficient were employed in analyzing the

25

data. The study revealed a positive relationship between service quality and customer satisfaction. The researcher therefore recommended that organizations should focus more attention on service quality, because of its effects on customer satisfaction. To ensure that customer satisfaction level is high organization must first of all know the expectations of the customers and how they can meet such expectations. Customer satisfaction helps in customer loyalty and retention. It has been discovered that the cost of attracting new customer far exceeds the cost involved in retaining existing ones.

Kheng et al, (2010) employed the SERVQUAL model developed by Parasuraman et al., 1988 with five dimensions to evaluate the impact of service quality on customer loyalty among bank customers in Penang, Malaysia. Customer satisfaction was used as an intermediate variable. The findings show that improvement in service quality can enhance customer loyalty. The service quality dimensions that play a significant role in the equation are reliability, empathy, and assurance. The findings indicate that the overall respondents evaluate the bank positively, but still there are rooms for improvements.

Sammons (1982) conducted an exploratory study of customer satisfaction of fine dining restaurants in Singapore. The paper seeks to find out the service dimensions of service quality, which lead to higher levels of customer satisfaction. The findings from the

study indicated that the service dimensions of assurance, empathy and tangibles are the most important to customers' evaluation of service quality, and thus, may have a positive influence customer satisfaction.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter entails a discussion of the research method used, methods of data collection, sampling method and technique, the data collection process and how data will be analyzed. The source from which the data is gathered is also provided.

3.1 Choice of Research Area

The study chose the Accra Metropolis as the research area due to the fact that it has better telecommunication facilities and competition between the telecom operators seems to be very fierce in the area as compared with other parts of the country. Besides, the Accra metropolis contains a heterogeneous population of mobile phone users with diverse socio-economic background and therefore considered a representative sample of the population of mobile phone users in Ghana.

3.2 Research Design

The survey research method is employed for this study. The choice of the survey method is motivated by the fact that the study intends to gather the views of mobile phone users on the quality of mobile services and their level of loyalty to telecommunication brands. The survey method enables the researcher to gather data on large number of mobile phone users within a short period of time.

3.3 Population and Sample

The aim of this study is to investigate the relationship between service quality and customer loyalty in the Mobile Telecommunication industry in Ghana. As such, the population of this study is all mobile phone users in Ghana. Since the population is so large, it is prohibitively expensive to gather data on all the elements. Thus, four hundred (400) mobile phones users in the Accra metropolis were sampled for the study given the time constraints and limited resources available. To ensure that the sample was representative of the population and all mobile phone users in the Accra metropolis are given a fair chance of being part of the study, the study area was further divided into four main strata while 100 mobile phone users were selected from each stratum.

3.4 Research Technique

Research techniques are the step-by-step procedures which one follows to gather data and analyse them. The procedure employed in this study was to solicit data through the use of structural questionnaires. The SERVQUAL instrument developed by Parasuraman, Berry and Zeithmal (1991) was use to measure service quality. The

SERVQUAL instrument comprised of 10 dimensions with 97 items and later reduced to 5 dimensions with 22 items. The SERQUAL contains information on both customer expectation and perceived performance by firms. But for the purposes of this study, the performance only approach to service quality was adopted which contains five main SERVQUAL dimensions. Cronin and Taylor (1992), called this performance only subset instrument SERVPERF. Performance alone provides better predictive validity than SERVQUAL which is gap-based (Brady, Cronin, & Brand, 2002; Cronin & Taylor 1992) and other studies show that performance scores alone exhibit better reliability and validity than difference scores (Babakus & Boller 1992; Brady et al., 2002). Furthermore, two other constructs were developed to measure customer satisfaction and customer Loyalty. The items on customer satisfaction and customer loyalty constructs were adapted from Mouri (2005); Aydin and Özer, (2005) and Zhang and Feng (2009). Each construct was measured using Likert type scale ranging from strongly disagree (1) to strongly agree (5). Data on socio-economic characteristics of respondents were also solicited to give some idea on the background of the respondents.

The use of questionnaire is considered appropriate for the study, since it made it easy for responses to be coded and analysed. Also, it made it easy for the researcher to speak to a large number of people within a short period of time.

3.5 Reliability Test

Reliability is defined as be fundamentally concerned with issues of consistency of measures (Bryman and Bell, 2003). In the literature, three main types of reliability have

been identified by researchers. These are internal consistency, split half reliability and test-retest reliability. All the three method attempts to verify the reliability of the constructs of a scale but they rely on different methodologies. For the purposes of this study, however, internal consistency is the main focus. Thus, the study employed Cronbach's alpha to verify the internal consistency of each construct in order to achieve reliability. The result of 0.7 and above implies an acceptable level of internal reliability.

3.6 Estimation Procedure

After verifying the reliability of the constructs, the study proceeds by constructing a summated scale for each construct by taking the average of items within a particular construct. The summated constructs are then used for correlation analysis and multiple linear regressions. The correlation analysis is considered as a preliminary test of the relationship between the variables of interest. For the multiple regression analysis, the study first attempted to establish the relationship between the five service quality dimensions and customer satisfaction by estimating the following equation;

$$CS_t = \alpha_0 + TG_t + RS_t + RB_t + AS_t + EP_t + \varepsilon_t$$

Where CS_t- Customer Satisfaction; TG-Tangibles; RB-Reliability, AS-Assurance, EP- Empathy. α_0 is a constant parameter while ε_t is the

30

error term. Subsequently, a regression was fitted between customer satisfaction and customer loyalty as follows;

$$CL_t = \alpha_0 + CS_t + v_t$$

Where CL is Customer Loyalty and v_t is an error term. Finally, the study regressed customer loyalty on the five service quality dimensions.

$$CL_t = \alpha_0 + TG_t + RS_t + RB_t + AS_t + EP_t + CS_t + \varepsilon_t$$

The idea is to examine whether there is a direct effect between these service quality variables and customer loyalty.

3.7 Sources of Data

As indicated above, data used for the study is essentially primary in nature.

3.7.1 Primary Sources

The study was basically a survey research; hence the researcher relied mainly on primary data. The questionnaires were administered to mobile phone users in the Accra metropolis to assess their views on the quality of mobile services offered them. The respondents comprise students and workers among others with diverse educational background. To ensure that most responses are valid, the researcher was around to make

sure that questionnaire are marked correctly and any misunderstanding on any item on the questionnaire is explained.

3.8 Data Analysis

Data on the socio-economic characteristics of respondents was analyzed using descriptive statistics, frequencies and percentages. Data on service quality dimensions, customer satisfaction and customer loyalty were analyzed using correlations and multiple linear regressions. The Statistical Package for Social Sciences (SPSS) is used to process the data set.
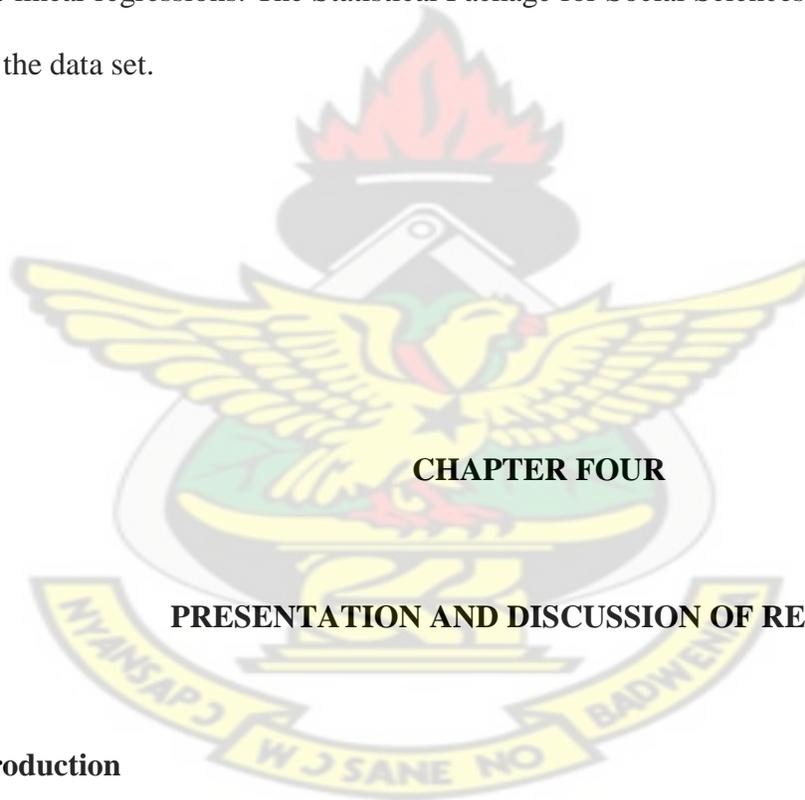
CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULTS

4.0 Introduction

The chapter presents the findings from the study based on the methodology stated in the chapter three. The first section entails analysis of descriptive statistics of the variables and the second section dealt into the main results of the study using statistical techniques such as correlations and multiple linear regressions. The findings of the study are also

discussed in relation to the literature and in comparison to other related works. However, in order to ensure that the results are reliable, there is the need to check for internal consistency of each construct, the chapter therefore conducted a test of internal consistency using Cronbach's Alpha.   The chapter begins with the socio-economic characteristics of respondents which gives a fair idea of the data.

4.1 Socio-economic Characteristics

Customers with diverse educational background were sampled for the study. Out of 400 questionnaires administered, 311 were valid constituting 77.8%. Out of the 311 valid responses, customers with primary school education constitute (7.07%); followed by customers with Junior High School education 18.97%,   (26.05%) have Secondary/Technical education, 28.94% have tertiary education while 18.97 have other forms of educational qualification (see table 4.1a).

Table 4.1a: Level of Education

Education	Frequency	Percentage
Primary	22	7.07
JHS	59	18.97
SHS/ TECH	81	26.05
Tertiary	90	28.94
Others	59	18.97
Total	311	100

Out of this number, 192 (61.74%) were Males and 119 (38.26%) were females (see Table 4.1b). Majority of the customers sampled for the study were thus males.

Age	Frequency	Percent	
18-27	132	42.44	Table 4.1b:
28-37	103	33.12	
38-47	27	8.68	Gender of
48-57	34	10.93	
58 and above	15	4.82	respondents
Total	311	100	

Gender	Frequency	Percent
Male	192	61.74
Female	119	38.26
Total	311	100

Furthermore, the age distribution of customers surveyed for the study is presented in Table 4.1c. Out of the 311 respondents, 132 (42.44%) were between 18 to 27 years, 103 (33.12%) were between 28 to 37 years, 27 (8.68%) were between 38 to 47 years, 34 (10.93%) were between 48 to 57 years and 15 (4.82%) were 58 years and above. Majority of the respondents surveyed for the study were people below 48 years of age and the distribution appears negatively skewed.

Table 4.1c: Age distribution of Respondents

Finally, out of the 311 valid responses, 128 (41.16%) indicated that they were connected to MTN, 64 (20.58%) were connected to Tigo, 59 (18.97%) were connected to Vodafone, 31 (9.97%) were connected to Airtel while 29 (9.32%) were on the Expresso network. The distribution of the data is a fair representation of the clientele base of Mobile telecommunication operators in Ghana.

Table 4.1d: Mobile Telecommunication network connections

Networks	Frequency	Percent
MTN	128	41.16
Tigo	64	20.58
Vodafone	59	18.97
Airtel	31	9.97
Expresso	29	9.32
Total	311	100.00

4.2 Reliability Test

Reliability refers to the extent, to which the scale/survey provides consistent results when surveying similar populations. In the literature, three main types of reliability have been identified by researchers. These are internal consistency, split half reliability and test-retest reliability. All the three method attempts to verify the reliability of the constructs of a scale but they rely on different methodologies. For the purposes of this study, however, internal consistency is the main focus. Thus, the study employed Cronbach's alpha to verify the internal consistency of each construct in order to achieve reliability.

Since summated scores of each construct are needed for the correlation and multiple regression analysis, the total valid sample of 311 was used for the reliability test. It is argued that if a study measures more than one construct, then we can only speak about the reliability of each construct but not the reliability of the survey as a whole. In accordance with this argument, the internal consistency test of each construct is presented in Table 4.2 below.

Table 4.2: Cronbach's Alpha for Constructs

Constructs	Cronbach's Alpha	Number of Items
TANGIBLES	0.715	3
RELIABILITY	0.757	4
RESPONSIVENESS	0.706	4
ASSURANCE	0.793	4
EMPATHY	0.702	4
SATISFACTION	0.829	4
LOYALTY	0.793	5

Source: Computed from SPSS 16.0

The results from the internal consistency test showed that all the constructs have Cronbach's alpha of more than 0.70 with Satisfaction construct having an alpha value greater than 0.80. The findings imply that there is high level of internal consistency among the items in each construct and as such each construct is reliable. It should however be noted that, the initial Cronbach's alpha for Tangibles construct was less than the critical value of 0.70. The Cronbach's alpha for the four items on the Tangibles construct was 0.678. The common practice to improve the value of alpha is by removing from the construct the item with the lowest corrected item-Total correlation. Thus, the item "employees are well dressed and appear neat" was deleted and Cronbach's alpha was re-estimated for the Tangibles construct which yielded an alpha of 0.715. From

36

literature, high level of alpha signals high level of correlation of items in each construct, an essential requirement for constructing a summated scale. The study therefore proceeded to construct a summated for each construct using the individual items.

4.3 Descriptive Statistics of the Constructs

In this section, the study presents the summary statistics of the variables based on the summated scale created. The means, standard deviations as well as the skewness of each construct are presented in Table 4.3. Results from the summary statistics indicated that the mean response rate for most constructs is between 3 and 4. This gave an indication that, in general customers are not satisfied with mobile telecommunication services offered them.

Apart from the customer satisfaction and Tangibles constructs which recorded mean values which are slightly higher than 3.5, majority of the constructs recorded mean values below 3.5.

Table 4.3 Summary of Descriptive Statistics of the Variables

Constructs	Mean	Standard deviation	Skewness*
TANGIBLES	3.5884	0.8517	-0.8606
RELIABILITY	3.3240	0.7219	-0.4534
RESPONSIVENESS	3.3923	0.8321	-0.2950
ASSURANCE	3.5466	0.6859	-0.0757

EMPATHY	3.4574	0.7473	-0.1346
SATISFACTION	3.6487	1.1376	-0.4458
LOYALTY	3.4296	1.0765	-0.3551

Standard errors of skewness = 1.41

From theory, a low standard deviation values suggest that the data points tend to be very close to the mean, whereas high standard deviation values indicate that the data are spread out over a large range of values. From Table 4.3, Customer Satisfaction recorded the highest value standard deviation followed closely by customer loyalty. This implies that there is high level of dispersal in the data for the two constructs. The phenomenon can be explained by the fact that since the survey captures different mobile telecommunication operators, some customers may be receiving relatively better services from their networks than others. The Assurance construct have the lowest standard deviation of 0.69, suggesting a comparatively lower spread in the data and clustering of the responses around the mean. Finally, a careful scrutiny of standard error of skewness values indicated that the data is negatively skewed. This can be interpreted to mean that most of the responses are lower values such as 1 and 2 (1=Strongly disagree; 2 = Agree). The non-normality of the data may itself be an indication of high inter-item correlation.

4.4 Pearson's Correlations between Constructs

In this section, the correlation matrix of the constructs are computed which provides a preliminary evidence of the relationship between the variables. The correlation

coefficient measures the strength of relationship between two variables. The results of the correlation matrix are presented in Table 4.4 below.

Results of Pearson's correlations indicated that all the variables are positively correlated to each other at 1% level of significance.

Table 4.4: Pearson's correlations coefficients

	Tangibles	Responsiveness	Reliability	Assurance	Empathy	Satisfaction	Loyalty
Tangibles	1	0.450*	0.588*	0.435*	0.333*	0.534*	0.456*
Responsiveness		1	0.631*	0.603*	0.547*	0.615*	0.551*
Reliability			1	0.636*	0.486*	0.670*	0.648*
Assurance				1	0.512*	0.637*	0.573*
Empathy					1	0.567*	0.501*
Satisfaction						1	0.763*
Loyalty							1

* Correlation is significant at the 0.01 level (2-tailed).
Source: **Estimated from SPSS 16.0**

The correlation between Customer Satisfaction and Customer Loyalty was the highest (0.763) followed by the correlation between the former and Reliability (0.648). This implies that there is a strong positive relationship between Customer Satisfaction and Customer Loyalty. This supports the literature that customer satisfaction may be the conduit through which service quality affects customer Loyalty. The correlation between Tangibles and Empathy is the lowest (0.333); while pair wise correlation among majority of the constructs clusters ranges between 0.4 and 0.6. Although pair-wise correlations provides preliminary evidence of the relationship between two variables, a

more sophisticated approach such as multivariate linear regression is needed to ensure that the effect of other variables are taken into account.

4.5 Multivariate Linear Regression Results

To investigate the effect of Service Quality on Customer Loyalty, the study follows a two step approach. First, a linear regression is fitted employing customer satisfaction as a dependent variable and; Tangibles, Responsiveness, Reliability, Assurance and Empathy as independent variables. This is because, customer satisfaction is considered as intermediate variable between Service Quality and Customer Loyalty. The second step consists fitting a regression with customer Loyalty as a dependent variable and customer satisfaction as an independent variable. Finally, a regression is fitted employing the five Service Quality variables as well as customer satisfaction as independent variables. The purpose of such a model is to examine the direct impact of Tangibles, Responsiveness, Reliability, Assurance and Empathy on Customer Loyalty.

4.6 Service Quality and Customer Satisfaction

In Table 4.5a, the regression results of customer satisfaction on Service Quality dimensions are presented. The findings showed that, the coefficient of all the Service Quality dimensions are significant at 1% level, suggesting a positive relationship between customer satisfaction and Tangibles, Responsiveness, Reliability, Assurance and Empathy. The findings confirm the literature that, improvements in service quality may be beneficial to a firm as it helps to promote customer satisfaction, which eventually lead to customer loyalty. Among the Service Quality dimensions, Assurance

obtained the highest coefficient (0.308). This means, a 1% increase in the level of Assurance may lead to 30.8% rise in Customer Satisfaction. Furthermore, a 1% increase in Tangibles will lead to 21.6% increase in customer satisfaction; a unit rise in empathy leads to 30.8% increase in the level of customer satisfaction. For Reliability, the findings indicated that a percentage increase in the variable will lead to 33.7% rise in customer satisfaction. The coefficient of responsiveness is the 0.226 which means a 1% increase in responsiveness will result in 22.6% rise in customer satisfaction.

Table 4.5a: Regression of Customer Satisfaction on Service Quality

Dependent Variable	Parameter	Coefficient	Std Error	T	P-value
Customer Satisfaction	CONSTANT	-1.377	0.254	-5.420	0.000*
	TANGIBLES	0.216	0.061	3.545	0.000*
	RESPONSIVENESS	0.226	0.082	2.748	0.006*
	RELIABILITY	0.337	0.077	4.372	0.000*
	ASSURANCE	0.364	0.085	4.275	0.000*
	EMPATHY	0.308	0.069	4.430	0.000*

R^2=0.771   Adjusted R^2 = 0.594. * denotes significance at 1% level
Source: **Computed from SPSS 16.0**

The conclusion that can be drawn from the finding in Table 4.5a is that, mobile telecommunication operators should endeavour to improve on their service quality in order to achieve brand loyalty. The diagnostic test revealed an R^2 = 0.77, indicating that the regression is reasonably fitted. Besides, Table 4.6b points to a favourable test of between subject effects as shown by a significance F-statistics.

Source	Sum of Squares	Degrees of freedom	Mean Square	F	Significance.

Regression	238.229	5	47.646	89.178	0.000
Residual	162.955	305	0.534		
Total	401.184	310			

Table 4.5b Test of between-subject effects

4.7 Customer Satisfaction and Customer Loyalty

From the previous sections, the study found evidence to the fact that Tangibles, Responsiveness, Reliability, Assurance and Empathy are positively related to customer satisfaction. As stated earlier, customer satisfaction is an intermediate variable through which service quality impacts on customer loyalty. As such, after successfully establishing a positive relationship between the five service quality dimensions and customer satisfaction, the study proceeds by fitting a regression between customer satisfaction and customer Loyalty.

Table 4.6a: Regression of Customer Loyalty on Customer Satisfaction

Dependent Variable	Parameter	Coefficient	Std. Error	T	P-value
LOYALTY	CONSTANT	0.796	0.133	5.983	0.000
	SATISFACTION	0.722	0.035	20.735	0.000*

$R^2 = 0.763$ Adjusted $R^2 = 0.582$. * denotes significance at 1% level.

Table 4.6b Test of between-subject effects

Source	Sum of Squares	Degrees of freedom	Mean Square	F	Significance.
Regression	209.025	1.000	209.025	429.953	0.000
Residual	150.223	309.000	0.486		
Total	359.248	310.000			

42

Source: **Computed from SPSS 16.0**

The results from Table 4.6a showed that the coefficient of Satisfaction is positive and statistically significant at 1% level. From the study, a 1% rise in Satisfaction leads to 72.2% increase in Customer Loyalty. Thus, Mobile Telecommunication operators who are interested in building brand Loyalty should endeavour to satisfy their customer through the provision of enhanced mobile services.

The model recorded an R^2 of 0.76 which suggests that the regression is well fitted. Besides, the test of between subjects-effects revealed a significance F-statistics.

4.8 Service Quality and Customer Loyalty

The final step in the estimation process is to explore whether there is a direct relationship between Service Quality and customer Loyalty. A regression is therefore fitted between customer Loyalty and the various Service Quality dimensions

Table 4.7a Regression of Customer Loyalty on Service Quality (Direct effect)

Dependent Variable	Coefficient	Std. Error	T	significance
(Constant)	-0.0064513	0.24354	-0.02649	0.979
TANGIBLES	-0.0188371	0.056863	-0.33127	0.741
RESPONSIVENESS	0.03709687	0.076407	0.485518	0.628

RELIABILITY	0.28014048	0.072677	3.854605	0.000*
ASSURANCE	0.08025199	0.080378	0.998433	0.319
EMPATHY	0.07146165	0.065658	1.0884	0.277
SATISFACTION	0.52026825	0.052441	9.921068	0.000*

$R^2 = 0.788$ Adjusted $R^2 = 0.621$

The results presented in Table 4.7a showed that there is a direct relationship between customer Loyalty and Reliability. Specifically, a unit rise in Reliability leads to 28.0% increase in Customer Loyalty. Apart from Reliability, all the other Service Quality variables are not statistically significant. This means Tangibles, Responsiveness, Assurance and Empathy do not have a direct effect on customer Loyalty but indirectly through customer satisfaction, which confirm the theoretical model espoused in the literature review. Besides, Customer Satisfaction is statistically significant at

Table 4.7b Test of between-subject effects

Source	Sum of Squares	Df	Mean Square	F	Significance.
Regression	209.025	1.000	209.025	429.953	0.000
Residual	150.223	309.000	0.486		
Total	359.248	310.000			

Dependent variable: Loyalty; Predictors: Tangibles, Responsiveness,Reliability, Assurance, Empathy And Satisfaction

The goodness-of-fit of the model as indicated by R^2 is 78.8%. Thus, the model is well fitted and the test of between subject effects indicated a significance F statistics.

4.9 Conclusion

44

In this chapter, the findings from the study was presented and discussed. Reliability test was first conducted to verify the internal consistency of each construct. The results indicated that all the constructs are internally consistent and reliable. Preliminary test conducted using correlation analysis indicated a significantly positive relationship between various service quality variables and customer satisfaction. Subsequently, a regression model was fitted employing customer Satisfaction as dependent variables and Tangibles, Reliability, Responsiveness, Assurance and empathy as independent variables. From the regression model, a positive relationship was established between all the service quality variables and the dependent variable. Since customer satisfaction is considered an intermediate variable through which Service Quality affects customer loyalty, the study proceeded by exploring whether customer Satisfaction have any effect on customer Loyalty. The results lend credence to the fact that customer Loyalty is influenced by customer satisfaction.

Finally, attempt was made to establish whether the various Service Quality variables have a direct effect on customer retention. The findings from the study revealed that only Reliability has a direct influence on Customer Loyalty. The implication of this finding is that mobile telecommunication operators should offer high levels of service quality which promotes customer satisfaction in order to achieve brand loyalty.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a general summary and conclusion for the study, as well as recommendations for policy analysis. At the end of the chapter, limitations of the study are provided.

5.1 Summary of the Study

The study investigated the relationship between service quality and customer loyalty in the Mobile Telecommunication industry in Ghana. The research is timely in the sense that it has been conducted at the time when Ghana has just introduced the Mobile Number Portability (MNP) system which provides dissatisfied customers the opportunity to port to other networks in search for better mobile services. The literature review revealed that although quality is an elusive and indistinct construct which may vary from one person to another or even from one situation to another it can be assessed by probing whether perceived service delivery meets, exceeds or fails to meet customer expectations (Cronin and Taylor, 1992; Oliver, 1999). Lewis and Booms (1983) postulated that service quality is a measure of how well the service level delivered matches consumer expectations. Notwithstanding the stiff competition in Ghana's mobile Telecommunication sector, customer complaints with regards to poor quality service continue to rise. This study therefore explored the relationship between service quality and customer loyalty aimed at influencing policy in the sector.

To accomplish this task, the SERVQUAL instrument postulated by Parasuraman, Zeithaml and Berry (1991) was used to measure service quality. Customer satisfaction and customer loyalty construct were also established relying on studies done by Zhang and Feng (2009), Mouri (2005) and Aydin and Özer (2005). A total of 400 questionnaires were administered out of which 311 valid responses were obtained for the study. Socio-economic characteristics of respondents were analyzed using frequencies and percentages. The study employed correlations and linear regression to analyze the relationship between service quality and customer loyalty.

Results from the correlation analysis indicated a significantly positive relationship between various service quality variables and customer satisfaction. From the regression model, a positive relationship was established between all the service quality variables and the Customer satisfaction. Since customer satisfaction is considered an intermediate variable through which Service Quality affects customer loyalty, the study proceeded by exploring whether customer Satisfaction have any effect on customer Loyalty. The results lend credence to the fact that customer Loyalty is influenced by customer satisfaction.

5.2 Conclusions of the Study

47

The following conclusions were made from the study.

First, the study revealed that service quality variables such as Tangibles, Responsiveness, Reliability, Assurance and Empathy have a positive influence on customer loyalty through customer satisfaction.

Secondly, customer satisfaction was found to have a direct relationship with customer loyalty. Thus, when customers are satisfied with the services offered them by mobile network operators, they are likely to be loyal to them.

Finally, the study found that Reliability has a direct effect on customer loyalty without necessarily using customer satisfaction as a conduit. The implication of this finding is that customers place a high premium on reliable mobile tecommmuications services in Ghana.

5.3 Recommendations for Policy Analysis and Further Studies

Based on the above conclusions, the following policy recommendations are suggested. Accompanying these recommendations are proposed areas for further studies.

First, mobile operators should endeavour to improve the quality of mobile services offered to clients if they are interested in achieving brand loyalty. This is because, service quality has been found to impact positively on Customer Loyalty.

48

Secondly, mobile telecommunication operators should adopt appropriate strategies such as relationship marketing in order to promote customer satisfaction, thereby achieving customer loyalty.

Finally, the study recommends that mobile operators should invest more funds into network expansion and maintenance in order to ensure reliable mobile telecommunication services at all times instead of spending too much funds on advertisement and promotions. The National Communications Authority must convert the rhetoric to action by imposing penalties on mobile operators which fail to achieve a certain standard level of service quality. This is because customers in Ghana are particularly concerned about the reliability of mobile services.

5.4 Limitations of the Study

The following limitations have been identified;

First, the researcher would have wanted to cover more mobile phone users for the study but due to the limited time frame available for the study, only 400 questionnaires were administered.

Secondly, convincing customers to answer the questionnaires was rather challenging as some of them claim they are busy and therefore do not have time. Besides, some people could not respond to all the items on the questionnaire which makes them invalid and therefore have to exclude from the data.

Despite these challenges, the findings from the study are valid and would be of great benefit to mobile operators, telecommunication experts and regulators.

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APPENDIX I

QUESTIONNAIRE

SERVICE QUALITY AND CUSTOMER LOYALTY: A CASE OF THE TELECOMMUNICATION INDUSTRY IN GHANA

This questionnaire is designed to know your opinion in relation to the quality of service rendered to you by Mobile Telecommunication networks in Ghana. This survey is a part of my master's degree thesis, and your kind support is crucial for the successful completion of this research project. Your responses will be anonymous; data will be combined and analyzed as a whole. Please attempt to answer all the questions and tick one appropriate box that best suits your perspective for each statement. Thank you very much for your time and assistance

RESPONDENTS: Customers of Mobile Telecommunication Networks

SECTION A: SOCIO-ECONOMIC BACKGROUND

1. Gender   [   ] male   [   ] female

2. Age   [   ] 18-27   [   ] 28-37   [   ] 38-47   [   ] 48-57   [   ] 58 and above

3. Level of education   [ ] Up to Primary level   [   ] JHS   [   ] SHS/TECHNICAL

   [   ] Tertiary   [   ] Others (specify)............................

4. Employment   [   ] Unemployed [   ] Employed   [   ] Student [   ] Retired [   ] Others (specify) ....

5. Which mobile telecommunication network are you connected to?

   [ ] MTN   [ ] Tigo   [ ] Vodafone   [ ] Airtel [ ] Expresso (Kasapa)

No.	Tangibles	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
TG1	My network has up-to-date equipments and facilities					
TG2	My network's physical facilities are visually appealing					
TG3	My network's employees are well dressed and appear neat					

No.		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
TG4	The appearance of the physical facilities of my network matches with the type of services offered					

SECTION B: SERVICE QUALITY

Please show the extent to which you agree or disagree with the statements as indicated by the scale below. Please tick within the columns under your preferred position.

No.	Reliability	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
RB1	My telecommunication network is dependable					
RB2	When my network promises to do something by a certain time, it does so.					
RB3	My network keeps its records accurately					
RB4	My network provides their services at the time they promise to do so					
	Responsiveness					
RP1	My network provide prompt services to customers					
RP2	Employees of this network are always willing to help customers					
RP3	This network arranges special care to special customers					
RP4	Employees of this network replies to any query from customers					
	Assurance					
AS1	When customers have problems, this network is sympathetic and reassuring					
AS2	Customers feel safe to transact business with this telecom operator.					
AS3	Clients can trust the employees of this tecommunication network					
AS4	Employees of this network are polite to customers					
	Empathy					

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
EP1	Employees get adequate support from this telecom operator to do their jobs well					
EP2	Employees of this network give personal attention to me					
EP3	Employees of this network know what my needs are					
EP4	The operating hours of this network is convenient to all their customers					

SECTION C: CUSTOMER SATISFACTION AND LOYALTY

No.	Customer Satisfaction	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
CS1	I am satisfied with the overall service quality offered by this operator					
CS2	I am satisfied with the professional competence of this operator					
CS3	I am satisfied with the performance of the frontline employees of this operator					
CS4	I am comfortable about the relationship with this operator					
	Customer Loyalty					
CL1	I intend to continue using mobile services from this operator for a long time					
CL2	Even if another operator' price is lower; I will go on using this telecom network.					
CL3	I will encourage friends and relatives to use the services offered by this operator.					
CL4	I am willing to say positive things about this operator to other people.					
CL4	To me, this operator clearly is able to provide the best service					

Thank You.