KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

KNUST SCHOOL OF BUSINESS

THE RELATIONSHIP BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND

CUSTOMER RETENTION: THE MEDIATING EFFECT ON CUSTOMER SATISFACTION

IN THE TELECOMMUNICATION INDUSTRY

By

JOSEPHINE KORKOR OKUMO

A Dissertation submitted to the Department of (Marketing and Strategic Management and Consulting), School of Business in partial fulfilment of the requirement for the degree of

MASTER OF BUSINESS ADMINISTRATION

IN

STRATEGIC MANAGEMENT AND CONSULTING

+

August, 2023

DECLARATION

I duly declare that this thesis is my work towards the award of Master Administration (Strategic Management and Consulting) and that, to the best of my knowledge, it carries no information already published by another researcher nor any information which has received the award of any other degree of the university, except acknowledgements been made in this work.

Josephine Korkor Okumo   ……………………….   ……………………………

PG 3957620   Signature   Date

Signed:

Dr Peter Owusu Oppong   ……………………………   ……………………………

Supervisor   Signature   Date

Signed:

Prof. Ahmed Agyapong   ……………………………   ……………………………

Head of Department   Signature   Date

ACKNOWLEDGEMENT

DEDICATION

This thesis is dedicated to God, my parents and everyone who has supported me in my education.

Thank you for making me see this adventure to the end.

ABSTRACT

Over the years, customers' preferences, segmentation and change in the business environment with ease of penetrating the competitive market have placed an increasing demand on organizations to provide excellent goods and services. This study was conducted to assess the relationship between customer relationship management (CRM) and customer retention through the mediating role of customer satisfaction in the telecommunication industry in Ghana. The objectives of the study were; to assess the effect of CRM on customer satisfaction in the Telecom industry and assess the effect of customer satisfaction on customer retention in the Telecom industry. The networks were sampled using a probability and simple random technique. A questionnaire was utilized to collect data from a sample size of 150 customers of MTN, Vodafone and AIRTEL TIGO. The data acquired was examined using descriptive statistics in SPSS and SMART PLS V4. According to the findings, customer relationship management has a significant impact on customer satisfaction and customer satisfaction also has a significant effect on customer retention. The study also found that the relationship between customer relationship management and customer retention was mediated by customer satisfaction. The study recommends that the telecommunication industry should focus and improve on aspects of CRM and satisfaction which customers use in criticizing the credibility of the products or services provided.

TABLE OF CONTENTS

vii

LIST OF TABLES

TABLES OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 Overview

The section presents the research's introduction. It entails the background, a problem statement, objectives and research questions, as well as information about the study's relevance, scope, organization, and limitations.

1.1 Study Background

The telecommunication sector has seen increased levels of competition as a result of globalization, deregulation, escalating domestic and international competition, new technology, and e-commerce. The sector competes for clients, market share, and long-term viability. According to (Donoghue et al., 2018), customers' expectations, segmentation, and sophistication are increasing and they have higher expectations about pricing, customization, uniqueness and quality. The businesses in the sector must improve their innovation abilities to meet consumer preferences, and market expectations and retain a long-term competitive edge (Panayides, 2006). Innovation helps businesses to give specialized solutions to customers and adapt to the global market.

The main aim of customer relationship management (CRM) is to provide better customer service by knowing your customers and earning their trustworthiness. (Ryals and Knox, 2001) define CRM as a relationship orientation, consumer retention, and increased customer value provided through process management. CRM is a management approach based on a consumer-driven strategy that uses a variety of information technologies to provide all the information necessary, leading to improved levels of customer satisfaction and loyalty (Soliman and J. Kamel, 2021).

1

Companies can develop client-focused strategies that lead to customer retention with the aid of CRM. CRM is a consumer retention approach that involves employing several marketing techniques to forge bonds with customers or maintain contact with them after sales. Therefore, building individualized relationships with clients aids businesses in retaining their most precious asset-their customers (Kyei and Bayoh, 2017). The basic purpose of relationship marketing including CRM is to evaluate and continue collaborative and mutual partnerships between the firm and its customers. These relationships are advantageous to both parties and are long-term in nature (Soliman and J. Kamel, 2021). Businesses are focused on adapting and integrating new technologies, processes, people, and relationship marketing for their advantage and to benefit their customers by providing value and satisfaction to keep them for life (Kyei and Bayoh, 2017).

Retaining customers is crucial for building a sustainable business in a highly competitive market. Marketers are using preventative and initiative-taking retention methods and as they are becoming more conscious that; it is cost-effective to ensure that consumers never leave for competitors in the first place (Soliman and J. Kamel, 2021). Marketers use proactive techniques when initial defection signs such as complaints-about-service appear and decreased-service-usage rather than pre-emptive strategies, which are implemented before customer defection signals are recognised. According to research, businesses that thrive in this fiercely competitive climate are those that manage their clientele by enhancing their core products with high-value services. As a result, organisations only flourish by acquiring, retaining, and expanding their consumer base (Info et al., 2021). A higher customer retention rate leads to high market share according to research and increases revenue, this statement has been supported by numerous studies such as (Ghavami, 2006). One loyal client may be served five to six times less than one new customer can be attracted and served, according to research (Ndubisi, 2003). Several studies have demonstrated the

connection between customer satisfaction and client retention (i.e., retention) and favourable word-of-mouth(Daud et al., 2015).

1.2 Problem Statement

Presently, there has been an increase in telecommunication companies and other companies providing internet services in the country. This has created competition among the industry players. Though there is competition in the industry, some companies with a relatively larger market share do not pay attention to customer relationship management. These companies come up with all kinds of enticing offers, yet these offers are unable to retain customers for a long time. Customers are typically thrilled with these "enticing products and services" from the telecommunication companies which only last for a short while. The supposed "enticing products and services" are either too expensive or piled with terms and conditions that do not favour customers.

Numerous academics including (Verhoef, 2003), have questioned the viability of several customer relationship management systems. He evaluated the various outcomes of relationship marketing techniques and consumer-connection perceptions on long-term customer share growth and customer retention. He examined the various effects of relationship marketing techniques and customer perceptions. The outcome showed that while loyalty programs that offer financial incentives had a positive effect on both customer retention and customer share growth, direct mailings still affected customer share development and emotional commitment.

The power of customer loyalty programs on consumer behaviour and retention should be further studied, according to (Verhoef, 2003). On the contrary, (Almossawi, 2012) examined the

3

significance and effects of customer satisfaction in Bahrain's competitive telecom market. According to the study payments and savings (like rents, bids, charges, etc.) are key factors in ascertaining customer experience, loyalty, and a chance of transferring from one service provider to the other. However, it was discovered that intercommunication factors like customer service, amiable staff, and user-friendly websites were the least important. From the study, it was revealed there is a weak relationship between loyalty, satisfaction and retention, while there was a positive link between satisfaction and retention (Almossawi, 2012)

In Pakistan's telecom industry, (Soliman and J. Kamel, 2021) conducted research to examine the connection between CRM and retention. The findings also revealed a high impact between the two variables (CRM and customer retention), suggesting that maintaining healthy relationships with consumers might help businesses attract and keep customers. According to a study (Kyei and Bayoh, 2017), the main factors influencing customer retention are service innovation, process innovation, and marketing innovation. According to the study, service innovation is a crucial factor in customer retention. The literature is replete with several studies in other jurisdictions on the correlation between CRM, satisfaction and retention (e.g., Ghavami A. and Olayaei A.).

Research on the impact on customer retention, (Ludin and Cheng, 2016) study a theoretical review of the impact of CRM on customer satisfaction and loyalty and (Boateng, 2016) studies the impacts of CRM on customer retention in the insurance industry in Ghana; the mediating role of customer satisfaction, etc.). For the mediating effect of customer satisfaction on the relationship between CRM and retention in the telecommunication industry in Ghana, there is little information. Therefore, a need to conduct the study.

1.3 Main Objective

The main goal of the research is to assess the mediation effect of customer satisfaction on the relationship between customer relationship management and customer retention in the Telecom industry in Ghana.

1.3.1 Specific Objectives

The objectives to address the aim of the study are to:

i.   Assess the effect of CRM on customer satisfaction in the Telecom industry.

ii.   Assess the effect of customer satisfaction on customer retention in the Telecom industry.

iii. Determine the relationship between CRM and customer retention in the Telecom industry with a mediating effect on customer satisfaction.

1.4 Research Questions

i.   In the Telecom industry, what is the effect of CRM on customer satisfaction?

ii.   In the Telecom industry, what is the effect of customer satisfaction on customer retention?

iii. What is the mediating impact of customer satisfaction between CRM in the Telecom industry?

1.5 Relevance of the Study

The research will be useful to academics and students as a source of literature on CRM, customer retention, and customer satisfaction. Furthermore, the study will lay the groundwork for future research while also providing practical support for the mediating impact of customer satisfaction on the relations between CRM and customer retention in telecommunications organizations. New

knowledge and insights will be gained on the relevance of CRM, customer retention and customer satisfaction. Additionally, the results of the study will augment the already existing CRM practices of the Telecommunication companies in Ghana to recreate and deliver customer value to enhance customer retention. Furthermore, the study will help Telecommunication firms in implementing various CRM practices such as information exchange, customer involvement, long-term cooperation, network quality, etc. to retain subscribers.

1.6 Scope of the Study

The theoretical objective of the research is to find the mediating effect of satisfaction on relationship management and retention in the telecommunication industry. The research's goal is to investigate these experimentally in the context of the subscribers of the telecoms. In that context, the study sample will focus on the staff at Kwame Nkrumah University of Science and Technology because the staff use telecommunication networks for their work and business activities. The reason for the choice is due to their level of understanding, better representation and potential to obtain quality data for analysis. The research's conclusions might apply to subscribers outside of the study's focus area. The study will examine telecom industry subscribers and this will aid the telecommunication companies to determine how to improve customer involvement, long-term partnership and network quality.

1.7 Overview of Research Methodology

The study used a quantitative research method to determine the elements that eventually affected customer retention. While the secondary data came from journals and website articles; the primary

data were gathered through the distribution of questionnaires. Data gathered was analysed using

SPSS and SMART PLS V4. The Analysed data was presented with a table and figures.

1.8 Limitations of the Study

The limits of the study are; the research took place solely at the KNUST campus and only staff

were of relevance to the researcher. As a result, the research was confined to a fragment of

subscribers of the telecoms. The findings did not apply to the GLO subscribers who were not

captured due to the insignificant number of subscribers. Furthermore, the issue of time was a

limitation of the study, considering the period to deliver the project for assessment. The other

limitation of the study was the availability of funds to execute the project. The issues of finances

made it quite impossible to widen the population to cover the entire country. Finally, the

availability of secondary data from telecommunication companies.

1.9 Structure of the study

There are five chapters in the study. The study's background, problem statement, objectives,

research questions, significance, scope, and overview of research methodology were discussed in

Chapter One. Chapter Two was allocated to an assessment of significant literature in the field of

study. Chapter Three, which is the methodology comprised of the research design, data sources,

unit of analysis, study population, sample size and sampling technique, data collection tools, and

data analysis. The presentation of data, analysis of the study, and discussion of results were

highlighted in Chapter Four. Lastly, the study's summary, conclusions and recommendations were

discussed in Chapter Five.

2.0 Introduction

The section provides an overall literature review of the study. Relying on extensive research and a collection of related materials, the section begins with an introduction, definition of espoused terminologies and empirical review of key themes related to the study. The chapter also builds on the relationship between CRM and customer retention while explaining the mediation effect of customer satisfaction. Finally, it highlights theoretical models leading to the development of an appropriate model for the study.

2.1 Customer Relationship Management

Businesses are created to make a profit and expand their customer bases and maintaining customers is important to every organization including the Telecom Industry. For this reason, businesses are expected to come up with customer relationship management to maintain their customers. According to (Anderson and Kerr, 2002), customer relationship management is the holistic strategy for creating, sustaining, and expanding customer relationships. Furthermore, is a comprehensive style to find, obtain, and retain customers. By ensuring businesses direct and organize client relations across numerous channels, business lines and geographical locations(Buttle and Maklan, 2015). CRM enables organizations to optimize the value of every customer interaction while driving greater corporate performance.

Since an organization spends a huge amount of money to attract new customers. Organizations need to create lasting relationships with customers to keep them coming back. (Kumar and Reinartz, 2018) opined that customer value is critical to CRM thus the economic worth of the

consumer relationship to the business is defined as a contribution to margins or net profit. Customer value in the marketing metric- provides a significant decision in addition to the capacity to analyze marketing effectiveness. Generally, the importance of CRM is to recognize, attract and gain fresh customers, nurture and retain those the companies already has, coax past clients, and reduce marketing and client service cost (Zamil, 2011).

However, the notion of CRM can be looked at from two perspectives; either a strategy or a tool, that is, if it is done correctly. CRM, as a strategy, can serve as a reference point for all other approaches in the business; as the key aim of the business is to earn a profit. Hence, setting the path for the organization to follow, if the strategy interferes with the customer relationship it will send the organization in the wrong direction. On the other hand, CRM as a tool assists organizations in better management of their customer relationships and eventually driving more success, which is largely accomplished through software. This software enables businesses to automatically track and handle incoming leads while also providing a platform for sales and marketing to better evaluate their impact. (Kumar and Reinartz, 2018) further, underpin that multiple software packages and technologies claiming resolutions to provide solutions for several areas of CRM have been created for commercial use.

Considering today's world, where businesses with individuals and organizations may never meet or may not want to meet. Organizations need to create a high level of customer relationships. Undeniably, customers would want to engage with businesses that understand their needs and wants. According to (Vlahna et al., 2021), the four components to consider for any successful implementation of CRM are technology (which comprises applications and infrastructure), strategy (which comprises the business goals and objectives), process (which are procedures and business rules) and lastly people (which includes the business structure, skills and incentives). The

overall benefit of implementing CRM in businesses is to attain customer satisfaction that leads to loyalty (Keh and Lee, 2006). Customer Relationship Management can be divided into tangible benefits and intangible benefits. According to (Ludin and Cheng, 2016), the tangible benefits are; an increase in profitability, growth in labour productivity, reduction in marketing expenses, increased client relations charges and high returns on marketing investment. The intangible benefits are attaining customer relations, an increased impact of word of mouth, increased quality of services given to consumers, high communication channels, consideration of customers' wishes, what the organization provides, and customer prospects. In summary, for a successful ongoing relationship with customers, organizations must direct their focus to three components; value in customer perception, answering to the customer desires and wishes to achieve customer satisfaction and loyalty of the customer.

2.1.1 Customer Relationship Management Practices

 According to (Gebert et al., 2003), CRM practices are methods that emphasize managing relationships between organizations and their present and potential customer base, as keys to success. They explain that it is about creating an all-inclusive representation of consumer demands, behaviours and prospects and controlling those aspects to influence the performance of the organization. Relationship management techniques foster long-term relationships which aid firms in client retention. After all, loyal content customers are more valuable than ordinary customers. (Kumar and Reinartz, 2018), further expand the idea of customer relationship management practices (CRMP) as the strategies employed for creating value that results in customer behaviour retention (such as retain, buyback, positive word of mouth), satisfaction and loyalty to a brand. Frequency marketing, loyalty programs, cross-selling, up-selling, and collaborating with

customers including co-branding and joint selling are some of the techniques used. In summary, businesses to a greater degree are developing or coming up with best practices to inspire clients to constantly improve their rapport with the companies.

2.1.2 Customer Loyalty Program

It is a marketing style which identifies and compensates clients who make a repeat purchase or engage with a company frequently. (SYED MAJID KHALIL et al., 2021), explained customer loyalty as the behaviour of customers who favour a product over all competitors due to product or service approval. (Ludin and Cheng, 2016) also defined customer loyalty as a continued relationship between the consumer and the product. They went on to say that switching brands might be difficult regardless of the problem experienced throughout the business procedure. Furthermore, they define loyalty as repeat purchases of the same product or service from a similar product. Similarly (Richard, 2007), establishes that the loyalty of customers is more than a repetition of action. Thus, consumers can establish loyalty to price, product, business and other clients.

The significance of client loyalty in a firm's productivity has been expansively recognized in recent years. Businesses endeavour to develop lifelong relations with their customers because views of attachment may lead to bigger pay hence the development of loyalty programs to create satisfaction for customers. It is crucial for customers to be satisfied because that is what affect consumers to be frequently coming back to the business. This supposes that consumer pleasure, emotional attachment, trust, choice, reduction, and corporate history are important variables influencing consumer loyalty (Ghavami, 2006). The loyalty programs provide customers with early access to

11

new products, unique promotions or free things (SYED MAJID KHALIL et al., 2021). According to (Ghaleb Magatef Elham Fakhri Tomalieh, 2015), the types of CLP are as follows; points system, tier system, charging an upfront fee for VIP benefits, non-monetary programs around your customer's value: providing value to customers in other ways than discounts and dollar rewards, loyalty card program gift card, return policy for loyal customers and discount overtime or volume of goods. (Hofman-Kohlmeyer, 2016), propounded that, there are components for developing loyalty among customers and they are assurance, confidence, fulfilment and attitude. (Gómez et al., 2006), explained attitude as a long-term liking of an item and a pragmatic opinion is certain to build true loyalty. Subsequently, (Dölarslan, 2014) further defines fulfilment as an assessment of the supposed disparity between earlier expectancies and the product's real performance; hence the supposed fulfilment is connected to the endorsement or rejection of anticipations. Confidence is a vital aspect of ensuring client loyalty; businesses must earn a customer's trust and guarantee the confidentiality of their information.

Lastly, (Gómez et al., 2006) defined assurance in a relationship as the presence of a cognitive and affective bond, implying that loyalty cannot be sustained alone through repeated transactions. Clients may move away from certain products and services for better prices from time to time. From a business standpoint, the onus is on organizations to decrease these consumer movements. Accordingly, (Bose and Rao, 2011) indicated that managers typically aim to outwit their competitors by employing several marketing methods.

2.1.3 Customer Relational Experience

According to (Parcell, 2007), is the personal reaction consumers have to any direct or indirect contact with a firm. It encompasses all factors of what an enterprise is offering which includes customer service quality, advertising, packaging, product and service characteristics, ease of use and reliability. (Schmitt, 1999), also defined customer relational experience as the insight that trails from an inspired enthusiasm of a client who witnesses or partakes in an occasion. Such insight subsequently boosts the worth of products and services. Businesses use intangible services and tangible products to produce unforgettable experiences for consumers (Tsaur et al., 2006). Customer experience is important because it affects consumers' psychological perception which has a weighty impression on their consequent usage behaviours (Lin, 2016). Enhancing client relational experience can allow marketers to uncover specialized markets rather than keeping competitive charges or superior product functions and features (Kao et al., 2007). (Schmitt, 1999), created an integrated framework for customer relational experience to assist marketers to assess various types of relational experience.

Customer relational experience (CRE) is a process that generates a connection between the consumer and the product and offers a remarkable experience for the consumer, in that way enhancing the worth of the product. (Schmitt, 1999), proposed five types of CRE as a basis for a comprehensive empirical marketing analysis. They are sensing, feeling, thinking, acting, and relating. These five (5) senses are mostly in control of this type of experience (sight, hearing, smell, taste, and touch). The senses can be used to manipulate a user's desire to purchase (Schmitt, 1999). The feeling is the customer's emotions and inner sensations which are fueled by an experience. According to (Amornpornwiwat and Kapasuwan, 2018), customers and service or product providers form a bond through visuals and programs, etc. which help consumers to identify with

13

the product and experience pleasant emotions. Also with the thinking, it targets the user to think more imaginatively by employing artistic approaches. An understanding of the experience supplied by the marketing operators is made possible by the creative integration of the user's habits and experiences (Chen and Lin, 2015). Additionally, with acting, the experience mixes several behavioural options, such as movement, habitation, and social interaction. Actions taken daily by users can either leave a long-term imprint or trigger an involuntary instant response. (Ludin and Cheng, 2016).

Lastly, relating experience transcends feelings and emotions, linking the idyllic self to other individuals or cultures. Subsequently, a connection is made between the individual and a larger social structure (Lee et al., 2016). The customer relational experience is presently common because each encounter is instituted by different experience types, which businesses can exploit to create a suitable experience prototype for their products. Furthermore, creating a positive customer experience is imperative for every organization

2.1.4 Network Quality

According to (Haryadi, 2017), the quality of a network refers to a set of factors that affect how well traffic performs on a telecommunication network. He explains further that the joint result of service performance defines the extent of the service user contentment. Hence offering a dependable service that can please customers is critical for any firm. Customer satisfaction is largely dependent on a network's availability, reliability, stability and the breadth of coverage of the signal is a key factor in influencing the loyalty of customers. Therefore customer satisfaction must be measured in network performance. (Parasuraman et al., 1985) created a service model

called SERVQUAL; the model outlines how service quality can be assessed. It is often quoted in marketing and retailing literature and is also widely used in the industry. The means are tangibility, reliability, responsiveness, assurance and empathy. The concept of tangibility clarifies why the organization's physical environment appeals to customers, staff, communication materials, and equipment collectively (Shava, 2021). Reliability refers to an organization's capacity to supply services on demand when asked and with little tolerance for error (Shava, 2021). The SERVQUAL model's responsiveness also explains why sometimes personnel are prepared to immediately address problems with customers (Shava, 2021). The fourth component of the model which is assurance also talks about the ability of employees to make clients trust and have confidence in them that they have the requisite knowledge to effectively address client concerns (Shava, 2021). The final element of the model is empathy; which is the capability of employees to offer care and attention which is every customer's desire (Shava, 2021). Delivering a service performance that can please clients is essential for customer retention and a technique to guard against customer churn.
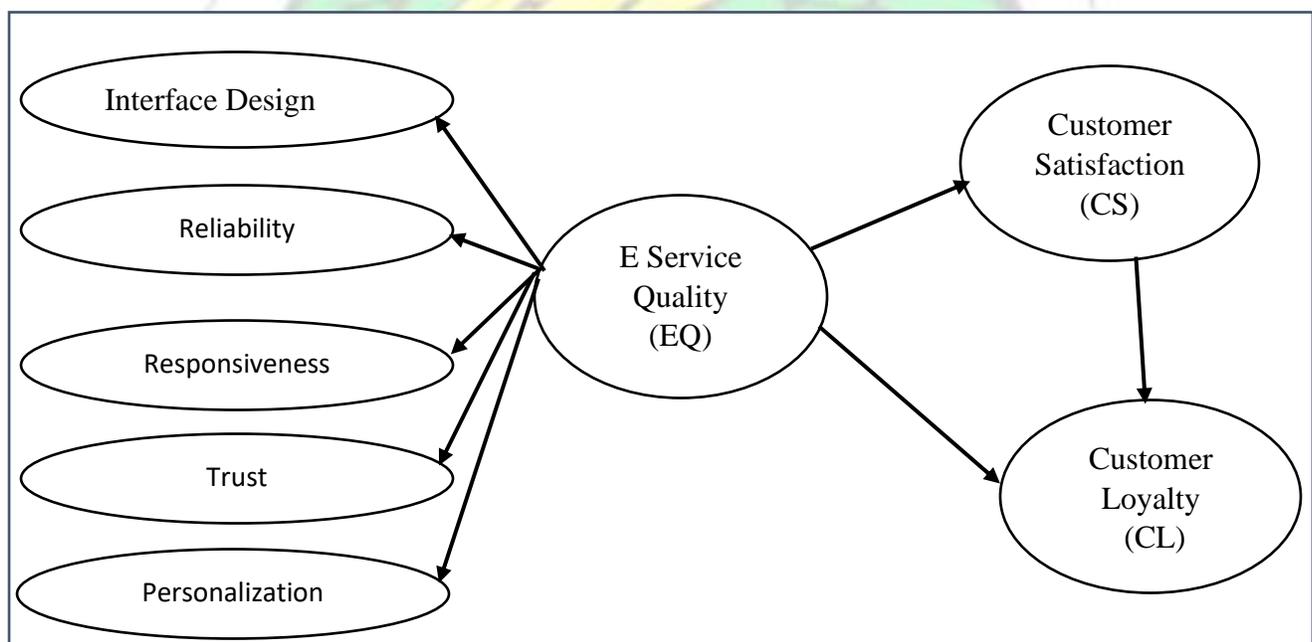
2.2 Customer Satisfaction

(Kotler, 2000), defined customer satisfaction as an individual's feelings of pleasure or disappointment emanating from comparing a product's perceived performance to his or her expectations. (Guido, 2014) also explained customer satisfaction as a client's essential valuation of his or her level of fulfilment about judgements made concerning the purchase and use of particular goods and services. For many years, it has been believed that a company's ability to keep its consumers happy is what ultimately determines whether they would leave or not. Even if customers seem to be content, businesses still need to know how to maintain them. Customers play a vital part in the business's survival and sustainability without a customer, the business will not be operating effectively. Therefore, consumers are the main source of business revenue. The satisfaction of a client about a product or service is paramount to businesses and a satisfied customer is imperative in the company since sustaining a pleased buyer is inexpensive than finding a new one (Yussoff and Nayan, 2020). A pleased buyer will keep purchasing or using the same products or services by a firm because of the efficacy of the company (Yussoff and Nayan, 2020). Besides the repetition of sales, customers work as a link to reach other prospective customers by sharing their experiences. There are a lot of theories underpinning customer satisfaction, for the study the expectation theory will be used. According to (Sinclair, 1998), the theory is commonly known as the Expectancy-Disconfirmation Theory. It is the most recognized theory regarding customer satisfaction processes. The theory indicates that a consumer's pleasure or discontent is assessed by comparing the performance of a product or service to predefined performance standards. The prearranged criteria according to the viewpoint is the buyer's predictive prospects. There are three possible outcomes of the comparison; the first outcome states that a positive disconfirmation happens when performance is perceived to be better than those predetermined

16

expectations. In that case, a customer is delighted. The second outcome states that a zero disconfirmation happens when performance is perceived to be equivalent to the expectations; thus, clients are most likely to be fulfilled. Consequently, a negative disconfirmation will lead to discontented or unhappy customers. Customer satisfaction helps to provide comparisons to other organizations(SS, 2018). Satisfaction is connected with acceptance, pleasure, enthusiasm and happiness(Bauer et al., 2007). Some of the factors that affect satisfaction, according to (Bauer et al., 2007), include courteous, knowledgeable and helpful employees, the accuracy of billing, good value and billing clarity.
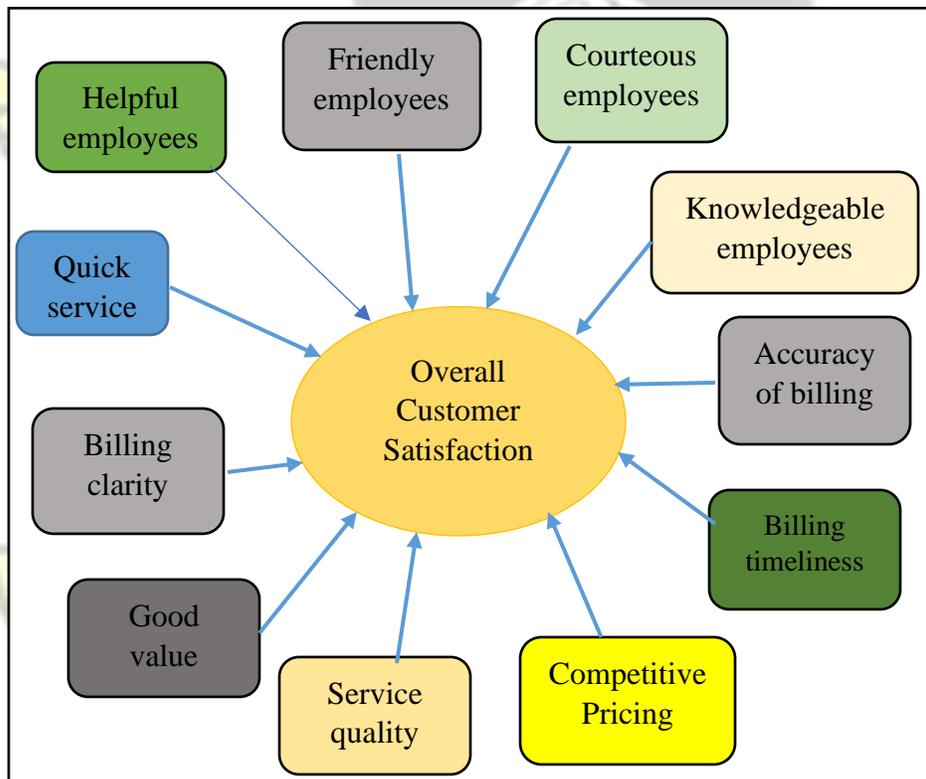
Figure 2. Factors that affect customer satisfaction, Source: Hokanson (1995)

2.3 Customer Retention

Customer retention (CR) is increasingly becoming a crucial managerial concern especially when the market is saturated or the growth of new customers is sluggish. (Ghavami, 2006) indicated that customer retention is been acknowledged as a key objective of CRM, especially given its ability to provide larger relationship dynamics, i.e., the idea that keeping customers costs less than acquiring new ones. Customer retention is described as focusing a business' selling efforts on its current clients (Bateson and Hoffman, 2023). It justi fies the idea that businesses engaged in customer retention initiatives should focus on keeping existing customers satisfied to create and maintain long-term relationships rather than trying to attract new ones. Although many businesses appreciate the value of client retention, only a small number of them are familiar with its internal economics. From the beginning of the 1990s, research has determined the financial advantages of acquiring customers as opposed to keeping existing ones. Research by (Kumar and Reinartz, 2018) revealed the economic value of client retention; discovering that a little improvement in client retention has a significant and favourable impact on productivity e.g. (a 5%-point gain in CR brings about a significant enhancement in productivity in terms of current worth). The findings have significantly contributed to highlighting the crucial part that client retention plays within CRM strategy (Padilla-Meléndez and Garrido-Moreno, 2014). Traditionally, firms have placed more importance on making sales than cultivating relationships, on up-selling and cross-selling than on after-sale service. The definition of the phrase "customer retention" in the telecommunications sector could be changed to customers who are consistently and firmly committed to using the company's goods and services and expressing satisfaction with them (Ouma et al., 2013). Therefore, to guarantee the consumers' continuous use of the telecom's services, the telecom must

18

first increase customer satisfaction and, as a result, client retention. Consumers are a firm's strength and producing customers is the key goal (Ascarza et al., 2017).

2.4 Theoretical Framework

The section reviews the main theoretical framework that is relevant to the investigation and comprehension of customer retention. The theory serves as a foundation for the research variables and exemplifies how the theory may be used to elucidate the CRM phenomena. There are various types of CRM models, but the researcher chose the Identify, Differentiate, Interact and Customize method because of its modern ideology of CRM. This theory was propounded by Peppers and Rogers. The IDIC model offers a solid background on which firms can navigate through customers' engagement and work to promote customer satisfaction and retention. The model expatiates four (4) actions needed to foster closer one-to-one relationships with customers which are as follows;

a. Identifying (I) the customers and having a thorough grasp of them.

b. Differentiating (D) customers to determine which ones have the greatest current worth and future potential. Accordingly, the model will aid in customizing the management of each client based on their association with the business and their desires. Also, the variation task will comprise a business in categorizing their clients by both their value to the firm and by what needs they have.

c. Interacting (I) with the customers to know customer prospects and how they relate to business products and services

d. Customizing(C) to meet the customers' prospects. With the help of these four (4) actions, a reasonable idea can be drawn for new approaches and product customization(Bolton and Tarasi, 2007).
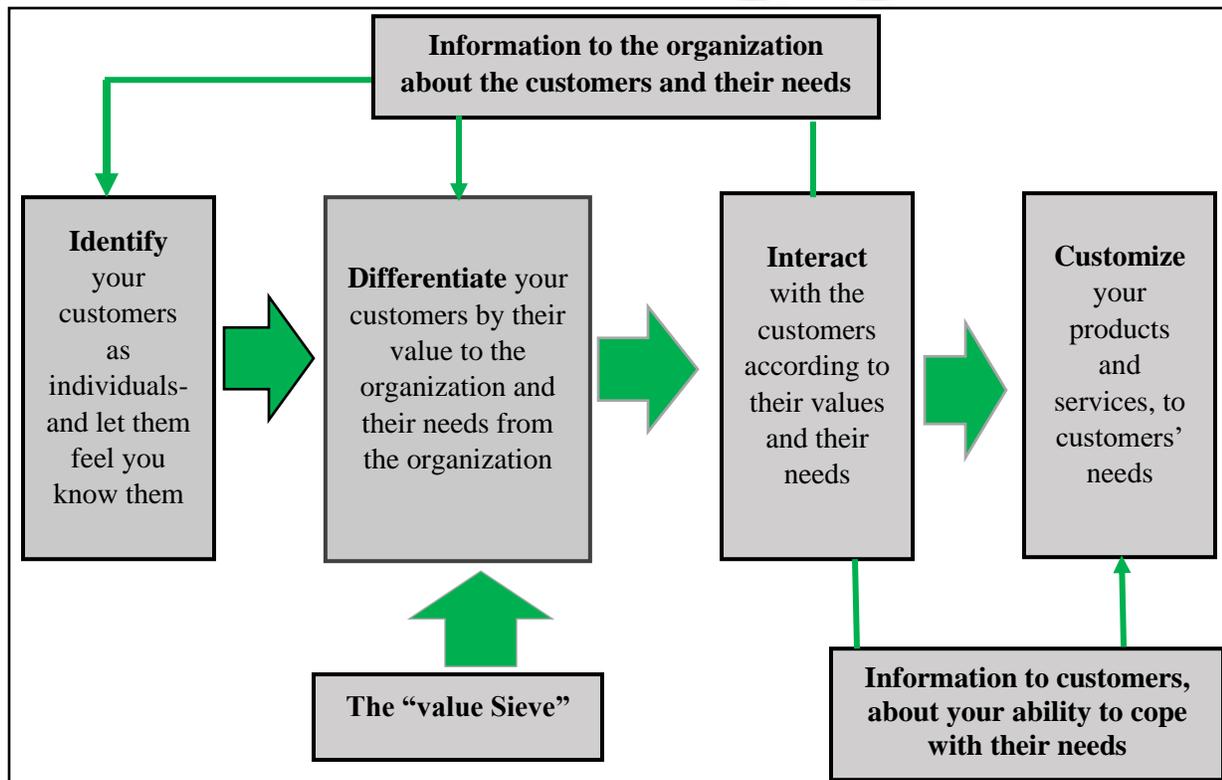
Figure 3. IDIC Model by Peppers and Rogers (1995)

2.5. Hypothesis Development

2.5.1 Customer Relationship Management, Customer Satisfaction and Retention

The core of the service industry is mostly customer relationship management. Customer relationship management is all the actions, approaches and technologies that businesses use to

manage their communications with their present and prospective customers. There is no doubt that CRM helps organizations to understand their customers' needs and also achieve their relationships with the customer intelligently to envisage the future. Such knowledge offers a vital competitive variation for businesses to increase market share and reduce operational costs. However, an efficient customer relationship management implementation will likely affect customer satisfaction for various reasons. The effect of CRM on satisfaction is influenced by a variety of aspects, including brand building, brand loyalty, long-term market share and sales growth, creation of a favourable external environment and proper workflow management (Mazikana, 2023). CRM enforces the happiness of customers and this enhances the organizations' connection with their customers (Cavaliere et al., 2021). Furthermore, CRM practices, strategies and systems are powerful tools in the arsenal of customer retention where businesses can capture, access and analyze consumers' data to determine which customers are most interested in retaining, (Ghavami, 2006). Accenture Consulting CRM study (2000) reveals that a US $1 billion company with an increase of 10 % in CRM capabilities would rise by US$40 billion. According to Cook (2008), CRM systems provide an opportunity for organizations to manage their relationship with customers and the more information a business has about their customers the better. Given that, businesses can identify the desirable customer segment or micro-segment on a one-to-one basis and create unified programs to make the most of both value to the customers and the lifetime value of clients to the organization enhancing retention (Cook, 2008). Undeniably, customers are excited and satisfied when businesses can develop offers that suit their tastes and preferences. It lessens the burden of choosing from many options, hence the key component of customer retention is customer satisfaction which arises from efficient CRM systems. Therefore, a good CRM will automatically lead to an increase in customer satisfaction which obviously will lead to customer

retention. Because as the customers feel better about a brand, they are likely to repeat the process (M. Kamrul Islam Shaon and Hasebur Rahman, 2015). This underlying idea cuts across every institution.

On this basis, the subsequent hypothesis is stated:

H1: There is a significant and direct relationship between customer relationship management and customer satisfaction.

H2: There is a significant and direct relationship between customer relationship management on customer retention

2.5.2 Customer Satisfaction and Customer Retention

Although it is not always true that a happy client will stick with a telecoms service provider, there's a chance they will be willing to put their trust in it if they need to make more purchases. In the business world getting customers to buy is a challenge and objective of every company. Therefore, if a customer purchases once, the company's client satisfaction and retention actions change into gear. To a get someone to try a firm is difficult and getting them to be a repeat customer is even more difficult. That is the fundamental connection between customer satisfaction and retention (Cruz and Vitales, 2015). (Jahroni dkk, 2021) also argues that in as much the two variables relate in reality there may be cases where the variables show a distinctly opposite behaviour. Such that dissatisfied customers may remain while satisfied customers may leave due to the market being overly crowded and highly competitive yet the concept must stimulate businesses to seek new opportunities and adopt new tools and techniques. Once more, a study was conducted by (Alshurideh et al., 2012) to ascertain the extent to which satisfaction affects retention. It was

22

discovered that there is a symbiotic connection between customer satisfaction and customer retention. In the same vein, (Luo et al., 2011) propose that the satisfaction of the needs of customers creates room to keep customers and foster loyalty for constant patronage. Certainly, there is a significant relationship between the two if businesses can achieve their stated objectives because the degree of retaining dictates the extent or degree of achievement of the firm's objective (Luo et al., 2011). The relations between satisfaction and long-term retention of clients are generally developed by marketing practitioners in a definite method and are therefore treated as the primary point,(Hennig-Thurau and Klee, 1997). Their correlation is subject to many factors such as the state of the market, fluctuations in price, service or products, customer support and target audience and demographic.

Based on this discussion, the following hypothesis is stated:

H3: There is a significant relationship between customer satisfaction and customer retention

2.5.3 Mediation Effect of satisfaction on the relationship between Customer Relationship Management and Customer Retention

Customer satisfaction and retention are the objectives of CRM programs (Almohaimmeed, 2019). Research has established this claim that customer relationship management authorizes businesses to develop effective management relations so that the actions of the various departments in the business will aim at pleasing and retaining customers (Kotler, 2000). Furthermore, (Kumar and Reinartz, 2018) describe CRM as the deliberate process of selecting clients that a company can serve gainfully and shape relations between a firm and these clients and the main objective is to heighten the present and prospective value of clients for the organization. According to the findings

of a study, CRM has a positive impact on satisfaction and retention (Soliman and J. Kamel, 2021). According to (Parvatiyar and Sheth, 2001), firms have utilized customer satisfaction and retention as metrics to gauge the effectiveness of customer relationship management. (Hassan et al., 2015) mentioned that CRM practices are meant to increase customer retention and satisfaction, which will increase a company's income. According to (Bhatti et al., 2016) CRM significantly improves customer satisfaction, customer retention, and all other variables because effectively tailoring products, marketing and services to consumer needs by using data collected on their, purchases, preferences, interests and other factors will increase profits. (Bhatti et al., 2016) suggested that CRM impacts customer satisfaction and customer retention significantly. (Guo and Wang, 2015) also revealed that unit growth in CRM affects customer satisfaction and retention positively. Customer satisfaction is one concept that closely relates to customer loyalty and has a mediating effect on the relationship between CRM and customer retention (Cavaliere et al., 2021).

The following hypothesis is stated based on the above discussion:

H4: There is a significant mediating effect of customer satisfaction between customer relationship management and customer retention

2.6 Conceptual Framework

The conceptual framework proposed the relations between CRM, customer satisfaction and retention to enhance the understanding of the study. Figure 4, presents the conceptual framework of the study which suggests that the telecom companies' effective customer relationship management activities can result in customer satisfaction and ultimately customer retention. A

repeated customer is most likely to be a satisfied customer. The conceptual model and assumptions

presented below are based on these arguments.
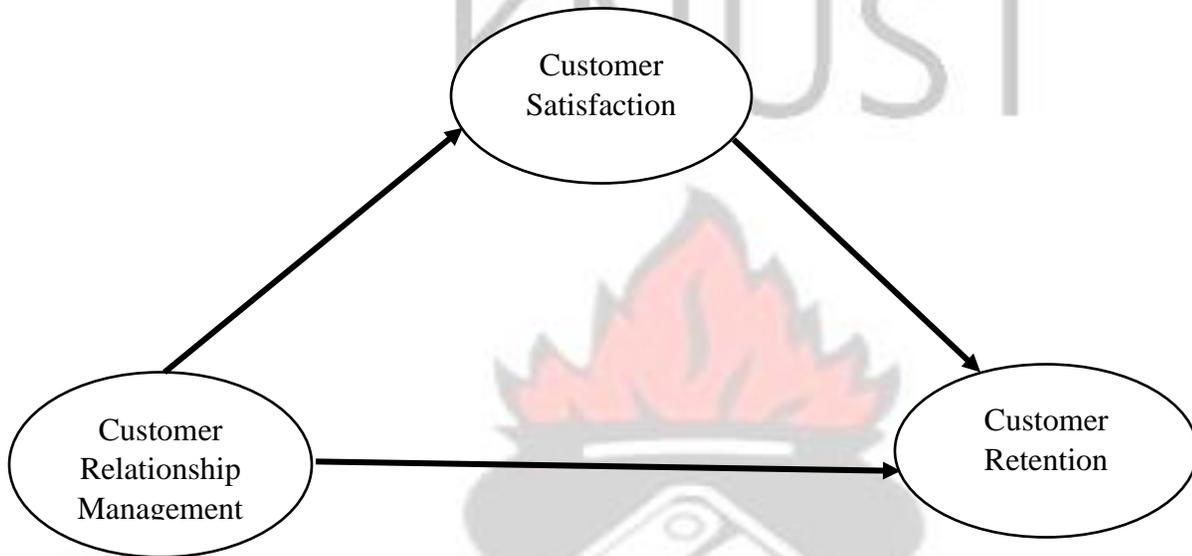
Fig. 4 Conceptual framework for the study

Source: Designed by the Author

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The section outlines the techniques that were used by the researcher to achieve the outlined research objectives. The chapter highlights the design, study area, population and sampling techniques, data collection, research instrument and analysis.

3.1 Research Design

According to (Collins et al., 2004), research design is a methodical concept to carry out various tasks of the research. (Daud et al., 2015) also, state that is a blueprint that is followed to complete a study. (Collins et al., 2004) highlights the types of research design; they are experimental, observational, quasi-experimental and descriptive research designs. The study employed the use of quantitative methodology and a descriptive research design to enable the researcher to test for the hypotheses stated.

3.2 Profile of Study Area

The Telecommunication industry is one of the key drivers of Ghana's economy. This is because Information and Communications Technology (ICT) policy is liberal. ICT accounts for 65% of the major investments, 8% of communications and public administration account for 27%, (Telecommunications in Ghana, 2019). Since 1994, Ghana Post, Telephone and Telegraph- the current government corporation, was in charge of the country's Telecommunication Industry. Ghana's telecom market transitioned from being government-controlled to being competitive

between 1994 and 2000, allowing for the operation of powerful internet and mobile telecom network providers. Currently, the core governing bodies of Ghana's Telecommunication industry are The National Communications Authority and the Ministry of Communications in Ghana (Mpwanya and Letsoalo, 2019). In 2010, six (6) mobile phone companies and two fixed lines had been permitted to work in Ghana of which five (5) were effective. There were 13 permitted satellite providers, and 8 of them were active. In addition, 176 VSAT providers were authorized of which 57 are in operation and lastly, 99 public and private network operators were also approved of which 25 are in operation. Ghana was among the first nations to connect to the Internet and has the third-fastest speed on the continent of Africa with an average home download speed of 5.8 Mbit/s. In February 2014, there were 110 countries with the fastest Internet speeds, compared to 188 countries worldwide. In 2009, there were 1.3 million users of the Internet. Among the authorized telecom firms are MTN, Vodafone Ghana, Tigo, Bharti Airtel, Glo Mobile Ghana Limited, and Expresso Telecom, which bought Kasapa Telecom. 2017 saw the merger of Tigo with Airtel Ghana to establish AirtelTigo. The prefix code of Ghana for international calls is +233 (Telecommunications in Ghana, 2019). Currently, the major telecom operating companies in the country are three (3); MTN, VODAFONE and AIRTELTIGO.

3.2.1 MTN

Mobile Telecommunication Network (MTN) was listed as an establishment in the country in 1994. After two years, in 1996 November, they started working with the brand name Spacefon. That is how MTN's history began. The first GSM (Global System for Mobile Communication) service, as well as improved features like call forwarding, call blocking, call waiting, Caller ID, and itemized billing, were launched by Spacefon into Ghana's telecom industry. Scancom has witnessed a

continual transition of its client offerings founded on advancing technology, from GPRS, EDGE, 2G, 3G, and HSPA to fiber optics and 4G capabilities, all driven by the desire to provide top-notch services. They ushered the republic into a new era of technological development in 2009 with the introduction of Mobile money and the launching of 3G services, (All Africa, 2021).

3.2.2 VODAFONE

On July 3, 2008, Vodafone announced that it had reached an agreement with the Ghanaian government to buy 70% of Ghana Telecom for US$900 million, for a total firm value of around US$1.3 billion. Later when the acquisition was completed, Vodafone owned 70% of the company, while the Ghanaian government owned 30%. The transaction was completed on August 17, 2008. In the seven years since, the fundamental mix of mobile and fixed offers has been supplemented by several value-added services, particularly those linking mobile money and broadband data. Being consistently at the forefront of innovation in Ghana makes it necessary for any Vodafone company to stay ahead of the curve, but the Company's ability to act locally within a larger organizational framework has allowed it to garner many awards and honours over the years. Its mobile money platform is further evidence of this, with the development of M-Pesa, a service that targets the specific demands of the home population and the local business sector (Vodafone Ghana, 2019).

3.2.3 AIRTELTIGO

It is the 2nd largest mobile network operator in the country according to AirtelTigo corporate report. In November 2017, Tigo Ghana Limited and Airtel Ghana Limited merged, with equal

ownership and governance agreed upon by the two parent organizations Millicom International Cellular S.A. and Bharti Airtel Limited. The transaction suggested that AirtelTigo would now function as a government-owned corporation in Ghana. According to the terms of the transaction, the country's government received 100% ownership of Airtel Tigo. The network is made up of radio access networks that offer 2G GSM services across the 900 and 1800 MHz bands, as well as 3G UMTS on B1 (2100 MHz) with DC-HSPA+ data. There had been no deployment of 4G LTE services. According to their Chief Information Officer, "With the merger concluded, the organization is ready to deliver on their promises," he stated. "They have opened up their entire ecosystem for integration, payments, and delivery." They were utilizing machine learning and AI to better understand their consumers' needs and provide them with customized services. With this background information on the telecom industry, the study will target users of the three major telecom operators in Ghana. Qualifications for selection for the study participants will be based on age and having in-depth knowledge (Bharti, 2017).

3.3 Study Population

According to (Daud et al., 2015) , a target population is a set of people or objects to which researchers hope to generalize the findings of their research. The research's target population consists of telecom subscribers who benefit from customer relationship management strategies. The target population for this research consists of staff at Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi. According to KNUST's Quality Assurance and Planning Unit, the current statistics for working staff enrolment is **Three thousand four hundred and forty-four (3,444).**

3.4 Sample and Sampling Technique

According to (Canet et al., 2010), sampling is a method of selecting a smaller and more controllable group of participants to participate in the study procedure and simplify the outcome of the entire study populace. Due to the large size of the target populace, the sample magnitude will be determined using the (Eisenstein et al., 2001) method. The formula indicates that for surveys, a coefficient of variation of 21% to 30% and a standard error of 2% to 5% are permitted. Regarding the stability of any probability distribution as a measure of variability, Nassiuma's equations make no assumptions. In this study, a standard error of 2% and a coefficient variation of 25% will be used. For a low inconsistency in the sample and reduced degree of error, the higher perimeter for a coefficient of variation and standard error will be chosen. The formula will be;

$$S = \frac{N(CV)2}{(CV)2 + (N-1)e2}$$

Where:

S = the sample size

N= the population size (3444)

CV= the coefficient of variation (25%)

e= the standard error (2%)

Therefore, the sample size is

$$S = \frac{3444(0.25)^2}{(0.25)^2 + (3444 - 1)0.02^2}$$

$$S = \frac{215.25}{1.4397}$$

S= 149.51

S=150 subscribers

Therefore, the sample size of this study is 150 subscribers based on the (Eisenstein et al., 2001) formula for determining sample size as depicted above. Probability sampling was used for this study since every person in the population has a chance of being chosen (Roberts-Lombard, 2002).

Simple random sampling was used to choose a sample of 150 respondents. The purpose for the choice of this method is because the population is made up of subscribers and it will eliminate bias in the selection of sample elements. The sampling technique is the purest form of probability sampling (Cooper and Schindler, 2006). Again, Pandey and Pandey, (2015) confirm that the technique is free from subjectivity and personal error.

3.5 Data Sources

The study utilized primary and secondary data-gathering instruments. The primary data collection focuses on subscribers' demographic background, perceptions of customer relational experience, customer loyalty program, network quality,) customer retention and customer satisfaction in the telecom industry in Ghana. In addition, the secondary data were also obtained from published information about customer relationship management. Responses were based on the English language. Findings from the techniques were compared to allow for data cleansing and analysis.

3.6 Data Collection Instruments and Procedure

The data was accumulated through formally administered questionnaires to achieve the stated goals of the research. Close-ended questions were used to obtain the respondents' unbiased opinions, followed by follow-up inquiries to clarify any ambiguous issues and save time. It was collected through face–to–face. The questionnaires were planned based on the five-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Uncertain, 4=Agree, and 5=Strongly Agree), with high scores indicating more certain comments. The reason for the chosen scale is to get the desired

31

responses to the various questions and also enable the study purposes to be achieved. Additionally, individuals will answer based on their perspectives.

3.7 Pre-Test of Instrument

To evaluate the rationality of the questionnaire, a trial test was undertaken using a small group to represent the populace. A minimum of ten (10) participants were used to pretest the questionnaire. The surveys were filled out by participants to improve the elucidation, interpretation, language, and layout of the questions. It was based on the feedback and recommendation from the respondents that revisions were made, therefore the vast survey respondents had no trouble answering the questions.

3. 8 Data Analysis

A quantitative approach was used in the data analysis. The researcher assessed and entered the data into the software to facilitate the statistical analysis. The quantitative data was organized and analyzed using descriptive statistics with the help of the SPSS software. In addition, the statistical procedure used to address the purpose of the research was a structural equation model (SEM) using SMART PLSV4. The structural equation model (SEM) was utilized to assess several multiple regressions at an instance and assess the strength of the relationship of the independent variables on the dependent holding other variables constant. Moreover, to reduce the path models for the variables measuring Customer Relationship Management a Higher-Order Constructs also known as hierarchical model component (HCM) was used. One of the features of PLS-SEM is a generic construct that is measured at a higher degree of abstraction while examining numerous sub-

components simultaneously. (Md Salleh et al., 2021) describe HCM as specific features of a broader conceptual variable of interest. There are four types of HCM they are reflective- reflective, reflective-formative, formative -formative and formative-reflective. For this study, the researcher explored the reflective-formative model because the reflective indicators are in the first order and the dimensions in the second order are formative. Lastly, SMART PLS software was deployed to test for the mediation of the research.

3.9 Reliability

Reliability explores whether a measurement tool yields constant results each time it is applied. (Crick and Yu, 2008) outlines reliability as the degree to which a measuring device is constant and consistent and repetition is the cornerstone of reliability. Cronbach Alpha and Composite reliability are the often-used approaches for defining reliability. Cronbach alpha coefficient, which is frequently used to evaluate reliability for measurement scales with multiple-point items was used to conduct the reliability test (Whitley, 2002). It assesses the internal consistency among a set of items (Hajjar, 2018). The set of items' homogeneity is indicated by a coefficient that ranges from 0 to 1. (Hajjar, 2018) states that good reliability requires at least a coefficient value of 0.70. Additionally, composite reliability was employed to test the degree to which the set of constructs represented by the model is related to a certain latent variable in the structural equation modelling. The PLS-SEM method prioritizes the items based on their dependability. Thus, the researcher added the composite reliability to enhance the quantification of the internal consistency due to Cronbach's alpha's drawbacks. The various exterior loadings of the construct's components were taken into account by composite reliability. Hair et al. (2014) establish that the acceptable composite reliability scores are between 0.60 and 0.70. Values less than 0.60 are unacceptable.

33

3.10 Validity

The extent to which a collection of measurements correctly captures the notion of a study is stated as validity, according to (Hair et al., 2010). Additionally, (Japhet and Usman, 2013) indicated that it refers to how well a set of data collected for research covers the specific area of investigation. According to (Field, 2005) it measures what is intended to be measured. The four (4) types of validity are construct, face, content and criterion validity. Face validity measures the closeness of specific constructs, in the judgement of non-expert (Field, 2005). Two types of validity were conducted for the study; content validity and construct validity. According to(Straub and Gefen, 2004) content validity is the measurement of how closely an instrument item corresponds to the topic it is designed for. Construct validity refers to how well one translates a concept or an idea that is a concept into functioning and operating reality (Field, 2005).

3.10.1 Content Validity

For this study, content validity was used to measure the validity of the study. To establish content validity, a trial study was carried out for on a pilot set of participants. The trial study responses assisted the researcher in making necessary changes to the questionnaires.

3.10.2 Construct Validity

Furthermore, construct validity was employed to measure the extent to which the test items evaluate the underlying theoretical construct it is intended to examine. Construct validity was evaluated using PLS-SEM. To measure the construct validity, the convergent validity was first established then the researcher tested for discriminant validity. The two together assess construct validity

❖ When an item can correlate favourably with additional items of the same construct is known as convergent validity. The premise is that if two or more measures of the same object are valid measures of the concept, they should covary substantially (Bagozzi et al., 1991). (i.e., by determining the average variance extracted, (Hair et al., 2014) before testing for the discriminant validity. The average variance extracted (AVE) of at least 0.50 is recommended. (Hair et al., 2014) express that if the outer loadings of the elements are less than 0.50, the researchers must eliminate them from the construct.

❖ Discriminant validity demonstrates how accurately a test captures the idea it was intended to capture. The Fornell and Larcker Criterion was chosen because it is the most used method.(Fornell and Larcker, 1981) state that the square root of the AVE for a concept must be higher than the correlation with the other constructs for criterion discriminant validity to be proven.

3.11 Higher-Order Construct (HOC) –Customer Relationship Management

For the higher-order construct (hierarchical model component) the reflective-formative model was used. Based on three lower-order constructs, customer loyalty program, network quality, and customer relational experience, customer relationship management was the higher-order construct in the study. The higher-order formative construct was validated using a variety of techniques.

Redundancy analysis, which assisted in proving convergent validity, is the first step towards validating customer relationship management as a higher-order reflective-formative construct. Convergent validity in formative measurement model evaluation refers to how well the formatively stated construct correlates with a different reflectively measured variable of the same concept. Redundancy analysis is the term used to describe the process, which was first proposed

35

by Chin (1995). According to (Duncan, 1995), a single item that encapsulates the essence of the construct under discussion is enough as a substitute measure. According to (Hair et al., 2017), the concept should correlate with the reflectively assessed item(s) of 0.708 or higher, meaning that the construct accounts for more than fifty per cent (50%) of the variation in the alternative measure.

The statistical significance and relevance of the outer weights are next evaluated. If the outer weight is significant. The higher-order formative construct of customer relationship management is further validated.

3.12 Ethical Consideration

The main issues that were considered here were; confidentiality, informed permission, and secrecy. The study's participants received enough information about the study. Participants were given options to turn out of any activity that would influence them in any manner. Additionally, they were informed about the nature of the research and its methodology, and given the option to ask questions throughout the research. By making sure that respondents' identities were kept secret during the data collection process and treating all participants equally and with respect, the confidentiality of the information gathered from them was safeguarded. The above methodologies and procedures were employed to gather the data required for discussion.

CHAPTER FOUR

PRESENTATION OF DATA, ANALYSIS AND DISCUSSIONS

4.0 Introduction

The section comprises data analysis, presentation and interpretation gained from the survey. The results are presented according to the objectives of the study. The chapter provides information about the respondents' demographics and other responses from the surveys conducted.

4.1 Demographics of Respondents

Table 4.1 summarizes the characteristics of the respondents' population. Females make up the bulk of respondents 52% (78) while males make up the remainder 48% (72). 42.7% (64) of the respondents were between the ages of 22 years and 32 years. 20% (30) of the respondents were between 33 years and 42 years, 28% (14) of the respondents were between 43 years and 52 years and 9.3% (14) were over 53 years. Less than 10% (10) of the respondents had a Junior High educational background, and 10.7% (16) had a Senior High education. 8.7% (13) of the respondents had a diploma education, 34% (51) had a Bachelor's Degree, 23.3% (35) of the respondents had a Master's Degree and 16.7% (25) of the respondents had a PhD. 25.3% (38) of the respondents use all three networks, 24.7% (37) use MTN and Vodafone concurrently, 23.3% (35) use MTN, 11.3% (17) use Vodafone, 11.3% (17) use Airteltigo whiles 2% (3) use Vodafone & Airteltigo and MTN& Airteltigo. For the mobile money service used; MTN recorded 54% (81) which means is the most preferred mobile service provider compared to Airteltigo (20%) and Vodafone (18%). Over 50% (38) of the respondents had used the services of network providers for over 11 years.

Table 4.1 Demographic Background of Respondents

Variables	Frequency	Percent	Valid Percent (%)	Cumulative Percent (%)
GENDER				
Male	72	48.0	48.0	48.0
Female	78	52.0	52.0	100.0
Total	150	100.0	100.0	
AGE (YEARS)				
22- 32 years	64	42.7	42.7	42.7
33- 42 years	30	20.0	20.0	62.7
43- 52 years	42	28.0	28.0	90.7
Over 53 years	14	9.3	9.3	100.0
Total	150	100.0	100.0	
EDUCATIONAL BACKGROUND				
JHS/Middle School	10	6.7	6.7	6.7
SHS	16	10.7	10.7	17.3
Diploma /HND	13	8.7	8.7	26.0
Bachelor's Degree	51	34.0	34.0	60.0
Masters' Degree	35	23.3	23.3	83.3
PhD	25	16.7	16.7	100.0
Total	150	100.0	100.0	
NETWORK USED				
MTN	35	23.3	23.3	23.3
Vodafone	17	11.3	11.3	34.7
AirtelTigo	17	11.3	11.3	46.0
All Networks	38	25.3	25.3	71.3
MTN and Vodafone	37	24.7	24.7	96.0
Vodafone and AirtelTigo	3	2.0	2.0	98.0
MTN and AirtelTigo	3	2.0	2.0	100.0
Total	150	100.0	100.0	
MOBILE MONEY SERVICE USED				
MTN	81	54.0	54.0	54.0
Vodafone	27	18.0	18.0	72.0
AirtelTigo	30	20.0	20.0	92.0
All Networks	12	8.0	8.0	100.0
Total	150	100.0	100.0	

YEAR OF USING NETWORK			
1-3 years	17	11.3	11.3	11.3
4-7 years	29	19.3	19.3	30.7
8-10 years	26	17.3	17.3	48.0
Over 11 years	78	52.0	52.0	100.0
Total	150	100.0	100.0	

4.2 Structural Equation Modeling (SEM)

The SEM was utilized to analyze hypothesized correlations. The statistical tool was selected because it can evaluate several multiple regressions concurrently. Moreover, it provides a chance to adjust the model, as well as the model's overall fit and residual errors associated with each scale item (Hair jr et al., 2015). As recommended by (Hair et al., 2011), the SEM was carried out in two phases; the measurement model and the structural model.

4.3 Measurement Model

The evaluation of the model was used to determine the quality of the constructs in the study. The calculation of the factor loadings was the first step in the assessment of the quality criteria, which was then followed by reliability and construct validity.

4.3.1 Factor Loadings

The term "factor loadings" describes how closely each item in the correlation matrix corresponds to a specific principal component. The study had twenty-seven (27) test items in total. Due to poor results of some of the test items seven (7) of those items were taken out. Table 4.2's findings demonstrate twenty (20) variables that describe network quality, customer relational experience, loyalty programme, retention and satisfaction. The matrix yielded a five-factor structure. Factor 1 is a customer loyalty program, factor 2 is customer retention, factor 3 is customer retention, factor

4 is customer satisfaction and factor 5 is network quality. The loadings range between -1.0 and +1.0, with larger complete values representing a stronger association between the underlying item and the underlying factor"(Marsh et al., 2010). The findings established that the factors had a loading above 0.50 no item showed factor loadings that were less than the suggested value of 0.50 (Hair jr et al., 2015) representing a good internal reliability. The table shows the factor loadings.

Table 4.2 Factor Loadings

SCALE	FACTOR				
	1	2	3	4	5
CLP1 always accumulates rewards for customers	0.756				
CLP2 offers discounts to their customers	0.673				
CLP4 offers gifts such as call time, data and cash	0.772				
CLP5 customer is regularly updated on service changes	0.691				
CR1 consider service provider as my first choice		0.861			
CR2 patronize my service provider in the next few years		0.794			
CR3 encourage others to patronize my service provider		0.858			
CR5 recommend the service provider to someone who seeks advice		0.829			
CRE1 feel safe with the service provider			0.77		
CRE2 customer service is courteous			0.864		
CRE3 service provider simplifies procedures in transaction			0.818		
CRE5 makes it easy for electronic credit transfers			0.775		
CS1 satisfied with this service provider's services				0.836	
CS2 I get value for money with this service provider				0.752	
CS3 I will continue to use this service provider's services				0.753	
CS4 my service provider meets my expectation				0.864	
CS5 this service provider(s) has met my expectation				0.886	
NQ3 ensures network clarity and speed for calls to other services					0.751
NQ4 service provider ensures prompt money transfer services					0.804
NQ5 connection to other networks from my service provider					0.832
NQ7 have technological knowledge and skills in solving a customer problem					0.739

4.4 Reliability Test

Table 4.4 displays the outcome for both approaches of reliability. Cronbach alpha values varied from 0.695 to 0.877, whereas the composite reliability statistics ranged from 0.815 to 0.911. Both reliability indicators have data greater than the acceptable level of 0.70 (Hair et al., 2011). Construct reliability is thus proven.

Table 4.3 Construct Reliability Analysis

Variables	Cronbach's alpha	Composite reliability
CLP	0.695	0.815
CRE	0.821	0.882
NQ	0.787	0.862
CR	0.856	0.902
CS	0.877	0.911

FOOTNOTES: CLP- Customer Loyalty Program, CRE- Customer Relational Experience, NQ- Network Quality, CR-Customer Retention, CS- Customer Satisfaction

4.5 Validity Test

4.5.1 Content Validity

To establish that a survey was created for a pilot set of respondents with all test items for an appraisal of the test items. The feedback indicated that all test items were relevant to the targeted construct designed to be measured. Furthermore, the test items were given to an expert for his overall assessment, the outcome suggested that the questions reflect the domain of the variables based on the literature. Based on the above it was confirmed that all the test items had been fairly represented.

4.5.2 Construct Validity

Table 4.4 displays the AVE value for each variable. When the AVE value exceeds the endorsed value of 0.50, item coverage to measure the underlying construct is established (Fornell and Larcker, 1981). Based on the statistics in Table 4.4 all the outcomes for the variables were greater than 0.50.

Table 4.4 Construct convergent validity

Variables	AVE
CLP	0.524
CRE	0.652
NQ	0.611
CR	0.698
CS	0.672

FOOTNOTES: CLP- Customer Loyalty Program, CRE- Customer Relational Experience, NQ- Network Quality, CR-Customer Retention, CS- Customer Satisfaction

a. **Discriminant validity** - The notion is that if two or more concepts are distinct, appropriate assessments of each should not be overly correlated (Phillips, 2016). The study found that a construct's square root of AVE (bold) was bigger than its correlation with other constructs, as shown in Table 4.5 As a result, there is significant support for the establishment of discriminant validity

❖ **Fornell and Larcker Criterion**

Table 4.5 Discriminant Validity

FORNELL & LARCKER					
Variables	CLP	CR	CRE	CS	NQ
CLP	**0.724**				
CR	0.558	**0.836**			
CRE	0.619	0.793	**0.807**		
CS	0.535	0.773	0.681	**0.820**	
NQ	0.47	0.498	0.497	0.515	**0.782**

4.5 Higher-Order Construct (HOC) –Customer Relationship Management

The formative model was tested for issues with collinearity, which entails assessing collinearity. Values for the variance inflation factor (VIF) were examined. Collinearity increases as VIF values increase. Collinearity issues are indicated by VIF values of 5 or above (Thompson et al., 2017). Because the VIF values for the formative higher-order CRM were less than the suggested value of 5, collinearity did not present a threat in the current investigation. Outer loadings were found to be higher than 0.50 and significant (Sarstedt et al., 2022). See Table 4.6

Table 4.6 First-Order Constructs

Constructs	Beta	T Statistics	P Values	Results
Customer loyalty program > CRM	0.821	18.918	0.000	significant
Customer relational experience > CRM	0.884	37.549	0.000	significant
Network quality > CRM	0.774	9.353	0.000	significant

Footnote: CRM -Customer relationship management, Relationships are significant at P <0.001

4.6 Structural Model Assessment

After the assessment of the measurement model, the evaluation of the structural path for the path coefficients (the relationship among the constructs) and the statistical significance was the next step. For the structural model assessment, the statistical significance and relevance of the outer weights were evaluated. The outer weight was significant.

H1 evaluates whether there is a significant impact between CRM and customer satisfaction. CRM has a significant and direct impact on customer satisfaction, according to the findings ($\beta = 0.709$, t=12.349, p< 0.001). As a result, H1 is supported. Table 4.7 displays the results.

H2 assesses whether CRM has a significant impact on customer retention. H2 is supported because according to the findings, CRM has a moderate and direct impact on customer retention ($\beta = 0.435$, t=6.946, p< 0.001). Table 4.7 presents the findings.

H3 examines if there is a direct relationship between customer satisfaction and customer retention. The findings showed that customer retention is directly impacted by customer satisfaction ($\beta=0.464$, t=8.016, p= <0.001). H3 is therefore supported. Table 4.7 summarizes the findings. The model is presented in the figure.5

Table 4.7 Direct Effects

Constructs	Beta	T Statistics	P Values	Remarks
HI: CRM- > CS	0.709	12.349	0.000	supported
H2: CRM - > CR	0.435	6.946	0.000	supported
H3: CS - > CR	0.464	8.016	0.000	supported

Footnote CRM -Customer relationship management *Relationships are significant at P <0.001, CRM: Customer Relationship Management, CS: Customer Satisfaction, CR: Customer Retention
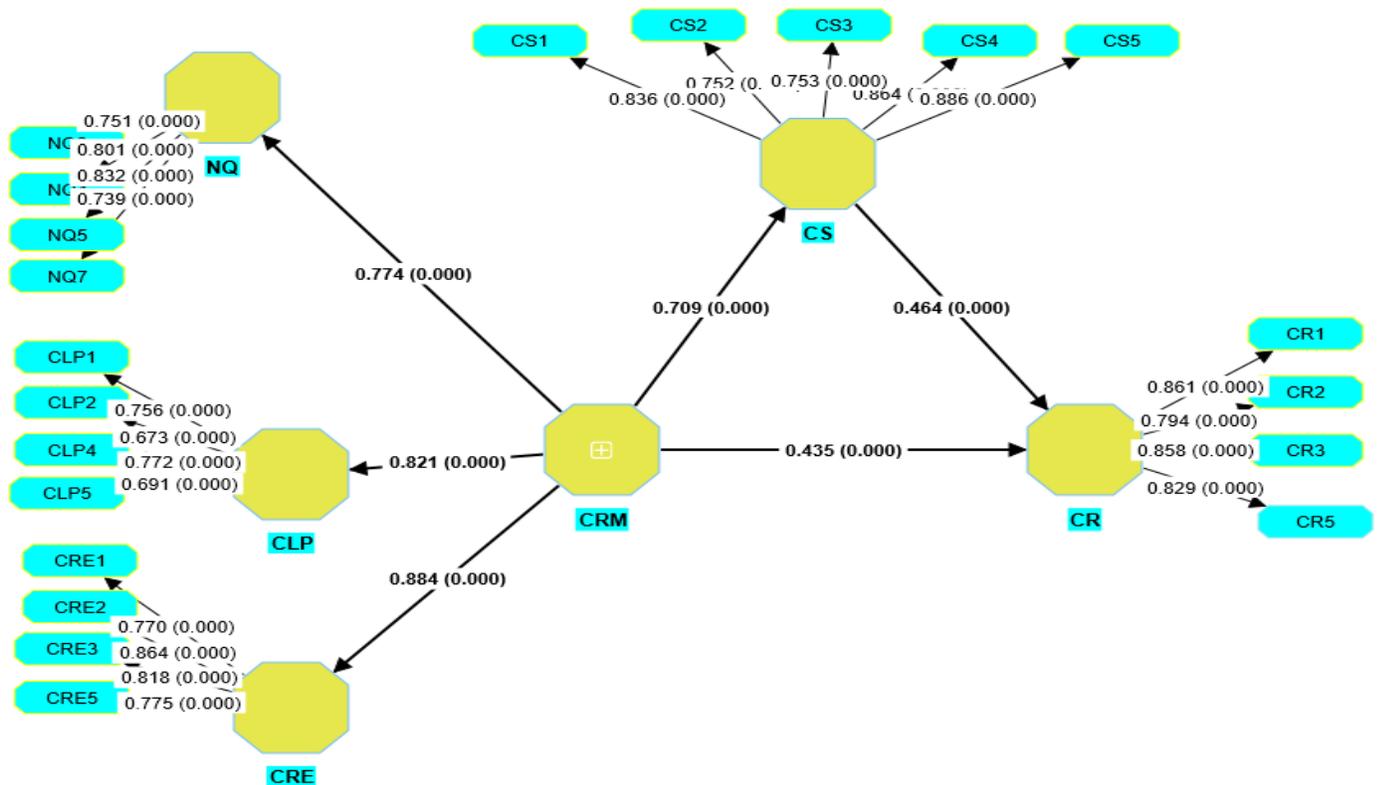
Fig. 5 Results of the Structural Model

4.7 Mediation Analysis of Customer Satisfaction on the Relationship between Customer Relationship Management and Customer Retention.

A mediation analysis was carried out to ascertain the role of customer satisfaction (CS) as a mediator in the relationship between CRM and customer retention (CR). The findings (See Table 4.8) showed that customer relationship management improved customer satisfaction, which in turn increased customer retention (β =0.329, t=6.317, p<0.001). Thus, CRM influences customer satisfaction, which influences client retention. The total effect of CRM on retention was significant (β=0.764, t=17.531, p<0.001). This demonstrates that customer satisfaction plays a complementary partial mediating role in the link between CRM and CR. As a result, H4 is accepted.

Table 4.8 Mediation Analysis

Hypotheses	Direct Effect	Indirect Effect	Total Effect
H4: CRM- > CS > CR	0.435 (0.001) *	0.329 (0.001) *	0.764 (0.001) *

Note: *significant at 0.001

4.7 Discussions of Results

4.7.1 Assess the Effect of Customer Relationship Management on Customer Satisfaction in the Telecom Industry

From the results, the elements of CRM boost customer satisfaction by 70.9%. Examining the structural model, it is evident that network quality (NQ), customer loyalty program (CLP), and customer relational experience (CRE) have a substantial impact on overall consumer relationship management. This evidence shows that businesses concentrate on their CRMs since CRMs are focused on creating a customer-focused organizational culture that is committed to acquiring and retaining customers. It can assist firms in creating and delivering more value than their competitors. Notwithstanding, the outcome of Network quality confirms (Pandanwangi et al., 2023) assertion that the reliability, availability and constancy of the network are crucial to the satisfaction of the client. Additionally, the measurement of satisfaction with network performance is essential. Similar research by (Agyapong, 2011) also confirms that service quality which the network falls under leads to consumer satisfaction. In furtherance, customer loyalty programs (CLP) boost customer satisfaction, which confirms (Ghaleb Magatef Elham Fakhri Tomalieh, 2015). Subsequently, the regression results confirm that a rise in CLP will have an effective and significant effect on customer relationships. Nevertheless, human interference has an immediate

negative or positive effect on the customer. How well a customer is treated and relevant inquiries or issues are solved will determine customer satisfaction and a "comeback". Customer relational experience (CRE) proved to have a higher effect on customer satisfaction. This confirms (Lin and Ching Yuh, 2010) emphasizing that interactions amongst the business market stimulate purchase and positive word of mouth. If approached from both the buyer and seller perspectives, successful exchange events can result in a long-lasting buyer-seller relationship (Amalia Yunia Rahmawati, 2020). Because services are intangible and diverse, some service contexts suggest that customers will be highly hesitant and jeopardize the transaction (Bose and Rao, 2011). Hence good relationship quality can lower the risk and uncertainty to boost customer reliability and long-lasting partnerships (Srinivasan et al., 2011). To a degree, the combination of these factors could be the reason why 38 (26.7%) of the respondents use all three networks to maximize the full capacity of the elements of the CRM which is understandable due to the number of years using the network service. Moreover, all the elements of CRM combined give a comprehensive view that with an effective CRM the telecom industry must be able to satisfy their customers to the maximum capacity which confirms the assertions of (Keh and Lee, 2006).

4.7. 2 Assess the Effect of Customer Satisfaction on Customer Retention in the Telecom Industry

From the findings, it was indicated that the beta is = 0.464 which shows a moderate but positive relationship between satisfaction and retention. Even though both constructs tend to rise together, their relationship is not strong. This confirms (Bergami and Bagozzi, 2000) assertion that the two variables relate but show distinctly opposite behaviour. Thus, customers may be satisfied yet they may leave due to an overly crowded and highly competitive market. The results also support

47

previous studies that focus on client satisfaction and retention (CR) such as (Owusu-Manu et al., 2019). Customer satisfaction gives businesses the chance to keep clients and foster a sense of loyalty that encourages repeat business (Tepeci, 1999). Several mobile services are provided directly to users and this affects customer satisfaction and contributes essentially to customer retention due to the importance of customer retention (Edward and Sahadev, 2011). In addition, customers who were satisfied by the services of the telecom services are most likely to be retained. Happy and satisfied customers stick around but not always. Most customers are satisfied because of the CRM systems assimilated in the delivery of service. (Cook, 2008) emphasized that once businesses can manage their relationship with customers can identify the desirable consumer segment and develop programs to maximize both value to the customers. They can have a lifetime value for customers, hence enhancing retention. Irrefutably, customers are satisfied when telecoms can develop offers that suit their tastes and preferences. Therefore, a good CRM leads to an increase in satisfaction which also will lead to retention. Because as the customers feel better about a brand, they are likely to repeat the process or move to other brands. The linkage is possible due to the outcome of CRM on retention and satisfaction. Hence the null hypothesis is accepted.

4.7.3 Determine the Mediation Effect of Customer Satisfaction on the Relationship Between CRM and Customer Retention.

The study suggested that there is a significant mediating effect of CS between CRM and CR. There is a significant and indirect effect of satisfaction (mediator) and customer retention. Generally, since both predictor factors predict the dependent variables, there is partial mediation. This supports the claim made by (Kotler, 2000) that CRM enables enterprises to create effective management relationships so that the various departments' operations are focused on maintaining

48

and pleasing customers. This also endorses (Nikhashemi et al., 2013), the study results show that CRM positively affects customer satisfaction which eventually results in retention. Finally, from the results, customer satisfaction plays an important role as the key factor for CRM to achieve customer retention as it takes a while to find a customer and seconds to lose one. CRM and customer retention are interconnected, and satisfaction acts as a mediator in this relationship,(Cavaliere et al., 2021).

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Overview

The section comprises of summary of the results which conforms with the study objectives, hypothesis conclusion and recommendations.

5.1 Summary of Findings

In the telecommunication industry, the study looked at the role that customer satisfaction plays as a mediator in the relationship between CRM and customer retention. The following objectives served as a guide for the research; to determine the mediation effect of CS on the relationship between CRM and CR; to evaluate the impact of CRM on customer satisfaction in the telecom industry; and to determine the effect of customer satisfaction on customer retention in the telecom industry.

5.1.1 Objective 1: To Assess the Effect of Customer Relationship Management on Customer Satisfaction in the Telecom Industry

To summarize, CRM has a remarkable and direct effect on customer satisfaction. The elements of CRM combined give a comprehensive view that with an effective CRM, the telecom industry will satisfy customers to their maximum capacity which confirms the assertions of (Mendoza et al., 2007).

5.1.2 Objective 2: To Assess the Effect of Customer Satisfaction on Customer Retention in the Telecom Industry

Also, retention is directly and significantly impacted by satisfaction. CR is directly and significantly impacted by customer satisfaction even though the relationship is not strong. This supports the (Zineldin, 2006) assertion that customer satisfaction creates the potential for client retention and fosters loyalty for continuous patronage.

5.1.3 Objective 3: Determine the Relationship Between CRM and Customer Retention in The Telecom Industry with a Mediating Effect on Customer Satisfaction.

CRM and CR are significantly mediated by customer satisfaction. Customer satisfaction plays a central part as the key factor CRM seeks to achieve to ensure customer retention. CS has a close relationship and a mediation effect on the relationship between CRM and retention,(Cavaliere et al., 2021)

5.2. Conclusion

In this study, the mediating role of satisfaction in the telecommunication industry's relationship between CRM and retention was examined. By examining the existing academic literature, the results of the study validate the hypothesis relating CRM to customer satisfaction and retention. The key issue for organizations; as the business space gets more competitive is not only to provide exceptional facilities but rather to retain reliable clients who will subscribe to the organizations' lasting profitability.

Customer satisfaction was recognized as a significant differentiator and has progressively become a vital component of organizational approach in a cut-throat environment where enterprises strive for clients. In addition, the findings led to the continuous use of CRM strategies to solidify, long-term relationships with their clients. Since relationship marketing's goal is customer retention, it is noticeable that CRM is concerned with increasing satisfaction by offering worth to groups entailed in interpersonal relations.

In conclusion, CRM is creating a thorough understanding of the wants, expectations and behaviours of customers and controlling those variables to influence corporate success (Abdullah Al-Suraihi et al., 2020). It makes sense for businesses to use customer relationship management to comprehend how relationships are managed in reality and how this kind of marketing works. More companies are adopting CRM as a crucial business strategy in today's competitive market as they realize how crucial it is to become customer-focused (Wei and Wu, 2013).

5.3 Recommendations

Based on the results the following recommendations were made:

The outcome of the study indicated that there is a strong and direct relationship. Given that it is recommended that:

The telecom should focus and improve on aspects of CRM and satisfaction which customers use in criticizing the credibility of the products or services provided.

Secondly, the outcome indicated that there is a weak but significant relationship. Given that it is recommended that:

The telecoms should focus more on customer retention strategies because satisfied customers may not necessarily give credit back to the network provider.

Finally, the outcome indicated that there is a partial mediation of customer satisfaction on the relationship between CRM and retention. Given that it is recommended that:

The telecoms should give prior information on planned activities and translate this information into all the Ghanaian languages. In addition, they should provide customers with a quality network since most respondents indicated that they do not get value for money. Lastly, they should give exciting freebies and offers to satisfy customers; these offers encourage retention.
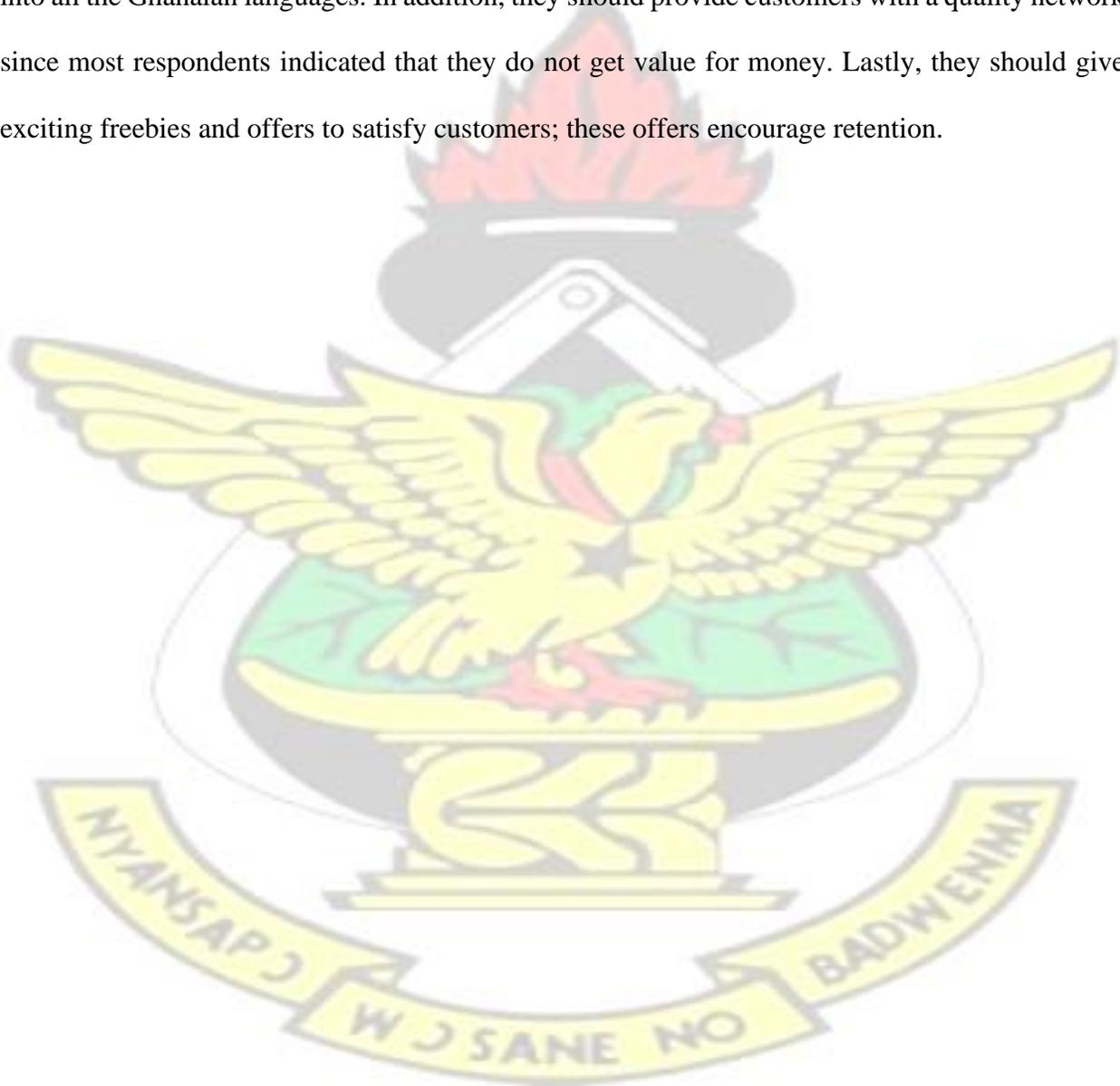
REFERENCES

Abdullah Al-Suraihi, W., Abdullah Al-Suraihi, A.-H., Ibrahim, I., Al-Tahitah, A., Abdulrab, M., 2020. The Effect of Customer Relationship Management on Consumer Behavior: A Case of Retail Industry in Malaysia. Int. J. Manag. Hum. Sci. 4, 2590–3748.

Agyapong, G.K.., 2011. The Effect of Service Quality on Customer Satisfaction in the Utility Industry – A Case of Vodafone (Ghana). Int. J. Bus. Manag. 6, 203–210. https://doi.org/10.5539/ijbm.v6n5p203

Almohaimmeed, B., 2019. Pillars of customer retention: An empirical study on the influence of customer satisfaction, customer loyalty, customer profitability on customer retention. Serbian J. Manag. 14, 421–435. https://doi.org/10.5937/sjm14-15517

Almossawi, M.M., 2012. Customer Satisfaction in the Mobile Telecom Industry in Bahrain: Antecedents and Consequences. Int. J. Mark. Stud. 4, 139–156. https://doi.org/10.5539/ijms.v4n6p139

Alshurideh, M., Masa'deh, R.M. d. T., Alkurdi, B., 2012. The effect of customer satisfaction upon customer retention in the Jordanian mobile market: An empirical investigation. Eur. J. Econ. Financ. Adm. Sci. 47, 69–78.

Amalia Yunia Rahmawati, 2020. 済無No Title No Title No Title 1–23.

Amornpornwiwat, N., Kapasuwan, S., 2018. Chapter 5: Tourists' Perceptions of and Intentions-to-Stay at a Capsule Hotel in Bangkok 79–99. https://doi.org/10.1108/s1871-317320180000015010

Anderson, K., Kerr, C., 2002. Customer Relationship.

Ascarza, E., Neslin, S., Gupta, S., Lemmens, A., Libai, B., Provost, F., Schrift, R.Y., 2017. In Pursuit of Enhanced Customer Retention Management. SSRN Electron. J. https://doi.org/10.2139/ssrn.2903548

Bateson, J., Hoffman, K., 2023. Service Marketing: Concepts;Strategies;Cases 6th Edition.

Bauer, H., Heinrich, D., Martin, I., 2007. How to Create High Emotional Consumer-Brand Relationships? The Causalities of Brand Passion. Proc. Aust. New Zeal. Mark. Acad. Conf. 2189–2198.

Bergami, M., Bagozzi, R.P., 2000. Self-categorization, affective commitment and group self-esteem as distinct aspects of social identity in the organization. Br. J. Soc. Psychol. 39, 555–577. https://doi.org/10.1348/014466600164633

Bhatti, H.S., Abareshi, A., Pittayachawan, S., 2016. An empirical examination of customer retention in mobile telecommunication services in Australia. ICETE 2016 - Proc. 13th Int. Jt. Conf. E-bus. Telecommun. 2, 72–77. https://doi.org/10.5220/0005951900720077

Boateng, J.O., 2016. the Effects of Customer Relationship Management on Customer Retention in the Insurance Industry in Ghana: the Mediating Role of Customer Satisfaction 104.

Bolton, R.N., Tarasi, C.O., 2007. Managing customer relationships, Review of Marketing Research. https://doi.org/10.1108/S1548-6435(2007)0000003005

Bose, S., Rao, V.G., 2011. Perceived Benefits of Customer Loyalty Programs : Validating the Scale in the Indian Context. Manag. Mark. Challenges Knowl. Soc. 6, 543–560.

Buttle, F., Maklan, S., 2015. Customer Relationship Management, Concept and Technologies, Third

Edition.

Canet, J., Gallart, L., Gomar, C., Paluzie, G., Vallès, J., Castillo, J., Sabaté, S., Mazo, V., Briones, Z., Sanchis, J., 2010. Prediction of postoperative pulmonary complications in a population-based surgical cohort. Anesthesiology 113, 1338–1350. https://doi.org/10.1097/ALN.0b013e3181fc6e0a

Cavaliere, L.P.L., Khan, R., Jainani, K., Sundram, S., Bagale, G., Chakravarthi, K.M., Regin, R., Rajest, S.S., 2021. The Impact Of Customer Relationship Management On Customer Satisfaction And Retention: The Mediation Of Service Quality. Turkish J. Physiother. Rehabil. 32, 22107–22121.

Chen, S.C., Lin, C.P., 2015. The impact of customer experience and perceived value on sustainable social relationship in blogs: An empirical study. Technol. Forecast. Soc. Change 96, 40–50. https://doi.org/10.1016/j.techfore.2014.11.011

Collins, A., Joseph, D., Bielaczyc, K., 2004. Design Research: Theoretical and Methodological Issues. J. Learn. Sci. 13, 15–42. https://doi.org/10.1207/s15327809jls1301_2

Cook, S., 2008. How to Create an Effective Customer Journey Map, Kogan Page Limited.

Crick, R.D., Yu, G., 2008. Assessing learning dispositions: Is the Effective lifelong learning inventory valid and reliable as a measurement tool? Educ. Res. 50, 387–402. https://doi.org/10.1080/00131880802499886

Cruz, Vitales, A., 2015. Relationship between product quality and customer satisfaction. Walden Diss. Dr. Stud. 2, 38.

Daud, S., Idrus, S.M., Ali, J., 2015. Research Methodology, SpringerBriefs in Physics. https://doi.org/10.1007/978-3-319-15485-5_4

Dölarslan, E.S., 2014. Assessing the effects of satisfaction and value on customer loyalty behaviors in service environments: High-speed railway in Turkey as a case study. Manag. Res. Rev. 37, 706–727. https://doi.org/10.1108/MRR-06-2013-0152

Donoghue, I.D.M., Hannola, L.T., Papinniemi, J.J., 2018. LogForum PRODUCT LIFECYCLE MANAGEMENT 14, 293–303.

Duncan, N.B., 1995. Capturing flexibility of information technology infrastructure: A study of resource characteristics and their measure. J. Manag. Inf. Syst. 12, 37–57. https://doi.org/10.1080/07421222.1995.11518080

Edward, M., Sahadev, S., 2011. Role of switching costs in the service quality, perceived value, customer satisfaction and customer retention linkage. Asia Pacific J. Mark. Logist. 23, 327–345. https://doi.org/10.1108/13555851111143240

Eisenstein, D.J., Annis, J., Gunn, J.E., Szalay, A.S., Connolly, A.J., Nichol, R.C., Bahcall, N.A., Bernardi, M., Burles, S., Castander, F.J., Fukugita, M., Hogg, D.W., Ivezić, Ž., Knapp, G.R., Lupton, R.H., Narayanan, V., Postman, M., Reichart, D.E., Richmond, M., Schneider, D.P., Schlegel, D.J., Strauss, M.A., SubbaRao, M., Tucker, D.L., Vanden Berk, D., Vogeley, M.S., Weinberg, D.H., Yanny, B., 2001. Spectroscopic Target Selection for the Sloan Digital Sky Survey: The Luminous Red Galaxy Sample. Astron. J. 122, 2267–2280. https://doi.org/10.1086/323717

Environmental, D. of, 2005. No 主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析Title 1, 1–8.

Fornell, C., Larcker, D.F., 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. J. Mark. Res. 18, 39. https://doi.org/10.2307/3151312

Gebert, H., Geib, M., Kolbe, L., Riempp, G., 2003. Towards Customer Knowledge Management : I ntegrating Customer Relation ship Management and Knowledge Management C oncepts. Int. Conf. Electron. Bus. Taipei 1–12.

Ghaleb Magatef Elham Fakhri Tomalieh, S., 2015. The Impact of Customer Loyalty Programs on Customer Retention. Int. J. Bus. Soc. Sci. 6, 78–93.

Ghavami, A., 2006. MA S T ER ' S TH E SI S The Impact of CRM The Impact of CRM.

Gómez, B.G., Arranz, A.G., Cillán, J.G., 2006. The role of loyalty programs in behavioral and affective loyalty. J. Consum. Mark. 23, 387–396. https://doi.org/10.1108/07363760610712920

Guido, G., 2014. The large majority of studies carried out in the field of customer satisfaction can be considered as part of a common structure constituted by the so-called.

Guo, C., Wang, Y., 2015. How manufacturer market orientation influences B2B customer satisfaction and retention: Empirical investigation of the three market orientation components. J. Bus. Ind. Mark. 30, 182–193. https://doi.org/10.1108/JBIM-03-2012-0042

Hair, J.F., Ringle, C.M., Sarstedt, M., 2011. PLS-SEM: Indeed a silver bullet. J. Mark. Theory Pract. 19, 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair jr, Celsi, Wolfinbarger, M., H.Money, A., Samouel, P., J.Page, M., 2015. Business research methods. Armonk, New York 1–494.

Hajjar, S.T. EL, 2018. STATISTICAL ANALYSIS: INTERNAL-CONSISTENCY RELIABILITY AND CONSTRUCT VALIDITY Said Taan EL Hajjar Ahlia University. Int. J. Quant. Qual. Res. Methods 6, 27–38.

Haryadi, S., 2017. Chapter 1 : Telecommunication Quality of Service Concept.

Hassan, R.S., Nawaz, A., Lashari, M.N., Zafar, F., 2015. Effect of Customer Relationship Management on Customer Satisfaction. Procedia Econ. Financ. 23, 563–567. https://doi.org/10.1016/s2212-5671(15)00513-4

Hennig-Thurau, T., Klee, A., 1997. The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development. Psychol. Mark. 14, 737–764. https://doi.org/10.1002/(SICI)1520-6793(199712)14:8<737::AID-MAR2>3.0.CO;2-F

Hofman-Kohlmeyer, M., 2016. Customer Loyalty Program As a Tool of Customer Retention: Literature Review. CBU Int. Conf. Proc. 4, 199–203. https://doi.org/10.12955/cbup.v4.762

Info, A., On, Released, On, Received, On, A., Print, I., Online, I., 2021. Customer performance and non-financial organizational performance of the Nepalese cellular telecommunications industry. https://doi.org/10.21511/ppm.19(2).2021.11

Jahroni dkk, 2021. Pengaruh Citra Toko, Suasana Toko dan Harga Terhadap Keputusan Pembelian. J. Pendidik. Tambusai Vol. 5, 10234–10241.

Japhet, L., Usman, T., 2013. The use of grounded theory technique as a practical tool for qualitative data collection and analysis. Electron. J. Bus. Res. Methods 11, 29–40.

Kao, Y.F., Huang, L.S., Yang, M.H., 2007. Effects of experiential elements on experiential satisfaction and loyalty intentions: a case study of the super basketball league in Taiwan. Int. J. Revenue Manag. 1, 79–96. https://doi.org/10.1504/IJRM.2007.011195

Keh, H.T., Lee, Y.H., 2006. Do reward programs build loyalty for services?. The moderating effect of

satisfaction on type and timing of rewards. J. Retail. 82, 127–136. https://doi.org/10.1016/j.jretai.2006.02.004

Kotler, P., 2000. Managing and Delivering Marketing Programs. Mark. Manag. Millenn. Ed. 1–456.

Kumar, V., Reinartz, W., 2018. Applications of CRM in B2B and B2C Scenarios Part I. https://doi.org/10.1007/978-3-662-55381-7_16

Kyei, D.A., Bayoh, A.T.M., 2017. Innovation and Customer Retention in the Ghanaian telecommunication industry. Int. J. Innov. 5, 171–183. https://doi.org/10.5585/iji.v5i2.154

Lee, Y.C., Wang, Y.C., Lu, S.C., Hsieh, Y.F., Chien, C.H., Tsai, S.B., Dong, W., 2016. An empirical research on customer satisfaction study: a consideration of different levels of performance. Springerplus 5. https://doi.org/10.1186/s40064-016-3208-z

Lin, I.Y., 2016. Effects of visual servicescape aesthetics comprehension and appreciation on consumer experience. J. Serv. Mark. 30, 692–712. https://doi.org/10.1108/JSM-08-2015-0258

Lin, L.Y., Ching Yuh, C.Y., 2010. The influence of corporate image, relationship marketing, and trust on purchase intention: the moderating effects of word‐of‐mouth. Tour. Rev. 65, 16–34. https://doi.org/10.1108/16605371011083503

Ludin, I.H.B.H., Cheng, B.L., 2016. Factors Influencing Customer Satisfaction and E- -Loyalty : Online Shopping Environment among the Young Adults. Manag. Dyn. Knowl. Econ. 2, 462–471.

Luo, M.M., Chen, J.S., Ching, R.K.H., Liu, C.C., 2011. An examination of the effects of virtual experiential marketing on online customer intentions and loyalty. Serv. Ind. J. 31, 2163–2191. https://doi.org/10.1080/02642069.2010.503885

M. Kamrul Islam Shaon, S., Hasebur Rahman, M., 2015. A Theoretical Review of CRM Effects on Customer Satisfaction and Loyalty. Cent. Eur. Bus. Rev. 4, 23–36. https://doi.org/10.18267/j.cebr.116

Marsh, H.W., Lüdtke, O., Muthén, B., Asparouhov, T., Morin, A.J.S., Trautwein, U., Nagengast, B., 2010. A New Look at the Big Five Factor Structure Through Exploratory Structural Equation Modeling. Psychol. Assess. 22, 471–491. https://doi.org/10.1037/a0019227

Mazikana, A.T., 2023. The impact of Customer Relationship Management on Customer Satisfaction in Telecommunication Industry in Zimbabwe. SSRN Electron. J. https://doi.org/10.2139/ssrn.4154445

Md Salleh, K., Othman, A.T., Abdullah, A.G.K., 2021. Specifying Servant Leadership as Reflective-Formative Hierarchical Component Models (HCM) in the Context of PLS-SEM. Int. J. Acad. Res. Progress. Educ. Dev. 10, 374–391. https://doi.org/10.6007/ijarped/v10-i2/9796

Mendoza, L.E., Marius, A., Pérez, M., Grimán, A.C., 2007. Critical success factors for a customer relationship management strategy. Inf. Softw. Technol. 49, 913–945. https://doi.org/10.1016/j.infsof.2006.10.003

Mpwanya, M.F., Letsoalo, M.E., 2019. Relationship between service quality, customer satisfaction and behavioural intentions in South Africa's mobile telecommunication industry. African J. Bus. Econ. Res. 14, 67–89. https://doi.org/10.31920/1750-4562/2019/14n2a4

Ndubisi, N., 2003. Service Quality:Understanding Customer Perception And. J. i-lib UGM.

Ngwabebhoh, F.A., Saha, N., Nguyen, H.T., Brodnjak, U.V., Saha, T., Lengalova, A., Saha, P., 2020. Preparation and characterization of nonwoven fibrous biocomposites for footwear components. Polymers (Basel). https://doi.org/10.3390/polym12123016

Nikhashemi, S.R., Paim, L., Haque, A., Khatibi, A., Tarofder, A.K., 2013. Internet technology, Crm and customer loyalty: Customer retention and satisfaction perspective. Middle East J. Sci. Res. 14, 79–92. https://doi.org/10.5829/idosi.mejsr.2013.14.1.1984

Ouma, B.O., Ndirangu, A.W., Munyaka, F.G., George, G.E., Evans, N., Maringa, A.K., Nguthuri, J.M., Nyokabi, S.N., Njenga, M., Kagumba, A.M., Bichanga, J.M., Maswari, E., 2013. Organizational Customers ' Retention Strategies on Customer Satisfaction : Case of Equity Bank Thika Branch , Kenya 4, 8–17.

Owusu-Manu, D.G., Jehuri, A.B., Edwards, D.J., Boateng, F., Asumadu, G., 2019. The impact of infrastructure development on economic growth in sub-Saharan Africa with special focus on Ghana. J. Financ. Manag. Prop. Constr. 24, 253–273. https://doi.org/10.1108/JFMPC-09-2018-0050

Padilla-Meléndez, A., Garrido-Moreno, A., 2014. Customer relationship management in hotels: examining critical success factors. Curr. Issues Tour. 17, 387–396. https://doi.org/10.1080/13683500.2013.805734

Panayides, P., 2006. Enhancing innovation capability through relationship management and implications for performance. Eur. J. Innov. Manag. 9, 466–483. https://doi.org/10.1108/14601060610707876

Pandanwangi, K., Putra, A.R.S., Haryadi, F.T., Astuti, A., Syahlani, S.P., 2023. Does product certification matter? A review of mechanism to influence customer loyalty in the poultry feed industry. Open Agric. 8. https://doi.org/10.1515/opag-2022-0160

Parasuraman, A., Zeithaml, V.A., Berry, L.L., 1985. A Conceptual Model of Service Quality and Its Implications for Future Research. J. Mark. 49, 41. https://doi.org/10.2307/1251430

Parcell, D., 2007. Understanding customer experience [14]. Harv. Bus. Rev. 85, 137.

Parvatiyar, A., Sheth, J.N., 2001. Customer Relationship Management: Emerging Practice, Process, and Discipline. J. Econ. Soc. Res. 3, 1–34.

Phillips, L.W., 2016. Assessing Construct Validity in Organizational Research Author (s): Richard P . Bagozzi , Youjae Yi and Lynn W . Phillips Published by : Sage Publications , Inc . on behalf of the Johnson Graduate School of Management , Cornell University Stable URL : h 36, 421–458.

Richard, J.E., 2007. Customer relationship management (CRM), value creation and service centricity. Acad. Mark. Conf. Mark. Theory into Pract.

Ryals, L., Knox, S., 2001. Cross-functional issues in the implementation of relationship marketing through customer relationship management. Eur. Manag. J. 19, 534–542. https://doi.org/10.1016/S0263-2373(01)00067-6

Sarstedt, M., Radomir, L., Moisescu, O.I., Ringle, C.M., 2022. Latent class analysis in PLS-SEM: A review and recommendations for future applications. J. Bus. Res. 138, 398–407. https://doi.org/10.1016/j.jbusres.2021.08.051

Schmitt, B., 1999. Experiential Marketing. J. Mark. Manag. 15, 53–67. https://doi.org/10.1362/026725799784870496

Shava, H., 2021. Service Quality and Customer Satisfaction Experience Among South African Mobile Telecommunications Consumers. Eurasian J. Bus. Manag. 9, 217–232. https://doi.org/10.15604/ejbm.2021.09.03.004

Sinclair, N.R., 1998. Understanding Disability: From Theory To Practice - Oliver,M. J. Appl. Behav. Anal. 31, 509–510.

Soliman, S., J. Kamel, N., 2021. Impact of Customer Relationship Management on Customer Retention in Hotels. J. Assoc. Arab Univ. Tour. Hosp. 0, 0–0. https://doi.org/10.21608/jaauth.2021.88892.1220

Srinivasan, M., Mukherjee, D., Gaur, A.S., 2011. Buyer-supplier partnership quality and supply chain performance: Moderating role of risks, and environmental uncertainty. Eur. Manag. J. 29, 260–271. https://doi.org/10.1016/j.emj.2011.02.004

SS, M., 2018. Determining shopping malls customers' satisfaction and loyalty. J. Bus. Retail Manag. Res. 13, 327–331. https://doi.org/10.24052/jbrmr/v13is01/art-12

Straub, D., Gefen, D., 2004. Validation Guidelines for IS Positivist Research. Commun. Assoc. Inf. Syst. 13. https://doi.org/10.17705/1cais.01324

SYED MAJID KHALIL, OBAID ULLAH, DR. SYED HAIDER KHALIL, 2021. The Effect of Customer Loyalty Programs on Customer Retention in Pakistan. J. Bus. Tour. 4, 211–225. https://doi.org/10.34260/jbt.v4i2.173

Tepeci, M., 1999. Increasing brand loyalty in the hospitality industry. Int. J. Contemp. Hosp. Manag. 11, 223–230. https://doi.org/10.1108/09596119910272757

Thompson, C.G., Kim, R.S., Aloe, A.M., Becker, B.J., 2017. Extracting the Variance In flation Factor and Other Multicollinearity Diagnostics from Typical Regression Results. Basic Appl. Soc. Psych. 39, 81–90. https://doi.org/10.1080/01973533.2016.1277529

Tsaur, S.H., Chiu, Y.T., Wang, C.H., 2006. The visitors behavioral consequences of experiential marketing: An empirical study on Taipei Zoo. J. Travel Tour. Mark. 21, 47–64. https://doi.org/10.1300/J073v21n01_04

Verhoef, P.C., 2003. Understanding the Effect of Customer Relationship Management Efforts on Customer Retention and Customer Share Development. J. Mark. 67, 30–45. https://doi.org/10.1509/jmkg.67.4.30.18685

Vlahna, K., Krasniqi, B., Krasniqi, D., 2021. Customer Relationship Management in the Purchase Decision Process. J. Account. Financ. Audit. Stud. 7, 151–168. https://doi.org/10.32602/jafas.2021.038

Wei, M.B., Wu, G.C., 2013. Variational iteration method for subdiffusion equations with the Riemann-Liouville derivatives. Heat Transf. Res. 44, 409–415. https://doi.org/10.1615/HeatTransRes.2013005645

Yussoff, N.M., Nayan, S.M., 2020. Review on customer satisfaction. J. Undergrad. Soc. Sci. Technol. 2, 1–6.

Zamil, A.M., 2011. Customer relationship management: A strategy to sustain the organization's name and products in the customers' minds. Eur. J. Soc. Sci. 22, 451–459.

Zineldin, M., 2006. The royalty of loyalty: CRM, quality and retention. J. Consum. Mark. 23, 430–437. https://doi.org/10.1108/07363760610712975

APPENDIX I-SURVEY QUESTIONNAIRE

Kwame Nkrumah University of Science and Technology
School of Business
KNUST-Kumasi

Dear Respondent,

QUESTIONNAIRE

I am a postgraduate at KNUST in the School of Business. To complete my study, I am conducting research titled "The Relationship between Customer Relationship Management Practices and Customer Retention: The Mediating Effect on Customer Satisfaction in the Telecommunication Industry". I would be grateful if you could assist through the provision of answers to the questions below. Each question is followed by a list of alternatives to choose from. Please tick the box where appropriate. All information provided is strictly for academic purposes and will be treated with confidentiality. Thank you.

SECTION A

DEMOGRAPHIC BACKGROUND DATA

Please tick [√] the appropriate box that best describes you

1. Gender   [ ] Male   [ ] Female

2. Age (Years)   [ ] 22- 32 years   [ ] 33- 42 years   [ ] 43- 52 years   [ ] Over 53 years

3. Highest Level of Education   [ ] JHS/Middle School   [ ] SHS   [ ] Diploma /HND
[ ] Bachelor's Degree   [ ] Masters' Degree   [ ] PhD

4. Indicate all the network(s) you use   [ ] MTN   [ ] Vodafone   [ ] AirtelTigo   [ ] All three networks

5. Which of the Mobile service provider (s) do you use often?   [ ] MTN   [ ] Vodafone   [ ]

AirtelTigo   [ ] All three networks

6). How long have you used the services of the mobile service provider(s)?   [ ] 1- 3 years

[ ] 4-7 years   [ ] 8- 10 years   [ ] Over 11 years

SECTION B

CUSTOMER RELATIONSHIP MANAGEMENT PRACTICES

   I.   Network Quality

Please use the scale below to assess the quality of your mobile network in terms of the following

dimensions. 1-much worse than expected, 2-worse than expected, 3-equal to expectations, 4-better

than expected, 5-much better than expected

Please tick [√] the appropriate box that best describes you	1	2	3	4	5
1.	The service provider ensures the successful completion of calls, short messaging/messaging service (SMS), line activation and credit loading					
2.	The service provider has adequate network coverage					
3.	The service provider ensures network clarity and speed for calls to other services					
4.	The service provider ensures prompt money transfer services					
5.	There is an ease of connection to other networks from my service provider					
6.	Network innovativeness- the ability to use the current technology to improve services					

7.	Employees have technological knowledge and skills in solving customer problems					

Kindly assess the extent to which you agree with the statements using the assigned Likert scale ratings of 1-5. **1-strongly disagree, 2-disagree, 3-indifferent, 4-agree, 5-strongly agree**

II.   Customer Loyalty Programs

Please tick [√] the appropriate box that best describes you		**1**	**2**	**3**	**4**	**5**
1.	The service provider always accumulates reward points for customers					
2.	The service provider offers discounts to their customers					
3.	The customer enjoys low charges during off-peak hours					
4.	The service provider offers gifts such as call time, data and cash					
5.	The customer is regularly updated on service changes					

III.   Customer Relational Experience

Please tick [√] the appropriate box that best describes you		**1**	**2**	**3**	**4**	**5**
1.	I feel safe with the service provider					
2.	The customer service is courteous					
3.	The service provider simplifies procedures in transactions					
4.	The service provider gives prior information on planned activities					
5.	The service provider makes it easy for electronic credit transfers					

SECTION C

CUSTOMER RETENTION

Please tick [√] the appropriate box that best describes you	1	2	3	4	5
1. I consider the service provider as my first choice					
2. I will patronize my service provider in the next few years					
3. I will encourage others to patronize my service provider					
4. I will say positive things about the service provider to others					
5. I will recommend the service provider to someone who seeks advice					

SECTION D

CUSTOMER SATISFACTION

Please tick [√] the appropriate box that best describes you	1	2	3	4	5
1. I am satisfied with this service provider's services					
2. I get value for money with this service provider					
3 I will continue to use this service provider's services					
4. My service provider meets my expectation					
5. Overall, this service provider(s) has met my expectation					

KNUST

JOSEPHINE TURNTIN.docx

KNUST