**INFLUENCE OF CUSTOMER RELATIONSHIP MARKETING ON CUSTOMER RETENTION IN THE TELECOMMUNICATION INDUSTRY:**

**A CASE OF VODACOM TANZANIA COMPANY LIMITED**

**GEORGE BUHEMBERE KANIRE**

**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY**

**DEPARTMENT OF MARKETING AND ENTREPRENEURSHIP**

**THE OPEN UNIVERSITY OF TANZANIA**

**2020**

# CERTIFICATION

We the undersigned certify that we have read and hereby recommend for acceptance, the thesis entitled, **“*Influence of Customer Relationship Marketing on Customer Retention in the Telecommunication Industry in Tanzania. A case of Vodacom Company*”*.***In partial fulfillment of the requirements for the award of degree of Doctor of Philosophy of The Open University of Tanzania.

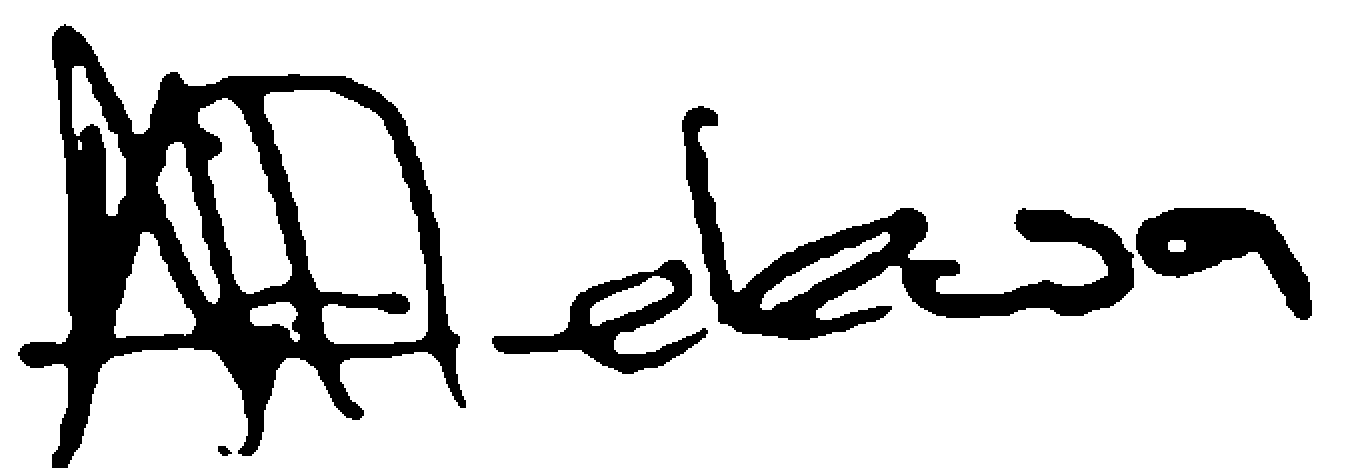
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**(Supervisor)**

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# DEDICATION

This thesis is dedicated to the God Almighty.

# ACKNOWLEDGEMENT

The completion of this thesis could not have been possible without the generous and unconditional help, advice, and encouragement from the staff of The Open University of Tanzania, my supervisors, and colleagues. I would like to extend my sincere gratitude and appreciation to all who, in one way or another contributed towards the completion of this thesis. All in all, I give thanks to God Almighty. His mercy and blessings enabled me to pursue this Ph.D. programme.

# ABSTRACT

This thesis aimed at assessing the influence of customer relationship marketing on customer retention in the telecommunication industry in Tanzania. Specifically, the study intended to: assess the influence of customer trust on customer retention in the Tanzanian telecommunication industry, examine the effects of relationship commitment on customer retention in the telecommunication industry and determine the influence of service quality on customer retention in Tanzania telecommunication industry. The study used explanatory research design to search for a causal relationship between the selected variables in this study. Structured questionnaire was used to collect quantitative data from a sample of 400 customers of Vodacom Tanzania Ltd, obtained through simple random sampling method. The collected data were used to test the study hypotheses and model development using Structural Equation Modeling (SEM) technique. AMOS software version 22 was used to run the statistical analysis. The study revealed that customer trust, relationship commitment and service quality have significant and positive relationship with customer retention. The study concludes by recommending that, since customer trust has positive influence on customer retention, companies need to invest enough in campaigning the brand image, future purchase plans, price offers and purchase process. Moreover; Vodacom can retain its customers by promoting relationship commitment across the business through sales promotions, resolving complaints, offering attractive prices packages and customer care. On the other hand, the company improve its customer retention campaigns by rendering improved service quality. In order to achieve that, the company should ensure the services can guarantee tangibility, assurance, responsiveness and reliability.

***Keywords:*** *Relationship marketing, Customer trust, Relationship commitment, Customer retention.*

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# LIST OF ABBREVIATIONS AND ACRONYMS

4G Fourth Generation Cellular Network

AVE Average Variance Extracted

CT Customer Trust

CFA Confirmatory Factor Analysis

CR Composite Reliability

CRM Customer Relationship Marketing

eCRM Electronic Customer Relationship Management

H1 Hypothesis 1

H2 Hypothesis 2

H3 Hypothesis 3

ICT Information and Communication Technologies

KMO Kaiser Meyer Olkin Test

PLC Public Limited Company

RC Relationship Commitment

SEM Structural Equation Modelling

SERVQUAL Service Quality

SPSS Statistical Package for Social Sciences

TCRA Tanzania Communications Regulatory Authority

URT United Republic of Tanzania

USA United State of America

# CHAPTER ONE

# INTRODUCTION

# Background of the Study

The world has taken cognizance of customer relationship marketing as one of the best and contemporary marketing strategies for telecommunication companies to satisfy needs and retain customers (Soltani, and Navimipour, 2016). Accordingly, Al-Hersh, Aburoub and Saaty (2014) point out that, the adoption of customer relationship marketing strategy in the telecommunication industry has triggered an improvement in trust, commitment, and quality of services offered to customers. This leads to opportunities for companies to increase their sales, revenue generation, and retention of their market share which characterizes the current global revolution in communication and innovation.

According to Jayanthaa and Geethab (2018), customer relationship marketing assisted the Sri Lankan telecommunication firms to improve their sales volumes. Customer relationship marketing when effectively used, plays an integral part in developing mutual benefits and relationships between business and its customers. In addition, it stands as a key component of the development and improvement of the commercial sector (ibid).

Similarly, Chindo (2013) observed that in the Nigerian context; the telecommunication sector needs to focus much on the benefits that come along with customer relationship marketing. The implementation of customer relationship marketing can assist the business to maintain a good relationship with customers and retain them. The companies in the telecommunication sector fully adopted customer relationship marketing as it serves as a key contributor for companies to enjoy both economic benefits and growth of the nation’s GDP (Ogbechi, Okafor and Orukotan,2018).

In Tanzania as in other countries, the telecommunication industry reduces the costs of doing business and increases productivity by deploying effective customer relationship marketing (SigitParawansa,2018). Companies use customer relationship marketing to create customer trust, commitment, and build a long-lasting relationship through quality and attractive package to retain customers (Sife, Kiondo and Lyimo-Macha, 2010).

Due to the high growth of the telecommunication sector, the companies exhibit a high competition rate. Most telecommunication companies in the world have been forced to adopt customer relationship marketing in the effort to retain their customers through *inter alia* offering different packages (Soltani, and Navimipour, 2016). According to Tinashe and Eustina (2016) as a result of the rapid growth in competition and changing consumer landscape, businesses in the telecommunication sector have witnessed a strategic move away from offensive marketing aimed at getting new customers to ‘defensive marketing with a focus on customer retention.

Molapo and Mukwada (2011) advocates that in today’s competition, the business companies recognized customer relationship marketing as key tool customer retention. Customer relationship marketing widely used to sustain customer trust, enhance relationship commitment and quality of the services offered. As argued by Rukhsana *et al*. (2018) customer retention is the result of a company’s efforts to build a long-lasting relationship with customers and maintain their positions in the telecommunication industry.

In realizing the contribution of the telecommunication industry to the economy and the importance of customer relationship marketing on customer retention, both government and business firms are investing in creating favorable policies as parts of the initiatives to ensure customer retention. For instance, in the US telecommunications network, companies such as Verizon Communications Inc, AT&T Inc, and Softbank Group Corp invested heavily in customer relationship marketing to create long term relationship with customers (Powell, Mihan and Weinert, 2014). Likewise, the telecommunication networks in the UK, such as Vodafone, T-mobile and Virgin mobile adopted customer trust schemes by improving the company image and trust for retaining customers and consequently selling more of their products (Rahimi, 2014).

In the context of Asia, the study by Djajanto, Nimran and Kumadji (2014) identified that telecommunication firms are implementing customer-centric initiatives to retain customers through reliable services. Concerning the African telecommunication market, Dubihlela and Molise-Khosa (2014) advocate that call center initiatives in telecommunication are increasingly adopted to ensure that there are quality and reliability on service provision for improved customer retention.

Mkono and Kapinga (2014) confirmed that the majority of telecommunication firms in Tanzania, including Vodacom Tanzania are increasingly offering competitive service packages to customers. For instance, Vodacom Tanzania initiated and improved mobile payment, internet services, and call tariffs to maintain the quality of the services offered. The efforts focused on relationship marketing to improve the quality of the services as well as creating a win-win situation, from which both customers and Vodacom could uplift and maintain a good relationship with customers (Lancaster, 2017). On the other hand, the government of Tanzania initiated the ICT policy in 2016 as part of its effort to support the initiatives carried out by telecommunication firms. The government ICT policy intends to support the telecommunication sector on offering quality services and maintain a good relationship between customers and telecommunication firms (URT, 2016).

Despite of the tremendous work done by scholars and the government policies on improving the customer relationship marketing practices, little has been done to resolve the customer retention problem. The existence of the customer retention problem remained as a key problem on business prosperity. The existence of customer retention problem among companies, it exhibits that there is a need for further studies. The further studies have to focus on the gap established in the literature, since the studies represented conflicting findings on relationship marketing factors that can influence customer retention. For instance, scholars such as (Soimo, Wagoki & Okello, 2015; Mukherjee &Nath, 2007) explained trust as a critical factor of customer relationship marketing, when the companies wanted to ensure the customers are retained. Notably, Chee (2019) contrast by showing that relationship commitment is the key factor on maintaining and building a long-lasting relationship between the business and its customers. On the other hand, scholars including (Bataineh, Al-Abdallah, Salhab & Shoter, 2015; Rajah & Al-Islami, 2014) indicates that the commitment-trust theory of relationship marketing has two fundamental factors ie customer trust and commitment, but loyalty stands as mediating factor.

However, the studies such as Mensah & Moongela (2017) and Nsiah & Mensah (2014) is explaining that the service quality modeltreats customer retention as the mediating factor which can lead into customer commitment and loyalty.Given this conflicting view, it is difficult to determine the critical factors of customer relationship marketing tend to influence customer retention in the telecommunication industry. It is due to the reason that, the existing studies set to predict the impact of relationship marketing based on two theories namely: commitment- trust theory and service quality model, to determine the influence relationship marketing on customer retention (Rajah &Al-Islami, 2014). In order for the current study to respond to challenge on how the conflicting findings associated with ongoing customer retention problem. The current study tries to analyse the factors stated in two theories (ie service quality and commitment trust) for testing the influence of customer relationship marketing on customer retention.

# 

# Statement of the Problem

There has been an ongoing trend for telecommunication industries to engage in various efforts to improve customer retention through improved relationship marketing. These efforts have gone well to improve government policy and business strategies to increase customer retention through relationship marketing. In turn, the companies with these new customer relationship strategies help to curb customers’ retention challenge (Lancaster, 2017; Tanzania Telecommunications Report, 2016). To advocate for the efforts taken by firms in the telecommunication industry to retain customers, the government initiated the ICT policy 2016, intended to enhance customer relationship marketing through improved quality of service delivery (URT, 2016). Vodacom Tanzania Limited has located abundant resources towards staffing and staff training to offer quality services and retain customers (Vodacom Tanzania report, 2017). For instance, a study done by Nawaz and Usman (2014) points out that most of the telecommunication companies in Pakistan is investing heavily in customer relationship marketing to curb customer retention challenges.

On the other hand, Magasi (2015) indicates that the companies that take the initiatives to enhance service quality, create trust and relationship commitment tend to retain customers. The initiatives should capitalize on relationship marketing campaigns intending to uphold customer retention and good relationship. On a similar manner, Vodacom Ltd expected to maintain its sales volume and market share, but in turn, the company exhibited a customer retention problem. Consequently, the company shares dropped from 36.7% to 32% in 2015, the problem is also challenging the business operation and the plan to foster the social-economic development of the country in general (Vodacom Tanzania PLC, 2019). Ofori-Dwumfuo, Owusu-Ansah & Nartey (2013) added that the Ghanaian telecommunication companies are also facing challenges related to the customer retention problem. It was further explained that if a customer retention problem is not resolved, the companies are likely to face a serious drop in market shares, sales volume, and revenue.

In the Tanzanian context, the study done by Magasi (2016) explains how service quality can influence the customer retention through loyalty as a mediating factor. Moreover, Nsiah&Mensah (2014) observed that both service quality model and commitment-trust are theories developed to address customer retention; however they are composed with customer loyalty as a mediating factor. Nevertheless, Mahmoud, Hinson &Adika (2018) indicates that it is difficult to analyze directly the significant influence of relationship marketing without loyalty as a mediating factor. But, Mukherjee &Nath (2007) contrast by arguing that customer trust and relationship commitment can directly influence customer retention without loyalty as a mediating factor. Yet, little is known from available studies on whether the customer relationship marketing factors can directly influence customer retention.

Given this inconsistency in the findings and inadequate explanation from the theories to analyse the direct influence of customer relationship marketing on customer retention; the current study intends to adopt the factors from service quality and commitment-trust theories. The study focuses to establish how relationship marketing factors can directly influence the customer retention. The existing studies present extensive use of loyalty as mediating factor, the current study analyses factors influencing customer retention in the context of the Tanzania telecommunication industry without considering the mediating factor.

# Research Objectives

# General Research Objective

The general objective of this study was to investigate the influence of customer relationship marketing on customer retention in the telecommunications industry of Tanzania, the case of Vodacom Ltd.

# Specific Research Objectives

The specific objectives of the study were:

1. To assess the influence of customer trust on customer retention in Vodacom Tanzania Limited.
2. To examine the effects of relationship commitment on customer retention in Vodacom Tanzania Limited.
3. To determine the influence of service quality on customer retention in Vodacom Tanzania Limited.

# Significance of the Study

The study findings would generate new knowledge which is useful to researchers, practitioners in the telecommunications industry and policy makers. The study is also relevant to the community because suggestions which have been provided in this study will be useful in making meaningful managerial decisions that will improve customer satisfaction. Since customer relationship marketing is growing in importance, findings from this study will improve business processes by improved relationship with clients, improve customer loyalty and build brand image through appropriate marketing strategies.

# Scope of the Study

This study focuses on Vodacom customers in Dar-es-Salaam, Tanzania. The selection of the relevant customers is based on their experience in receiving services and their involvement in a variety of customer relationship marketing campaigns. Dar-es-Salaam is the major city with a large number of Vodacom customers in a location where there is a high competition among telecommunication companies as compared to other cities in Tanzania. Moreover, the administrative distribution of Vodacom services in Dar-es-Salaam is regionally divided into three regions namely Kinondoni, Temeke, and Ilala. The business administrative distribution was created to provide service control, convenience, and flexibility within a culture of serving customers generally located in Dar-es-Salaam. In the Tanzanian context, TCRA report (2016) regards the telecommunication companies as licensed to carry out services such as mobile cellular phone services, radio paging, data communication, and trunked radiotelephones. The user of the telecommunication services includes the internet user, phone call subscribers, and mobile banking service users. The Vodacom customer represents the information-intensive customers in the telecommunication industry who are experiencing a high level of customer relationship management programs as compared to other regions in Tanzania. Therefore, this study focused on customer relationship programs such as customer trust, relationship commitment, and service quality influence on customer retention in the Tanzania telecommunication industry.

Dar-es-salaam was suitable for this study because the big size of customer relationship marketing activities is carried out by Vodacom Tanzania Ltd targeting to retain customers (Vodacom, 2018). The customers in Dar-es-salaam represent a strategic group of the Vodacom customers who are highly targeted by the rivals. This was the reason why Vodacom invested heavily in customer relationship marketing to retain them and protect the rivals otherwise they can be taken by rivals (Vodacom, 2017). Due to the huge customer relationship marketing efforts driven by customer retention problem in Vodacom, the study found out that Vodacom customers are a suitable unit of people that can provide data for the study. The Vodacom branches in Dar-es-salaam are places with potential features due to the following reasons: The Vodacom customers in Dare-es-salaam are selected due to their high exposure and experience. These customers have varsity experience gained from the company’s efforts trying to retain customers through relationship marketing campaigns. Thus, the availability of the Customer Relationship Marketing campaigns as case implemented by Vodacom to retain the customers assisted the researcher to collect adequate data for the study.

# Organization of the Study

This study is organized into six chapters. Chapter one presents the background of the study, research problem, research objectives, hypothesis, and scope of the study and overall organization of the chapter. Chapter two presents conceptualization of the terms, theoretical and empirical literature reviews, research gap, and conceptual framework. These reviews consider different debates and research efforts concerning the study variables and the conceptual framework. Chapter three presents the methodology used in this study. The chapter puts the study in context and indicates the data collection methods. The testing of the parametric assumptions, reliability, and validity tests as well as the measurement models are presented in this chapter.

Study findings are represented in chapter four. In this chapter, the information generated from the data analysis tools is put in the context of the information reported by the respondents. Testing of the sample distribution and basic model path coefficients and relationships were both presented. Chapter five presents the discussion of the study findings. The chapter puts into account the study findings and compares with the content of empirical literature, to test the study validity as well as to explain how the discussion of the findings reflects the research hypothesis. Hence, the discussion of the findings on brand loyalty, integrated marketing communication, and service quality was presented.Chapter six presents the study conclusion, recommendation, implications and areas for future research.

# CHAPTER TWO

# LITERATURE REVIEW

# Chapter Overview

This chapter consists of definitions for the key terms used in this study. Also, the chapter offers explanations of the theories as well as empirical studies. In the last section of this chapter, the study discussed the gap.

# Definition of Key Terms

# Customer Retention

Ogbechi, Okafor & Orukotan (2018) define customer retention as is the process of engaging existing customers to continue buying products from the same distributor. On the other hand, Kanyi & Muturi (2018) define customer retention as the means for business companies to realize increased benefits such as high sales volume, high level of revenues as well as increased market shares. Gengeswari & Padmashantini (2017) on their part define customer retention as a central factor in maintaining profits through mutual benefits and partnerships. Based on the definitions presented by various scholars, this study upholds customer retention as a result of business efforts to implement good and productive relationship marketing. It is from the relationship marketing strategy telecommunication companies can define and ensure there is a high level of sales, repetitive purchase, increased market shares, and increased revenues.

# Customer Relationship Marketing

Manogharan & Varadarajan (2018) define customer relationship marketing is a technique based on creating long relationship with clients and customerloyalty. On the other hand, Sookdeo & Haripersad (2018) define customer relationship marketing as an organized technique that enables the business to create, communicate and deliver value to its customers. Similarly, Magasi (2016) provides that customer relationship marketing focuses on realizing a long-lasting relationship with customers and maintain business benefits. Datta, Fraser & Lebcir (2018) define a long-lasting relationship as the customer's willingness or intention to continue maintaining a promising relationship into the future. If a company focuses on delivering attractive packages through a caring team that is bound to retain customers.

The importance of customer relationship marketing definitions serves as a regulator of customer retention based on the factors articulated above. This study defines customer relationship marketing as a way for a business to build customer trust, relationship commitment, and to offer service quality to attract customer retention. The definition of customer relationship marketing assists to determine both theories and literature which can explain the customer retention phenomenon.

# Customer Trust

Scholars, including Yilmaz & Ferman (2017) define that customer trust can create a long-term mutual partnership between customers and vendors when there is trust in each other. In this case, customer trust depends on the ability of the other partners to provide positive outcomes that can maintain a mutual relationship. According to Chu *et al.* (2012) trust is comprised of beliefs about an exchange partner’s compassion, competence, honesty, and predictability and it is the essential component of active relationship. Customer trust demarcates between interactions that are relational in nature and those interactions that are primarily functional. Sarwar, Abbasi & Pervaiz (2012) add that customer trust is one of the major determinants of customer trust since the confidence of a partner is built on brand image, attractive packages, and comfortable environment to purchase or consume services. Similarly, Danesh, Nasab & Ling (2012) define trust as the willingness of one part to perform specific actions bases on the expectation that the other part will respond according to that trustor’s expectations. Yilmaz & Ferman (2017) defined customer trust as a key component of customer relationship marketing on creating long-lasting relationship. This is based on the fact that the customers believe that vendors have good intentions and beneficial motives towards customer preferences. This study considers customer trust is defined as a company concern in selling best brand services, attractive packages, and fulfilling customers’ preferences to ensure customer retention among telecommunication companies in Tanzania.

# Relationship Commitment

The term relationship commitment has been defined by marketing scholars. According to Tabrani & Amin (2018), relationship commitment is a desire to maintain a close mutually beneficial link. On the other hand, Mbango (2018) referred relationship commitment as way of the business to maintaining customer relationship through affective commitment and calculative commitment. The study by Awwad & AL-Qralleh (2014) define relationship commitment as the calculative commitment which involves latent emotional behaviors from which customer retention is determined by the economic benefits of the product or service. Haghkhah, Hamid & Ebrahimpour (2013) define calculative commitment as the relationship commitment that helps companies to create barriers for customer switching behavior as they lack choice or when the customers avoid leaving due to high switching costs.

On the other hand, affective commitment is explained to be hotter, or more emotional. The affective commitment factor can be measured through the degree of reciprocity or personal involvement that a customer has with a company. In turn, it leads into a higher level of trust and commitment which makes the customers to become loyal (Rehman, Shareef &Ishaque, 2012; Morgan and Hunt, 1994). Furthermore, Dawes (2009) defines that in a financial services context, affective commitment has a direct influence on customer loyalty and maintenance of market share. Similarly, it can help to develop a relationship with new customers and extend the market share. Moreover, the study by Dawes (2009) provides that price factors indicate there is a positive antecedent on affective commitment, which can affect the customer retention behavior directly. This study considers both affective and calculative commitment relationships as central factors in defining customer retention in the Tanzania telecommunication industry.

# Service Quality

Prasad (2013) defines service quality as the characteristic of a product or service in terms of its ability to meet a variety of customer needs. Agyei and Kilika (2013) define service quality as the business's efforts towards customer service preferences and satisfaction level determined by attributes such as tangibility, responsiveness, reliability, assurance, and empathy. Moreover, Radomir, Wilson & Mircea, (2011) provide service quality attributes as the consumer’s overall impression used to relate the company's ability on offering inferior or super services. Similarly, Siddique, Karim & Rahman (2011) define service quality as a measure of the extent to which a service delivered can fulfill customers’ expectations.

On the other hand, scholars such as Venetis & Ghauri (2014) define service quality in terms of profitability. First, service quality is used to define the process of differentiating services and creating a competitive advantage in maintaining market shares. Secondly, service quality is also regarded as a critical way of creating customer retention with a positive effect behavior on buying habits and repurchase intentions. Thus, quality service helps a business to incline the customer commitment to purchase and becoming less sensitive towards service prices offered. Based on the above definitions and service quality model by Parasuramman *et al*. (2000) this study considers service quality in terms of tangibility, responsiveness, reliability, assurance, and empathy. If the company intends to influence customer retention among the telecommunication industry these are the factors to consider seriously.

# Theoretical Literature Review

In this section, the study tries to explain the link between the Commitment-Trust theory, Service Quality Model, and the study objectives. Both Commitment-Trust theory and Service quality Model were used as theories that analyzed the influence of customer relationship marketing on customer retention. The explanation provides how the theories guided the study as the center for variables used to develop objectives, testing the hypotheses and predictors of the effects of customer relationship marketing over customer retention. This theory was developed by Morgan and Hunt in 1994, widely used to test and explain how customer trust and relationship commitment can influence customer retention. But, the Service Quality Model by Parasuraman, Zeithaml and Berry (2000) was used to determine the quality of the service offered by Vodacom and its effect on customer retention.

# The Commitment-Trust Theory

Commitment-trust theory can be traced back to the study done by Thorelli in 1986 towards the political economy paradigm. It is stated that power is the central concept in network analysis since its mere existence can condition others (*ibid*.). In 1994 Morgan & Hunt introduced the theory of commitment-trust to explain relationship commitment (Morgan & Hunt, 1994). Furthermore, Davijani, Nouri & Horri (2015) explains that the commitment-trust theory identified two fundamental factors namely trust and commitment; which are used to determine the influence of customer relationship marketing on customer retention. Also, Mosavi & Ghaedi (2012) added that the theory considers mutual loyalty as the intermediate factor on determining the influence of relationship commitment on customer retention.

Morgan and Hunt conceptualize trust as confidence in exchange partners which creates a long-lasting relationship. They propose that trust is enhanced when partners share similar values and when partners communicate. On the other hand, relationship commitment has been recognized in different works of literature as a channel relationship that plays a central role in creating a long-lasting relationship. As argued by Soimo *et al.* (2015), this relationship commitment is known as an enduring desire to maintain a relationship. This means that trust and commitment play an essential ingredient for successful long-term relationships which in turn leads to customer retention. Developing trust and a customer’s commitment to business relationships tend to create customer retention.

The suitability of commitment–trust theory on analyzing the influence of relationship marketing on customer retention is observed in several studies. Notably, Mahmoud *et al*. (2018) used trust, and commitment in studying customer retention. The study found these two variables of relationship marketing to have a robust influence on customer retention. On the other hand, Gustaffsson, Johnson & Roos (2006) found that consistent customer support leads to a calculative commitment which in turn assists the company to retain its customers.

Despite its applicability, Soimo et *al*. (2015) argue that the commitment-trust theory provides an inadequate explanation of how relationship marketing can address service quality matters to retain customers. To address the identified weakness, Martey (2014) argues that commitment- trust can be modified in line with other constructs from other theories from which the study localizes the factors and creates a comprehensive framework that can address the customer retention problem. On the other hand, Soimo *et al.* (2015) argue that the commitment-trust theory of relationship marketing can be intergraded with the service quality model to provide a holistic picture to study the influence of relationship marketing using variable namely trust and relationship commitment on customer retention. This integration was evidenced in the study by Rajah & Al-Islami (2014) which found service quality, customer trust, and relationship commitment to have a significant influence on customer retention. Hence, the current study borrowed customer trust and relationship commitment from the commitment-trust theory and service quality variable from the service quality model. The three variables borrowed from the two theories namely service quality model and commitment-trust theory were used to build the conceptual framework.

Given this justification, the current study used the variables from the two theories to provide further analysis for the association of variables within the model. The model developed by this study tries to establish a direct relationship between the variable and forego the mediating effect towards customer retention. From this understanding, the commitment-trust theory was adopted by this study as a theoretical foundation for the study. Moreover, the study assessed the three unobserved variables namely customer trust, relationship commitment, and service quality variables, and their influence on customer retention in the Tanzania telecommunication industry.

# The Service Quality Model

The history of SERVQUAL can be traced from Parasuraman in 1983 as the second perspective known as the American perspective (Sayed, 2013). In 1985 a scholarly work by Parasuraman, Zeithaml and Berry defined the concept and come out with a Gaps model that focused on the discrepancy between customers i.e expectation and perception. This was the initial model that involved ten dimensions of service quality. Later, the study by Parasuraman*et al*. (1988) explains how the SERVQUAL can be used to determine customer relationship. According to Brady and Cronin (2001), the SERVQUAL helps to create mutual relationship between business and customer which is reflected into loyalty and eventually customer retention (Brady & Cronin, 2001).

Nsiah & Asantewaah (2014) exhibit that the quality of service has become an aspect of customer retention and there is a positive correlation between the dimensions of service quality towards customer retention. In this study, it was confirmed that the five dimensions of the SERVQUAL model by Parashurama *et al*. (2000) i.e. reliability, assurance, tangibility; empathy, and responsiveness can be used to study customer retention. Different scholars including Sayed (2013) have shown that service quality developed by Parashurama *et al*. (2000), though its attributes can be used as a metric measure to test the influence of the customer retention. The study adopted the SERVQUAL model in examining the influence of service quality on customer retention.

Moreover, DiJulius (2008) consolidated that service quality and customer retention are inseparable and nothing can replace them. The scholars including: (Frawley 2014; Manning and Bodine, 2012) identified that the service quality model provides explains service quality as the critical factor of customer relationship marketing which has a direct impact on customer retention. In this study, the researcher adopted the five factors as pointed out by Parasuraman, Berry & Zeithaml (2000) and included reliability (ability to perform the service accurately), responsiveness (willingness to provide prompt assistance), assurance (employee's knowledge and ability to convey confidence and competence), empathy (ability to care for the customer and provide attention) and tangibles (physical facilities and equipment). This study considers that the five factors identified above can influence customer retention.

The application of the service quality model in the telecommunication industry has

been observed in several empirical studies. For instance, Kisorwo (2013) found that service quality has positive effects on customer retention. Furthermore, Manning & Bodine (2012) confirm the usefulness of the service quality model in examining the quality of services offered by mobile companies in Saudi Arabia. The findings from this study indicated that reliability, responsiveness, assurance, empathy, and tangibles are salient indicators of relationship marketing which can influence customer retention in the telecommunication industry. From this evidence, it is exhibited that the service quality model is suitable for studying customer retention in the context of the Tanzania telecommunication industry.

Parasuraman, *et al*. *(*2000) outlined five elements from which the customers can evaluate the quality of service delivered to them. The customers’ service quality expectations are presented through such elements as reliability, empathy, assurance, responsiveness, and tangibility. Service quality has numerous dimensions depending upon the nature of the service industry.

The study by Parasuraman *et al*. (2000) indicated the association between the five elements of service quality and its influence on customer retention. For instance, reliability explained the capability of the service to offer consistency on its quality performance (Gengeswari & Padmashantini, 2013). Moreover, responsiveness has been explained as the factor that determines the company's readiness to deliver the quality of service as expected by customers (Al-Hawari, Ward & Newby, 2009). On the other hand, assurance alludes to the information and affability of representatives and their capacity to pass on trust and certainty. Empathy is referred to as the way of caring for and attending customers. Meanwhile, tangibility is regarded as the capability of physical facilities and personnel attraction to customers (Mandina, 2014).

The service quality model widely applied by various scholars to determine the quality of services offered, for instance, Khalig *et al.* (2012) point out that service quality generates good results in maintaining the relationship between customers and suppliers. Parasuraman *et al*. (2000) assert that service quality is judged low or high depending on the due customer expectations. Dzasah (2013) adds that customer satisfaction is higher or low depending on the quality of the service delivered. Likewise, Manning & Bodine (2012) conclude that service quality is significant in affecting loyalty in a business context, as it determines customer willingness to continue patronizing a firm over the long term and recommending the firm’s products and services to friends and associates.

Talet *et al*. (2011) asserts that employees’ motivation plays a significant role in service quality. Whereby, the employees’ motivation can lead to having a quick response for frustrated customers as the customers put more effort to retain them. Gan *et al*. (2006) argue that in the New Zealand banking industry, the companies with the same products distinguish themselves from the competitors through service quality. The argument is relevant to Magasi (2015) who argues that employee’s competence in banks has strong influences on customer retention.

Meanwhile, customers switch from business to business searching for quality services. A customer may choose to stay or to quit a service depending on the level of satisfaction derived from the quality of the service offered. Prasad (2013) explains how service quality can be used to retain customers in the banking sector. The use of the internet should be considered reliable, accessible to assure the tangibility of the value offered to customers and in return, it leads to customer retention. It is evidenced in the literature that service quality significantly influences customer retention (Djajanto *et al.*, 2014).

The scholars such as Moragwa (2013) confirm that experience of service quality has more weight on customer retention other than any customer relationship attributes. Kisworo (2013) argued that there is a positive relationship between service quality and customer retention. Manning and Bodine (2012) have a similar argument that businesses should reinforce the quality of the services offered, to gain customers retention.

On the other side, Sedighimanesh *et al.* (2017) studied service quality in Tehran, where it was argued that service quality has a positive effect on customer retention. Service quality results in satisfied and loyal customers. It was further argued by Frawley (2014) that service quality does not only determine the customer repurchase decision but also it determines customer retention. Service reliability, empathy, and tangibility account for long term relationships defined in terms of customer retention. It can be argued that service quality can influence customer behavior towards a company's products and services offered. DiJulius (2008) provides actionable steps for companies to provide world-class service quality. While Frawley (2014) insists that for the company to offer world-class service quality there should be a meaningful customer connection and creation of the best possible user experience. The user experience can be manifested through service quality connection with customers’ expectations on presented content, channels, measurement, and technological support.

Manning & Bodine (2012) add that for a company to offer high-quality customer experience there is a need to determine the interactions made to understand the service attributes and strategies needed. This will indicate the attributes of the intended customer experience and ensure that the intended vision is consistent with the pertinent corporate strategy and brand. On the other hand, customer behaviors have to be known to inform their preference and needs to be derived from the interactions made. Prasad (2013) exhibits the reasons why some companies moved from good to great, while others are failing. For companies to offer quality service, they have to recruit competent managers and effective leaders who can combine personal humility with their professional determination. Also hiring innovative technology can assist the interaction of customers to ensure they are treated with empathy, reliability, assurance, and responsiveness.

Scholars such as Guar & Agrawal (2006) argue that SERVQUAL was developed to measure service quality across a service environment and to determine customer retention. Despite its applicability to this study and determine customer retention, Sari & Mugiono (2018) show that the SERVQUAL model has a limitation in explaining the association between commitment and customer retention. The study concludes that commitment is a critical factor for customer retention if the company intends to realize the service repetitive purchase. Above all, Shahin (2006) criticizes that SERVQUAL items are not enough for measuring service quality across different service settings. The theory provides an inadequate explanation of how customer trust and relationship commitment can link with service quality in retaining customers (Foya, Kilika & Muathe, 2015). To address the weaknesses identified in the service quality model, the study adopted constructs such as price and trust to study customer retention. For instance, Moragwa (2013) adopted the customer trust variable from the commitment-trust theory and integrated service quality indicator variables borrowed from the service quality model to study customer retention. The findings indicated that both customer trust and service quality has a significant influence on customer retention in the telecommunication industry.

On the other side, Mandina (2014) evidenced that research can integrate different theories in a single study when studying customer retention. This study provides a strong and solid example of how the study model can be generated by borrowing factors from different theories. The theories should complement each other to offset the weakness which limits their ability to test the factors, analysis, and prediction of the study results. The above empirical results provide evidence that integration provides flexibility for the service quality model to adopt and localized the attributes from other theories. The integration process assists in coming out with a robust model that provides flexibility in accommodating various constructs adopted from different theories and models to assess customer retention. The service quality model has to integrate other theories to provide a better platform for analyzing the factors influencing customer retention. Hence, the service quality model is suitable in this study, since it provides further analysis and strength for assessing the relationship commitment long with service quality indicator variables including reliability, responsiveness, assurance, empathy, and tangibles as they influence customer retention.

Table 2.: Summary of the theories

|  |  |  |
| --- | --- | --- |
| **Theory** | **Main variables** | **The implication to the current study** |
| The Commitment-Trust Theory Morgan & Hunt (1994) | Trust and relationship commitment | Customer trust and relationship commitment are techniques used by business to build long lasting relationship with customers. |
| Parasuraman, Berry &Zeithaml (2000). | Service Quality | Away of maintaining customer relationship. |

# Empirical Literature Review

It has been revealed from the theoretical literature review in the previous sections that commitment-trust theory and service quality model theories have been used to explain customer retention in different organizations. Empirical literature was reviewed in this section to establish how existing studies were attempted to tackle the problem of customer retention. The current study investigated the influence of Customer Relationship Marketing on customer retention in the Tanzania telecommunication industry.

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# Influence of Customer Trust on Customer Retention

Mahmoud, Hinson & Adika (2018) conducted a study on the effect of trust, commitment, and conflict handling on customer retention. In this study (ibid) focused on analyzing indirect relationships between trust, commitment, conﬂict handling, and customer retention. The study adopted a cross-sectional survey. A structured questionnaire tool was used to collect data from customers who use mobile phones. Despite the extensive explanation on the indirect relationship between the study variable, the study provides inadequate explanation towards direct relationship between customer trust, relationship commitment and customer retention. In due cause, the study provides good platform for further studies to focus on customer trust; relationship commitment and their direct influence on customer retention.

Sarwar, Abbasi & Pervaiz (2012) studied the effect of customer trust on customer retention in Pakistan. The study intended to analyze the effect of customer trust on customer retention. The study findings revealed that a brand image and services have no significant influence on customer retention in the Pakistani context. Furthermore, it was explained that the association between the variables was negative due to Pakistani cellular operators’ application of stiff religious policies. The study does not provide adequate explanation on how the secular policies on customer retention. Since, the study put more emphasis on how religious policies affected the implementation of relationship commitment as an effort to attract customer retention.

Danesh, Nasab & Ling (2012) conducted a study on customer trust and switching barriers on customer retention in Malaysia. The objective of the research was to examine the influence of customer trust on customer retention. The research adopted a descriptive study, from which 150 questionnaires were distributed to gather data. Data were analyzed using the regression method. It was revealed that there is a significant and positive relationship between brand image and customer retention. The study provides a gap for further studies to engage different methodologies; to make critical examination towards the influence of customer trust, relationship commitment on customer retention. The study had an advantage to integrate the qualitative and quantitative methods of data collection. But, the weakness of the study was the failure to test or verify the research problem statistically. Also, the study results may reflect certain level of bias since there is lack of statistical tests. In that case, such studies are not helpful to establish the cause root of the customer retention problem.

Mosavi & Ghaedi (2012) studied the relationship between trust, customer loyalty, commitment, and customer retention in Iran. The study used a structured questionnaire to gather data from respondents. The survey involved 538 responses from the website. Data were analyzed through confirmatory factor analysis to test the reliability and validity of the measurement model. Then, the structural equation modelling technique was used to test the research model. The findings revealed that attractive price packages and comfortable purchase processes have a positive relationship and a strong influence on customer retention. The study had an advantage to collect a broad range of data; however, the study had several weaknesses including: lower level of validity, clarity and biasness if the questions are closed ended. The study examined the customer retention as mediating factor between customer trust, relationship commitment and customer loyalty. It was further recommended for future studies on relationship commitment, since it provides limited explanation on how the actual customer behaviour can directly influence on customer retention.

Soimo, Wagoki & Okello (2015) conducted a study on the influence of relationship marketing on customer retention in Kenya. The study deployed a cross-sectional research design comprising 37 sales and marketing leaders from 37 branches of commercial banks in Nakuru town. The study used a structured questionnaire to gather data from the respondents. Moreover, a pilot study was conducted to test the instrument’s reliability and validity. The data collected from the field was analyzed with descriptive data analysis and correlation analysis methods. The study findings established that fulfilling promises and attractive packages have a significant influence on customer retention. The research recommends that banks should avoid using false tricks as a way of winning customer's trust. This type of study has the advantages to contain multiple variables at the time of the data snapshot; and its data can be used for various types of research. On the other hand, the study findings can be used to analyze so as to create new theories or carrying in-depth studies. The major limitation of cross-sectional study is based on its weakness to determine cause and effect. It means the study had the challenge to associate relationship commitment and its influence on customer retention.

Magasi (2016) investigated to understand to what extent customer relationship marketing can influence customer retention in Tanzanian commercial banks. A cross-sectional survey method was employed. The questionnaire instrument was used to gather data from the respondents. Data collected were analyzed using the Chi-Square test and multiple regression models. The findings indicated that not always a satisfied customer can enter into a long-term relationship with the bank. But, the committed customers with a high level of trust commit themselves to a long-lasting relationship with banks. The results suggest that relationship marketing attracts customer retention. In this regard, the study recommends that bankers should craft relationship strategies to entertain customers’ preferences that can build a strong relationship with customers. The study methodology had the strength to analyze and determine factors to consider and ignore for the business. Despite the strength which is provided by regression analysis technique towards the study results, but such studies are not free from weaknesses including erroneous and misleading results. In this case, it can be concluded that the study provided limited explanation on customer retention problem and its cause root.

# Effects of Relationship Commitment to Customer Retention

Rehman, Shareef & Ishaque (2012) conducted a study on the role of trust and commitment in creating a profitable relationship with customers in Pakistani. The objective of this research was to determine how companies can create and maintain strong relationships with consumers. The relevant questionnaire was deployed for data gathering. The study involved 380 respondents among university students in the cities of Islamabad and Peshawar. The findings indicated that affective commitment has a positive and significant impact on customer retention, specifically on building strong relationships with customers. Based on the study method of data collection, the study provides a weak base for generalization since creating customer trust and relationship commitment among university students might differ with other customers. Also, the study lack explanation on how university student can be a representative sample for the whole country on studying customer retention.

Gustaffsson, Johnson & Roos (2010) also conducted a study on the effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention. The research involved factors of relationship marketing such as affective commitment and calculative commitment to examine their effects on retention. The results show that calculative commitment has a positive and significant influence on customer retention. It means the business would achieve customer retention and build a strong customer relationship through a cost switching barrier. There are several overlapping reasons for including moderating variables in a research study. Studies with moderating or intervening factors have the advantage to test whether an intervention has similar effects across groups of business forms. Also, the study can have the strength to analyze problems with complex factors. Apart from the advantages on involving intervening factors, there are some limitations to include moderating and mediating variables in the study. One of its major limitation is to the study was weakening the power for the study to address scientific questions. In this regard, the study suffers ability to provide adequate explanation how relationship commitment interventions can influence customer retention.

Bataineh, *et al.* (2015) studied the effect of relationship marketing towards customer retention in Jordan. The main objective was to analyze the effect of relationship marketing factors on customer retention through relationship commitment in the Jordanian’s business sector. The study used a questionnaire to collect data from a sample of 500 retail pharmacies located in Amman and Zarqa. The findings disclosed that expertise sellers’ promotion and commitment to resolving complaints have a significant influence on customer retention. The study identified factors such as sellers’ expertise, switching costs, and satisfaction as indicators for locking in customers and maintaining a positive long-lasting relationship. Consequently, the managers are advised to design an effective affective and calculative commitment framework to enhance customer retention. The study had an advantage to collect a broad range of data; however, the study had several weaknesses including: lower level of validity, clarity and biasness if the questions are closed ended. It means the study offers limited clarity on how relationship marketing can influence customer retention.

Davijani, Nouri & Horri (2015) studied the mediating role of customer commitment on social bonds, in Iran. The study aimed to understand the antecedents and consequences of customer commitment to social bonds. The research involved a sample of 250 customers from Novin Insurance Corporation in Tehran. The study sample was selected from a population using a stratified random sampling method. The data was collected using a survey questionnaire, later the data gathered were analyzed through a structural equation model. The study results explained that to enhance customer retention companies should emphasize customer commitment. A stratified sampling method has the strength to provide greater precision than a simple random sample of the same size. It can ensure that there are sufficient sample points to support a separate analysis of any subgroup. But, one of the major limitations of using stratified sampling is that it requires more administrative effort than a simple random sample. Also, it is involving a complex computing process during the analysis. Based on the findings, the study offers insufficient explanation to associate the influence of relationship commitment on customer retention.

Abosag & Lee (2012) researched the formation of trust and commitment to business relationships in the Middle East. The aim was to understand business relationships in the Middle East. The study was based on qualitative research using a longitudinal approach. A sample of 33 respondents was used to conduct semi-structured in-depth interviews. The study found that there was a strong and positive relationship between affective commitment and customer retention. Thus, customer retention can have more dynamics and is changeable as the relationship evolves. The study recommends further studies to address dynamism on trust and commitment to promote long-lasting relationships and maintain customer retention. **Generally, the longitudinal study assists to provide clear focus and validity; they are also more powerful than cross-sectional studies.** It is more often; the longitudinal studies are observed to offer flexibility. Rather, this kind of **studies can provide high accuracy when observing changes.**   
One of the biggest disadvantages of conducting longitudinal validity challenge, **as it requires a large sample size and time consuming** otherwise it may not be valid. The study used a weak methodology, which often compromise the result validity to explain how relationship commitment was influencing the customer retention.

Rajah & Al-Islami (2014) investigated the impact of relationship marketing on customer satisfaction and retention in the fast-food industry in Mali. The study aimed at the desire to unravel the influence of relationship marketing on customer retention. A survey research design was adopted and a structured questionnaire was used to collect data from the field. A purposive sampling technique was used to select a sample of 304 customers who are getting services from fast-food restaurants in Bamako and Timbuktu, Mali. Pearson product moment correlation coefficient was employed to test the study hypotheses. The findings disclosed that relationship commitment has a significant and positive influence on customer retention. In general, the purposive sampling makes easier for the study to generalize the sample compared to random sampling technique. However, these types of studies are facing biasness and error to explain customer retention issues. The explanation shows the limitation facing the study to explain critically the customer relationship marketing factors and their influence on customer retention.

Sahin, Kitapci & Zehir (2013) conducted a study on creating commitment, trust, and satisfaction for a brand in Turkey. The objective of the study was to examine the role of switching costs on determining the relationship between satisfaction, trust, and customer commitment. Data collected from a sample of 457 respondents through a questionnaire, were analyzed using descriptive and inferential statistics. From the analysis done, it was revealed that there is a strong relationship between commitment and customer retention. The study revealed that customer trust and relationship commitment are not the only factors of customer relationship marketing commitment which affects customer retention. The study identifies the gap for further studies on customer retention concerning customer relationship marketing. One of the major strengths of descriptive study is its ability to integrate the qualitative and quantitative methods of data techniques. Despite, its strength to collaborate the data collection techniques the study has weakness on verifying the research problem statistically. Based on the limitation identified, the study results may reflect certain level of biasness as it lacks the statistical ability. It means the study had inadequate ability to test the influence of relationship commitment on customer retention. Similarly, such studies are always not helpful to establish the cause root of the customer retention problem.

Lariviere *et al*. (2014) conducted a longitudinal examination of customer commitment and loyalty in the USA. The study focused on examining the association between affective, calculative, normative commitment, and customer loyalty. The study used longitudinal panel survey data which involved repeated observations of 269 customers with the large financial services provider. The findings revealed that the impact that different dimensions of commitment have on share development varies across segments. The results demonstrate the benefits of using panel survey data in models that are designed to study how loyalty develops over time. It implies how the study can benefit to illustrate the result of the baseline level information and changes in the dimensions of customer commitment in models and understand how loyalty unfolds over time. It also provides caution on how managers can be misled assuming that everyone reacts to commitment through improvement efforts. **Generally, the longitudinal design assists the study to make clarification and validity.** Also, the methodology provides a flexible and accuracy means for observing changes. One of the major weaknesses facing the longitudinal panel is the validity challenge, as it requires a large sample size. In other words, the study has the challenge to determine customer relationship commitment and its influence on customer retention.

Sivesan (2015) conducted a study on the impact of customer relationship marketing on customer retention in Sri Lanka. The objective of the research was to assess the association between customer relationship marketing and customer retention. The study variables included trust, commitment, empathy, and equity. A questionnaire was used to gather data from a sample of 209 selected from customers in the insurance industry. The results show that there was a strong correlation between 0.975 between customer relationship marketing and customer retention. The customer relationship marketing influence was significant at the level of 1%. The study also revealed that the association between customer relationship marketing and customer retention was linear and positive. The study concludes that relationship marketing has a significant influence on customer retention. Thus, further studies should focus on how to retain customers and eventually market share. Studies which deploy correlation have greater advantage as compared to regression. Correlation analysis had the ability to precisely handle more descriptor variables than compounds. One of the major limitations of correlations is to measure the relative scale of the descriptor variables.in this case, the study faced the challenge to relate the influence relationship marketing and other descriptors of the customer retentions.

Al-Hersh, Aburoub & Saaty (2014) did a study on the impact of customer relationship marketing on customer satisfaction of the Arab bank services. The study focused on investigating customer relationship marketing's impact on customer satisfaction in the banking industry in Jordan. The research designed a questionnaire sent through email, a sample of 500 customers from Arab bank in Jordan were involved as the study respondents. The data were analyzed using descriptive and inferential statistics. It was found that there was show medium to the positive and significant influence of customer relationship marketing attributes and customer retention. The customer relationship marketing attributes were as follows: trust, commitment, communication, empathy, social bonding, and fulfilling promises on both customer satisfaction and retention. Ultimately, the study recommends that Arab bankers should focus on customer relationship marketing to maintain and retain market share. Beside the power for the study to explain the statistical association between service quality and customer retention; but study had the weakness to express how service quality can influence the customer retention.

Joseph (2012) studied the factors determining customer commitment to service providers in the Kenyan mobile telephone industry. The study was designed to investigate the factors which contribute to customer commitment in the mobile phone service industry. The study population involved mobile phone subscribers using services from companies in Nairobi and Mombasa cities. A sample of 200 respondents was selected from the targeted population to gather data. The questionnaire instruments were used by respondents for self-administration purposes. Moreover, the factor analysis method was used to identify variables that were determined through customer commitment. It was revealed that time matters for customers in building trust towards service providers. The study had an advantage to collect a broad range of data; however, the study was likely to face weaknesses including: lower level of validity, clarity and biasness since the questions are closed ended. Based on this understanding, the study lacks adequate clarity to determine the influence of relationship commitment on customer retention.

# Influence of Service Quality on Customer Retention

Khalig *et al.* (2012) conducted a study on the impact of service on the retention of customers in the Iranian telecommunication sector. The study used an online survey to gather data from participants; the findings indicated that service quality significantly helps to improve relationships and eventually retain customers. The study was limited to incorporating critical factors for service quality which were linked to customer retention. From that understanding, the researcher recommends further studies on tangibility, scalability, and flexibility to attract loyalty among the customers in the Iranian mobile telecom industry. The study had an advantage to collect a wide range of data; but these studies are limited with lower level of validity. Thus, the study faced with issues which could affect the clarity on how service quality can influence customer retention.

Sedighimanesh *et al.* (2017) studied service quality in Tehran. The researcher adopted a descriptive study design while the analysis was carried through structural equation modeling. It was found out that today's business environment needs modern technologies in providing quality and efficient services to attract and maintain market share. However, further studies were recommended to seek how integrated customer communication can assist in quality improvement and retention of customers. The study had an advantage of integrating the qualitative with quantitative data collection methods of data collection. But study faced the challenge to make statistical verification of the customer retention problem. It means the methodology had limited power to establish the cause root of the customer retention problem.

Idrees & Xinping (2017) conducted a study on the impact of relationship characteristics on service quality dimensions and customer retention in China. The study involved a survey and it was revealed that the quality of customer service significantly affects customer retention. Moreover, the study indicated that for a business to retain customers there is a need for it to offer service quality. However, further research was suggested to the understanding of more factors associated with service reliability and empathy. The survey research design had the strength to collect a broad range of data. But, the methodology can be affected by validity and biasness to explain how sevice quality can influence customer retention.

Djajanto *et al.* (2014) carried out a study on the effect of self-service technology, service quality, and relationship marketing on customer satisfaction and loyalty in East Java-Indonesia. A sample of 201 was used in the study and the Partial Least Square (PLS) technique was adopted in analyzing the data and the hypotheses. The results revealed that service quality can significantly influence customer retention. The Partial Least Squares technique has many advantages as compared to regression analysis. Since, the technique has the power to handle more than one descriptor variables. But, the technique is more sensitivity on the relative scaling of the descriptor variables. It means this limitation affected the ability of the study validity to relate descriptors scale with the customer retention challenge.

Moreover, Dzisah (2013) studied the retention of mobile (cell) phone subscribers of Millicom Ghana Limited (TIGO) in Adabraka-Accra, Ghana. The study used a survey research strategy and it was revealed that mobile phone users consider the overall value of service offered to them. It was further established that customers are influenced by service reliability. The study argued that more research should be conducted on customer satisfaction measurement, to uncover critical factors that might shape behavioral intention in customer retention. The survey research design had an advantage to collect a wide range of data. But the study also faced he limitation to clarity the influence of service quality on customer retention.

Similarly, Kisworo (2013) conducted an exploration of service quality, customer satisfaction, and customer retention in the Taiwan Mobile Telecommunication. The study hypotheses were tested and the objectives analyzed through a regression model. The results revealed that the dimensions of service quality such as tangibles, responsiveness, assurance, and empathy have a significant effect on customer retention. On the other hand, customer satisfaction was found to have a significant and positive effect on customer loyalty in the Taiwan mobile telecommunication industry. The study suggested further research focusing on examining the association between the service quality factors on customer satisfaction and retention. The additional sample is also needed to determine concretely the influence of service quality on customer satisfaction and retention. The study methodology had the strength to analyze and determine factors of service quality which are considered to be influential on customer retention. Beside the strength for regression analysis model to predict influence of service quality on customer retention; the model is affected with number of residual errors which can mislead results to explain the customer retention problem.

Agyei & Kilika (2013) conducted a study on the relationship between service quality and customer retention in the Kenyan mobile telecommunication service industry. The study used the Pearson product-moment correlation coefficient and regression model to test the association and effect among the study constructs. The results indicated that there was a significant relationship found between service quality and customer retention. In this study, the constructs such as reliability, assurance, and empathy service quality values were tested and it was revealed that there was a positive relationship with customer retention. Moreover, it was found that the industry operators should seek the key areas to pay attention to in supporting the quality of services offered to guarantee sustained customer retention. Thus, further studies should seek how service providers should integrate the factors of service quality on long-term customer relationships. The correlation analysis technique has the strength to provide more predictive accuracy and a much lower risk to examine the association between service quality and customer retention. However, one of its major weaknesses is the ability determine the influence of service quality on customer retention.

Moragwa (2013) studied the effects of selected factors on the quality of service provided by a telecommunications service provider in Tanzania. The study used a descriptive research design. It was revealed that factors such as product price range, effective communication, and customer care can influence the quality of service offered by telecommunication service providers. Even so, the findings were limited by bias associated with the convenience sample selected as it was difficult to represent challenges associated with customer service quality. The descriptive study design had the ability to integrate the qualitative and quantitative data collection instruments. However, one of its major drawbacks is verify the customer retention problem statistically.

Foya *et al.* (2015) conducted another study in the Tanzanian context relating to service quality and customer retention in the telecommunications industry. The study used a descriptive survey design and data were analyzed through descriptive and inferential statistics and multiple linear regressions were employed in testing the hypotheses. The findings indicated that there was no statistically significant relationship between system automation and service quality as well as system functionality and service quality. The limitations identified in demographic factors including inadequacy capability for the companies to strengthen service quality. Further studies were suggested to test the impact of demographic factors on service quality by integrating relationship marketing in communication technologies. This study had an advantage of integrating the qualitative with quantitative data collection methods. However, the study had the weakness to verify the customer retention problem using statistical methods.

# Research Gap

It is well evidenced in the theory of commitment -trust (1994) and service quality model by Parasuraman, *et al* (2000) indicates that customer trust, relationship commitment and service quality have impact on customer retention through the mediating impact of customer loyalty. However, these theories provides inadequate explanation on how customer trust, relationship commitment and service quality can directly influence customer retention without accounting for customer loyalty. This called for a study that could provide explanation fill in the knowledge gap through a research model that analyses directly the customer trust, relationship commitment and service quality on customer retention in the Tanzania telecommunication industry. On the other hand the adoption of factors such as customer trust and relationship commitment from commitment–trust theory has extended the explanatory power of service quality by decomposing customer trust, relationship commitment and service quality. But, the service quality decomposed only one independent variable that is service quality. Formally, the commitment–trust theory and service quality excluded as the dependent variable in the context of the theory. The explanation identifies the research gap from which commitment trust theory and service quality model exhibits indirect explanation towards the dependent variable. Based on the study theories, have low explanatory power to associate influence of independent variables towards the dependent variable ie customer retention.

A number of empirical studies including (Magasi, 2016; Ofori-Dwomfuo*et al.*,2013) adopted the commitment-trust and service quality theories to explain the customer relationship marketing issues. However, the studies based on different context other than the telecommunication industry in Tanzania. In due case, it calls for current study to analyze customer relationship marketing using the same theories in the context of telecommunication industry in Tanzania.. But, both the empirical studies represent inconsistent factors of customer relationship marketing. It is not clear on what are the critical factors of customer relationship marketing can influence customer retention. On the other side, studies such as Ofori-Dwumfuo*et al.* (2013) evidenced the existence of customer retention problems. Magasi (2016) exposed the need to address customer retention problems through customer relationship marketing. Therefore, the current study tried to find out how theories and factors in empirical studies can address the customer retention problem. From this understanding, the researcher aimed to come up with an explanation on whether the customer relationship marketing can influence customer retention in Tanzania telecommunication industry.

# Conceptual Framework and Operationalization of the Study

# Conceptual Framework

The conceptual framework for this study was developed based on theoretical and empirical literature reviews related to the three independent variables of customer trust, relationship commitment, and service quality as integrated to come up with customer relationship marketing. The aggregation of the three factors came up with a customer relationship marketing strategy that can influence customer retention. The independent variables were used as influencing factors leading to one dependent variable or customer’s retention. See Figure 2.1 below.

**Independent Variables Dependent Variable**

H1

H2

H3

Figure 2.: Conceptual framework of the study variables

Source: Conceptualized by Researcher from Literature Review (2020)

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# Operational Definition of the Study Variables and Hypotheses

# Operationalization of Customer Retention

In studying customer retention and telecommunications services in Bangladesh, Hossain, Chowdhury & Jahan (2017) identified brand image, fulfilling promises, attractive price packages, trustful impression, comfortable purchase, and sales representatives as indicator variables for customer trust. These variables were used to test the influence of customer trust on customer retention. It was found out that customer trust had a significant influence on customer retention. This study adopted the variables in this study to test the influence of customer trust on customer retention. Similarly, the study by Gustaffsson *et al*. (2010) pointed out that enjoying service, resolve complaints, promotion on sale, shifting costs, future purchase intention, customer care, and loyalty services as the variables for relationship commitment. These variables were tested, and it was found that relationship commitment has a significant influence on customer retention. The variables were adopted by the current study to measure relationship commitment and its influence on customer retention in the telecommunication industry.

On the other hand, Silva & Yapa (2015) discovered that service quality is one of the major determinants that can influence customer retention. Moreover, the study presents the five elements of the SERVQUAL model such as reliability, responsiveness, assurance, empathy, and tangibles. This study adopted the five elements to measure how service quality can significantly influence customer retention in telecommunication companies.

Amulya (2013) suggested that trust and relationship commitment such as waiving fees for late payments, solving complaints in time, customizing services, attractive packages to customers, bonus points and discounts for heavy users are important measures to be considered in customer retention studies. Chee (2019) indicates that reliable network services, customer services, attractive pricing package dimensions can significantly drive customer retention. In this regard, the companies can keep the budgets flat while increasing sales, market shares, revenues as well as repetitive purchase. This study considers customer retention as an unobservable measure, for this study suits to analyze how customer retention can ensure there is increased sales, market share, revenues and repetitive purchase.

# Operationalization of Customer Relationship Marketing

Al-Hersh, Aburoub&Saaty (2014) operationalized the customer relationship marketing as the variable which used relationship commitment and customer trust factors to measure its influence on customer retention. Other scholars including, Chee (2019) operationalized service quality as a critical factor which used to measure the influence of customer relationship marketing on customer retention. Hence, the current study used relationship commitment, customer trust, and quality services to measure the customer relationship marketing.

# Operationalization of Customer Trust

This study adopted customer trust as one of the study variables which explains the influence of customer relationship marketing on customer retention. Long, *et al*. (2013) measured customer trust as the level of customer confident towards the brand image, attractive packages, stable prices and confidence of the sales team. Jiang, Simarmata, Keke, Silalahi & Benková (2017) added that the customer provides the business assurance the commitment made to customers can promise long term relationship. In return, commitment helps the business to maintain its brand image and fulfil the promises in the effort to retain customers. Thus, customer trust as an unobservable measure for this study suits in analyzing how customer retention can be influenced by brand image, attractive packages, promise fulfilment, caring impression, stable prices, comfortable purchase process, and confidence in sales people.

The study hypothesizes that:

*H1a: Customer Trust has a positive and significant influence on customer retention in Vodacom Tanzania Limited.*

*H1b: Customer Trust does not have a positive and significant influence on customer retention in Vodacom Tanzania Limited.*

# Operationalising of Relationship Commitment

Kotler & Keller (2012) operationalized as a business technique to promote sales, resolve complaints and offer attractive price for purpose of encouraging customer retention. Shafia*et al.* (2011) measured the customer relationship commitment through customized services, attractive price packages to meet customer preferences to retain them. Garrido-Moreno *et al.* (2014) measured the relationship commitment using factors such as sales promotion stimulants, resolving complaints, enjoying price offers, and creates a caring impression to customers. In this study customer relationship commitment as unobservable variable explained through several observable variables (indicators) such as organization activities related to sales promotion stimulants, resolving to complain, enjoying price offers, and caring impression as relationship marketing factors which can influence customer retention.

The study hypothesizes that:

*H2a: Relationship commitment has a positive and significant influence on customer retention in Vodacom Tanzania Limited.*

*H2b: Relationship commitment does not have a positive and significant influence on customer retention in Vodacom Tanzania Limited.*

# Operationalization of Service Quality

Objective three in this study was established based on the quality service component. Moragwa (2013) measured service quality through reliability, responsiveness, tangibility, assurance, and empathy. Pokharel (2011) operationalized service quality as the way of establishing close relationship with customers through reliable, responsive, empathy, tangible and assured services. Nsiah & Asantewaah (2014) used indicator variables such as reliability, responsiveness, empathy, tangibility, and assurance to service quality and its influence on customer retention. This study adopted service quality as the latent construct in examining the influence of customer relationship marketing on customer retention. The study hypothesizes that:

*H3a: Service quality has a positive and significant influence on customer retention in Vodacom Tanzania Limited.*

*H3b: Service quality has a positive and significant influence on customer retention in Vodacom Tanzania Limited.*

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# CHAPTER THREE

# RESEARCH METHODOLOGY

# Chapter Overview

Research methodology is defined by Goretti (2008) as a way to systematically solve a research problem. In this perspective, the pursuit of research was based on different methodological assumptions. The research methodology for this study was chosen to address the study objectives. The rationale for each choice was explained and discussed in terms of research philosophy, research design, study area, study population, sample size selection, and data collection tools. This section also indicates how the research tools were developed and validated. The measurement part of this chapter indicates the study variables, their operationalization, and data analysis tools used as well as ethical considerations.

# Research Paradigm

Research paradigm refers to the system of beliefs and assumptions guiding knowledge development (Krauss, 2014). The positivism paradigm involves a set of assumptions to guide knowledge acquisition and development in this study. Bryman (2015) argues that the positivism paradigm is based on the assumption that research can produce new knowledge and understand realities through the use of theory and the existing empirical evidence. The current study has theories and empirical evidence from different contexts for a researcher to produce knowledge and understand realities on the influence of customer relationship marketing on customer retention. This means that in this study the use of positivism was considered important in understanding reality and knowledge development.

Moreover, Rehman & Alharthi (2016) argue that the positivism paradigm rests well on the application of statistical analysis methodology and quantitative data. This study adopted the variables from the theories to develop the hypotheses. Furthermore, the hypotheses were validated through empirical data from which hypotheses were tested. In this sense, researching the influence of customer relationship marketing on customer retention is better situated under the positivism paradigm.

Thus, the applicability of the positivism paradigm in this research is justified as it offers a chance for the study to use theory and application of quantitative data and tools to test the significant influence of customer relationship marketing on customer retention in the Tanzania telecommunication industry.

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# Research Approach

Research approach is a specific method of data collection and analysis. This study used quantitative research approach in data collection and analysis (Creswell, 2009). As argued by Atieno (2009) that, a quantitative research approach is an approach involving the use and analyses of numerical data suitable for hypothesis development and testing. The current study collected data using standardized tools to test hypotheses developed on the influence of trust, relationship commitment, and service quality on customer retention. It was, therefore; necessary to use a quantitative approach in the process of data collection and analysis of numerical data. This concurs with Daniel (2016) who advocates that quantitative approach relies on the collection and analysis of numerical data in predicting significant influence among variables of interest. The study has predicted the significant influence of trust, relationship commitment, and service quality on customer retention. This means that quantitative research can explain phenomena on customer relationship marketing on customer retention by collecting numerical data that was analyzed using a mathematically based method. Thus, the suitability of the quantitative approach in this study was justified as it enabled the collection of statistical data needed to determine the significant influence of customer relationship marketing on customer retention.

# Research Design

Rahi, (2017) refers to research design as the overall plan for connecting the conceptual research problems to the pertinent and achievable empirical research In other words, (ibid) advocates that a research design articulates the types of data required, methods used to collect and analyse the data as well as how all of the methods applied can answer the research questions. The current study used explanatory research design to predict data and deploy a required method for data collection and analysis. According to Apuke (2017), an explanatory research design is used to identify any causal relationship between the variables that pertain to the research problem. The current study had three variables namely customer trust, relationship commitment, and service quality. It is from these variables the current study used to predict a causal relationship between customer relationship marketing and customer retention. This concurs with the study by Aliyu *et al*. (2014) who argued that explanatory research design can assist the study to determine the causal relationship among variables. Hence, this study intended to search for a causal relationship between trust, relationship commitment, and service quality on customer retention. This means that explanatory research design assisted the study in explaining whether there is a causal relationship among the dependent variable of customer retention and independent variables namely trust, relationship commitment, and service quality. Thus, the explanatory research design was used to assess the causal relationship between relationship marketing and customer retention.

# Study Area

The city of Dar es Salaam was taken as a study area. The rationale for selecting Dar es Salaam as the study area was because it is a place where major telecommunication service providers including Vodacom, Tigo, Airtel, and Halotel have invested highly on a variety of relationship marketing campaigns for customer retention. It is due to these reasons, Vodacom customers in Dar es Salaam can provide adequate information based on the fact that it is a strategic place where the company has a large customer base. Also, Dar-es-salaam is a place where Vodacom is experiencing a high level of customer retention problem as compared to other regions in Tanzania (Vodacom, 2019).

Telecommunication companies in Dar-es-salaam are conducting a variety of relationship marketing campaigns to acquire and retain customers. Hence, companies are trying to exhibit the quality of services they are offering, improving customer trust and relationship commitments to retain customers. But the competition is exposing the companies at the edge to compete and retain customers. On the other side, the customers have a better chance to choose one among the companies which can offer a great deal. It means customers are free to move from one company to another company in search for quality and better customer care. This situation caused a great challenge for Vodacom to invest in relationship marketing to avoid the dropping of market shares caused by shifting customers (TCRA, 2016). Hence, the Vodacom customers in Dar-es-salaam can share adequate knowledge on how they can be retained. It is based on the nature of a large volume of customer relationship marketing campaigns carried out by rival companies including Airtel, Tigo, and Hallotel. Dar-es-salaam has a high volume of customer relationship marketing campaigns as compared to other regions in Tanzania where Vodacom has few customers (Vodacom customer care, 2019).

# Study Population

In most cases, a sampling design starts with the identification of the target population. Scholars such as Kothari (2004) define a study population as the entire collection of cases or units about which a researcher wishes to make conclusions. The study population under this study comprised 1,224,000 Vodacom customers in Dar es Salaam, Tanzania (Vodacom Tanzania PLC, 2018). Kothari (2004) argues that a population needs to have common characteristics. The involvement of Vodacom customers in the telecommunication sector in Tanzania is the common characteristic of the population of this study. The Vodacom customers in Dar-es-salaam were selected due to the following reasons: Vodacom is facing high competition in Dar-es-salaam as compared to other regions; high mobility of customers shifting from Vodacom to other companies; and dropping of market share. Based on the above reasons, customers from Dar-es-salaam could share adequate information about why they are likely to move from Vodacom. On the other hand, most of the customers in Dar es Salaam are highly exposed to several marketing promotional campaigns carried out by rival companies to pull customers from Vodacom. Given this situation, from this population, the study got required data in Dar-es-salaam to study the influence of customer relationship marketing on customer retention.

# Sampling Design

# Sampling Frame

Saunders *et al.* (2012) argue that a sampling frame is a list of items from which a sample was drawn. The sampling framework serves as a guideline for the list of participants involved as well as providing proper representativeness required to offer sufficient sample coverage. The sample frame for this study comprised Vodacom customers from Ilala, Temeke, and Kinondoni Vodacom regional branches who were visiting the customer service centres. The suitability of this sampling framework was to ensure that the study has covered all three Vodacom regional branches of Dar es Salaam.

# Sampling Techniques

For the study to select the relevant representative sample, cluster sampling procedure was used to ensure that respondents from all the three Vodacom regional branches namely Ilala, Temeke, and Kinondoni are represented. According to Kothari (2004), cluster sampling procedure is useful when a researcher is collecting the data from a homogeneous but geographically dispersed population and wants to ensure that a wide area is covered. In this study, the Vodacom administrative regions in Dar-es-salaam represent a cluster from which the population was collected. It is from the cluster, that the random sampling procedure was used to draw a sample. The suitability of random sampling has been evidenced as it offers an equal chance for any respondent to be included in the process of data collection and so avoid bias.

# Sampling Procedure

In the current study, three Vodacom administrative branches intended to capture detailed information that was explained in small cases. The study selected three (3) Vodacom branches in Dar-es-salaam as the strata for the study. Thus, the strata were selected based on the company administrative setup from which the study assessed the relationship marketing influence on customer retention. This sampling technique helped the researcher to reach all the representatives from their localities. Table 3.1 explains the sample selected from the regional branches in Dar-es-salaam. The sample size was calculated using Slovin formula: n = N / (1 + (N\*e^2).

The study used proportional sampling to get the strata sample. In this case, P1 represents the population in Ilala, P2 represents the population in Kinondoni and P3 represents the population in Temeke. But N represents the population in the specific region. Based on the given facts the proportionate sample was calculated as follows: (P1/N, P2/N, and P3/N), it means Ilala was 39%, Temeke 34%, and Kinondoni 27% of the sample size.

Table 3.: Sample selection

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **Name of a regional branch** | **Population** | **Sample size** | **Proportion %** |
| 1. | Ilala | 480,000 | 157 | 39 |
| 2. | Temeke | 420,000 | 137 | 34 |
| 3. | Kinondoni | 324,000 | 106 | 27 |
|  | **Total** | **1,224,000** | **400** | **100** |

Source: Calculated Sample from Vodacom Data (Vodacom Customer Service, 2020**)**

The representative samples of Vodacom regions or branches were selected in Dar-es-salaam namely Ilala, Temeke, and Kinondoni. The study used systematic random sampling techniques to proportionately select the 400 participants from the three regions. The technique assisted the researcher to avoid bias in selecting participants and increase the data objectivity level (Moon *et al*. 2012; Saunders *et al*. 2012). This sampling procedure provides an equal chance for participants to be selected. The researcher obtained information from the Vodacom regional sales offices on the average number of customers who visit the service centres per day. Based on the number and the sample ratio, it was possible to establish the sampling interval for each day. The interval helped the researcher to select the first respondent based on first comer criteria, then the rest of respondents for the particular day were selected in line with the computed sampling interval.

# Sample Size

To calculate the needed sample size, the study deployed Slovin’s formula as adopted from Guildford and Fruchter (1973) in calculating the sample: The following formula was used to determine the sample size for the study population,

n = N / (1 + (N\*e^2))

Where: n = number of samples, N = the targeted population (Vodacom customers), e = margin of error and the confidence level is 95% or 0.95, n = sample size (Vodacom customers)

Sample Calculation:

The study targeted a total population of 1,224,000 subscribers from the study area. It means the sample was calculated from a 5% margin of error; therefore, the sample size was as follows.

Given:

N =1,224,000, e = 5% sample error = 0.05, Required: n =?

Solution:

n = N / (1 + (N\*e^2)), n = 1224,000/ (1 + (1,224,000\*.05^2))

n = 1,224,000/ 3060

n = 400

The study sample was therefore 400 participants. This number was adequate for conducting SEM as stated in Tabachnick & Fidell (1996) that a study sample has to range between 100 and 400 participants. This study used the sampling error 5% to maximize the sample and so accommodate non-response. This might occur during the time of questionnaire administration and this can lead to a smaller sample. The purpose of selecting the sample from the population was to ensure that the study has a manageable number and representative sample. The study was therefore able to gather adequate data for the objective of the study while minimizing bias.

# 

# Variables and Measurement Procedures

# Dependent Variable

The dependent variable for the study was measured from the study outcome through indicators of customers’ retention. This was explained by questions that tried to explore the influence of customer relationship marketing on customer retention in the Tanzania telecommunication industry.

# Independent Variables

The independent variables were used to describe the influence of customer relationships in marketing on customer retention. Meanwhile, customer retention and its indicators were to explain the effects of customer relationship marketing on customer retention in telecommunication companies. The study variables adopted from the empirical and theoretical review to explain the demographic characteristics of respondents measured through categorical scales as follows. The measurements of Customer retention, customer trust, relationship commitment, and service quality were not given in the form of Likert scaling shown in Table 3.2 below. Furthermore, the operationalization of the study model explained the research hypotheses and the variables measured through response rating starting from1 (one) up to 5 (five). Table 3.2 shows the variables and pertinent measurement procedures. The independent variables were measured using the Lirket scale. The 5-point Lirket scale included; Strongly agree, Agree, Neutral, Disagree, and Strongly disagree.

Table 3.: Measurement for model constructs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Construct Variables** | **Item Description** | | **Measurement Scale** |
| Dependent variable | CR: Customer Retention | CR1: Increased Sale | CR2: Repeating Purchase | 5-point Likert scale |
| CR3: Increased Shares | CR4: Increased Revenue |
| CR:5: Loyalty |  |
| Independent variables | CT: Customer Trust | CT 1: Brand image | CT 2: Trustful impression | 5-point Likert scale |
| CT 3: Promises | CT4: comfortable in the purchase |
| CT 5: fulfilled Promises | CT 6: the confidence of sales representatives |
| CT 7: Attractive price packages |  |  |
| RC: Relationship Commitment | RC:1: Enjoying service offered | RC:2: Future purchase intention | 5-point Likert scale |
| RC:3: commitment to resolve complaints | RC:4: Customer caring |
| RC:5: Promotion which stimulates sale | RC:6: loyal services offered |
| RC:7: High shifting costs |  |
| SQ: Service Quality | SQ1: Responsiveness | SQ2: Empathy | 5-point Likert scale |
| SQ3: Assurance | SQ4: Tangibility |
| SQ5: Reliability |  |

Source: Literature Review 2020

Also, the researcher provided the background to the study population and profile as per Table 3.3 below.

Table 3.: Measurement of the construct characteristics of the respondents

|  |  |  |
| --- | --- | --- |
| **Variable** | **Measurement** | **Scale** |
| Gender/sex | Male, Female | Nominal |
| Location | Kinondoni, Ilala, Temeke | Nominal |
| Education level | Not attended, primary education, secondary education, Tertiary education graduate and Postgraduate | Nominal |
| Marital status | Single, married, divorced | Nominal |
| Years of using the service | Less than 1, 2 to 5, 6 and above | Nominal |
| Frequency of use | Frequent, infrequent | Nominal |

Source: Researcher conceptualization of constructs from literature, 2018

# Methods of Data Collection

In this area, the study explains the type of data collection used. Also, the explanation offered tries to describe the questionnaires and its strength as well as the weakness or limitation in data collection. Apart from the explanation regarding the strength and weaknesses identified in the questionnaire. The discussion on the questionnaire has shown clearly the association between the study objectives and types of data that the study intended to collect.

# Structured Questionnaire

The study used a structured questionnaire from Gustaffsson, *et al*. (2010); Silva & Yapa (2015) and Hossain, Chowdhury & Jahan (2017). The adopted questions the mentioned studies were modified and later validated to suit the current study objectives. The study questionnaire is attached in Appendix I. The questionnaire was used to capture statistical data for analysis. As argued by Kothari (2004), a structured questionnaire is mostly used to capture measurable data for statistical testing of a relationship in a study. Within this context, a questionnaire was considered suitable in the survey situations as it offers a standardized system of questions to collect measurable and factual data that classified specific groups and their circumstances in statistical characterization (Goretti, 2008). Hence the questionnaire was used in this study for a quantitative survey due to the ability of the tool to capture statistical data in the field for the use in testing hypotheses of the study.

# Validity and Reliability of Data

# Validity of Quantitative Data

Saunders *et al.* (2012) explain that quantitative validity is the extent to which a test measures what it supposed to measure. Kimberlin & Winterstein (2008) identify that there are various types of quantitative validity including content validity, construct validity, and criterion validity.

# Content Validity

Content validity can be achieved when the items of a given instrument test accurately what was intended to measure by reflecting the theoretical domain of the latent constructs (Morse *et al.,* 2002). This study ensured the questionnaire content validity through a pilot study using the created survey instrument. The content validity helped the study to ensure the instrument used accurately to reflect the constructs stated in the theoretical domain and ensure it measures what it claims to measure. In this regard, the study used experts in marketing and some respondents as samples that would strengthen the research instruments by reflecting the coverage of the theoretical domain (Goretti, 2008).

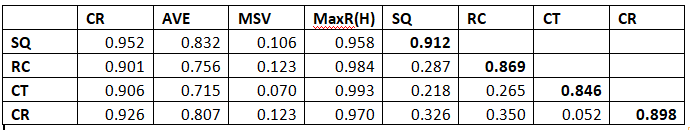
# Construct Validity

The study by Kimberlin & Winterstein (2008) established that the construct validity test was based on the judgment made using a specific measuring instrument assisted by evidence accumulated from various studies. Thus, the study evaluated the construct validity by assessing the relationship of the measure being evaluated against the known variables stated by the theory and related to the construct measured by the research instrument. According to Yin (2009), construct validity involves the process of identifying the correct operational measures and it can be tested using convergent, discriminant, and nomological validity. To identify the correct operational measures, the factor analysis was used to test convergent, discriminant, and nomological validity. The study also used convergent validity to indicate whether the test finding was similar to those which are given in theories (*ibid*.). To measure the convergent validity, the study by Falk & Miller (1982) recommends a loading of at least 0.55 of the variances as the principle to observe on measuring the model. Based on the findings in this study, all the loading achieved the minimum value as recommended in Falk & Miller (1982). The results for loading can be seen in Figure 4.6. Moreover, this study applied the principle recommended by Fornell & Larcker (1981) that the use of the average variance extracted (AVE) is essential in testing the convergent validity of the model. The results for AVE extracted are indicated in Table 3.5 which shows that all AVE values were higher than the recommended value of 0.5 (ranging from 0.715 to 0.832), thus demonstrating adequate convergent validity.

Likewise, the study used the discriminate validity to test construct validity. The discriminate validity explains the extent to which a given scale is distinguished from other scales used to measure the other different concepts or traits. The study tested the discriminate validity by comparing the AVE against the shared variances for individual constructs. Fornell & Larcker (1981) recommend that the discriminant validity appears when AVE is greater than the shared variance for an individual construct. The results are presented in Table 3.4 which indicates the inter-construct correlations given in a diagonal matrix form.

Furthermore, this study tested the nomological validity by relating measurements against the theoretical model. Spiro & Weitz (1990) disclosed that the process leads to further deductions, interpretations as well as the tests. Thus, the nomological validity is stated through the standardized coefficients whereby the value would be significant when it is higher than 0.2. The study measured the model and it was found that all the standardized coefficients were found significant as the values were higher than 0.2.

Table 3.: Composite reliability, convergent and discriminant validity



Source: Field Data (2020)

Table 3.4 shows that all variables had reached the composite reliability value (CR) which was greater than 0.60. The variables scored an AVE value which is greater than 0.4 as recommended by Fornell & Larcker (1981). Based on the study by Fornell & Larcker (1981), the variables were considered reliable and the study had an internal consistency of any variable as the score for composite reliability p-value was greater than 0.60.

# Criterion Validity

According to Kimberlin & Winterstein (2008), the criterion validity refers to as the way of measuring scores of new measures by correlating with other measures of the similar constructs stated by the theory. Moreover, in this study, criterion validity was measured using predictive validity. The predictive validity adopts existing accepted measures to determine and compare how well the new measure can be accepted. To validate the study, the predictive validity was used to ensure that the instrument used in data collection was created from strong and validated literature as well as expert panels.

# Reliability of Data

The study by Saunders *et al.* (2012) recommends that to ensure the instrument reliability, the researcher conducted a pilot study. The pilot study helped to ensure that the questionnaire was easy to be interpreted by respondents. This assisted in increasing the study's reputability. The study administered 10 percent of the targeted participants in this study. The method helped to establish consistency within the questionnaire and the same results on separate occasions when it was re-administered. The participants, who were involved in the pilot study did not participate in the main study during the data collection to avoid duplication of answers.

To test for reliability, Cronbach’s Alpha test was carried out to measure the internal stability of the study variables by correlating the responses to each question in the questionnaire. Therefore, consistency of responses was measured across either all the questions or a sub-group of the questions from the questionnaire. Cronbach’s Alpha analysis was done using SPSS version 20 where the p-value of 0.7 and above was considered as a decision criterion for a questionnaire to be considered reliable (Eisinga *et al.,* 2013).

Ellis & Levy (2009) explain that reliability is the degree to which measures are free from error and therefore yield consistent results. On the other hand, Golafshani (2003) pointed out that, reliability is the extent to which results are consistent over time. Also, reliability measures the accuracy of the representation of the total population under study is referred to as reliability. It means if the results of a study can be reproduced under a similar methodology and conditions. This study tested reliability to determine the consistency of the variables used in the instrument. The results on reliability are presented in Table 3.4; the result indicates that all variables from the research instrument had reached the composite reliability value (CR) which was greater than 0.60. Likewise, the variables scored an AVE value which was also greater than 0.4. Based on the results from composite reliability ( CR) and average variance extracted (AVE), this study reached the recommended reliability level established by Fornell & Larcker (1981).

Furthermore, according to Golafshani (2003) as cited from Kirk & Miller (1986) identified that there are three types of reliability tests applied in quantitative research, which relate to (1) the degree to which a measurement, given repeatedly, remains the same (2) the stability of a measurement over time; and (3) the similarity of measurements within a given period. The reliability was measured from the consistency of measurement over time or the stability exhibited after the measurement used in a variety of conditions. The reliability is measured to show if the instrument measures repeatability or stability-over-time. For instance, scholars like Zikmund (2003) advocates that the use of the test-retest method helps to test if the scale or measurement administered can give the same results.

Specifically, reliability can be tested when the instrument administered twice to respondents at two separate points in time but it gives a similar result. However, test-retest procedures were not considered useful in this study since the participants would recall their previous responses and simply repeat them (Drost, 2012). For instance, when the interval between the first and second test is too short, respondents might remember what was on the first test and their answers on the second test could be affected by memory. Alternatively, when the interval between the two tests is too long, maturation happens. Based on the above argument, in this study to ensure the repeatability of the data collection instrument, the study conducted an exploratory study and pilot study before the main survey to ensure that the instrument captured the context variables. Also, the pilot was used to check whether the language applied was clear to the respondents. The process enhanced the suitability of the data collection instrument.

Besides, the composite reliability was used to examine the internal consistency of the

study variables. The internal consistency of this study was measured as a degree from which the instrument and questions indicated how well the set of items tested. The test for the items was based on behavior or characteristics such as the homogeneity scale. In other words, the scaled items can measure constructs of the same traits. So far, the items are considered to be consistent and significant for analysis when p-values are greater than 0.5. This study considers the coefficients that range from and greater than 0.6 to be more scientifically acceptable for reliability tests (Tabachnick & Fidell, 1996; Hair *et al.* 2006). Thus, the composite reliability (C.R) p-values > 0.5 was reached as indicated in Table 3.4, it means that the items used in this study can measure what it was supposed to measure. The study met the criteria stated by Fornell & Larcker (1981) that the internal consistency of any variable should score at least a composite reliability p-value of 0.60. Otherwise, low composite reliability p-values of equal or less than 0.5 suggest a lack of internal consistency of what it is supposed to measure.

# Validity and Reliability Issues in Exploratory Factor Analysis

This study tested the sample adequacy to carry out the exploratory factor analysis. The Kaiser-Meyer-Olkin (KMO) was used to conduct the sample adequacy test. The KMO statistic by Kaiser (1974) suggests that a minimum KMO of .5 is highly recommended for sample adequacy for analysis, while the values lying between .5 and .7 were identified to be mediocre. Moreover, the values falling in between .7 and .8 identified to good, but values lying in between .9 and above .9 are categorized as superb for sample adequacy. The data used in this study reached the KMO value of .817, which means that the sample falling into a good range of sample adequacy criteria as indicated in Table 3.5 below.

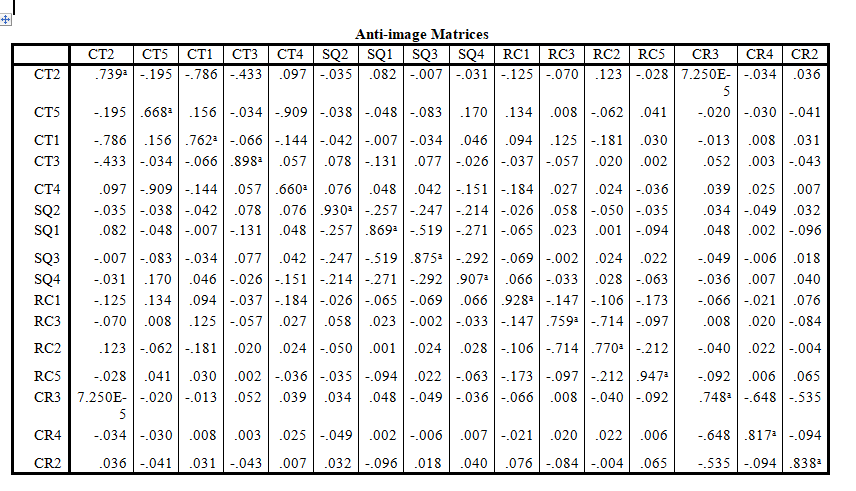
Table 3.: Kaiser Meyer Olkin and Bartlett’s Test

|  |  |  |
| --- | --- | --- |
| **KMO and Bartlett's Test** | | |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .817 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 5876.130 |
| df | 120 |
| Sig. | .000 |

Furthermore, the Kaiser-Meyer-Olkin (KMO) values for each variable are indicated in a diagonal form best known as the anti-image correlation matrix. Either, this study reached the Kaiser-Meyer-Olkin value above the recommend .5 for every individual component as stated in the diagonal form in table 3.6. According to (Kaiser, 1974 as cited in Matsunaga, 2010) asserted that the KMO value greater than .5 provides confidence to a researcher that the sample size as well as the components stated were adequate for factor analysis.

Similarly, anti-image was used to measure the sample adequacy for the individual variable as indicated using the anti-image correlation matrix as in Table 3.6 below.

Table 3.: Ant-image matrices



Arguably, Bartlett’s test results shown in Table 3.5 assists in measuring the null hypothesis from which the original correlation matrix is indicated as the identity matrix. In contrast to this, the significant test explains that the matrix is not an identity matrix, rather it is giving evidence that there are some relationships among the variables which might be included in the analysis (Hooper, 2008). In this case, Bartlett’s test is significant when the value is higher than the p-value ie (*p* < .001). It means the relationships among the variables exist and can be justified through the correlation matrix. The items found to be significant in the correlation matrix are included for the exploratory analysis. The principle stated by Hooper (2008) suggests that Bartlett’s test of sphericity should reach statistical significance. Hence, the correlations indicated in Table 3.6 satisfy the criteria stated as the correlations were large enough for the study to carry out the exploratory factor analysis.

Table 3.: A summary of validity and reliability at confirmatory factor analysis

|  |  |  |  |
| --- | --- | --- | --- |
| **Validity component** | **Technique used** | **Heuristic/*de facto* standards** | **Study model validation** |
| Discriminant  validity | CFA as used  in SEM | GFI > .90, CFI > .90,  AGFI > 80, AVE > share AVE | GFI = 1.000, AGFI = 1.000  CFI = .1.000, refer figure 4.1  AVE > share AVE  refer Table 3.4 |
| Convergent  validity | CFA as used  in SEM | GF I> .90, CFI > .90,  AGFI > .80, AVE higher than 0.5 | GFI = 1.000AGFI = 1.000  CFI = 1.000, as indicated in figure 4.1  AVE are 0.5 and above  refer Table 3.4 |
| Reliability  *(Internal consistency)* | Composite reliability (C.R) | All C.R p-value > 0.6 or 0.7 | p-value should be higher than 0.6 c.f Table 3.4 |
| Content validity | Literature Review,  Expert panels | The higher degree of consensus | Data collection instrument was reviewed after the opinion of the experts as well as the pilot test |
| Nomological  validity | SEM | Standardize path  Coefficients | All standardized coefficients stated to be significant as the values were higher than 0.2 |
| Predictive validity | SEM | Explained variances in the .40 range or above are desired | unobserved variable fall in the stated acceptable range |

Source: Literature survey (2019)

This study also provided a summary of validity and reliability evaluation as explained in Table 3.7 above. The table summarizes the validity and reliability principles guiding the confirmatory factor analysis

# Data Analysis

# Primary Data management for Missing Values and Outliers

Kwak& Kim (2017) explains that data management is the process which involves modification of outliers’ weights. Also, it can be replacing the values tested with largest or second smallest value in observations excluding outliers. This study had a data set with 400 participantsto examine the Missing Values and Outliers using Winsorization**.** This section identifies the acceptable range off lower fence and upper fence which defines the range for missing vales and outliers. The data ranged between 1st, 2nd and 3rd quartile (ie 25th percentile, 50th percentile and 75th percentile), it means data range beyond the upper and lower percentiles are outliers. In such cases, the study was able to track, clean and modify the abnormal value. The purpose of data management was to minimize biasness and improve data efficiency.

Table 3.: Summary for missing value

**No Raw data complete case imputation with the mean value**

N NA 392 400

Mean NA 2.50 2.50

SD NA 1.31 1.21

Summary for outliers

**No Raw data complete case Winsorization with the maximum value**

N 400 3.92 400

Mean 4.16 3.00 3.4

SD 2.72 0.84 0.87

The results in table indicates that, if data were used without treatment it could have led the outlier of the mean (SD) would be 4.16 (2.72). It means the data would have caused a problem of overestimation and pause the consequence on the study validity and reliability. When the trimming method used, the study indicates that after the outliers were removed, the mean (SD) dropped to 3.00 (0.84). The study applied winsorization method by replacing the outlier with the largest or second smallest value the mean (SD) was 3.4 (0.87). In this case, the treatment of a missing value and outlier minimizing effect of error caused by over and under-estimation of the statistics. In order to treat the effects comes from mismanagement of data would have cost changes on sample size and biasness in the study results.

# Descriptive Data Analysis

The quantitative data gathered using the survey questionnaire was entered into IBM SPSS version 20; in this regard the software-assisted the study to conduct descriptive and inferential analysis. Leech *et al*. (2005) asserted that frequencies and percentages are useful tools to explain both profile and characteristics of phenomena. Either, frequency and percentage were used by this study in analyzing as well as explaining the profile and characteristics of the customers such as location, age, and experience. The analysis assisted the explanation and provides an understanding of how relationship marketing can influence customer retention. Thus, the descriptive data analysis provided a rich picture for the sample of the population. It was also facilitated the discussion of findings.

# Multivariate Data Analysis

In the multivariate analysis, the study tested hypotheses and analyzed the significant influence of predictor variables namely trust, relationship commitment, and service quality against customer retention. The study used structural equation modeling (SEM) to test the significance of the independent variables against the dependent variable. The suitability of SEM for this study was derived from the benefits presented in the study done by Hooper *et al.* (2008). Whereas, Hooper *et al*. (2008) indicates that SEM can analyze by incorporating observed variables (measured) as well as unobserved variables (latent constructs) on measuring the relationship. Oke *et al.* (2012) disclosed that SEM is mostly applicable since it is difficult to analyze unobservable variables using the traditional techniques. Either, the traditional techniques can only help to handle measured variables. This study designed the hypotheses which involve the latent or unobservable variables such as customer trust, relationship commitment, and service quality from which the study intended to test their influence on customer retention. Due to the inability of the traditional methods to analyze the unobservable variables in the research model, SEM was found to be suitable as it considers the above latent variables which are measure through some indicator variables known as observed variables.

Similarly, Oke *et al.* (2012) on the other hand support that the use of measured variables informs the study in explaining the latent theoretical constructs. The explanation made from indicators is realistic in justifying the use of multiple variables other than using a single variable. Moreover, SEM assisted the study in the use of a multitude of indicator variables to measure a single construct simultaneously. Thus, the study achieved a valid conclusion made at the construct level. It is from this understanding, the study designed four constructs namely trust, relationship commitment, and service quality as well as customer retention. Similarly, the study developed several indicator variables to explain the unobservable constructs or latent variables. That means, using other methods of analysis would as well require other separate forms of analyses which often result in a less clear conclusion. In this regard, the variances and covariance of all the observed variables are not factored in systematically (Hooper *et al.* 2008).

Further, structural equation modeling provides the study with the benefit to measure relationships between single or multiple independent variables against single or multiple dependent variables for completeness. On the other hand, SEM can simultaneously test all the relationships between constructs (Byrne, 2010). In the current study, the three hypotheses were developed and framed in line with the conceptual framework. The analysis was performed simultaneously to determine their significant relationship against customer retention. It is in contrast to ordinary regression analysis which measures the relationship for single variable, but SEM considers several equations simultaneously. The same variable can be represented as a predictor or regressor in one equation by applying the same criterion or regressed. That is the reason why SEM is considered useful and applicable as compared to other multivariate methods due to its capability on measuring several variables as well as of the interrelationships simultaneously.

Furthermore, SEM was used as it assists in performing the confirmatory factor analysis (Jackson *et al.*, 2009). This enabled the study to test the measurement of each latent variable and understand whether they are psychometrically sound. That means when there is an error found during the process of measuring the relationships, and then SEM helps to estimate and remove the occurred error. This process of dealing with the common variance assists the study in achieving the reliability of measurement explicit meanwhile it makes the relationship error-free (Oke *et al.* 2012). SEM is rather confirmatory than an exploratory approach to provide explicit estimates on measuring errors. The approach is more beneficial as considered to traditional multivariate procedures which are limited in assessing or correcting the error. From this understanding, SEM assisted the study to come up with conclusions that are not biased in explaining the relationships between constructs. When the errors in the measurement are minimized and ensure the relationship between variables then results have to show if it is perfect and reliable.

Similarly, SEM helps in resolving problems in multicollinearity, since multiple measures are required to describe a latent construct or unobserved variable. Multicollinearity does not occur when unobserved variables represent distinct latent constructs (Hox & Bechger, 2012). Despite its usefulness and suitability, SEM performs multiple variables analysis and tests for relationships in this study. But the tool is considered to be complicated and difficult to use in the analysis process. Likewise, the requirements for the sample size appear to be vague and the interpretation of the results is as well too sophisticated to handle (Hox & Bechger, 2012). On handling the limitation identified in the application of SEM, it is suggested by Tabachnick & Fidell (2001) that the researcher should use an appropriate sample size to achieve a reliable and stable estimate. In this study appropriate sample size was selected to ensure it was sufficient to yield stable results. Moreover, linear structural equation modeling was used though the technique is limited by only the use of continuous variables. Besides Hooper *et al.* (2008) argue that the linear SEM is strictly applicable only when the manifest variables are scaled. This is identified to be a serious limitation in social sciences since the variables are always categorical. For this study to address the limitation explained in SEM techniques a conceptual framework was developed that involves only continuous variables. Also, the categorical variables were excluded from the original theory and the model applied by this study.

# Ethical Issues

The researcher informed the potential respondents and asked them voluntarily to participate in the study. The participants were contacted orally or by letter to ask for an appointment and their participation. The respondents were assured of confidentiality. It was the responsibility of the researcher to prevent the use and transmission of information that could harm the people involved in the study. Therefore, data collected was kept anonymously and the identifiers were removed or destroyed as soon as possible. Also, access to research data was limited to University procedures and standards. Likewise, the researcher observed integrity by seeing to it that the study is conducted with due honesty, fairness, and respect to all (Yin, 2009).

Moreover, the study obtained informed consent from consulted study participants; the study minimized the risks with the potential to harm the participants by protecting participants’ identity through anonymity and confidentiality procedures. To maintain ethical values the study avoided deceptive practices and participants were given the right to withdraw any time from the study. The respondents were well instructed in advance, to guide them from writing their real names, and to ensure there was anonymity. This helped the respondents to become comfortable and to provide accurate responses. Legal and ethical values are tied up to some of the information due to disclosure procedures, especially personal information which can support the conclusion (Saunders *et al.* 2012). This is the reason why, after the approval of the proposal the researcher applied for transmittal letter as clearance to allow him to go to the field for the data collection process.

Before, administering the questionnaire the research asked for approval from the government ethical clearance bodies. The researcher also provided a self-introductory letter to invite participants and to arrange appointments. After this process, the researcher started data collection. This involved distribution and collection of questionnaires from various respondents. Also, the study intended to provide convenience to the respondents by providing different media of communication such as phone call contact numbers, emails, and face to face conversations and consultation.

# CHAPTER FOUR

# RESEARCH FINDINGS

# Chapter Overview

This chapter presents the findings of the study. It starts by presenting the data analysis on characteristics of the sample, and description of the respondents under study. It presents the analysis from the survey through factor analysis (exploratory and confirmatory factor analysis) and thereafter by testing of the hypotheses developed for the study.

# Sample Distribution

In this part, the researcher aimed to understand the nature and characteristics of the respondents used in the process of data collection. It profiles the descriptive results which inform the fundamental description of the respondents under study and to build insights while helping to support the final analysis of the data. This study focused on the influence of customer relationship marketing on customer retention. To improve the validity of data it was important to consider the distribution of the respondents. Given this need, Table 4.1 summarises the characteristics of sample respondents that provided the data for this study.

Table 4.: Profile sample distribution

**Variable Frequency Percentage**

**Gender**

Male 219 55.9

Female 173 44.1

**Total 392 100.0**

**Education level**

Primary School Education 80 20.4

Secondary School Education 103 26.3

Non degree higher 54 13.8

Bachelor degree 82 20.9

Postgraduate 73 18.6

**Total 392 100.0**

**Age**

Less than 30 years old 142 36.2

30 to less than 40 years 97 24.7

40 to less than 45 years 63 16.1

Over 44 years 90 23.0

**Total 392 100.0**

**Experience with Vodacom**

Less than 1 year 79 20.2

1 to less than 5 years 97 24.7

5 to 10 years 98 25.0

10 to above 10 years 118 30.1

Total 392 100.0

**Location**

Ilala 152 38.8

Temeke 104 26.5

Kinondoni 136 34.7

**Total 392 100.0**

# Distribution of Respondents by Gender

In this study male and female respondents were involved in data collection process. They were all customers of Vodacom Tanzania limited summarized in Table 4.1 above. Among the 392 respondents contacted, 55.9% were male, and 44.1% were female. This proportional representation of gender indicates that the female respondents were slightly less in percentage as compared to male respondents. It means the Vodacom customers in Dar-es-salaam were equally presented in terms of gender in the process of data collection.

# Respondents’ Distribution by Education Level

Table 4.1 also shows the respondent's distribution by the level of education. Among the 392 respondents, 20.4% had of primary education, 26.3% were of secondary education, 13.8% were holders of non-degree education qualification, 20.9% holders of bachelor degrees and 18.6% were holders of postgraduate degrees. The majority of the respondents were educated. In principle the researcher aimed to ensure that the study captures the educational background of the respondents. The proportionate representation of education background assisted to show that the respondents were all informed and able to fill the questionnaire. Additionally, each level of education tends to reflect the representation of respondents from different levels of education. It means the data collection process shows how respondents with different education levels were involved in the study.

# Respondents’ Distribution by Age

Age reflects the maturity of the respondents and hence their objectivity in responding to issues. Table 4.1 shows the distribution of the age of the respondents. Among the 392 respondents, 36.2% were less than 30 years, 24.7% were aged 30 to less than 40 years, 16.10% were aged 40 to less than 45 years and 23.0% were over 44 years old. The majority of the respondents were in the age between 18 and 50; this was the age of the majority who were involved in the economy. The distribution of sample distribution provide the explanation of respondents who responded to the issues and hence helpful in providing data relevant for the study.

# Respondents’ Distribution by Experience with Vodacom Services

The large proportion of the respondents surveyed ie 20.2% had less than 1 year of experience with Vodacom products and services, followed by 24.7% those with less than 5 years experience in using Vodacom products, 25.0% had the experience of 5 to 10 years and 30.1% had experience of 10 years and above. The representation of respondents’ in terms of experience assisted to explain how long the customers stayed with Vodacom. It is from the experience customers can tell the benefits acquired from the services and the reason for their stay.

# Respondents’ Distribution by Location

The study sample comprised respondents from three Municipalities namely Ilala, Temeke, and Kinondoni as summarized in Table 4.1. The findings show that the majority of the respondents involved in this study ie 38.8% were located in Ilala, 26.5% in Temeke and 34.7% in Kinondoni. It is understandable, why the majority of Vodacom beneficiaries were in Ilala. The reason being that majority of Vodacom business facilities are concentrated in Ilala as a center for government and economic activities.

# Missing Data

Eight (8) questionnaires had missing values. The researcher applied listwise deletion method. Therefore, out of the 400 questionnaires, 392 were valid for analysis. Listwise deletion was preferred because the sample was large enough such that deletion of eight questionnaires wouldn’t affect the sample size requirement.

# Model Validation

This section is composed of two parts: model validation and analysis of path coefficient as described below. The Model validation process intended to express how the study associated data collected with the variables used to develop the conceptual framework without data support. This section checked to confirm, whether the constructs aligned with the stated measures or indicator variables. On the analysis of the path coefficient, the study examined the hypotheses and their coefficients and scores obtained. The hypotheses were tested to determine the direction, strength, and the level of significance through the path coefficients.

# Exploratory and the Confirmatory Factor Analysis

Model validation aimed to check and verify if the proposed factor structures are consistent with the actual data collected from the field. Model validation was necessary because, at the beginning of the study, the researcher developed the conceptual framework without supporting data. It was necessary to check if the constructs were aligned with their underlining measures or indicator variables. To ensure that the constructs designed were aligned with their indicators, the researcher used both the exploratory factor analysis and the confirmatory factor analysis as described below.

# Exploratory Factor Analysis

To ensure that the constructs were aligned with their indicator variables before the actual data analysis, it was necessary to carry out exploratory factor analysis. This is because, at the start of any study, the researcher mixes empirical and theoretical measures of a construct from different settings without data. Scholars such as Henson & Roberts (2006) argue that in a situation where there is a mixing of constructs from different theories and empirical literature, a poor model fit will always result. To address this in the current study, exploratory factor analysis was used to identify a set of unobserved factors that reconstruct the complexity of the observed data in an essential form.

Exploratory factor analysis with varimax rotation was conducted to assess the underlying structure for the forty (40) items in the survey questionnaire. In selecting factors to retain, four criteria were adopted namely, Eigenvalues, scree test (i.e., screen plot), the conceptual theoretical assumption, and factors that have at least three items. The use of a combination of criteria is recommended by Yong & Pearce (2013) to help to offsite the weakness of using one criterion.

Given this situation, four factors were produced based on the coded questionnaire attached at Appendix V with 70% of the cumulative variance as attached in the Appendix V. The four-factor had the Eigen values >1, all above the break/cut off point on-screen graph and had at least two items aligned as in the conceptual framework. This means that all the retained factors meet Kaiser’s criterion.

After discovering that the four factors had met the criteria and qualified to be retained, further analysis of measured variables was done to see if the indicators fit in their underlying factors. To assess the suitability of each measured variable to their underlying structure, the following criteria as recommended by Yong & Pearce (2013) were adopted for retaining/dropping an item/indicator as follows:

First, all items loaded into their associated factors were retained and those loaded into more than one factor were dropped. Secondly, if more than two items were loaded in one factor, all items were retained and if less than three items were loaded in one factor, all were dropped. Third, all items with KMO p-value greater than 0.5 were retained and those with less than 0.5 were dropped. Fourth, all items with loading ranging from 0.4 to 0.8 were retained and those with loading less than 0.4 or above 0.8 were dropped. Yong & Pearce (2013) suggested these criteria to be adopted for retaining the items or dropping the items to improve the model. As far as this study is concerned, Table 4.6 presents a selected output of SPSS items that were dropped.

Table 4.: Selected exploratory factor analysis output of Items dropped

|  |  |
| --- | --- |
| **FACTOR** | **ITEM REMOVED** |
| RC: Relationship Commitment | RC4 and RC6 |
| CT: Customer Trust | CT4 and CT7 |
| SQ: Service Quality | SQ5 |
| CR: Customer retention | CR1 and CR5 |

Relationship Commitment(RC): RC4 and RC6 were dropped from the analysis because they had weak loadings and hence affected its fitting. For example, RC4 had a multiple loading on RC and SQ. For RC6, it was eliminated because it was loading weakly with a value of less than 0.5.

Customer Trust (CT): CT6 and CT7 weredropped from the analysis because had multiple loadings on CT and RC. Hence, the constructs identified were eliminated as there were affecting the fitting of the model.

Table 4.: Exploratory factor analysis rotated component matrixa

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Component | | | |
| 1 | 2 | 3 | 4 |
| CT2 | .896 |  |  |  |
| CT1 | .863 |  |  |  |
| CT3 | .804 |  |  |  |
| CT5 | .801 |  |  |  |
| CT4 | .785 |  |  |  |
| SQ1 |  | .915 |  |  |
| SQ3 |  | .913 |  |  |
| SQ4 |  | .902 |  |  |
| SQ2 |  | .894 |  |  |
| RC3 |  |  | .898 |  |
| RC2 |  |  | .889 |  |
| RC5 |  |  | .692 |  |
| RC1 |  |  | .631 |  |
| CR3 |  |  |  | .916 |
| CR2 |  |  |  | .889 |
| CR4 |  |  |  | .888 |
| Extraction Method: Principal Component Analysis.  Rotation Method: Varimax with Kaiser Normalization. | | | | |
| a. Rotation converged in 5 iterations. | | | | |

Service Quality (SQ): also SQ5was eliminated because they had weak loadings on their theoretical model and hence affected its fitting. It had multiple loadings on CT and CR. CR1: CR1 and CR5 had a negligible contribution because it was loaded alone in a single factor which failed to support theoretical assumptions. Given this perspective, the items that did not fit well with the factor solution were dropped from the analysis as described in Table 4.7 and those which fitted very well were retained as described in Table 4.3:

Having established the study framework from the exploratory factor analysis, the next step was to perform a confirmatory factor analysis as described in detail in the following section:

# A Confirmatory Factor Analysis

The exploratory factor analysis failed to assess the loadings of the measures, error variances, and covariance. In the current study, it was necessary to carry out confirmatory factor analysis for theoretical constructs through assessing the loadings of the measures, error variances, and covariance (Hooper *et al.,* 2008). At this stage, the aim was to confirm and harmonize a belief about how the original variables are organized in a particular way using CFA. The study carried out a confirmatory factor analysis, a measurement model was developed to test for measurement errors and the correlation between the latent variables (Yong & Pearce, 2013). In this section, a model of the composite structure was used as presented in the conceptual framework.

# Model Fitness Evaluation in a Confirmatory Factor Analysis

The following criteria were used to guide the model refinement process and so achieve a better fit as recommended by Schermelleh-Engel, *et al*. (2003) that a Standardized regression weight (S.R.W) value should be above 0.5 and Modification indexes (MI) that reveal high covariance between measurement errors accompanied by high regression weights between these errors’ construct and cross-loading items were recommended for deletion.

# Measurement Model for Baseline Model

In the current study, to reach a baseline measurement model that fits both components, the four individual measurement models which were developed earlier were combined and a CFA was run with the maximum likelihood estimate in IBM Amos 20 to determine its fitness. After the initial run, the results showed a bad model fit with CMIN/DF = 5.263, GFI = 0.811, AGFI = 0.762, CFI = 0.702 and RMSEA = 0. 109. Based on Hoe (2008) recommendation which requires a model to achieve the following minimum requirements CFI (> 0.90 indicates good fit), RMSEA (< 0.08 indicates acceptable fit), and commonly used χ2 statistic (χ2/ df ratio of 3 or less) to be considered fit.

To improve the model, some items that were affecting the significance of the model’s fitness were removed as recommended by Hooper, *et al*. (2008) explains how to remove the items that demonstrate low loading, and those items standardized regression weights (S.R.W) values less than 0.5. The items of relationship Commitment (RC):that were removed include:

RC4 and RC6 were eliminated from the analysis because they had weak loadings and hence affected its fitting. Customer Trust (CT): CT6 and CT7 were eliminated from the analysis because they had weak loadings on the theoretical model and hence affected its fitting. At this point, elimination was made at the item level and items that were removed because their effect was not only weakening the model, but they also indicated weak statistical power.

# Measurement Model for Customer Retention (CR)

Initially, CFI was run using IBM Amos 20 to test and confirm for measurement model base on the following observed variable namely CR2, CR3, and CR4. The model output as illustrated in figure indicating that the model fit well based on Hoe (2008) commonly applied fit indices which require a model to achieve the following minimum requirement CFI (> 0.90 indicates good fit), RMSEA (< 0.08 indicates acceptable fit), and commonly used χ2 statistic (χ2/ df ratio of 3 or less) to be considered fit.

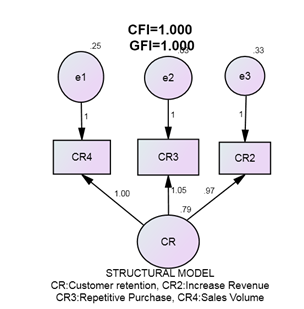


Figure 4.: Measurement model for customer retention

# Measurement Model for Customer Trust

Initially, CFI was run using IBM Amos 20 to test and confirm for the customer trust measurement model based on the following observed variable namely CT1, CT2, CT3, and CT5. After running the model, CT4 was dropped to enhance model fit. The model output as illustrated in Figure 4.2 is indicated that the model fit well based on Hoe (2008) commonly applied fit indices which require a model to achieve the following minimum requirement CFI (> 0.90 indicates good fit), RMSEA (< 0.08 indicates acceptable fit), and commonly used χ2 statistic (χ2/ df ratio of 3 or less) to be considered fit.

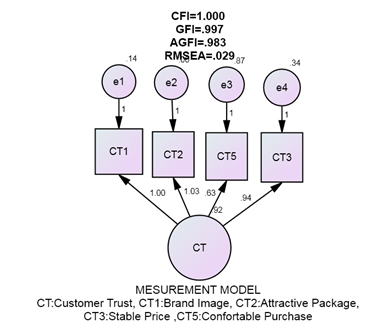


Figure 4.: Customer trust measurement model

# Measurement Model for Relationship Commitment (RC)

Initially, CFI was run using IBM Amos 20 to test and confirm for relationship commitment measurement model based on the following observed variable namely RC1, RC2, RC3, and RC5. The model output as illustrated in Figure 4.2 indicating that the model fit well based on Hoe (2008) commonly applied fit indices which require a model to achieve the following minimum requirement, CFI (> 0.90 indicates good fit), RMSEA (< 0.08 indicates acceptable fit), and commonly used χ2 statistic (χ2/ df ratio of 3 or less) to be considered fit.

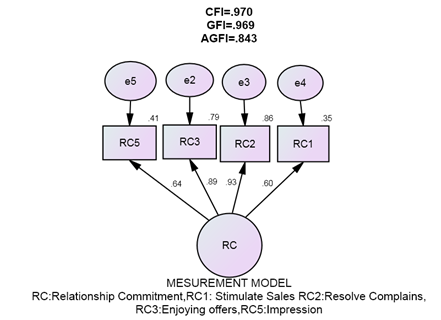


Figure 4.: Measurement model for relationship commitment

# Measurement Model for Service Quality

Initially, CFI was run using IBM Amos 20 to test and confirm for Service Quality measurement model base on the following observed variable namely SQ1, SQ2, SQ3, and SQ4. The model output as illustrated in figure 4.3 indicating that the model fit well based on Hoe(2008) commonly applied fit indices which require a model to achieve the following minimum requirement, CFI (> 0.90 indicates good fit), RMSEA (< 0.08 indicates acceptable fit), and commonly used χ2 statistic (χ2/ df ratio of 3 or less) to be considered fit.

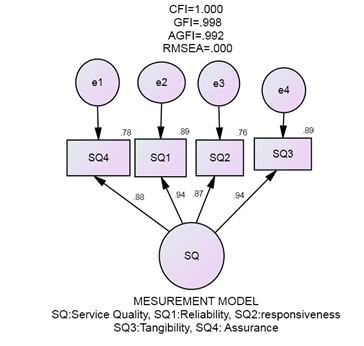


Figure 4.: Measurement Model for Service Quality

# Standardized Measurement Model

This study determined the model fitness. The four individual measurement models developed earlier were combined and CFA tested through IBM Amos 20. The process assisted the study to determine whether the standardized measurement model achieved the recommended fitness level. The study done by Hoe (2008) recommends that standardized measurement model fitness requires the following minimum requirements, CFI (> 0.90 indicates good fit), RMSEA (< 0.08 indicates acceptable fit), and commonly used χ2 statistic (χ2/ df ratio of 3 or less) to be considered fit.

However, the initial results indicated a poor model fit with CMIN/DF = 5.263, GFI = 0.811, AGFI = 0.762, CFI = 0.702 and RMSEA = 0.109. Moreover, Hooper *et al*. (2008) recommend that the study should focus much on items that demonstrate high covariance with high regression weight in the modification indexes (M.I). Similarly, the study should avoid items with the standardized regression weights (S.R.W) values less than 0.5 and cross-loadings items. It means they should be removed from the model to achieve a good fit. Hence, the items including CT4 and RC5 were removed to improve the model fit.

After removing those items identified in the model, indicated adequate fit results with CMIN/DF = 3.00, GFI = 0.946, AGFI = 0.921, CFI = 0.983 and RMSEA = 0.55. On the other hand, the observed variables with significant probabilities had positive standardized regression weights greater than 0.50 and the standardized path coefficients between measured variables and factors in the models showed that all path coefficients between measured (manifest) variables and latent (unobserved) variables in the model were significant ( p < 0.05). These results indicate that most of the factor loadings explaining the measurement model were adequate and thus reflected very good reliability of the research constructs. As recommended by Hox & Bechger (2014), factors loading lower than 0.5 are not significant while Bentler & Yuan (2000) indicated that a negative regression weight on the other hand presents doubtful measurement models. In this case, the current study has achieved good results as recommended by Hox & Bechger (2014). Hence, the model achieved a robust measurement model as illustrated in Figure 4.5 below. The retained items were used in the final analysis in the structural model.

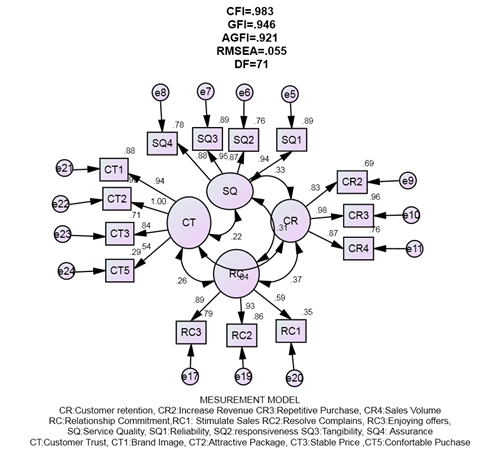


Figure 4.: Standardized measurement model

Based on the summary of the findings presented in Figure 4.5, the standardized coefficient of at least 0.2 for all relationships is achieved with the critical values (C.R) > 1.96 using a significance level of *p* < 0.05 indicating that there is a positive and strong significant relationship between the observed and unobserved variables of the model. The results from the critical value and P value confirming that there is a strong and positive relationship between observed variables and unobserved variables. These findings provide a very strong framework and variables which were used for the further analysis of the relationship in the structural model.

# Structural Model

The basic structural model of the study has the relationship between performance expectance, effort expectance, social influence, and facilitating conditions on FOSS adoption was analyzed. The results of the analysis using AMOS version 20 are diagrammed in Figure 4.6 and the results for the goodness of fit indices based on four indices namely CMIN/DF, CFI, AGFI, and RMSEA are presented in Figure 4.6.

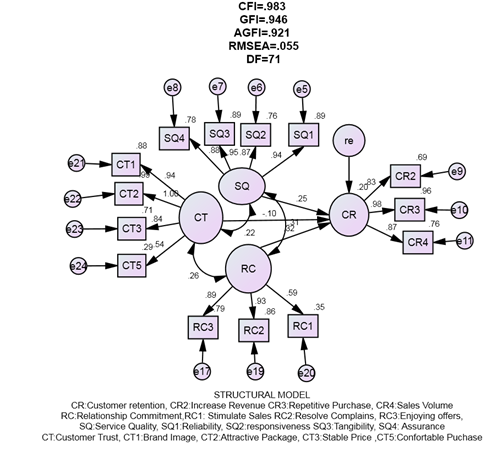


Figure 4.: Structural model

The findings for model fit in Figure 4.6 are elaborated as follows: The ratio of the χ2, to the degree of freedom-CMIN/DF, commonly referred to as named Chi-square value has yielded a value of 1.304, which range to the suggested cut off point values < 2 or < 3 by Schermelleh-Engel *et al*. (2003). The CFI = 0.983, GFI = 0.946, AGFI = 0.921, and RMSEA = 0.055 obtained fall under the acceptable range whereas values close to 1 and generally values above 0.9 indicate a good fit as suggested by Schermelleh-Engel *et al.* (2003). On the other hand, as Hoe (2008) suggests that there should be an RMSEA value of 0 which indicates perfect fit, < 0.05 = indicate close fit, 0.05 to 0.08 indicate fair fit and 0.08 to 0.1 a mediocre fit, > 0.1 = poor fit. In comparison with the current study findings, the RMSEA values of 0.028 which was produced in the analysis indicate that the model fits very well in the data. Having established a model fit which indicates a good fit using four indices, the path coefficient, and hypothesis testing were evaluated as explained in the next section using this model.

# The Basic Model Path Coefficients and Relationship Testing

The structural model in Figure 4.6 was used to test the hypothesized relationships. The hypothesized relationships are examined against various coefficients and scores obtained from the analysis. In this research, the hypotheses are tested based on the direction, strength, and the level of significance of the path coefficients. A standardized paths coefficient, critical value (C.R), and a significant level (p) were used in this study in the testing and evaluation of the strength and the level of significance of the hypotheses. Testing hypotheses at each run is done for comparison purposes.

# The Influence of Customer Trust on Customer Retention

The second postulated relationship in this study hypothesized a positive and strong significant relationship between customer trust and customer retention as stated below.

*H1: Customer trust has a positive and significant influence on customer retention*

For testing the stated hypothesis, descriptive statistical analysis was run first to profile the influence of customer loyalty on predicting customer retention *as* illustrated in Table 4.4.

Table 4.: Descriptive statistics for customer retention

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | N | Minimum | Maximum | Mean |
| CT1 | 392 | 1 | 5 | 3.92 |
| CT2 | 392 | 1 | 5 | 3.87 |
| CT5 | 392 | 1 | 5 | 3.78 |
| CT3 | 392 | 1 | 5 | 3.68 |
| CT4 | 392 | 1 | 5 | 3.54 |
| Valid N (listwise) | 392 |  |  |  |

Table 4.4 shows the results of the analysis. Among the three attributes of customer trust in Table 4.4, it was found that brand image had a high impact on customer retention in telecommunication followed by attractive packages, comfortable purchase process, promise fulfilment, and stable price. This means that brand image yields a mean value of 3.92, which is higher as compared to other indicators. However, the mean value of 3.0 used to explain the explanatory power of neutral that it is either significant or insignificant.

Further analysis was done using SEM to determine the significant influence of customer trust on customer retention as illustrated in Table 4.5.

Table 4.: Customer trust path coefficient

|  |  |  | Estimate | S.E. | C.R. | P | S.R. W | REMARKS |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CR | <--- | CT | -.142 | .072 | -1.983 | .047 | 0.099 | Accepted |
| CT1 | <--- | CT | 1.601 | .130 | 12.358 | \*\*\* | 0.936 |  |
| CT2 | <--- | CT | 1.635 | .130 | 12.586 | \*\*\* | 0.995 |  |
| CT3 | <--- | CT | 1.510 | .128 | 11.770 | \*\*\* | 0.845 |  |
| CT5 | <--- | CT | 1.000 |  |  |  | 0.543 |  |

This hypothesis is examined using the path leading from CT to CR which forms a relationship between customer trust and customer retention (CR) as illustrated in Table 4.5 above.

The results of the standardized path coefficients (γ) in Table 4.4 have yielded standardized regression weights of 0.099 which indicate a significant positive relationship between customer trust and customer retention. Chin (1998) has postulated that a standardized paths coefficient (γ) should be at least 0.2 to be considered significant and meaningful for discussion. In this case, the standardized paths coefficient of 0.099 was below the recommended value to be considered meaningful for discussion. This means that customer trust is significant with a weak relationship towards customer retention. All attributes namely brand image (CT1), attractive packages (CT2), promise fulfilment (CT3), stable prices (CT4) and comfortable purchase process (CT5) their explanatory path toward customer retention together were partially significant, it means there were less meaningful for discussion as illustrated in Table 4.4.

Further analysis of the significant influence of customer trust using critical ratio values in Table 4.5 indicates that the analysis has yielded a critical ratio of -1.983 and *p* = .047. Hox & Bechger (2014) recommend that a relationship which has yield a critical ratio greater than 1.96 and p-value less than 0.05 is considered significant. Based on the findings in the current study the influence of customer trust on customer retention was found to be significant.

# The Influence of Relationship Commitment on Customer Retention

The first postulated relationship in this study hypothesized a positive and strong significant relationship between relationship commitment and customer retention as stated below.

*H2: Relationship commitment has a positive and significant influence on customer retention*

For testing the stated hypothesis, descriptive statistical analysis was run first to profile the influence of relationship commitment on predicting customer retentionas illustrated in Table 4.6.

Table 4.: Descriptive Statistics for relationship commitment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | N | Minimum | Maximum | Mean |
| RC1 | 392 | 1 | 5 | 4.18 |
| RC2 | 392 | 1 | 5 | 4.12 |
| RC5 | 392 | 1 | 5 | 4.04 |
| RC3 | 392 | 1 | 5 | 3.84 |
| Valid N (listwise) | 392 |  |  |  |

Table 4.6 shows the results of the analysis. Among the three attributes of relationship commitment in Table 4.6 above, promotion to stimulate sales had a high impact on customer retention in telecommunication followed by the commitment to resolve complaints, impression, and enjoying offers. It means the use of promotion campaigns to stimulate sales to yield a higher mean value of 4.18, following with commitment to resolving complaints which indicated the mean of 4.12. The other indicators were service customization which indicated the mean of 4.04 and the customer accepted that they are enjoying offers at a mean value of 3.84. The greater the mean the high the impact or the more the mean value closer to five explained to have more impact.

Further analysis was done using SEM to determine the significant influence of integrated market communication on customer retention as illustrated in Table 4.7.

Table 4.: Relationship commitment path coefficient

|  |  |  | **Estimate** | **S.E.** | **C.R.** | **P** | **Label S.R.W REMARKS** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CR | <--- | RC | .504 | .093 | 5.406 | \*\*\* | par\_16 0.316 Accepted |
| RC3 | <--- | RC | 1.534 | .121 | 12.691 | \*\*\* | 0.886 |
| RC2 | <--- | RC | 1.614 | .128 | 12.648 | \*\*\* | 0.928 |
| RC1 | <--- | RC | 1.000 |  |  |  | 0.592 |

The path leading from RC to CR in Table 4.7 is used to examine the relationship between relationship commitment and customer retention. A positive path coefficient (γ = .316) using standardized estimate results in Table 4.7 indicates that relationship commitment is positively related to customer retention. This concurs with Chin (1998) and Hoe (2008) who argue that a standardized paths coefficient (γ) should be at least 0.2 to be considered significant and meaningful for discussion. The results thus in the current study confirm a strong positive relationship between relationship commitment and customer retention.

Apart from the standardized coefficient, further analysis was done using critical ratio and p-value to determining the significant influence of relationship commitment on customer retention. In this study, findings yielded critical values (C.R = 5.406 which is > 1.96) and a significance level of *p =* 0.000. Hox & Bechger (2014) recommend that a relationship that has yield a critical ratio greater than 1.96 and a p-value less than 0.05 is considered significant. This means that the hypothesis H2a which states that 5.406 have a significant influence on customer retention is confirmed while the hypothesis H2b is rejected. The results of the current study indicates a similar result as the study conducted by Rajah & Al-Islami (2014), which indicated relationship commitment has a strong and significant influence on customer retention. Rehman, Shareef & Ishaque (2012) for example, observed a positive significant influence on customer retention.

# Influence of Service Quality on Customer Retention

The third postulated relationship in this study hypothesized a positive and strongly

significant relationship between service quality and customer retention as stated below.

*H1: service quality has a positive significant influence on Customer retention*

For testing this hypothesis, descriptive statistic analysis was run first to profile the influence of service quality on predicting customer retention as illustrated in Table 4.8 below.

Table 4.: Descriptive statistics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | N | Minimum | Maximum | Mean |
| SQ3 | 392 | 1 | 5 | 3.88 |
| SQ1 | 392 | 1 | 5 | 3.87 |
| SQ4 | 392 | 1 | 5 | 3.81 |
| SQ2 | 392 | 1 | 5 | 3.81 |
| Valid N (listwise) | 392 |  |  |  |

Table 4.8 shows the results of the analysis. Among the four attributes of service quality in Table 4.8, tangibility had a high impact on customer retention in telecommunication followed by reliability, assurance, and responsiveness. This means that tangibility yields a high mean value of 3.88 with a mean of 3.88 close to 4.

Further analysis was done using SEM to determine whether service quality has a significant influence on customer retention as illustrated in Table 4.9.

Table 4.: Service Quality Path Coefficient

|  |  |  | Estimate | S.E. | C.R. | P | Label S.R.W REMARKS |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CR | <--- | SQ | .209 | .043 | 4.899 | \*\*\* | par\_14 0.254 Accepted |
| SQ4 | <--- | SQ | .973 | .033 | 29.758 | \*\*\* | 0.882 |
| SQ3 | <--- | SQ | .997 | .027 | 37.510 | \*\*\* | 0.945 |
| SQ2 | <--- | SQ | .966 | .034 | 28.737 | \*\*\* | 0.872 |
| SQ1 | <--- | SQ | 1.000 |  |  |  | 0.944 |

The path leading from *SQ* to CR in Table 4.9 is used to examine the relationship between service quality and customer retention. A positive path coefficient (γ = 0.254) using standardized estimate results in Table 4.8 indicates that service quality is positively related to customer retention. These study findings concur with those of Chin (1998) and Hoe (2008) who argue that a standardized paths coefficient (γ) should be at least 0.2 to be considered significant and meaningful for discussion. The results thus in the current study confirm a strong positive relationship between service quality and customer retention.

Apart from the standardized coefficient, further analysis was done using critical ratio and p-value to determining the significant influence of service quality on customer retention. In this study, findings yielded critical values (C.R = 4.943 which is >1.96) and a significance level of *p =* 0.000.

The results concur with Greenland, *et al* (2016) who argued that a relationship that has yield a critical ratio greater than 1.96 and a p-value less than 0.05 is considered significant. This means that the null hypothesis (H3a) was accepted as it has the critical ration of 5.648 which indicates the service quality has significant influence on customer retention. On the other hand, the alternative hypothesis (H3b) was rejected. The current study has similar results to the findings presented by Agyei and Kilika (2013), which indicated a strongly significant influence of service quality on customer retention.

# CHAPTER FIVE

# DISCUSSION OF THE FINDINGS

# Chapter Overview

This chapter discusses the main findings of the study. The discussion is based on the findings from both the survey and the explanatory research design. The aim was to relate the information generated from field data with the previous related studies. This helps to establish the influence of customer relationship marketing on customer retention including examining points of departure from literature, the study objectives, hypotheses, conceptual and theoretical framework of the study.

# Influence of Customer Trust on Customer Retention

The study hypothesis states that customer trust has a positive and significant influence on customer retention. The results show a standardized regression weight of 0.099 which implies a weak positive relationship between customer trust and customer retention. This means that customer trust has a weak positive relationship and a partial significant influence on customer retention. This means that all attribute namely brand image (CT1), attractive packages (CT2), promise fulfilment (CT3), stable prices (CT4) and comfortable purchase process (CT5) their explanatory path toward customer retention together are significant and meaningfully for discussion as illustrated in Chapter four, Table 4.5. The interpretation of this result based on Chin (1998) has postulated that a standardized path coefficient (γ) should be at least 0.2 to be considered significant and meaningful for discussion. In this case, the standardized paths coefficient of 0.099 was below the recommended value to be considered for meaningful discussion.

Further analysis of the significant influence of customer trust, carried out using critical ratio values as it is indicated in Table 4.5. The result shows a critical ratio of -1.983 and p=.047, based on the interpretation made by Hox & Bechger (2014) the critical ratio should be greater than 1.96 and greater than 0.05. It means customer trust has significant influences on customer retention. The result concurs with the findings by Nazir, Ali & Jamil (2016) who support the current findings by showing that customer trust has a influence on customer retention. Similarly, Behravan *et al*. (2012) add that consumer trust provides the confidence between partners, which in turn it assists to build strong relationships between business and customers. Aslama *et al*. (2018) consolidated that customer trust triggers customer emotion and attitude to repurchase services. This current study supports the Commitment-trust theory by Morgan & Hunt (2014) which explains the influence of customer relationship marketing on customer retention. Furthermore, the Commitment-trust theory identifies customer trust as a key factor in the exchange between business and its customers. It helps to build a relational co-operation. Morgan and Hunt conceptualize that the theory has the power to predict the impact of customer trust on customer retention. In return, customer trust develops the confidence to build a long-lasting relationship between business and customers (Aslama *et al*., 2018). On the other hand, Mahmoud, Hinson & Adika (2018) support that managers should effectively focus on developing customer trust as it assists the business to build the trustworthy relationships linked with customer retention.

Even though, the current study is in agreement with the results presented by Anwar *et al*. (2011) who revealed that customer trust has significant results on customer retention. The current study shows that customer trust has a positive relationship with customer retention. The current study also differs from Liu *et al*. (2012) who indicated that customer trust derived from brand image, attractive packages, promise fulfilment, stable prices, and comfortable purchase process. The results differ from those of Husnain &Akhtar (2016) who indicate that customer trust demonstrates a weak link with customer retention. Moreover, the study represents different parameters used to measure the impact of customer trust on customer retention. The study by Husnain & Akhtar (2016) demonstrates that commitment, reliable timely communication to ensure trustworthy services have a significant influence on customer retention. On the other hand, the study by Madjid (2013) indicates similar findings with the current study. This shows that customer trust has a weak but positive relationship and a partial significant influence on customer retention. Furthermore, customer trust has been explained as an antecedent customer retention leading to repetitive purchase and sales volume. Similarly, Nguyen, Leclerc & LeBlanc (2013) added that customer trust plays a significant role in developing and maintaining relationships between buyers and sellers. The argument supported by Wahab *et al*. (2011) found that trust is tested to be the main antecedent for customer retention. The findings in the current study differ in the explanation of how customer trust can influence customer retention. This study indicates that customer trust attributes such as brand image, attractive packages, promise fulfilment, stable prices, and comfortable purchase process have a significant influence on customer retention.

Narwal & Singh (2016) present findings that contrast with the current study. It was revealed that customer trust has a positive and significant influence on customer retention. Furthermore, the findings revealed that different measurements can be adopted to study trust. For instance, Narwal & Singh (2016) used commitment, seller expertise, switching barriers, brand image, happiness, conflict handling, and customization to study customer retention. The study found that customer trust has a positive and significant influence on customer retention. Abdullah & ChuiTeo (2014) add that customer trust offers customer retention benefits such as sales volume, repetitive purchase, and increased revenue. Moreover, Elias, Al-Momani & Noor (2011) supported that customer trust is not the main antecedent of customer retention. But it has a direct link with customer retention. It means customer trust and its effects can be directly exhibited through improved sales, purchase rate, and market share maintenance in the Malaysian mobile phone industry. The current study is in agreement with Husnain & Akhtar (2016) who argued that if customer trust is poorly handled can have an inverse result on customer retention and future sales.

Liu *et al*. (2012) found that managers should design effective mechanisms to deal with inconsistent changes in customer retention. The current study differs from the results presented by Danish *et al*. (2015) the customer retention measurements can be affected by contextual differences like commitment or emotional level**.** Thus, customer trust can be affected by commitment or emotional levels, for instance, active customers are certain with the behavior of the service so their plan for a future purchase is also certain. Also, Díaz (2017) argued that there are customers who are dubious about efforts committed by a service provider as well as those who have reduced or are willing to lose a percentage of loyalty. This group of customers plans to declare their intention to leave from the service providers. The findings also contrast with the argument made by (Kayode, Omotosho & Adeduro, 2018) which emphasized that customer trust has a positive and strong association with customer retention. Furthermore, the study by Sabbeh (2018) adds that brand image, attractive packages, promise fulfilment, stable prices, and comfortable purchase process as customer trust attributes partially helps the telecommunication companies to retain customers. This implies that the characteristics possessed by customer trust have a weak positive relationship and a partial significant influence on customer retention.

# Relationship Commitment Influence on Customer Retention

In this area, the study intended to test how relationship commitment can influence customer retention in the Tanzania telecommunication industry. To address the above specific objectives, it was hypothesized that, relationship commitment has a positive and significant influence on customer retention in the Tanzania telecommunication industry. Standardized estimate and critical ratio in structural equation modeling were used to evaluate the strength of significant influence of relationship commitment on customer retention. A standardized estimate of a positive path coefficient (γ = .316) using a standardized estimate was found which indicates that relationship commitment is positively related to customer retention in the Tanzania telecommunication industry.

Further results using a critical ratio on the hypothesis above have yielded a significant critical ratio greater than 1.96 of 5.406 which concurs with Hox & Bechger (2014) who argued that any relationship which will result in a critical ratio greater than 1.96 is considered significant. On the other hand, any promotion to stimulate sales, resolving customer complaints, and helping customers to enjoy service offers were used to measure relationship commitment. All were found to have a standardized estimate greater than 0.2 and a critical ratio greater than 1.96. This implies that customers in the telecommunication industry are retained by relationship commitment attributes such as promotion to stimulate sales, timely resolution of customer complaints, and promoting customer enjoyment of service offers.

This study revealed that relationship commitment has a positive and significant influence on customer retention. The findings concur with the study done by Sigit Parawansa (2018) who revealed that relationship commitment significantly influences customer retention in Indonesia. Similarly, Garrido-Moreno *et al.* (2014) argued that marketing campaigns focusing on relationship commitment have a positive relationship with customer retention. Customer relationship campaigns have a significant influence on customer retention, and the results are evidenced by increased customer buying frequencies. On the other side, Bataineh *et al.* (2015) added that relationship commitment has a significant influence on customer retention in Jordan. The study posited that expertise and sellers’ promotion and commitment to resolving complaints have a positive and significant influence on customer retention. The study identified critical factors such as sellers’ expertise, switching costs, and satisfaction that were used to lock in customers and maintain a positive long-lasting relationship. Also, the study recommends that to retain and gain high sales volume, managers should design effective affective and calculative commitment that attracts customer retention. The current study is supported by the Commitment – Trust theory by Morgan & Hunt (1994) which explains that relationship commitment has been recognized as a channel to create a long-lasting relationship. Different literature, for instance, the study by Soimo *et al.* (2015) shows that relationship commitment plays a central role in building long term relationships and consequently customer retention.

Despite the similarities presented, the current study provides a distinction between the explanation and justifications made by other scholars. The finding from this study revealed that customer retention is influenced by how customers enjoy the price packages. But the study conducted by Hur, Park & Kim (2010) revealed that price packages do not have a direct link with customer retention, it is only when the business devised promotion campaigns to stimulate customer demand. It means the promotion campaigns are used by business firms to provide incentives for customers through premium packages offered and pricing deals. Similarly, Rehman, Shareef & Ishaque (2012) found that relationship commitment creates a profitable relationship with customers through promotion campaigns focused on price incentives towards customer retention. Moreover, the study indicated that affective commitment has a positive and significant impact on customer retention, while the price is identified as the main attribute to building a strong relationship with customers. The findings differ with the current study from which the researcher indicated that there is a positive relationship between calculative commitment and customer retention. It is further explained that the price initiatives are not the only attribute that provides the customers with the opportunity to enjoy the services. In this case, both affective and calculative relationship commitment play a significant role in maintaining relationships and to retain customers.

Furthermore, this study found that timely resolution of customer complaints and engaging an instant solution to customer problems can influence positively customer retention. However, the explanation contrast with the results presented by other studies like Abosag & Lee (2012) who indicated that relationship commitment has to consider both affective and calculative efforts to build business relationships with customers. Moreover, the study indicated that there was a strong and positive relationship between affective commitment and customer retention. In that regard, customer retention has to focus more on market dynamics and changeable customer behavior which evolves. In other words, relationship commitment was found to be the main factor that promotes strong as well as the long-lasting relationship between customers and business.

Moreover, the current study examined the influence of best practice for impressive services on customer retention. The study indicated that there is a positive and significant influence of impressive services on customer retention. It means companies can focus on how to create the best and impressive services to retain the customers. These findings are not in agreement with the study by Rajah & Al-Islami (2014) who investigated the impact of relationship marketing on relationship commitment and retention in Mali. The findings disclosed that relationship commitment has a significant and positive influence on customer retention. This study indicates that businesses should not only rely on impressive services, but there should also be a total customer caring commitment to creating a long-lasting relationship.

On the other side, Al-Hersh, Aburoub & Saaty (2014) added that there is a positive

and significant influence of relationship commitment attributes on customer retention. Thus, customer relationship commitment can trigger social bonding with customers through the fulfilment of their promises. Similarly, the study examined if a comfortable purchasing environment can influence customer retention. It shows that there is a positive relationship between comfortable purchase and customer retention. Moreover, it is also explained that a comfortable purchase environment can influence customer retention and consequently future intention to repurchase services offered. Narwal & Singh (2016) consolidated that relationship commitment assists business to communicate and offer quality services are considered influential on customer repurchase intention.

Also, Sivesan (2015) conducted a study on the impact of customer relationship marketing on customer retention in Sri Lanka. The study revealed that relationship commitment can significantly influence customer retention, specifically when business is offering the best affective services like attractive price packages. Thus, the efforts made by companies to retain customers can eventually increase or retain the market shares. Similarly, Sigit Parawansa (2018) added that relationship commitment helps businesses to induce and enhance loyalty behaviour among customers. This study provided further explanations on how to calculate relationship can assist companies to attract and retain customers. Among other efforts mentioned, there is cross-selling, and customers' positive word-of-mouth identified as best promotion campaigns that attract customer retention. The results show that functional and economic benefits have significant effects on customer retention through calculative commitment, while experiential and symbolic benefits significantly affect cross-selling and positive word-of-mouth via affective commitment. Normative commitment mediates the relationship between affective commitment and customer retention. The findings in these studies contract with the current research, since it was found that loyalty programs do not have a significant influence on customer retention. It means customers can be retained with other tools apart from loyalty programs namely cross-selling and positive word-of-mouth.

On the other hand, Gustaffsson, Johnson & Roos (2010) identified that calculative commitment has a positive and significant influence on customer retention. It further explained that calculative commitment is the best approach when a business intends to create barriers and high shifting costs to retain customers. The result in the study provides a different explanation from Sahin, Kitapci & Zehir (2013) who advocate that there is a strong relationship between switching costs and customer retention. This study maintains that businesses can retain and create a strong relationship with customers by implementing pricing and promotion strategies if the switching costs go higher or low. In this case, the switching costs do not affect the relationship between customers and managers. Yet businesses may enjoy customer retention through the lock-in strategies focusing on maintaining market shares. Joseph (2012) consolidated that customer commitment towards relationship depends on the level of customers' trust towards service providers. It means a successful customer commitment depends on the commitment made by a business to resolve customer complaints. Also, company commitment can create a comfortable purchase environment. Since the services would amount to increased switching costs which affect customer retention.

# Service Quality Influence on Customer Retention

Concerning customer retention, it was hypothesized that service quality has a positive and significant influence on customer retention in the telecommunication industry in Tanzania. To evaluate the strength of significant influence of service quality on customer retention the standardized estimate and critical ratio in structural equation modelling were used. A positive standardized path coefficient (γ) of 0.254 was yielded which indicates that service quality is positively influencing customer retention. The results have also yielded a critical ratio of 4.943 and a p-value of 0.000 which indicates a significant influence. Moreover, the four indicator variables of service quality namely tangibility, assurance, responsiveness, and reliability were all found to be positive and significant. This implies that the telecommunication industry which offers service quality to its customer should stick on the four indicator variables: namely tangible, assurance, responsiveness, and reliability are likely to retain their customers.

Previous scholars for instance, the research by Ranaweera & Neely (2003) and Kihara &Ngugi (2014) indicated that service quality has a positive and significant influence on customer retention. For example, Ranaweera and Neely's (2003) perceptions of service quality have a direct linear relationship with customer retention as compared to low-cost offers. On the other hand, Kihara & Ngugi (2014) found and confirmed that quality service has a significant influence on customer retention in the telecommunication industry. It means that quality service is a pushing factor towards customer retention in the telecommunication industry. Therefore, this study implies that customers with high rated perception towards quality service have a high intention to purchase the pertinent product repetitively.

Moreover, the study by Venetis & Ghauri (2014) found the results which are in line with this study. The study indicates that quality service can contribute to the long-term relationship which leads to customer retention. Similarly, quality service variables such as tangibility, assurance, responsiveness, and reliability were found to have a significant influence on customer retention. Furthermore, Blery *et al*. (2009) explain that price and trends of quality service had a direct effect on customer retention in the Greece mobile telecommunication industry.

Other studies were found to be inconsistent with the current study. Notably, Kapai & Moronge (2015) revealed that quality service factors like customer care and price (tariff structure) are negatively correlated with customer retention. Contrary to the study by Molapo & Mukwanda (2011) who argued that quality service offers affordable service and provision of customer support services have shown a significant influence on customer retention. Its findings concur with the results found by this study, where both price perceptions and customer indifference were not significantly affected by service quality on retention. It means the perceived quality service improvement does not depend on how customers perceive the price and eventually the service quality will strengthen customer retention. Sedighimanesh *et al* (2017) revealed that often customers are looking for quality regardless of how much price they pay. From this understanding, it is obvious that the customers mainly focus on quality service improvement to build their loyalty. The improvement made by telecommunication companies targeting customer satisfaction is what leads to repeat purchases and eventually customer retention.

Different scholars used different factors to study the influence of service quality on customers’ retention. For instance, the study done by Zangmo, Liampreecha & Chemsripong (2015) used and tested constructs such as reliability, assurance and empathy quality service values were tested and it was revealed that the factors were positive and significantly influenced customer retention. These studies came out with the same conclusion. On their part, Idrees & Xinping (2017) used reliability, responsiveness, assurance, empathy, and tangibles as salient determinants on customer retention. This study is in agreement with other scholars who found that quality service has a positive and significant influence on customer retention. The findings support the argument made on the quality service model. The study by Nsiah & Mensah (2014) added that quality service has a positive impact on overall customer retention. The research proves that empathy and responsiveness play the most important roles in customer retention levels followed by tangibility, assurance, and reliability. The research findings also indicate that offering high-quality service increases customer retention, which in turn leads to a high level of customer commitment to repurchase products from the business.

The findings from this study are also in contrast with the argument made by Sari & Mugiono (2018) who shows that quality service does not influence customer retention. Studies including the one done by Kapai & Moronge (2015) found that quality service does not directly influence customer retention. However, customers can be retained when quality service is reflected through attractive prices offered by the service provider. Kapai & Moronge (2015) added that Airtel in Kenya managed to retain its customers by offering quality service.

Furthermore, this study is supported by the argument made by Rehman, Shareef & Ishaque, (2012) who disclosed that quality service creates the willingness to trust the services offered and build a strong relationship that calls for customers to stay on. Similarly, these results are in agreement with Prasad (2013) who indicated that there was a significant relationship between quality service and customer retention. In this study the constructs such as reliability, assurance, and empathy. These service quality attributes were tested and revealed that they have a positive relationship and a significant influence on customer retention.

# A Review on the Study Model

The study hypothesized a positive and significant influence of customer trust on customer retention.The customer trust was measured using customer trust (CT1) brand image (CT2) attractive packages (CT4) stable prices and (CT5) comfortable purchase process as identified in the structure model in Figure 4.6.

The study found that there was a significant relationship between the variables considered. The relationship was significant due to the explanatory power of the customer trust constructs including: (CT1) brand image (CT2) attractive packages (CT4) stable prices and (CT5) comfortable purchase process. The factors were combined to account for customer trust, but the scores show that there is a weak positive relationship between customer trust and customer retention. The study provides a conclusion by revisiting the major assumptions of this study. Previously, it was hypothesized that relationship commitment has a positive and significant influence on customer retention*.* The relationship commitment was measured using a promotion to stimulate sales, resolving customer complaints, and enjoying packages offered, best service impression as identified in the structure model in figure 4.6.

The study findings support this relationship and found it to be positive and significant. This implies that stimulated sales, resolving customer complaints in time, and offering attractive packages and service impressions to influence customer retention in the telecommunication industry.

The study hypothesized that service quality has a positive and significant relationship with customer retention*.* The service quality was measured using tangibility, assurance, responsiveness, and reliability. The result has found a positive and significant influence of service quality on customer retention. Additionally, all attributes which were used to measure service quality were found to be significant as indicated in Figure 5.1. Based on the discussion of the findings, the significant level of each relationship is summarized in Figure 5.1.

**Customer Trust**

Brand image

Attractive Packages

Stable prices

Promise fulfilment

Sales representative

**Relationship Commitment**

Sales Promotion

Resolving Complaints

Enjoying Price Offers

Caring Impression

Comfortable Purchase

**Customer retention**

Increased revenue

Repetitive purchase

Increase sales volume

**Service Quality**

Tangibility

Assurance

Responsiveness

Reliability

# 

Figure 5.: Final Model of the Study

# Significant Relationship

Key:

# CHAPTER SIX

# CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATION

# Chapter Overview

This study focused on analyzing the influence of customer relationship marketing on customer retention in the telecommunication industry in Tanzania. More specifically, the study investigated the following three specific objectives (i) to assess the influence of customer trust on customer retention in the Tanzania telecommunication industry; (ii) to examine the effects of relationship commitment on customer retention; and (iii) to determine the influence of service quality on customer retention in the Tanzania telecommunication industry. This research addressed these objectives by employing the quantitative research method through the empirical study from respondents in three municipalities of Dar es Salaam in Tanzania namely, Ilala, Temeke, and Kinondoni. The study used SEM to analyze the data. It was found that relationship commitment and service quality have a positive and significant influence on customer retention. Additionally, customer trust indicated that it has a weak but positive and partial influence on customer retention.

This final chapter presents the key conclusions, implications on the main issues, and recommendations of further study. The implication of the study addresses the theoretical and practical implications of the results, as well as the contribution of this study, focused managerial practices, and policies used in the telecommunication industry. The recommendation of this study is also highlighted and the final areas for future research relevant for customer retention are recommended.

# Major Findings and Conclusions

This part addresses the main findings and conclusion of the study which was organized based on specific research objectives of this study.

# Customer Trust and its influence on Customer Retention

To address the first specific objective, it was hypothesized that, customer trust has a positive and positive influence on customer retention in the Tanzania telecommunication industry. Standardized estimates and critical ratios in structural equation modelling were used to evaluate the strength of the significant influence of customer trust on customer retention. A positive path coefficient (γ = 0.099) using a standardized estimate, indicates that customer trust positively relates to customer retention in the telecommunication industry.

Further, results on the hypothesis have yielded a significant critical ratio of -1.983 which is greater than 1.96. This result shows there is agreement between this current study with Hox & Bechger (2014) who argued that for any relationship which has a critical ratio greater than 1.96 is considered significant. Moreover, the study had a result of the *p-*value (0.047) which is less than 0.5. Then, it implies that the customer trust attributes such as (CT1) brand image (CT2) attractive packages (CT4) stable prices and (CT5) comfortable purchase process; has significant influence on customer retention in the telecommunication industry

Given this evidence, the study concludes that customer trust has a positive and significant influence on customer retention in the telecommunication industry. Based on the discussion of the findings, customer trust indicates a significant and positive influence on customer retention; hence it is rewarding for managers to take a good look. This is due to the contextual environment, since the factors which affect customer retention are dynamic in nature.

# Relationship Commitment and its Influence on Customer Retention

To address the first specific objective, it was hypothesized that relationship commitment has a positive and significant influence on customer retention in the Tanzania telecommunication industry. Standardized estimates and critical ratio in structural equation modelling was used to evaluate the strength of significant influence of relationship commitment on customer retention. A positive path coefficient (γ = .316) using a standardized estimate was found which indicates that relationship commitment is positively related to customer retention in the Tanzania telecommunication industry.

Further, results on the hypothesis above have yielded a significant critical ratio greater than 1.96 of 5.406 which concurs with Hox & Bechger (2014) who argue that any relationship which will result in a critical ratio greater than 1.96 is considered significant. On the other hand, stimulation of sales, resolution of complaints, attractive offers, and impressive services was used to measure relationship commitment. All found a standardized estimate greater than 0.2 and a critical ratio greater than 1.96. This implies that customers in the telecommunication industry are retained by relationship commitment attributes such as stimulation of sales, resolution of complaints, attractive offers, and impressive services.

Generally, the study concludes that relationship commitment has a positive and strongly significant influence on customer retention in the telecommunication industry. Based on the findings from previous studies and the current study it can be concluded that not all relationship commitment attributes are useful in retaining customers as some of the constructs are not rewarding. This may be due to the contextual difference in which telecommunication companies operate which tend to explain the unique contribution of relationship commitment on customer retention.

# Service Quality and its Influencing on Customer Retention

Concerning customer retention, it was hypothesized that service quality has a positive and significant influence on customer retention in the telecommunication industry in Tanzania. To evaluate the strength of significant influence of service quality on customer retention the standardized estimate and critical ratio in structural equation modelling were used. A positive standardized path coefficient (γ) of 0.209 was yielded which indicates that service quality is positively associated with influencing customer retention. The results have yielded a critical ratio of 4.899 and a p-value of 0.000 which indicates that service quality has a significant influence on customer retention. Moreover, the four measures of service quality namely tangibility, assurance, responsiveness, and reliability were all found to be positively significant. This means that in the telecommunication industry, service quality can influence customer retention using indicators such as tangible, assurance, responsiveness, and reliability. This study concludes that when the telecom companies offer quality service to its customers, the customers are likely to remain in their companies.

Generally, the study concludes that the tangibility, assurance, responsiveness, and reliability in the services have a strong significant influence on customer retention. Based on the findings this study concludes that not all service quality attributes offered by telecom companies are used to retain customers, some are not rewarding. This can be due to the contextual difference in which a telecommunication company operates. This tends to explain the characteristics of the unique services which are rewarding in retaining customers of a telecommunication company.

# Study Implications

This section presents the theoretical, policy, managerial and practical, researchers, and financial implications of the study as drawn from the findings, discussion, and conclusions. Theoretical implications highlight the contributions of the study to the literature on customer retention in the telecommunication industry. The study provides methodological advancement on how to addresses the customer retention problem in Tanzania telecommunication industry. Managerial implications relate to the work practices of telecommunication companies in the support of customer retention where the policy implications include recommendations for addressing policy issues relating to the development and speeding up institutionalization of customer retention strategies.

# Theoretical Implications

Grounded in the customer retention literature, this study theoretically developed and empirically contributed the knowledge through the explanation summarized in the study model. The model incorporated factors from the service Quality Model and Commitment-Trust Theory. Based on the study model, the study tested the influence of customer relationship marketing on customer retention in Tanzania telecommunication industry. Moreover, the Service Quality Model and Commitment-Trust Theory were used to determine the customer retention problem as the dependent variable. The study model was tested and validated in the process to unify the theories for purpose of resolving the customer retention problem. It means the unified theories were brought together in order to provide a holistic picture on how customer retention challenges can be resolve in the context of the Tanzania telecommunication industry.

The results of this study have evidenced that studies can integrate variables from the Service Quality Model and Commitment-Trust theory for a single model. It means the current model can be used to investigate the influence of customer relationship marketing on customer retention. The integration assisting in coming out with a single model that is robust in addressing the three constructs in a single study. From this understanding, researchers can now apply the study model to provide a useful framework for customer retention in the telecommunication industry.

Reviewing the literature on customer retention shows that most of the previous studies focused on customer relationship marketing and its influence on customer retention as a simple dichotomy. But the customer retention phenomenon keeps growing with complexity on customer behaviour and business benefits (Gopal, 2020; Mandal, 2016). In this case, the business tries to establish how customer relationship marketing can have a single solution to address customer retention. The current model integrated separate theories on customer relationship marketing trying to align critical factors and their influence on customer retention. Also, the study focused to bridge the gap identified by (Alshurideh, 2016; Alrubaiee & Al-Nazer, 2010) which previously considered customer retention mediating factor for loyalty. But, the current study model integrated the indicator variables such as sales volume and repetitive purchase from (Ginn., Stone&Ekinci,2010; Gengeswari & Padmashantini, 2013), the variables used to describe the customer retention. The current study model confirmed that customer retention can be influenced by customer relationship marketing through its factors namely: customer trust, relationship commitment and service quality. Customer retention attributes include repeated purchase, increased sales, increased market share, and recruitment of new customers. Hence, the study model provides a significant contribution to the academic literature by advancing the theories and offsetting the weaknesses. The current model addressed the limitations through the validity test of the available literature and come out with a robust model. The model provides the measurements for the dependent variable of customer retention with an indicator variable, namely repeating purchase, increase sales, and new customer recruitment.

The current model addressed the limitations through the validity test of the available literature and come out with a robust model. The model provides the measurements for the dependent variable of customer retention with an indicator variable, namely repeating purchase, increase sales, and new customer recruitment. It provides a rich picture of how to assess customer relationship marketing and possible results on customer retention as well as its dimensions. The study model can be used to predict customer relationship marketing effects on business when the efforts are invested to align customer retention.

Formally, the theory of commitment-trust and service quality model established the impact of customer trust, relationship commitment and service quality using the mediating effect of customer loyalty. The current study contributes to the existing knowledge by explaining the direct impact of customer trust, relationship commitment and service quality on customer retention without the mediating effect of customer loyalty in the Tanzania telecommunication industry context. The current study model decomposed factors of the theory of commitment trust and service quality model which developed the three independent variables namely customer trust, relationship commitment and service quality. Earlier, the theories did not decompose the dependent variable into stable measurable variables. Hence the current study made the contribution theoretically by decomposing the dependent variable of commitment trust in the context of customer retention in Tanzania telecommunication industry. Hence this study came up with the theoretical model explaining the impact of customer trust, relationship commitment and service quality factors with direct influence on customer retention in the context of Tanzania telecommunication industry. In addition, the model will extend the decomposition of variable up to the dependent variable which was left by theories.

# Implications to Policy Makers

The study finds and concludes that the relationship commitment has potential contributions in retaining customers in the telecommunication industry. The study validated the models to segregate the characteristics of relationship commitment attributes that could influence customer retention in the telecommunication industry. In each case, attributes such as promotion to stimulate sales, resolving customer complaints, enjoying service packages and best service impressions are of an overriding influence on customer retention in the telecommunication industry. Moreover, promotion to stimulate sales, resolving customer complaints, enjoying service packages, and best service impression principle influence for telecom customers to be retained for services as they are significant and source of customer retention respectively.

These calls for policies to embrace promotion which stimulates sales, resolving customer complaints, attractive service packages, and best service impressions to retain customers. It means the telecommunication companies should focus on designing the best relationship commitment campaign which can help in stimulating sales, resolving customer complaints, enjoying service packages, and best service impressions.

On the other hand, the study results identified a need for national telecommunication service policies to be improved and by incorporating the good practices of resolving customer complains, stimulating sales and impressing customers by offering them enjoyable packages. The improvement will have an impact on how the government can improve the National Information and Communication Technology Policy of 2016.Since the study calls for the policy to should address issues related to relationship commitment by stimulating sales, resolving customer complaints, offering enjoyable service packages and make best service impression. In this case, the study has an impact on the government can development and review of the policy in order to adopt changes at the national level and firm level. The policy development is imperative for improvement of the services and customer retention among the telecommunication companies.

Moreover, the study has an impact on both policy and public interventions on how the companies can develop the capability to improve long lasting relationship and its dynamism. In this regard the study identified relationship commitment as an opportunity for telecom companies to enjoy customer retention. Additionally, the study developed the knowledge on how the policy can advance the relationship between telecommunication companies and their customers. The result of this study encouraged and assisted to embrace sales stimulants, resolving customer complaints, and offering enjoyable packages as well as making the best service impression through proper policy guidelines. Based on the study result, policies on customer retention need an intervention so as to address the companies’ relationship commitment. Also, the policies need to provide the means of developing relationship commitment as way forward for customer retention challenges in telecommunication companies. In this regard, the policies will help the companies to accumulated knowledge, experience and skills on designing better customer relationship marketing campaigns.

Furthermore, the study demonstrates that service quality is significant for retaining customers in the telecommunication organization. This service quality is clarified as a bundle of service criteria that are used as a critical factor for mobile companies to offer quality services and retain customers. Thus, it is important to foster mechanisms and interventions which help telecom companies to understand their internal environments and how they can use service quality to enhance customer retention and be more efficient in terms of its services operations. It is even more important, for policy interventions which are on sectored bases to address and ensure that appropriate service tangibility, reliability, assurance, and responsiveness are made available to telecom customers as the most important aspects for customer retention. This makes it easy and possible for telecom companies to align their services to meet these demands. With such interventions, telecom companies can adopt a policy that gives them a competitive edge even at a global marketplace by offering services that are tangible, reliable, assurance, and responsive.

The study results are primarily call for improvement in the current policy related to service quality in Tanzania telecommunication industry. The improved policy expected to provide the guidelines which will ensure the companies are offering tangible, reliable, assurance, and responsive services fit for the customer retention. The Policy guidelines have to stipulate how and what service quality should be rendered to telecom customers could overcome plenty of predicaments related to customer retention. In other words, the policy improvement on service quality assists the vendors to improve customer retention in the telecommunication industry.

Thus, government policies tailored specifically for telecom companies that address issues of better infrastructure development, reliable and quality telecommunication infrastructure, and services are important for telecommunication performance and eventually the economy of the nation through customer retention. It suggests that a government policy tailored to secure users of the telecom industry and improve customer retention should be developed to encouraging the value chain for the use of telecommunication industry services. The policy may address the issue of reducing costs associated with registration, importation of infrastructure, and addressing security issues that could protect users of the services offered by the telecommunication industry. The government may develop a policy that encourages the firm to adopt innovation by developing policies that are beneficial to the organization concerning customer retention.

# Managerial and Practical Implications

At the managerial level, managers are the ones who derive the equation that leads to customer retention. In this regard, relationship commitment and its impact on customer retention are mainly subjected to management efforts. In this case, it is implied that boards of directors should understand the specific business activities run and align the customer relationship marketing to stimulate sales, resolving customer complaints, enjoying and offering impressive services to meet and fit customer retention. More importantly, they should strive to gain knowledge that gives them the ability to ensure long last relationships with customers. In a situation where the owner lacks the necessary industry measures to stimulate sales, resolving customer complaints, enjoying and create impressive services. The efforts towards relationship marketing assist the managers to meet customers’ preferences and eventually retain the customer. Additionally, they are to understand various relationship commitment factors so that managers could differentiate between strong networks and contacts which influence the availability of technical support to customers as well as reliable services.

As for the telecom companies themselves in general, the findings from this study could be used by individual companies to identify areas to invest to retain customers. Owners and managers of the telecommunication companies should engage resources and efforts towards customer trust where necessary. Since customer trust has a partial relationship with customer retention. It means the companies should focus on relationship commitment and service quality. These factors have positive results in sales, revenue, and repetitive purchase. Therefore, the integration process in framework identified critical factors which would yield greater benefits to engage customer relationship in marketing efforts. The findings could also serve as points of reference for other companies as well as other sectors to plan to retain customers.

# Implications for Researchers

The study advanced the methodological context of prior studies by providing the guidelines for researchers interested to study customer retention. In particular, the philosophical, data collection instrument, data validity, and reliability, selection of variables, and sampling procedure should also enlighten researchers on the methodological approaches in obtaining data relating to telecommunication in a chosen setting.

This study has contributed to the field of research methodological literature through the use of the positivism paradigm by incorporating the application of quantitative data. Using the positivism philosophy has helped the study in capturing the cause and effect relationships and at the same time explained how significant the variables are. Given this situation, this research has contributed to advancing the research paradigm of prior studies by adopting a quantitative approach in the context of selected country settings.

While prior studies on customer retention used nonprobability sampling methods which limits in many case generalizations of findings to other populations, this study has contributed towards advancing research methodology by adopting probability sampling which provides a comprehensive generalization of findings to other populations.

Similarly, other prior studies used very small sample sizes which tend to generate statistical errors hence their findings cannot be trusted while other studies have used larger sample sizes which tend to be affected by small diversions hence their finding are likely to the effect of validity and reliability. This study contributed to the body of knowledge in terms of providing findings that are in line with the recommended sample sizes value for performing both factor analysis and structural equation modelling. Once again, this research work has reiterated the use of adequate sample size which has provided valuable insights for a research project and can be used to justify the suitability of any sample size in upcoming research.

On a related issue, this study has advanced internal consistency tests whereas most prior studies relied on Cronbach's Alpha which lacks the power of evaluating the internal consistency of the whole model which is affected by the number of items used and which in turn affects the results. Therefore, it is not clear if data provides a true picture of the internal consistency of data collection instruments. In this study, the researcher has contributed towards the advancement of internal consistency assessment by adopting a composite reliability test accounting the internal consistency of the whole model and is not affected by the number of items used. Therefore, findings from this study have contributed to supporting strong internal consistency evidence compared to prior studies which were assessed by using Cronbach's Alpha.

While other studies did not test for construct validity many others tested the construct validity by ending at the exploratory factor analysis. These studies were limited because they did not assess the measurement error which tends to affect the covariance in predicting convergence and divergence validity. This study has contributed towards extending the discussion of construct validity. The reason to adopt confirmatory factor analysis is due to the inability of exploratory factor analysis to account for errors. This technique of data analysis assists the study in testing convergence and divergence validity. Confirmatory factor analysis ensures that the findings from this study do not suffer from cross-loading and poor model fits.

Prior studies have analysed factors influencing the adoption of mobile money services using a descriptive data analysis technique. It has been argued by most scholars that descriptive data analysis lacks the power of generalizing findings to the population hence limiting generalization at the sample level. Similarly, other prior studies used inferential statistics such as correlation analysis which does not provide cause and effect relationships hence are very difficult to predict the significant level. Some used techniques such as multiple regression and logistic regression which limit the use of multiple dependent variables. Studies on predictive analytics of increased loyalty and customer retention measured multiple items such as loyalty and customer retention. Hence, this study has contributed to the data analysis technique by integrating multiple dependent variables from different theories to form a single model. The use of a single model helps the study to offset the weakness identified in the theories and form a robust model to align the conflict factors.

# Recommendations for Future Research

The current study deployed using SEM, but the method limits the use of and is a dependent variable with categorical variables. In this case, customer relationship marketing can be studied with the use of binary categorical dependent variables i.e. loyalty and customer retention. It means customer retention as categorical can be measured with a set of predictor variables.

Given the situation explained above, this research recommends that future studies should consider adopting the binary dependent variables with a set of predictor variables. In that regards future studies can use methods like logistic regression. On the other hand, this study was conducted in Tanzania. It is difficult to generalize the findings beyond the United Republic of Tanzania. It is also difficult to conclude whether the model validated by the study is applicable and suitable for predicting customer retention in other countries due to contextual differences. Hence, the study suggests that further studies should involve the contextual differences to generalize the influence of customer relationship marketing on customer retention. The findings can help to confirm the external validity of the current study. But, the results will assist to establish more evidence on how this study model can be used to test the relationship between customer relationship marketing and customer retention in the telecommunication industry. Further studies will explain unique variations for characteristics that may impact customer retention in developing countries.

Further, this study does not distinguish the adoption of customer relationship marketing and its influence on customer retention among telecommunication companies which are found in Tanzanian, specifically the customers in urban and those who in rural areas. For instance, customers consuming telecommunication services in rural areas have different characteristics and environment settings. It can be concluded that to address the issues further studies to address the above limitations by conducting a comparative study on how customer relationship marketing can influence customer retention. Therefore, future studies should focus on the implementation of comparative research. Also, this study did a proportioned representation of the sample distribution. But it is further suggested for future studies to involve few non-Vodacom customers and Vodacom management in order to make a comparison with the reasons given by Vodacom customers.

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# APPENDICES

**Appendix I: Survey Questionnaire**

**THE OPEN UNIVERSITY OF TANZANIA**

Dear Respondents,

My name is George Buhembere Kanire, I am a Ph.D. student at The Open University of Tanzania. Currently, I am conducting a study on the influence of customer relationship marketing on Customer Retention in the Tanzania Telecommunication Industry. A case of Vodacom Tanzania Limited Company. You have been selected to participate in this study. Kindly respond to the questions below as carefully as possible. Your responses will be used for academic purposes only and will be treated with the utmost confidentiality. If you have any questions about the questionnaire or the research in general, please feel free to contact the researcher via the following email addresses: kanileg@gmail.com or mobile phone +255 -685-624572.

Thank you for your cooperation.

**Yours**

Kanire, B.G.

# 

**Questionnaire about Customer Relationship Marketing influence on Customer Retention**

You are kindly requested to answer the following questions. All answers remain anonymous and confidential. To each question please tick √ in the brackets that match your view most closely or write your answer if needed. The information on this questionnaire will only be used for this study.

**Part A: General information**

1. What is your gender?

Male [ ]

Female [ ]

2. What is your age?

Less than 30 years [ ] 40 to less than 45 years [ ]

30 to less than 40 years [ ] Over 45 years [ ]

3. What is your highest education level attained?

Primary Education [ ] Tertiary Education [ ]

Secondary Education [ ] Postgraduate [ ]

Bachelor degree [ ]

4. What is your marital status?

Married [ ] Widow [ ]

Single [ ] Divorced/separated [ ]

5. The place where you live

Ilala [ ] Temeke [ ]

Kinondoni [ ]

6. How many years have you been a Vodacom customer?

Less than 1 year [ ] 5 to less than 10 years [ ]

1 to less than 5 years [ ] Above 10 years [ ]

**PART B: INFLUENCE OF CUSTOMER RELATIONSHIP MARKETING ON CUSTOMER RETENTION**

Please read the statements below and tick the appropriate number reflecting your agreement or disagreement. The response scale is as follows: 1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CUSTOMER RETENTION |  |  |  |  |  |
| Can Customer Relationship Marketing increase the Vodacom sales volume | 1 | 2 | 3 | 4 | 5 |
| Does Customer Relationship Marketing attract Vodacom customers to purchase services repetitively | 1 | 2 | 3 | 4 | 5 |
| Do you think Customer Relationship Marketing can increase Vodacom market share | 1 | 2 | 3 | 4 | 5 |
| Can Customer Relationship Marketing assist Vodacom to increase the revenue | 1 | 2 | 3 | 4 | 5 |
| Do you think Customer Relationship Marketing can build loyalty among Vodacom customers | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  |  |
| THE EFFECT OF CUSTOMER TRUST ON CUSTOMER RETENTION | 1 | 2 | 3 | 4 | 5 |
| Do you think the Vodacom brand image adequately attracts customer retention | 1 | 2 | 3 | 4 | 5 |
| Does Vodacom offer you attractive price packages which assist customer retention | 1 | 2 | 3 | 4 | 5 |
| Do you think the fulfillment of promises Vodacom customer retention | 1 | 2 | 3 | 4 | 5 |
| Can impressive services support Vodacom customer retention campaign | 1 | 2 | 3 | 4 | 5 |
| Do you think reliable prices offered by Vodacom can assist customer retention | 1 | 2 | 3 | 4 | 5 |
| Do you think comfortable purchasing process helps the Vodacom company to retain its customers | 1 | 2 | 3 | 4 | 5 |
| Can Vodacom team of sales representatives assist in promoting customer retention | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  |  |
| THE INFLUENCE OF RELATIONSHIP COMMITMENT ON CUSTOMER RETENTION | 1 | 2 | 3 | 4 | 5 |
| Do you think Vodacom promotion to stimulate sales helps to retain customers | 1 | 2 | 3 | 4 | 5 |
| Do you think Vodacom is committed to customer complaints resolution and assist customer retention | 1 | 2 | 3 | 4 | 5 |
| Do you think enjoying price packages can help to retain Vodacom customers | 1 | 2 | 3 | 4 | 5 |
| Can Vodacom customer care assist to retain customers | 1 | 2 | 3 | 4 | 5 |
| Is there a good relationship which attracts Vodacom customers to repurchase in the future | 1 | 2 | 3 | 4 | 5 |
| Can loyalty programs offered by Vodacom help to retain customers | 1 | 2 | 3 | 4 | 5 |
| Do you think high costs of the shift from Vodacom services assist to retain customers | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  |  |
| THE INFLUENCE OF SERVICE QUALITY ON CUSTOMER RETENTION | 1 | 2 | 3 | 4 | 5 |
| Does Vodacom have the ability to offer accurate services which leads to customer retention | 1 | 2 | 3 | 4 | 5 |
| Do you think Vodacom employees provide prompt responses which assist into retaining customers | 1 | 2 | 3 | 4 | 5 |
| Do you think Vodacom employees are competent enough to offer services which attract customer retention | 1 | 2 | 3 | 4 | 5 |
| Do you think Vodacom has sufficient physical facilities to retain customers | 1 | 2 | 3 | 4 | 5 |
| Do you think Vodacom services provide adequate attention to customer retention | 1 | 2 | 3 | 4 | 5 |
|  |  |  |  |  |  |

**Thank you very much for your cooperation and participation in this survey**

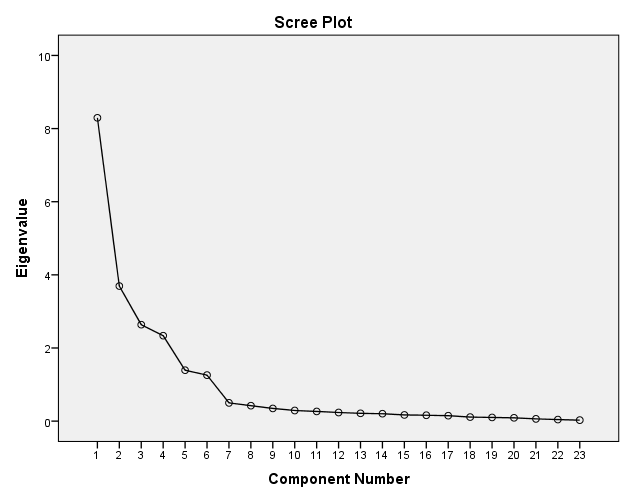
**Appendix II: Questionnaire code**

|  |  |  |
| --- | --- | --- |
|  |  |  |
| CODE | ITEMS | STATEMENTS USED TO MEASURE | |
|  |  | **CUSTOMER RETENTION** | |
| CR1 | Increased sales | CRM increases sales volume | |
| CR2 | Repeating purchase | CRM appealing for the customers to repeat purchase | |
| CR3 | New customers | CRM assists in increased market share | |
| CR4 | Increase in revenue | CRM can increase revenue | |
| CR5 | Improved loyalty | CRM can improve loyalty | |
|  |  | **CUSTOMER TRUST** | |
| **CT 1** | The first choice of brand image | It is the first choice brand image | |
| **CT 2** | Attractive price packages | Attractive price packages | |
| **CT 3** | Promises fulfilled | Promises fulfilled | |
| **CT 4** | Caring impression | Shows caring impression | |
| **CT 5** | Stable prices to rely on | Prices provide attractiveness of services | |
| **CT 6** | Comfortable to purchase | Packages are comfortable to purchase | |
| **CT 7** | Competent sales representative | Competent sales representative | |
|  |  |  | |
|  |  | **RELATIONSHIP COMMITMENT** | |
| **RC 1** | Promotion to stimulate sales | Increased Customer preferences differentiated | |
| **R C2** | Commitment to resolve complaints | Increased Customer Sharing and interaction | |
| **RC 3** | Enjoying customized services offers | Improved service customization | |
| **R C4** | Future purchase intention | Increased customer intimacy | |
| **R C5** | Customer care services | Clear channel for customer issues resolution | |
| **R C6** | Loyalty programs | Provides customer comfortable zones | |
| **R C7** | High shifting costs | Increased economic and social benefits | |
|  |  |  | |
|  |  | **SERVICE QUALITY** | |
| **SQ1** | Services reliability | Ability to provide service accurately | |
| **SQ2** | service Responsiveness | Willingness to provide prompt assistance | |
| **SQ3** | Service Tangibility | Physical facilities and equipment used by the company | |
| **SQ4** | service Assurance | Company's knowledge and ability to give service in confidence and competence | |
| **SQ5** | customer Empathy | Company’s ability to care for customers and provide due prompt attention | |
|  |  |  | |

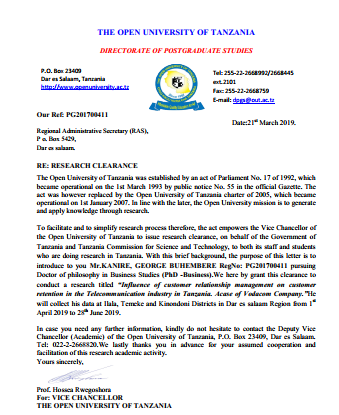
**Appendix III: Summary of Variance**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total Variance Explained | | | | | | | | | |
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
| Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 5.816 | 36.348 | 36.348 | 5.816 | 36.348 | 36.348 | 3.622 | 22.635 | 22.635 |
| 2 | 3.091 | 19.322 | 55.669 | 3.091 | 19.322 | 55.669 | 3.609 | 22.559 | 45.194 |
| 3 | 2.127 | 13.296 | 68.965 | 2.127 | 13.296 | 68.965 | 2.717 | 16.984 | 62.178 |
| 4 | 1.545 | 9.657 | 78.622 | 1.545 | 9.657 | 78.622 | 2.631 | 16.444 | 78.622 |
| 5 | 1.067 | 6.670 | 85.292 |  |  |  |  |  |  |
| 6 | .507 | 3.171 | 88.463 |  |  |  |  |  |  |
| 7 | .447 | 2.793 | 91.256 |  |  |  |  |  |  |
| 8 | .282 | 1.763 | 93.019 |  |  |  |  |  |  |
| 9 | .236 | 1.472 | 94.491 |  |  |  |  |  |  |
| 10 | .205 | 1.280 | 95.772 |  |  |  |  |  |  |
| 11 | .175 | 1.093 | 96.865 |  |  |  |  |  |  |
| 12 | .162 | 1.012 | 97.876 |  |  |  |  |  |  |
| 13 | .118 | .738 | 98.614 |  |  |  |  |  |  |
| 14 | .101 | .630 | 99.244 |  |  |  |  |  |  |
| 15 | .070 | .437 | 99.682 |  |  |  |  |  |  |
| 16 | .051 | .318 | 100.000 |  |  |  |  |  |  |
| Extraction Method: Principal Component Analysis. | | | | | | | | | |

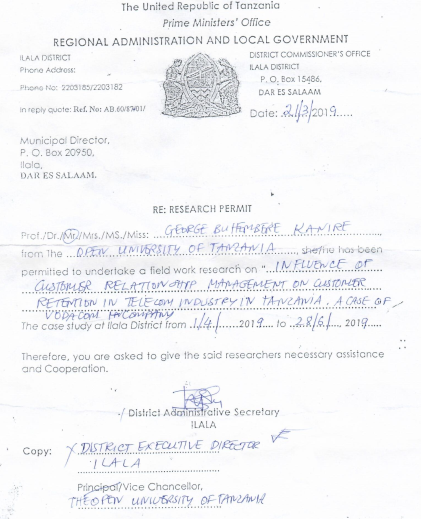
**Appendix IV: Scree Plot**



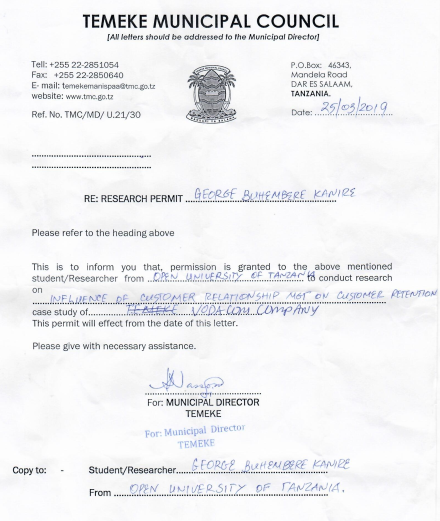
**Appendix V: Letter of Introduction**



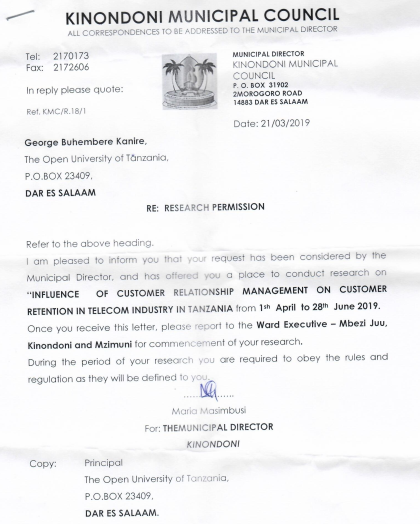
**Appendix VI: Clearamce letter from Dar-es-salaam regional office**



**Appendix VII: Clearamce Letter from the Temeke Municipal Council**



**Appendix VIII: Clearamce Letter from Kindondoni Municipal Council**



**Appendix IX: Clearamce Letter from Ilala Municipal Council**

