SERVICE QUALITY AND CUSTOMER SATISFACTION WITH TWO WAY RADIO COMMUNICATION SERVICE IN UGANDA COMMUNICATIONS COMMISSION (UCC) KAMPALA AREA

BY

OLIVIE NAKAMATTE

12/MMSBA/27/078

A DISSERTATION SUBMITTED TO THE HIGHER DEGREES DEPARTMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER'S DEGREE IN MANAGEMENT STUDIES (BUSINESS ADMINISTRATION) OF UGANDA MANAGEMENT INSTITUTE

FEBRUARY, 2014

DECLARATION

I, Olivie Nakamatte, declare that, this dissertation is my original work and has never been published and or submitted for any award in any other institute or University.

Signed …….
Olivie Nakamatte

Date ……

APPROVAL

This dissertation has been submitted for examination with our approval as Institute Supervisors

Signed: …… Signed: ……

Dr. Gerald Kagambirwe Karyeija **Dr. Benon Basheka**

Date:……. Date:…….

DEDICATION

I dedicate this dissertation to my loving mother Sarah Nantongo for having cared for me since I was created.

ACKNOWLEDGEMENT

First of all, my special thanks go to my supervisors, Dr. Benon Basheka and Dr.Gerald Karyeija for their commitment and guidance that has made this work a success.

Also special thanks go to my colleagues whose guidance and comments enhanced greatly the accomplishment of this study. Particular thanks go to my course mates of 27th MMS intake for their time and support academically.

In the same way, I would like to extend my sincere gratitude to all the Uganda Management Institute academic and administrative staff for being so co-operative and always willing to help in my research.

I thank all the two way radio communication users who participated in this study and make it success by accepting to share their ideas with me and by answering the questionnaire.

Finally, to my former supervisor Geoffrey Ssengendo at UCC for his words of encouragement both social and economic, he has always made my study life such a hopeful thing despite of unforeseen situations.

I cannot name all the people to whom I am indebted but to you all, I am grateful. God bless you.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

FCC	:	Federal Communications Commission
FRS	:	Family Radio Service
GMRS	:	General Mobile Radio Service
GSM	:	Global System for Mobile Communication
HF	:	High Frequency
ICT	:	Information and Communications Technology
ITU	:	International Telecommunication Union
MDG	:	Millennium Development Goals
MoICT	:	Ministry of Information and Communications Technology
NCC	:	Nigerian Communications Commission
NDP	:	National Development Plan
NGO	:	Non Government Organisation
PIP	:	Public infrastructure Provider
PSP	:	Public Service Provider
QoS	:	Quality of Service
RCDF	:	Rural Communication Development Fund
UCC	:	Uganda Communications Commission
UHF	:	Ultra High Frequency
UPL	:	Uganda Post Limited
UPTC	:	Uganda Posts and Telecommunications Corporation
USA	:	United States of America
UTL	:	Uganda Telecom Limited
VHF	:	Very High Frequency

ABSTRACT

The purpose of this study was to assess the relationship between service quality and customer satisfaction with two way radio communication service in UCC Kampala area. Specifically the study assessed the relationships between reliability, responsiveness, empathy and customer satisfaction with two way radio communication service in Kampala. The study used descriptive cross sectional design using quantitative and qualitative approaches on a study population of 297 two way radio users in Kampala. Data was collected using a questionnaire and interview guide and was analyzed using frequency, percentage, correlation and regression analyses. The study found out that reliability had a moderate positive and significant relationship with customer satisfaction of the two way radio ($r = 0.467^{**}$ and significance $p = 0.000$) and it was a significant predictor of the variance in customer satisfaction with two way radio. Responsiveness had a moderate positive and significant relationship with customer satisfaction ($r = 0.432^{**}$ and $p = 0.000$) and it was a significant predictor of the variance in customer satisfaction with two way radio. Empathy had a high positive and significant relationship with customer satisfaction ($r = 0.549^{**}$ and significance $p = 0.000$) and it was the highest significant predictor of the variance in customer satisfaction with two way radio communication service. The study concluded that UCC could still improve on its service reliability by focusing on enhanced accuracy, consistence, and dependability of the service and to enhance meeting of customer expectation and retention on the two way communication, UCC needs to continuously improve on the reliability of their service. It was also concluded that UCC could still improve on its service responsiveness by focusing on enhanced readiness, flexibility, willingness of the service and to enhance customer satisfaction with two way communication service, the management of UCC and its two way radio team needs to continuously improve on responsiveness of their service. The study concluded that to enhance customer satisfaction with the two way communication, the management of UCC and its two way radio team needs to continuously improve on empathy of the two way communication enhanced care and consideration of customers' needs. To enhance the customer satisfaction with two way radio communication service, the study recommends that the management of UCC in liaison with two way radio communication team leadership should set and monitor service reliability, responsiveness and empathy performance targets through benchmarking with best performing countries and related private sector entities.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Two way radio communication services is one of the communication services regulated by the Uganda Communications Commission. In 1991, the Commission started proving two way radio communication service frequency assignments with about 3 users. The number gradually increased to a total of 725 as of October 2013. However, because of unpredictable circumstances, currently the Commission has 472 active and registered users (Rebecca, 2013). This study assessed the relationship between service quality and customer satisfaction with two way radio communication service in Uganda Communications Commission Kampala area**.** Service Quality is the independent variable while customer satisfaction with two way radio communication service is the dependent variable. This chapter presents the background to the study, the statement of the problem, the general objective, specific objectives of the study, research questions, the hypotheses, conceptual framework, the significance, justification, scope of the study and operational definitions.

1.2 Background to the Study

1.2.1 Historical Background

The first truly mobile 2 way radio was developed in 1923 by Senior Constable William Downie of the Victorian Police in Austria. The Victoria police were the first in the world to use wireless communication in cars putting an end to public telephone boxes

http://en.wikipedia.org/wiki/Two-way/radio. During the World War II walkie-talkies hand held radio transceivers were used by Allies and the Nazis for air and ground troops. A walkie-talkie was a nickname of hand held transceiver which is a handheld portable 2way radio transceiver of two way radio communication services which developed during the Second World War to assist in communications during the war. After the war, the walkie-talkies spread to public safety, commercial and jobsite work. The walkie-talkie was back mounted model and was created in 1940 and the handie-talkie was entirely hand in the 1942 by a group of engineers of which the principle RF engineer was Henryk Maggnuski of technologies. The radios have revolved from technologies and changed the radios from big to small manageable size and the walkie-talkies are contemporary widely used in business, public safety, military, outdoor creation and the like, used as Amateur radio the digital smart technology routed over a wide range of international network, recreation for children's toys in North America, marine and aviation communications of small boats and aircraft and personal use in homes as family radio service (FRS), however the name walkie talkie faded around 1989's and in 1990's. These radios were called 2 way radio transceivers, and hence the name 2 way radio communication service (Wolinsky, 2003). According to Federal Cmmunications Commission (FCC) of USA, 2-way radios communication service has different designs in terms of technology and the types for which FRS type is used in all kinds of places like skiing at higher altitudes, homes and business related places, covering a distance of half a mile. This service is not expensive because it works without the need for transmission towers and requires no service contract or monthly fees. The other type is GMRS which

is licensed at $85 which serves for 5 years and is intended for non individuals like business companies (FCC, 2013).

Nigerian Communications Commission (NCC) as a regulator in Nigeria has a role for issuance of license but it has not properly taken over full authority from its Ministry of ICT negotiations are going on which requires the Ministry to handle over to NCC. The public is not quite aware of the usage of two way radio system because the GSM success has overshadowed the quest for walkie-talkies use. The system is mostly used by many multinational companies, private and public company, military and police. There are no rules and regulations yet to govern the usage and application is manually. The system has two licensees one is for spectrum which covers administration fees and the other covers the rights to operate the stations (Fedelis, 2012).

In 1997, the restructuring of the communication sector took place that led to enactment of Uganda communication Act; (Cap 106 laws of Uganda), that provided the unbundling of Uganda Posts and Telecommunications Corporation UPTC, that ushered in four new institutions; Uganda Telecom Limited (UTL), Uganda Posts Limited (UPL), Post Bank (U) Limited and UCC. The current telecom and regulatory environment in Uganda initiated through telecommunications sector policy frame work of 1996, the Uganda communications Act 1997 (Cap 106 Laws of Uganda) where only two National telecoms operators license were issued. The policy strategy aimed to create independent regulator as the key component of the policy. On July 24th 2005, was the end of limited

competition period and this provided review of the original policy framework so that it is focused on human development needs *www.ucc.co.ug/UCC ACT 2013.*

UCC developed a new telecom licensing regime that had Ministerial policy guidelines of May 11th and August 2006 that based on distinction between infrastructure provision and service provision license provided. The license included; Equipment vendor and Installers license, PSP license, Public Voice and Data license, Capacity resale license, PIP and General License. Due to rapid growth and developments in the ICT, dramatically changed the way information is transmitted and disseminated making communication one of the most powerful tools for modernization and development. However studies show that penetration of telecoms services still remains low constraining the ability to provide the necessary service delivery. This shows that the sector performance is the best in Africa despite the low penetration that calls for consideration of infrastructure development requirement for other programs addressing poverty alleviation and human development in Uganda. The draft Telecommunications policy 2012 August highlighted that it's pertinent to have a telecom sector policy that is driven by human development needs and in line with the objectives of the NDP and MDG. Among the six objectives given in the ICT policy 2012 August framework, highlighted areas that require improvement over the low penetration and still lacked customer satisfaction and services like two way radio communication would cater for that gap (Auk, 2012).

1.2.2 Theoretical Background

The study was guided by the Parasuraman, Zeithaml and Berry (1985) service quality model which asserts that service quality is a measure of how well a delivered service

matches the customers' expectations and the main reason to focus on quality is to meet customer needs while remaining economically competitive in the same time. The Parasuraman et al., (1985) re-known SERVQUAL model suggests that service quality has five determinants of reliability, responsiveness, empathy, assurance, and tangibility. According to Parasuraman et al. (1985), a perception of service quality is a result of a comparison between what consumers consider the service should be and their perceptions about the actual performance offered by the service provider. The service quality theory underpinned this study as it proposes the need to offer service quality which is reliable, responsive, and empathetic to satisfy the two way radio communication service customers by UCC. Thus the concepts of service quality and customer satisfaction are evident in the SERVQUAL model and were used to guide this study in examining the relationship between service quality offered by UCC and customer satisfaction with two way radio communication.

1.2.3 Conceptual Background

Service quality is the result of comparison of expectations about the service and their perception of the way the service had been performed (Yusoff, 2013). According to Rahamana and Ataur (2011), Service quality is….

> *"an approach to manage business processes in order to ensure full satisfaction of the customers which will help to increase competitiveness and effectiveness of the industry"(p. 5).*

The initial proponents of service quality (Parasuraman et al., 1985) define service quality to include five indicators of tangibility, reliability, responsiveness, empathy and assurance. However the study concentrated on three service quality aspects of reliability,

responsiveness and empathy since the commission does not offer any tangible items in the two way radio communication (Berinyuy and Paul, 2010).

Reliability of a service refers to the ability to perform the promised service dependably, accurately and consistently. As such reliability extends to aspects of the service being performed right at the first time, the organization keeps its promises in accuracy, in keeping records correctly and in performing the services at the designated time. This study borrowed from the above definition of reliability and conceptualized reliability include three indicators of accuracy, dependability and consistency in offering the two way radio communication services by the UCC.

Responsiveness refers to the willingness and/or readiness and flexibility of the service provider (Parasuraman et al., 1985) in offering the service. Valarie, Mary and Dwayne (2006), too defined responsiveness as the willingness to help customers and provide prompt service which is fulfilled by promptness and attentiveness in dealing with customers' requests, questions, complaints and problems while offering flexibility. This study lends its self to the above two definitions and conceptualized responsiveness to include three indicators of readiness, willingness and flexibility.

Empathy relates to the extent to which caring and personalized service is given and perceived by the customer (Shea andCondon, 2005). It could also refer to the provision of caring and individualized attention to customers. The SERVQUAL described empathy as "caring, individual attention the firm provides its customers" (Parasuraman et al., 1988,

p.23). This study conceptualized empathy to include two indicators of care and consideration in offering the two radio communication services by UCC.

Although customer satisfaction is a widely used concept, there is no consensus on one definition of customer satisfaction (Meng F., Tepanon Y and Uysal M., 2008; Parasuraman et al., 1994). However, Meng et al. (2008) indicated that nine models of customer satisfaction have been introduced in the literature, such as the expectancy-disconfirmation paradigm, the attribution model and the equity model. The expectancy-disconfirmation paradigm is based on the premise that customers form certain expectations about a product or service prior to consumption, and these expectations become a standard against which actual performance is compared (Oliver, 1980). According to this model, customer satisfaction is a post-purchase response that occurs as the result of comparing pre-purchase expectations and perceived performance (disconfirmation) (Oliver, 1980).

Parasuraman et al., (1994) contends that customer satisfaction characterizes the perceived discrepancy between a customer's expectations and the perceived performance of a product or service that he or she has used. Disconfirmation refers to the differences between these expectations and the post-purchase judgment of the customer about the service performance. When perceived performance surpasses a customer's pre-purchase expectations, a positive disconfirmation occurs, leading to customer satisfaction and strengthening the customer's attitudes towards the product or service. A negative disconfirmation takes place when the customer's expectations are not met after having an

experience with the product or service, resulting in dissatisfaction and weakening the customer's relationship with the service provider.

This study borrows from the above views and conceptualized customer satisfaction to include two indicators of met expectations, retention and growth of the two way radio communication services offered by UCC.

1.2.4 Contextual Background

The National ICT policy framework (2002) was reviewed and issued out in August 2012 focusing on National Development Programs and Millennium development goals. The objective of the policy was to implement specifically the Telecommunication services and infrastructure concerns which take into account NDP-2010 and National Vision 20-25 to promote customer satisfaction development as identified by government. Telecommunication service is dispatching messages of any form in audio, video or data over communication infrastructure between a sender and receiver. The necessity to review the policy was due to a number of factors that indicated gaps in the Telecommunication sector. Factor (a) aimed at separating the roles of the policy formulation, regulation and operations to increase penetration of services to a given level by giving access to a wide competitive price and services to increase private investments in the telecommunication sector by setting new horizon.

Contrary with the above, two way radio communication services which is under the telecom sector has not been utilized to reasonable capacity. According to UCC, Spectrum Management database, the current registered 2-way radio customers are estimated to be 732 of which about 292 still use the service and the balance are no longer using the 2-way radio communication service. The charges for frequency license fees and application

have not changed much since operations began in 1997, and so, the service requires better plans to assist the two way radio communication service for its customer satisfaction. According to Auk (2012), customer satisfaction with two way radio communication service emphasis is not recognized and therefore, the need to review two way radio communication service is crucial in assisting the current reported low penetration of telecommunication services.

1.3 Statement of Problem

Schemes like recruitment of engineers to carry out monitoring and inspections to ensure accuracy in operations and to handle complaints from customers as introduced in May 2009 (UCC, 2010). Customer care center purposely to capture complaints from operators at toll free line 0800133911 of which the 2-way radio communication users are among is in place (Policies and Regulations, 2013). Frequency assignment is dependent on the requirements for application process as provided on website "www.ucc.co.ug" to easy access for application forms and other related information on 2-way radio communication services and this leads to reliable frequency assignment, all in place to ensure that help is rendered to clients' queries. UCC provides equal opportunity and rights to the public to use 2- way radio communication like security group, private companies, NGOs and others but reports indicate non compliance with the license conditions (Nakamatte, 2012). Much as the above is done, this is not to the expected, 2-way radio communication users are gradually terminating their services with UCC rated at 60% frequency withdrawals creating dormant accounts and yet the license fees from 2002 to 2013 has remained low per set of equipment per year to reduce on their communication expenditures, which is supposed to attract more users but the number of clients has continued to dwindle

(Uganda Communications Commission, 1997-2008). More so, a number of two way radios Communications users have not been billed for a period of time between 2007-2009 and they have outstanding balances of 474,916,687/=**.** According to the users files reviewed, the users have not informed UCC of the non-use of the frequencies assigned and the Commission has not also communicated of withdraw of the assigned frequencies (Justine & Nyangoma, 2012) which bring a question. This situation is different if compared to USA where License data indicates the number of private land mobile transmitters increasing at a rate of nearly eight percent per year. Further, FCC frequency assignment records show that Federal land mobile assignments are increasing as much as 12 percent per year (Richard, William, & Ernesto, 1994). If termination of two way radio communication services is persistent, it will affect the financial contributions to rural communication development fund (RCDF) which comes out of the revenue collections got from the 2- way radio communication users, it will further impact negatively on the spectrum used by telecom networks by over clouding it, leading to dropped calls and thus poor QoS, it will bring in illegal users due to the vacuum created by subscribers leaving the allocated frequency band hence abuse of the social aspect, which in turn leads UCC to loss of revenue and also the illegal users may interfere with other legal users which will bleach the permit and license conditions. It is with such an organizational view in point that the researcher thought of Service Quality and customer satisfaction on two way radio communication service in Uganda Communication Commission, looking at Service quality Reliability, Responsiveness and Empathy whether they can try to ensure customer satisfaction with2-way communication radio services in UCC, Kampala area.

1.4 Purpose of the study

The purpose of this study was to assess the relationship between service quality and the customer satisfaction with two way radio communication services in UCC Kampala area.

1.5 Objectives of the study

1. To assess the relationships between reliability and customer satisfaction with two way radio communication services in Kampala.
2. To find out the relationship between responsiveness and customer satisfaction with two way radio communication services in Kampala.
3. To examine the relationship between empathy and customer satisfaction with two way radio communication services in Kampala.

1.6 Research Questions

1. What is the relationship between reliability and customer satisfaction with two way radio communication services in Kampala?
2. What is the relationship between responsiveness and customer satisfaction with two way radio communication services in Kampala?
3. What is the relationship between empathy and customer satisfaction with two way radio communication services in Kampala?

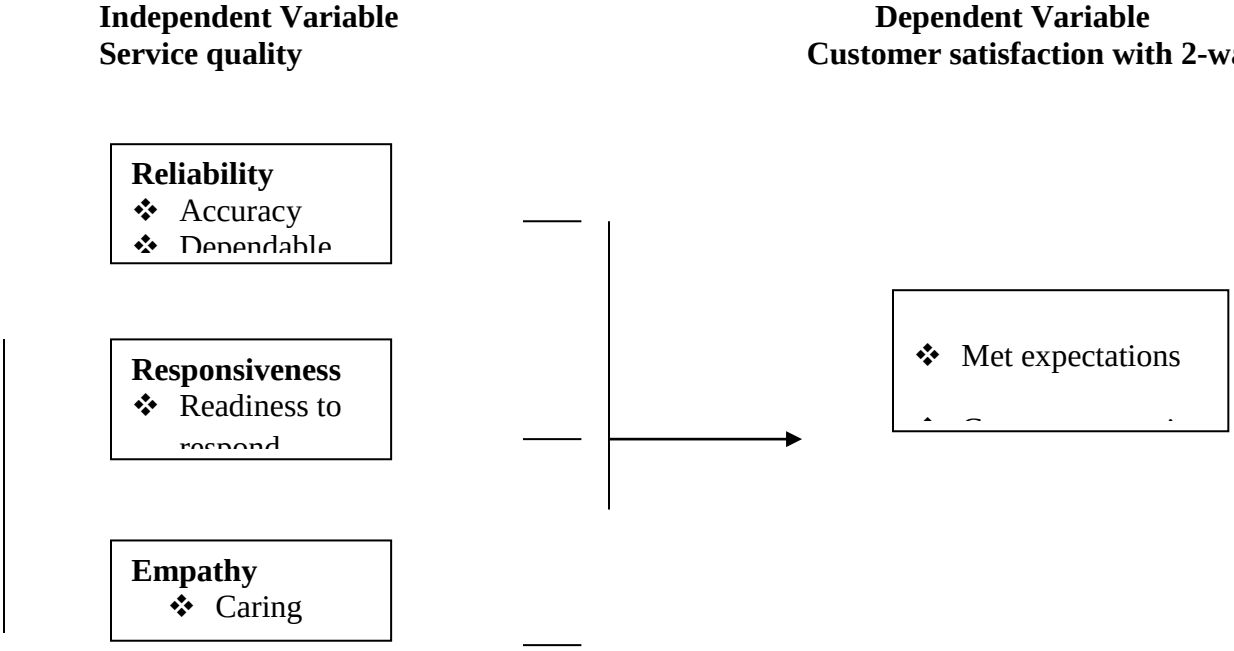
1.7 Hypotheses

1. There is a significant relationship between reliability and customer satisfaction with two way radio communication services in Kampala.

2. There is a significant relationship between responsiveness and customer satisfaction with two way radio communication services in Kampala.
3. There is a significant relationship between empathy and customer satisfaction with two way radio communication services in Kampala.

1.8 Conceptual framework

Figure 1.1 A Conceptual framework showing service quality and Customer satisfaction with two way radio communication service



Source: Adopted from (Parasuraman, Zeithaml, and Berry, 1985) and modified by the researcher.

The conceptual frame work shows the relationship between the independent variable of Service quality with dependent variable of customer satisfaction with two way radio communication service. Service quality will be studied using Reliability, Responsiveness, and Empathy. Where; Reliability indicators will be accuracy, dependable and consistent, Responsiveness indicators included flexibility, readiness to respond, and willingness and

lastly empathy was measured in terms of Caring and consideration. Customer satisfaction with the two-way radio communication service was the dependent variable with two indicators of met expectations, customer retention and growth.

1.9 Significant of the study

The study will add to the existing body of knowledge on the extent which service quality relates to customer satisfaction with two way radio communications service in Uganda Communication. It will further excavate new knowledge about the service quality for improvement in customer satisfaction with two way radio communication service.

More so, the study may help the ICT policy makers in amending policies which support equally all communication services based on the actual operations of two way radio service and clearly explained relations between service quality measures and customer satisfaction with two way radio communication service.

1.10 Justification of the study

This study was vital importance in identifying Poor quality of service in the Telecom networks, loss of revenue due to frequency withdrawals and interference with communication networks which affects growth and development of ICT more especially with two way radio communication service users.

It will be crucial in creating awareness to the concerned levels of the various stakeholders in ensuring maximum service quality with a customer satisfaction with two way radio communication services.

1.11 Scope of the study

Geographically

The study was conducted in Kampala area mainly at UCC house Bugolobi Spring road, Muyenga, Entebbe, Ntinda, city centre and Kololo where the head offices of two way radio communication operators are situated.

Content scope

The study focused on relationship between Service quality; Reliability, Responsiveness and Empathy as the most appropriate measurements recognized by UCC with the Dependent of customer satisfaction with two way radio communication service.

Time scope

The study covered a period between 2002 and 2013 because it is the period for which telecommunication services started penetration in the country and more is a period for which the sector had advancing technologies.

1.12 Operation definitions of terms and concepts

Service Quality in this study refers to reliability, responsiveness and empathy

Reliability refers to accuracy, dependability and consistence

Responsiveness refers to Readiness to respond, flexibility and willingness

Empathy refers to care and consideration

Customer satisfaction refers to met expectations and customer retention & Growth

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presents a review of related literature on the relationship between service quality and customer satisfaction with two way radio communication service in relation to the specific objectives. The first section presents theoretical review. This is followed by of a review of related literature reliability and customer satisfaction, responsiveness and customer satisfaction, empathy and customer satisfaction and a summary of the literature review.

2.2 Theoretical review

The study is to be underpinned by servqual model and systems theory; SERVQUAL is a term that means Service Quality, where servqual is an operational instrument for measuring service quality of 5constructs (Tangible, Reliability, Responsiveness and Empathy) with a multi-item scale developed to assess perceptions of customers on a service as cited by parasuraman et. al.,(1988). More so, service quality "is a discrepancy between a customer's expectations for a service offering and the customer's perceptions of the service received". There are a number of possible benefits for service organizations to look forward to when they pursue service quality and therefore, service organizations have achieved competitive advantage through providing a high-quality service to their existing customers in a severely competitive environment, leading to a continued focus on service quality. A number of potential benefits from implemented service programs are customer satisfaction, customer retention, customer loyalty, improved corporate

image, gains/financial performance and positive word-of-mouth. Service organizations/ UCC have a role of ensuring service quality throughout all the networks whether new or old. On contrary, the existing customers/users and the new require equal treatment of high service quality, because "*once a customer, always a customer"* as stated by Daffy, (2001). According to Roger, (2000), it costs more to gain a new than to retain an existing customer and is given actual cost difference of factor 5. More to this, it is real that loyal customers often act as marketing organ for organization's services, however, it seems like though satisfied customers have fewer friends than the dissatisfied ones because latter, the dissatisfied customers appear louder. Meaning people are far more vocal about things that go wrong as opposed to the right.

Uganda Communications Commission like other service providers is obliged to look at customers and service providers as vital stakeholders if they are to realize profits out of the services they render, therefore its incumbent upon the major players to ensure that appropriate service quality dimensions are closely monitored and respect of service user's complaints are taken into immediate consideration if customer satisfaction with two way radio communication services are to be realized. It is resolute that reliability, responsiveness and empathy contribute towards achieving customer satisfaction with two way radio communication services are upheld.

2.3 Service quality and customer satisfaction with two way radio communication service

2.3.1 Reliability and customer satisfaction with two way radio communication service

Reliability is said to be a key aspect as posed by Shea and Condon (2005) that among the service quality dimensions reliability is very vital. It is the ability to execute promised

service as per the study (two way radio communication service) dependably, accurately and consistently. Reliability as per this study will be operationalized as accuracy dependability and consistency. Where; Accuracy is necessary because the corrections usually appear in small print than the original story. Consistency means that where operations cut across in multiple sites, need to ensure that only service which is quality service is delivered. This involves different services offered which must be at a standard level.

With reliability Roger, (2000) believes that you do what you say you will do. Here services are performed reliably and therefore less rework but if more rework is experienced, this is an indicator of poor performance for the service. Standards need to be reviewed regularly to avoid slip back. It is in other words doing what one service provider says she/he will do when two competitors offer the same services, hence enticing the customers to flock to that particular service providers. Shea and Condon, (2005) furthermore asserted that customers have consistently believed in a company's ability to deliver promises as the most vital concern to providing service quality. Gomolski (2005) pointed out that as a scheme to create lasting value and unsurpassed customer service to clients who subscribe to a particular service automatically translates into customers for life and similarly, firms that fail to deliver on the promise of focusing on the customer often suffer the repercussions of unreliable form of economic loss.

Dependability of service and consistency can result into Customers' loyalty and trust which is gained through service provider's commitment to provision of quality service.

Dependability of services delivered and the consistency in delivering such services is what Kim Choi, Qualls and Park (2004) found to result into better quality services that later leads to customer satisfaction and creates loyalty. The effects of accurate, dependable and consistent services yields into loyal customers who in turn share a high category of their spending to the firm and in long run captivates others to become customers; further still, inefficiencies greatly affect customer's perception of service quality (Zeithaml, 2000, Keiningham, Cooil, Aksoy & Andreassen, 2007).

Service firms must go beyond simply satisfying service users/customers, and focus on building relationships that will lead to customer retention and consequently in context of the study, such state of affairs maintains the two way radio communication service that indicates performance (Kurtz and Clow, 1998). When service users are satisfied with products and services offered, they have no reason to look for alternative providers of the same service or brand (DMG 2008). Although price and other financial incentives are usually vital to customers, they are not difficult for competitors to imitate as the only customized part of the marketing mix is the price as propounded by (Zeithaml and Bittner 1996).

Under this study, UCC monitors and ensures that two way radio communication service rules and regulations are implemented by following ITU standards, of which systematic, consistency and accuracy systems for frequency assignments, inspections and monitoring are the key driving factors in carrying out the duties. The researcher agrees with Roger's emphasis on implementation of standard works which must be regularly reviewed to

avoid poor performance that may in turn lead to failure to consistently offer a service. In this study, the researcher strongly believe that customer satisfaction withtwo way radio communication service requires regular review of the standards more especially from the side of equipment vendors and installers who are in charge of supply, maintenance and frequency tuning of the radio equipment.

2.3.2 Responsiveness and customer satisfaction with two way radio communication service

Responsiveness in this study focused on flexibility, readiness to respond and willingness. According to Valarie, Mary and Dwayne (2006), responsiveness is the willingness to help customers and provide prompt service which is fulfilled by promptness and attentiveness in dealing with customers' requests, questions, complaints and problems. Flexibility according to Berry, (1999) is the second most vital dimension of service quality in selection. A firm is known to be responsive when it communicates to its customers how long it would take to get answers or have their problems dealt with. To be successful, companies need to look at responsiveness from the view point of the customer rather than the company's perspective since in this case customers are the reason for which the business's performance is dependent.

Shea and Condon, (2005) observe that customers judge a firms' responsiveness by assessing how long it takes and the degree of attentiveness shown in response to their questions, complaints and problems. This was stressed further by Balunywa, (1995) who also emphasized that when a customer has a need, meet it, be easy, accessible and available to the customers. Shea and Condon, (2005) emphasize that responding fast to customer requests breeds better relations which in turn impact on performance. Smith and

Bolton (1998) observe that when service failures occur, the firms' response has the potential to either restore customer satisfaction and reinforce loyalty or fail to handle and drive the customers to competition. Customers too have an ardent desire of getting services at places where they feel comfortable and where the service provided is in their perception of highest quality as advanced by Bullard, (2009).

Bullard (2009) observes that consistently addressing the needs of the customer through attention to detail, prompt and courteous assistance, and the use of knowledgeable employees is the first objective in providing a memorable experience. Effective customer service policies focus on providing consistent services. When a firm creates a customer centric and high quality service policy it continues to create lasting value for the customer. Zeithaml, et al (1990) and Heskett, et al (1990) assert that good service delivery elicits the best outcome in terms of customer satisfaction and consequently with the satisfaction to customers customer satisfaction with any given project will be a success and in turn increase more customers. According to Graham & Brigitte, (2008) there is need for more systematic assessment of customer satisfaction rather than sitting back and waiting for problems to emerge. In this research, responsiveness will be studied in terms of flexibility in terms customer complaints resolutions and readiness to respond requiring systems/operations in place.

In UCC conclusively, all services providers are supposed to be flexible. Customers have a right to complain or get enquiries from the help desk or from the field staff as emphasized by Valarie, et al 2006 and Ghaham et al pronouncements on ideas concerning

flexibility. This flexibility is empirical in terms of customization/modification of the two way radio communication service and paying attention to the user's problems and requests. This is enhanced by the help of systems and operations that respond to unpredictable complaints. In certain instances, some customers do not raise complaints to UCC directly. This is true enough, no need to wait for "*the service very right the second time"* because once lost regaining may cost more or never to the same as before, so the earlier, the better. It should be keenly noted that UCC customers have rights and opportunities to use or change to any service of their preference at their convenience as suggested by Bullard, (2009) and the Commission also encourages review of operations with the help of routine inspections and monitoring to overcome redundancy frequency bands and other negative impacts as suggested by Graham and Brigitte, (2008) for safe planning of the Commission.

2.3.3 Empathy and customer satisfaction with two way radio communication service

Empathy relates to the extent to which caring and personalized service is given and perceived by the customer (Shea & Condon, 2005). It could also refer to the provision of caring and individualized attention to customers. This was in agreement with Graham et al. who advanced that empathy is the provision of caring and individualized attention to customers. Empathy implies treating clients and being concerned with their longer term interest. Rogers (2000) stressed that it very hard to find an organization that exists without customers. This is not true because if the organization has monopoly of the market with no competitors in that particular industry then the statement can bind however in the situation of two way communications services there are quite a number of alternatives all around the country.

Care would be accessibility, communication and understanding customers' interests. Accessibility would be through various ways; telephone, short waiting time to receive services, convenient operation hours and convenient location of service facility. Communication looks at keeping customers informed in a language they understand, listening to the customers and speaking simply and plainly with the customers. Understanding the customers; in the sense that there needs are comprehended by responsible service providers and worked upon in time, learning the customer's specific requirements, providing individualized attention, recognizing the regular custom as postulated by Parasuraman et al, (1988).

Shea and Condon, (2005) stressed the need by customers to be known on an individual basis and feel that the company understands and addresses their individual requirement. Small firms relatively earn greater market share by focusing on empathy that enhances them to enjoy economies of scale than big companies. Emerson (2007) said that customers are concerned with empathy and will always remember the way they were treated by the firms employees and what actions were taken to satisfy their needs. Clark (2006) found out that service quality and customer satisfaction evaluation was the firm's empathy, a finding that he based on the concern shown by service provider for their customers.

Bullard (2009) interposed that with poor service quality the likelihood of losing customer is consequent. Customer satisfaction or performance of a project is dependent on the

firm's ability to retain customers and so this ushers in the need for of meeting and knowing each customers individual needs and expectations (McColl et al, 1998). This was supported by Gummeson (2002) who observed that it is the value of the customer's experiences with the service that is important hence the need to consider the needs of the customers to ensure customer satisfaction.

UCC's empathy is about bringing the services as closer as possible to the users and penetration to the nation which build oneness. The frequencies to two ways radio communication service are provided directly to the users which differ from other communication services provided by UCC, and thus there is a bond created for the two way radio users. I therefore argue Rogers that customer needs, wants and aspirations are negotiated when services are closer to customers and also not only the staff need to put themselves in customers' shoes and understand how they feel, but this should originate from the company or organization mandate requiring implementation from the staff.

Basing on Parasuraman et al, (1988), listening to customers, learning their requirements and envisaging the trend of customer demands, is a clear indicator of mastery of a clear assessment of what customers might desire in the future. This is advanced empathy. In the bid to fulfill this advanced empathy in line with two way radio communication services, UCC has cared to provide regional offices, website and a toll line as remedy to solving inaccessibility to information and services of the Commission which contributes to customer satisfaction with the 2-way radio communication service.

2.4 Summary of Literature Review

In today's environment, customer satisfaction is an overall developing strategy in global scope for public (profit or non profit) entities where customer satisfaction and growth should be taken on by minimizing customer-service problems and reduction of dissatisfaction as postulated by Gary & Duncan, (1999). From the literature reviewed above authors have had divergent views on silient issues in the above researcher endeavor. The reviewed literature is relevant to customer satisfaction withtwo way radio communications service since it concerns customers and a service provider. The only difference is that most of the authors based there studies from western world and very few citations were done by local authors. However the dynamic fact is that the literature can be cross cutting hence making it pertinent in this research endeavor. It is also worth noting that for a company to remain competitive should treat dissatisfied customers with utmost attention since they are believed to share their experience with much more people where as satisfied customers share with few people about their experience with the service and this fin turn affects the market and profitability of company or service provider.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter covers the research design, study population, sample size and selection, sampling techniques and procedure, data collection methods, data collection instruments, validity and reliability, procedure of data collection, data analysis and measurement of variables.

3.2 Research design

The study used a descriptive cross sectional design using quantitative and qualitative approaches. In a descriptive cross sectional design, either the entire population or a subset thereof is selected and from these individuals data is collected to help answer research questions of interest. It is called a descriptive cross sectional design because the information about a given topic that is gathered represents what is going on at only one point in time (Peck, Olsenc & Devore, 2001). A descriptive cross sectional design study is fast and can study a large number of respondents at a given point in time. With descriptive cross sectional design the researcher is confident of maintaining the exact respondents with minimal or no dropping out during the course of the study. The use of a quantitative and qualitative cross-sectional study design equally helps the researcher to exploit the synergies offered by the different methodologies. It is very vital because it makes the research results more concrete and credible in the sense that defects in a particular methodology can be compensated by another at appropriate points in design (Barifaijo, et al 2009).

3.3 Study Population

The study focused on service quality and customer satisfaction with a two way radio communication service in Uganda communications commission Kampala region. The target population of the study was 297 users on the two way radio communication system.

3.4 Sample size and Selection

A total of 169 respondents were selected based on Krejcie and Morgan's (1970) table of determining sample size out of the target population (see appendix III) and as summarized in table 1 below.

Table 1: Summary of the sample size categories and the method of sample selection

User category	Population	Sample size	Sampling technique
NGO	80	46	Cluster
Security	120	68	Cluster
Private	70	40	Cluster
Others	27	15	Cluster
Total	**297**	**169**	

Source: UCC data base

3.5 Sampling techniques and procedure

As indicated in table 1above, cluster sampling was used since it enables selection the different cluster users of the two way radio communication in the Kampala district based on the different sector clusters in the different geographical divisions of Kampala. (Amin, 2005). The study used proportionate sampling by using the ratio of 169/297X population of each population category to arrive at the sample for each population category.

According to Amin (2005) Cluster sampling takes the forms of 'two-stage sampling' where the first stage a sample of areas is chosen and in the second stage, a sample of respondents *within* those areas is selected and the population divided into clusters of homogeneous units, usually based on geographical contiguity. Still in the second stage, the sampling units are groups rather than individuals from which a sample of such clusters is then selected.

Inn using cluster sampling, the study first divided the Kampala area into the divisions of central, Kawempe, Rubaga, Nakawa and Makindye. The different populations were categories into homogenous groups of NGO, security, private businesses and others. From these different homogeneous populations, one representative element (UNDP for NGOs, Ultimate Security for security, Mukwano for Private Businesses and Wildlife Authority for others) were selected. The different groups in those organisations were then selected as the sampling units from which simple random sampling was selected. For example in UNDP the different families such as World food program, refugees, human rights, IOM etc were used as the sampling frames with a total population of 80 elements from which simple random sampling was applied to select the 46 respondents. the same criteria was used for all clusters.

3.6 Data Collection Methods

According to Bhattacharyya (2006), some of the widely used methods of collecting primary data are questionnaires and interviewing. Thus this study used a questionnaire survey and interview guide as methods of data collection.

3.6.1 Questionnaire Survey

Neuman (2003) defined a questionnaire as a survey in which the researcher conceptualizes and operationalized variables and questions. Questionnaires were very appropriate for collecting information regarding surveys that deal with the perception of the variables which could not be observed like the reliability, responsiveness, empathy and customer satisfaction of the two way radio. The choice of the questionnaire was also on the basis that it could collect vast amounts of data in a short time and for easy quantification (Ami, 2005). The questionnaire was issued to all selected two radio users selected in the study.

3.6.2 Interviewing

This is a method of data collection where the investigator is given a chance to gather data through direct verbal interaction with participants (Amin, 2005). The researcher collected qualitative data from three key informants who were; User, System operator and Maintenance personnel from NGO, Security and private customer categories.

3.7 Data Collection Instruments

3.7.1 Questionnaire

A standardized close ended questionnaire scored on a 5-point Likert scale 5- Strongly Agree; 4- Agree; 3- Not Sure; 2- Disagree; 1- Strongly Disagree was used in collecting the primary data on each study variable. The questionnaire was divided into sections of major sections of background information, service quality and customer satisfaction with two way radio (see appendix I).

3.7.2 Interview Guide

The interview schedule contained unstructured questionnaire related to service quality factors of reliability, responsiveness and empathy from which the study sought to gain qualitative data to complement the quantitative data (see appendix II).

3.8. Validity and reliability

3.8.1. Validity

Validity refers to the truthfulness of the findings or the extent to which the instrument is relevant in measuring what it is supposed to measure (Amin, 2005). The validity of the instrument was tested using the Content Validity Index. This involved judges scoring the relevance of the questions in the instruments in relation to the study variables and a consensus judgment given on each variable. The Content Validity Index (CVI) was arrived at using the following formula.

$$CVI = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

The closer the CVI to 1, the more valid is the instrument and the results are shown in table 3 below.

Table 2: Content Validity Results

Variable	Total No of items	Number of valid items	CVI
Reliability	10	7	0.700
Responsiveness	12	10	0.833
Empathy	10	8	0.800
Customer satisfaction	11	8	0.727

Source: Expert Judgment

Table 2 shows that reliability aspect of service quality yielded CVI of 0.700, responsiveness yielded a CVI of 0.833, empathy yielded a CVI of 0.800, while customer

satisfaction with two way radio yielded a CVI of 0.727. Since all variables yielded a CVI above 0.70 accepted for social sciences, it was inferred that the instrument was relevant in measuring service quality and customer satisfaction with two way radio communication and therefore declared valid.

3.8.2 Reliability

Reliability of a measure indicates the extent to which it is without bias and therefore ensures consistent measurement across time and across the various items in the statement suggesting that the finding would be consistently the same if the study was done over again (Mugenda & Mugenda, 1999). In this study a Cronbach's alpha coefficient was computed to show how reliable the data is using Software Package for Social Sciences (SPSS) and the results are presented below.

Table 3: Reliability Results

Variable	Total No of items	Cronbach's alpha
Reliability	10	0.751
Responsiveness	12	0.867
Empathy	10	0.894
Customer satisfaction	11	0.770

Source: Primary data

Table 3 above shows that reliability dimension of service quality yield Cronbach's alpha value of 0.751, responsiveness yielded alpha value of 0.867; empathy yielded alpha value of 0.894 while customer satisfaction with two way radio yielded alpha value of 0.770. Since all variables yielded an alpha value higher than 0.70 accepted for social sciences, it was concluded that the instrument was consistent in measuring service quality and customer satisfaction with two way radio and therefore reliable.

3.9 Data collection Procedure

After successful defense of the research proposal by the Institution supervisor through defense of the proposal, the researcher will obtain a letter of introduction from Uganda Management Institution authorizing the researcher to collect data and proceed with the study. The data was collected by the researcher with the help of two research assistants. The data collected was entered into SPSS in preparation for analysis.

3.10 Data Analysis

Quantitative data was presented in form of descriptive statistics using frequency and percentages for each of the variables used in the study to help quantify the distribution of perceptions of reliability, responsiveness, empathy and customer satisfaction withtwo radio communication service by the respondents. Pearson's coefficient (r) and significance (p) tested at the 95 and 99% confidence limits were used to test if there was any significant relationship between the independent and dependent variable. A positive Pearson's correlation coefficient (r) indicates a direct positive relationship between the variables while a negative correlation indicate an inverse, negative relationship between the two variables.

The regression analysis was used to test the extent to which the independent variables predicted the variance in the dependent variable using ANOVA statistics of adjusted R^2 values, beta, t values and significance values (Amin, 2005). Specifically the adjusted R^2 value gave a statistical indicator of the percentage to which the independent variable predicted the variance in the dependent variable.

3.10.2 Qualitative data analysis

Qualitative analysis involved organizing statements, and responses to generate useful conclusions and interpretations on the research objectives. Qualitative analysis involved coding of data, identifying categories and patterns that emerged in the responses on study variables as conceptualized and asked for in the interview guide on service quality and customer satisfaction with two way radio communication service.

3.11 Measurement of Variables

The study used the service quality measures developed by Parasuraman et. al., (1988) and customer satisfaction measures developed by Oliver (1980). These were then channeled into observable and measureable elements to enable the development of an index of the concept. A five- Likert scale namely: 5-Strongly agree; 4- Agree; 3- Not sure; 2- Disagree; 1- Strongly disagrees was used to measure both the independent and dependent variables.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1. Introduction

The purpose of the study was to assess the relationship between service quality and the customer satisfaction with two way radio communication service in UCC Kampala area. This chapter presents analyses and interprets the study findings on the relationship between service quality and the customer satisfaction with two way radio communication service in UCC Kampala area. The first section presents response rate, this is followed by background information about the respondents, presentation and analysis of the study findings on customer satisfaction with two way radio (dependent variable) and a presentation if the study findings in relation to the specific objectives.

4.2. Response rate

A total of 166 questionnaires were distributed but 126 useable questionnaires were returned as shown in table 4 below.

Table 4: Response rate

User category	**Questionnaires issued**	**Questionnaire returned**	**Response rate**
NGO	46	38	83%
Security	68	52	76%
Private	40	28	70%
Others	15	8	53%
Total	**169**	**126**	**75.5%**
Overall response rate			76%

Source: Primary data

Table 4 above shows overall response rate of 76% which was high. Amin (2005) suggested that a high response rate also suggests more accurate survey results.

4.3. Background information

Section A of the questionnaire asked respondents to provide their background information of which this section gives the characteristics of the respondents in relation to sector, time on the frequency, position in relationship to two way radio communication system in the organization, and the radio frequency used based on the information provided on the questionnaire by the respondents themselves.

Table 5: Background information about the respondent

Item	Description	Frequency	Percent
Sector	NGO	38	30.2
	Security	52	41.3
	Private	28	22.2
	Others	8	6.3
	Total	**126**	**100.0**
Time spent on the radio frequency	Less than a year	24	19.0
	2-3 years	23	18.3
	4- 5 years	33	26.2
	More than 6 years	46	36.5
	Total	**126**	**100.0**
Position in relationship to two way radio communication system in your organization	User	59	46.8
	System Operator	18	14.3
	Maintenance	49	38.9
	Total	**126**	**100.0**
The Radio frequency used	UHF	13	10.3
	VHF	104	82.5
	HF	9	7.1
	Total	**126**	**100.0**

Source: Primary data

Table 5 above shows that majority of out of the 126 respondents accessed in this study, 52(41.3%) were from the security sector, 38(30.2%) were from the NGO sector and 28(22.2%) were from the private sector while only 8(6.3) were from other sectors like individuals. This finding suggested that most radio frequency users were majorly in the

security and NGO sectors and every effort aimed at customer satisfaction with two way radio in Uganda needs to be directed to the security and NGO sector.

In relation to time spent on the radio frequency majority of 46(36.5%) of the respondents had been on two way radio for more than six years followed by 33(26.2%) who had been on the frequency for 4-5 years, 24(19%) who had been on the frequency for less than a year and 23(18.3%) who had been on the frequency for 2-3 years. This finding suggested that about 40% had been on the frequency for less than three years suggesting customer retentions of about 60% in the last four years. This was so as some customers could be dropping off voluntary and involuntarily.

On the position in relationship to two way radio communication system in your organization, most respondents 59(46.7%) of the respondents were users followed by 49(38.9%) were maintenance officials and 23(18.3%) who were system operators. This finding suggested that data was collected mostly from technical persons who were maintenance and system operator officials as well as users making the responses representative of individual who had diverse experiences on two way radio.

Table 5 above further shows that majority of two way radio communication service at 104 (82.5%) were using VHF radio frequency, while the least number of respondents were on UHF 13 (10.3%) and 9 (7.1%) on HF. This was so as described below; VHF frequency covers a smaller distance and is more flexible i.e can be used as a Mobile, Handheld/walk talkie and fixed radio station at a lower license fees charged per station per frequency per year than HF frequency radios, UHF is an advanced technology which

can be used for Handheld, Fixed and mobile radio stations at the same rate of license fees as VHF and for HF is used only for fixed and mobile radio stations at a higher license fees per radio station, per year per frequency but covers a wider distance than both VHF and UHF frequencies. Customer satisfaction with two way radio communication service would therefore depend on efforts directed to retention of UHF customers while also promoting the use of the more advanced VHF and HF frequency radios.

4.4. Customer satisfaction with two way radio

Customer satisfaction with two way radio was the dependent variable of the study had had two indicators of customer satisfaction and retention measured using 11 questions scored on 5-point Likert scale ranging from 5= strongly agree, 4 = agree, 3 = not sure, 2= disagree, 1= strongly disagree and the findings are shown in table below.

Table 6: Descriptive statistics for customer satisfaction with two way radio

	SDA		DA		A		SA	
Met expectations	Freq	%	Freq	%	Freq	%	Freq	%
1. The set regulations governing two way radio communication services met my expectations	8	6.3	42	33.3	32	25.4	31	24.6
2. UCC treats us fairly as its customers	9	7.1	27	21.4	69	54.8	12	9.5
3. I enjoy all the entitlements as customers of two way radio communications services on my assigned frequency	9	7.1	39	31.0	53	42.1	17	13.5
4. We enjoy innovative packages/services by UCC on our two way radio communication service	8	6.3	26	20.6	57	45.2	22	17.5
5. The two way radio meets my expectations	4	3.2	33	26.2	51	40.5	28	22.2
6. I have a good experience with the two way communication in this company	9	7.1	26	20.6	86	68.3	5	4.0
7. Am generally satisfied with the two communication radio service in my company	4	3.2	21	16.7	76	60.3	17	13.5
8. I would recommend other organisations to join the two way radio communication for its good service	16	12.7	17	13.5	64	50.8	29	23.0
Customer retention & Growth								
9. It will be difficult for us to do without this two way radio communication in this organization	4	3.2	37	29.4	45	35.7	31	24.6
10. I always use two way communication for my communications	8	6.3	19	15.1	69	54.8	22	17.5
11. Your company increased/ intends to increase on the number of users on the two way radio	9	7.1	32	25.4	52	41.3	23	18.3

Source: Primary data

Table 6 above shows that 39.5% (6.3% for strongly disagree+ 33.3% for disagree) of the respondents did not appreciate the set regulations governing two way radio communication services while 50% (25.4 for agree+ 24.6 for strongly agree) of the respondent appreciated the two radio regulations. This finding revealed that about 4 in every 10 users of two radio communication users were dissatisfied with the two way radio governing regulations which may lead to their drop out. It was necessary that the

management of UCC reviews the regulations to enhance the customer satisfaction with two way radio communication service.

Similarly, the findings in table 6 above show that 38.1% of the respondents did not enjoy all the entitlements as customers of two way radio communications services on their assigned frequency a finding which revealed that about 4 in every 10 customers missed out on their frequency entitlements which may lead to their drop out due to dissatisfaction with their entitlements. It was necessary that the management of UCC ensure that the customer enjoy the privileges pledged on the frequency package for enhanced customer satisfaction and customer satisfaction with two way radio.

Furthermore, a total of 32.6% of the respondents disagreed that it will be difficult for them to do without two way radio communication in the organization and that they increased/ intended to increase on the number of users on the two way radio. This finding suggested that although UCC could retain 70% of its customers, about 30% of customers were likely to drop off the radio frequency which constrains the customer satisfaction with two radio communication.

In the next sub section we examine the extent to which reliability, responsiveness and empathy could have contributed to the customer satisfaction with two way radio communication.

4.5. The relationships between reliability and customer satisfaction with two way radio communication service in Kampala

The first objective of the study was to establish the relationships between reliability and customer satisfaction with two way radio communication service in Kampala. Reliability was one of the dimensions of service quality and was conceptualized to include three indicators of accuracy, dependency, and consistence. These were measured using 10 items scored on five(5) point Likert scale ranging from 5= strongly agree (SA), 4 = agree (A), 3 = not sure (NS), 2= Disagree (DA), 1= Strongly Disagree (SDA) and the findings are shown in Table 7 below using descriptive statistics of frequency and percentage.

Table 7: Descriptive results for reliability of UCC

	SDA		DA		A		SA	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
Accuracy								
1. UCC provide radio frequency service requests at their level as promised	8	6.3	27	21.4	79	62.7	8	6.3
2. I can rate UCC as providing services right first time	12	9.5	46	36.5	48	38.1	4	3.2
3. UCC has maintained high level of an error free frequency in our organization	8	6.3	54	42.9	12	9.5	48	38.1
Dependability								
4. UCC is available to handle radio frequency requests	4	3.2	22	17.5	76	60.3	12	9.5
5. UCC is dependable in handling problems with our radio frequency	4	3.2	13	10.3	54	42.9	27	21.4
6. I am comfortable with the waiting time for UCC to respond to our request	4	3.2	26	20.6	76	60.3	8	6.3
Consistence								
7. UCC frequently offers the desirable radio service quality to your organization	4	3.2	39	31.0	62	49.2	9	7.1
8. UCC strives to show that they offer a desirable service quality	4	3.2	35	27.8	71	56.3	4	3.2
9. UCC offer uniformity in the delivery of all the service at their level regardless of constraints	4	3.2	47	37.3	58	46.0	13	10.3
10. UCC offer fairness in the delivery of all the service at their level regardless of constraints	4	3.2	33	26.2	72	57.1	17	13.5

Source: Primary data

Table 7 above shows that although majority of 69% (62.7% for agree +6.3% for strongly agree) of the respondents agreed that UCC provided radio frequency service requested as promised, a reasonable number of respondents 46%(9.5% for strongly disagree+ 36.5% for disagree) rated UCC not to be providing services right first time while 49.2% equally disagreed that UCC had maintained a high level of an error free frequency in their

organization. These findings revealed that although UCC strived to keep its promised submission of requests of application or after sale services, the Commission exhibited a low level of accuracy aspect of service reliability due to failure to maintain an error free frequency in about half of the customers. The low rating of UCC due to constrains of providing the service first time and an error frequency to all customers frustrates customer leading to dissatisfaction and drop out. It was necessary that the management of UCC undertakes to enhance customer service accurately.

In an interview asked to rate UCC in terms of accurate frequency assigned, one interviewee put it:

> *"Not so good and not so bad, because one time they brought an issue which seemed to have been their error on frequency assignment, but they try to deliver"*

Another interviewee put it:

> *"It is not easy to tell since we do not involve ourselves in frequency assignments but we do receive intruders in our communications. So we always wonder whether it is UCC error or illegal users"*

The qualitative findings seem to suggest that there were service disruptions on the two ways radio common among them was interruptions with the frequency. It was necessary that the management of the Commission takes the necessary actions to eliminate frequency intrusion for enhance customer satisfaction.

Table 7 above shows that 69.5% of the respondents agree that UCC was available to handle radio frequency requests while 64.3%, agreed that UCC was dependable in handling problems with their radio frequency. A total of 66.6% of the respondents indicated that they were comfortable with the UCC's waiting time to respond to request.

These findings revealed that about 70% of the two way radio communication customers were satisfied with the level of dependability of UCC while 30% were not satisfied with the level of dependability aspect of service reliability of UCC. It was necessary that the management of UCC improves on its reliability levels by enhancing by increasing on its dependability to foster the customer satisfaction with two way radio.

Table 7 above shows that majority of 56.3% of the respondents agreed that UCC frequently offers the desirable radio service quality, 59.5% agreed that UCC strived to show that they offered a desirable service quality. Another majority of 56.3% of the respondents indicated that UCC offered uniformity in the delivery of all the service while 70.6% indicated that UCC offered fairness in the delivery of all the service at their level regardless of constraints. These findings revealed that about 60% of the two way radio customers were satisfied while 40% were not satisfied with the level of consistence aspect of service reliability offered by UCC. It was necessary that the management of UCC enhances their level of dependability to improve on the perceived reliability among 40% of the two way radio frequency.

Asked to describe how reliable was the two way radio communication network, one client had to say:

> *"it is somehow ok, but it covers a very short distance because most times i cannot communicate between Abaita and Lake Victoria hotel using the hand set radio"*

Another interviewee noted:

> It depends on the spacing provided from one point of communication to the other, whereby if it is beyond 1km, it requires a repeater in between for efficiency communication. However though that is in place a lot of interference is experienced on our radio from the nearby frequencies of other security groups sometimes.

Another customer observed:

> *"it depends on how your equipment has been set up. However it has interference sometimes from army we think probably UCC did not give enough spacing"*

Asked to give suggestion on how UCC could improve on its service, one customer interviewed enumerated:

> UCC should try to put proper spacing between different users. The commissions should put strict illegal laws over illegal use of frequencies. The above should be complemented with regular monitoring of all the frequencies intended to be used by two way radio operators to avoid interference. Most importantly, UCC should ensure that all the radio frequency assignment must be done by UCC other than the equipment vendors who provide frequencies on guess basis because after wards they are interfered with. This comes to their mind because even other companies can assign them frequencies if they wish to ignore UCC and nobody will query them.

Another customer simply put it that:

> UCC needs to concentrate and improve on the distance covered by hand held radios. UCC should also put in place a one stop center which must be under UCC management and this will be in charge of programming/tuning frequencies onto the radio equipment, constructing and powering the mast. This will help in controlling illegal frequency use provided by the equipment vendors and thus reduce interference cases. UCC should ensure that equipment vendors' services are monitored too if we are to get fair treatment and hence retention on two way radio communication services, otherwise they abuse the whole system.

The interview finding equally point to weaknesses in the reliability of UCC in offering the desired service at their level. Customers experienced interference with their frequency a problem widely associated with the service provider-UCC. Too, It seems UCC has not put in place fees policy to regulate the charges the Service Provider impose over the 2 way radio communication users meaning that the whole blame goes to UCC as a regulator because UCC over sees the service provider and the end user.

4.5.1. Correlation analysis between reliability and customer satisfaction with two way radio

To test the relationship between the service quality dimension of reliability and customer satisfaction with two way radio offered by UCC, Pearson's correlation analysis was conducted at the 2-tailed level and the findings are presented below.

Table 8: Correlation Matrix between reliability and customer satisfaction with two way communication

		1	2
1. Reliability	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	126	
2. Customer satisfaction	Pearson Correlation	.467**	1
	Sig. (2-tailed)	.000	
	N	126	126
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary data

Table 8 shows the Pearson's correlation coefficient r = 0.467** between reliability and customer satisfaction with two radio, suggesting that the two variables had a positive significant relationship. The r = 0.467** and significance p = 0.000 between reliability and customer satisfaction suggests that there was a moderate positive and significant relationship between reliability and customer satisfaction with two way radio. The managerial implication was that to enhance customer satisfaction and retention of the two way communication, the management of UCC and its two way radio team needs to continuously improve on the reliability of their service through being more accurate, dependable, and consistent in offering the services whenever called on.

4.6. The relationships between responsiveness and customer satisfaction with two way radio communication service in Kampala

The second objective of the study was to establish the relationships between responsiveness and customer satisfaction with two way radio communication service in

Kampala. Responsiveness was one of the dimensions of service quality and was conceptualized to include three indicators of readiness to respond, flexibility and willingness. These were measured using 12 items scored on five(5) point Likert scale ranging from 5= strongly agree (SA), 4 = agree (A), 3 = not sure (NS), 2= Disagree (DA), 1= Strongly Disagree (SDA) and the findings are shown in Table 8 below using descriptive statistics of frequency and percentage.

Table 9: Descriptive results for responsiveness of UCC

	SDA		DA		A		SA	
Readiness to respond	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
1. UCC promptly keeps us informed on when our request services will be performed	3	2.4	35	27.8	64	50.8	16	12.7
2. UCC is always prompt with related services on radio frequency processes	2	1.6	30	23.8	74	58.7	12	9.5
3. The UCC is always speedy in offering services requested from them	4	3.2	24	19.0	61	48.4	17	13.5
4. We receive personalized services related to UCC on our frequency with immediacy when ever needed	4	3.2	19	15.1	69	54.8	13	10.3
5. All our requests to UCC are resolved by a zealous team	4	3.2	17	13.5	61	48.4	24	19.0
Flexibility								
6. UCC is flexible with radio frequency adjustment.	6	4.8	33	26.2	60	47.6	17	13.5
7. UCC offers flexible services (e.g data, voice) concerning two way radio communication service in their mandate	11	8.7	31	24.6	68	54.0	13	10.3
8. UCC is flexible to offer technical assistance whenever our technical service providers fail	7	5.6	36	28.6	53	42.1	22	17.5
9. UCC is flexible in accepting adjustment in r way radio communication equipment	10	7.9	16	12.7	70	55.6	19	15.1
Willingness								
10. UCC is willing to negotiate payment plans for License fees defaulters.	8	6.3	35	27.8	53	42.1	20	15.9
11. UCC is willing to offset license fees of any customer with/ no explanation.	10	7.9	42	33.3	58	46.0	_	_
12. UCC express willingness to issue bills on frequency fees based on time of usage.	12	9.5	30	23.8	64	50.8	12	9.5

Source: Primary data

Table 9 above shows that majority of 63.5% of the respondents indicated that UCC promptly kept them informed on when their requested services would be performed while 68.2% indicated that the commission was always prompt with their services whenever asked. Similarly, a total of 61.9% of the respondents indicated that the

commission was always speedy in offering services requested while another 65.1% indicated that they received personalized services related to UCC on our frequency with immediacy when ever needed. These findings suggested that about 6 in every 10 customers of the two way radio were satisfied with the UCC readiness to respond to their requests by being prompt on requests feedback, speed of offering the service, offering of personalized services, and use of a competent response team. However, 4 in every 10 customers were not satisfied with the readiness aspect of service responsiveness of UCC to respond to their requests which may lead to their drop out due to perceived unwillingness of the commissions.

Table 9 above further shows that majority of 61.1% of the respondents indicated that UCC was flexible with radio frequency adjustment, 64.3% of the respondents indicated that UCC offered them flexible services, 59.6% indicated that UCC was flexible to offer technical assistance whenever their technical service providers failed. These findings suggested that 6 in every 10 customers were satisfied with the level of flexibility offered by UCC on frequency adjustments, flexible services, technical assistance and equipments. However, 4 in every 10 customers were not satisfied with the level of flexibility offered by UCC which may lead to their dissatisfaction and dropout due to perceived service irresponsiveness of UCC significant in failure to offer flexibility in the service.

Table 9 equally shows that 58% of the respondents indicated that UCC was willing to negotiate payment plans for License fees defaulters, 60.3% indicated that UCC expressed willingness to issue bills on frequency fees based on time of usage. These finding

revealed that although the commission could boost of a 60% perceived wiliness aspect of service responsiveness rating by the customers, about 40% of the customers were not satisfied with the level of willingness by UCC to negotiate payment plans, time based billing, and off setting of license fees which leads to their dissatisfaction and dropout.

Asked to share experiences the level of responsiveness of UCC in terms of readiness to respond, one interviewee put it"

> *"UCC response varies on a given request i believe, for example if it is bill delivery, it is perfect issued every year, but it is frequency application process, they take a while".*

Asked to indicate if UCC was willing to negotiate offsets, payment plans and other issues related to frequency license fees one customer interviewed put it:

> I wish they do, but we have not approached them because we do not have procedures in place. Because we are humanitarian companies, we sometimes wish to get consideration from UCC to offset the license fees because we save life and handle emergencies. There is no profit made, we depend on donors. Sometimes our projects are terminated for a while then resume later, but license fees remain as usual.

Another customer interviewee put it that:

> "*We have only use voice service on the two way radio communication equipment because we feel we cannot meet the costs of advanced grade of equipment since we are nonprofit entity. However we use other service providers for data services because it seems to be cheaper".*

Asked to highlight how UCC would improve on its responsiveness one customer interviewed put it:

> UCC needs to change and ensure that VHF radio cover a reasonable distance as the current coverage does not meet our expectations. We do not see the value for license fees we pay to UCC; it is not worth and fair paying. The other problem is the Interference that keep on and off from other users who may be authorized by UCC or not.

Another customer suggested:

"let UCC provide modern equipment that have extensions like telecom companies and other services like internet in order to keep the radio call in service"

Another customer interviewee put it:

> UCC should keep monitoring all two way radio operations by constructing their own masts. This also will help to avoid police masts because they are a headache sharing with them yet constructing our own masts is very expensive. Similarly UCC should ensure that equipment vendors do not overcharge them e.g tuning a frequency on one particular set is 20,000/=, then cost of buying a hand held radio/walkie talkie is between 400-1000 dollars, base radio is 6000 dollars and repeater is 3500 to 5000 dollars. Remember this is not only the charges, there is money required operation costs, license fees and maintenance costs. The whole story makes two way radio communication services very expensive.

The qualitative findings seem to agree with the quantitative findings which suggest that some customer were not satisfied with the flexibility of payment packages offered by UCC that the management needs to look into for enhanced customer satisfaction. Preferential treatments like for humanitarian organisations could be looked into since they were not profit making. Also it shows that users are over whelmed with the payment of the whole process of radio communication service which shows that there in need to improve on responsiveness.

4.6.1. Correlation analysis between responsiveness and customer satisfaction with two way radio

To test the relationship between the service quality dimension of responsiveness and customer satisfaction with two way radio offered by UCC, Pearson's correlation analysis was conducted at the 2-tailed level and the findings are presented below.

Table 10: Correlation Matrix between responsiveness and customer satisfaction with two way communication

		1	2
1. Responsiveness	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	126	
2. Customer satisfaction	Pearson Correlation	432.**	1
	Sig. (2-tailed)	.000	
	N	126	126
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary data

Table 10 shows the Pearson's correlation coefficient r = 0.432** between responsiveness and customer satisfaction with two radio, suggesting that the two variables had a positive significant relationship. The r = 0.432** and significance p = 0.000 between responsiveness and customer satisfaction suggests that there was a moderate positive and significant relationship between responsiveness and customer satisfaction with two way radio. The managerial implication was that to enhance customer satisfaction and retention of the two way communication, the management of UCC and its two way radio team needs to continuously improve on responsiveness of their service through increased readiness to respond, flexibility of services and willingness to listen and respond to customers' needs.

4.7. The relationships between empathy and customer satisfaction with two way radio communication service in Kampala

The third objective of the study was to establish the relationships between empathy and customer satisfaction with two way radio communication service in Kampala. Empathy

was one of the dimensions of service quality and was conceptualized to include two indicators of caring and consideration. These were measured using 10 items scored on five(5) point Likert scale ranging from 5= strongly agree (SA), 4 = agree (A), 3 = not sure (NS), 2= Disagree (DA), 1= Strongly Disagree (SDA) and the findings are shown in Table 8 below using descriptive statistics of frequency and percentage.

Table 11: Descriptive results for empathy of UCC

	SDA		**DA**		**A**		**SDA**	
Caring	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
1. We are always given individual attentions by UCC whenever requested	8	6.3	34	27.0	54	42.9	22	17.5
2. UCC staff gives us adequate care	16	12.7	30	23.8	41	32.5	27	21.4
3. UCC always take our best interest at heart.	4	3.2	46	36.5	36	28.6	27	21.4
4. UCC staff take efforts to understand our two way radio communication needs	12	9.5	38	30.2	64	50.8	4	3.2
5. UCC promptly resolves complaints raised over two way radio communication services.	8	6.3	26	20.6	71	56.3	13	10.3
Consideration								
6. Our opinions as customers are treated with high regard in UCC	12	9.5	42	33.3	49	38.9	19	15.1
7. UCC staff can always be access at our convenient business hours	4	3.2	47	37.3	40	31.7	23	18.3
8. UCC seriously takes our radio frequency requests	8	6.3	26	20.6	84	66.7	4	3.2
9. UCC strives to visualize on communication problem in the event of the communication failures on our frequency	12	9.5	30	23.8	62	49.2	18	14.3
10. Our opinions are generally treated with high regard/consideration by UCC	4	3.2	18	14.3	53	42.1	43	34.1

Table 11 above shows that majority of 60.4% of the respondents indicated that they were always given individual attentions by UCC, 53.9% indicated that UCC staff gave them adequate care, 50% indicated that UCC always took their best interest at heart, 54% indicated that UCC staff took efforts to understand their two way radio communication needs while 66.6% indicated that UCC promptly resolved complaints raised. These findings revealed a 50% level of care offered by the commission suggesting that about half of the customers were dissatisfied with the level of care aspect of empathy offered by UCC which may lead to their dropout due to perceived low empathy.

Asked to indicate the impact of the level of care offered by UCC, one respondent put it:

> Some years back when we happened to procure certain equipment from overseas, this was queried at Entebbe Airport by immigration/ CAA, not until UCC wrote an authorization letter to the authority in charge by explaining that the imported radio equipment was safe to be used in the country basing on its technical specifications.

This qualitative finding seems to suggest that although UCC may strive to offer empathy in their service delivery, this was constrained by external stakeholders whose treatment affects customer satisfaction of the two way radio communication. Enhanced coordination with other external stakeholders in the delivery of two radio communication could be sought for enhanced service quality and resultant customer satisfaction.

Table 11 above further shows that 54% of the respondents indicated that their opinions as customers were treated with high regard in UCC, 50% indicated UCC staff were always accessible at their convenient business hours, 63.5% indicated that UCC strived to visualize their communication problem in the event of the communication failures on their frequency. These findings revealed that about half of the two way radio rated UCC

to be acting with consideration in their empathy while 50% were dissatisfied with the level of consideration in the service empathy expressed by UCC which may lead to their dropout.

4.7.1. Correlation analysis between empathy and customer satisfaction with two way radio

To test the relationship between the service quality dimension of empathy and customer satisfaction with two way radio offered by UCC, Pearson's correlation analysis was conducted at the 2-tailed level and the findings are presented below.

Table 12: Correlation Matrix between empathy and customer satisfaction with two way communication

		1	2
1. Empathy	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	126	
2. Customer satisfaction	Pearson Correlation	.549**	1
	Sig. (2-tailed)	.000	
	N	126	126
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary data

Table 12 shows the Pearson's correlation coefficient r = 0.549** between empathy and customer satisfaction withtwo radio, suggesting that the two variables had a positive significant relationship. The r = 0.549** and significance p = 0.000 between responsiveness and customer satisfaction suggests that there was a high positive and significant relationship between empathy and customer satisfaction with two way radio. The managerial implication was that to enhance customer satisfaction and retention of the

two way communication, the management of UCC and its two way radio team needs to continuously improve on empathy of the two way communication enhanced care and consideration of customers' needs.

4.8. Hypotheses testing

The study predetermined hypotheses were:

1. There is a significant relationship between reliability and customer satisfaction with two way radio communication service in Kampala.
2. There is a significant relationship between responsiveness and customer satisfaction with two way radio communication service in Kampala.
3. There is a significant relationship between empathy and customer satisfaction with two way radio communication service in Kampala.

Multiple regression analyses were carried out to obtain empirical statistics for determining the relationship between the service quality aspects of reliability, responsiveness, and empathy and customer satisfaction with two way communication

Table 13: Model Summary: Reliability, responsiveness, empathy and customer satisfaction with two way communication

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.305[a]	.093	.063	.636	.093	3.105	4	121	.018
2	.684[b]	.467	.436	.494	.374	27.633	3	118	.000
a. Predictors: (Constant), The Radio Frequency used , Sector, Time on the frequency , Position in relationship to two way radio communication system in your organization:									
b. Predictors: (Constant), The Radio Frequency used , Sector, Time on the frequency , Position in relationship to two way radio communication system in your organization:, Empathy , Responsiveness , Reliability									

Source: Primary data

Table 13 above shows a coefficient of determination (R-square) of 0. 467 at a significant level of 0.000 suggesting that the customer satisfaction with two way radio communication explained by reliability, responsiveness and empathy dimensions of service quality was forty six point seven percent (46.7%) at a standardized error of estimate of 0.494. The correlation coefficient (R= 0.648 or 68.4%) indicated the strength of the association between reliability, responsiveness, empathy and customer satisfaction with two way communication taking into considerations all interactions among the study variables. The adjusted R^2 of 0.436 or approximately 44% was the variance in the customer satisfaction with the two way communication explained by reliability, responsiveness and empathy putting into consideration all the variables and the sample size of the study. The remaining balance of 56% is explained by other factors other than reliability, responsiveness and empathy not considered in this study.

The study further examined the ANOVA and the results are presented in table 14 below.

Table 14: ANOVA results for reliability, responsiveness and empathy and customer satisfaction with two way communication

ANOVA[c]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.028	4	1.257	3.105	.018[a]
	Residual	48.980	121	.405		
	Total	54.008	125			
2	Regression	25.239	7	3.606	14.789	.000[b]
	Residual	28.769	118	.244		
	Total	54.008	125			
a. Predictors: (Constant), The Radio Frequency used , Sector, Time on the frequency , Position in relationship to two way radio communication system in your organization:						
b. Predictors: (Constant), The Radio Frequency used , Sector, Time on the frequency , Position in relationship to two way radio communication system in your organization:, Empathy , Responsiveness , Reliability						
c. Dependent Variable: Customer satisfaction with two Way Radio						

Source: Primary data

The ANOVA results indicate an overall significance of regression results with F value of 14.789 was significant at a confidence level of 0.000 suggesting that the reliability, responsiveness and empathy dimensions of the service quality offered by UCC were high significant predictors of the variance in customer satisfaction with two way radio communication service.

After establishment of the significance of the model summary and ANOVA, at 99 and 95% confidence levels, the study proceeded to present the summary of the coefficients.

Table 15: Summary of regression results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.141	.334		12.388	.000
	Sector	-.163	.063	-.224	-2.575	.011
	Time on the frequency	.062	.048	.114	1.288	.200
	Position in relationship to two way radio	-.123	.064	-.174	-1.921	.057
	The Radio Frequency	-.091	.144	-.058	-.630	.530
2	(Constant)	1.424	.425		3.346	.001
	Sector	-.134	.051	-.184	-2.635	.010
	Time on the frequency	.031	.041	.056	.744	.458
	Position in relationship to two way radio	-.075	.051	-.107	-1.468	.145
	The Radio Frequency	-.066	.116	-.042	-.567	.572
	Reliability	.318	.094	.289	3.390	.001
	Responsiveness	.200	.080	.192	2.502	.014
	Empathy	.253	.063	.333	4.027	.000
a. Dependent Variable: Customer satisfaction with two Way Radio						

Guided by the study results in table 15 above, the predetermined research hypotheses have been presented objective by objective below.

Research hypothesis 1: There is a significant relationship between reliability and customer satisfaction with two way radio communication service in Kampala.

According to table 15 above, the study observed that reliability yielded a beta (β) value of 0.289 and t value of 3.390 with a significance of 0.001 suggesting that enhancing reliability will result into enhanced customer satisfaction with two way radio. This finding supports the hypothesis that there is a significant relationship between reliability and customer satisfaction with two way radio communication service in Kampala.

Research hypothesis 2: There is a significant relationship between responsiveness and customer satisfaction with two way radio communication service in Kampala

According to table 15 above, the study observed that responsiveness yielded a beta (β) value of 0.192and t value of 2.502 with a significance of 0.014 which was significant suggesting that enhancing responsiveness will result into enhanced customer satisfaction with two way radio. This finding supports the hypothesis that there is a significant relationship between responsiveness and customer satisfaction with two way radio communication service in Kampala.

Research hypothesis 3: There is a significant relationship between empathy and customer satisfaction with two way radio communication service in Kampala

According to table 15 above, the study observed that empathy yielded a beta (β) value of 0.333 and t value of 4.027 with a significance of 0.000 which was significant suggesting that enhancing empathy will result into enhanced customer satisfaction with two way radio. This finding supports the hypothesis that there is a significant relationship between empathy and customer satisfaction with two way radio communication service in Kampala.

Furthermore, the study ANOVA results suggested that empathy (β = 0.333, t = 4.027, sig = 0.000) was a more significant predictor of the variance in the customer satisfaction with two way radio. This was followed by reliability (β = 0.289, t = 3.390, sig = 0.000) and lastly responsiveness. The implication was that, priority should be given to empathy since it yields higher outcomes of customer satisfaction and retention. Second priority should also be given to reliability without compromise of the responsiveness considerations of the service quality.

Table 16: Summary of the study hypothesis

Independent variables	Standardized coefficient (β)	Significance level	Hypothesis acceptance or rejection
Reliability	0.289	0.001	Accepted
Responsiveness	0.192	0.014	Accepted
Empathy	0.333	0.000	Accepted

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study assessed the relationship between service quality and the customer satisfaction with two way radio communication service in UCC Kampala area. This chapter presents a summary, discussion, conclusions and recommendations of the study. The first section presents a summary of the study findings, followed by discussion, conclusion, recommendations, limitations, contributions and areas for further research.

5.2 Summary of the study findings

5.2.1. The relationships between reliability and customer satisfaction with two way radio communication service in Kampala

The study found that about half (50%) of the customers were not satisfied with the accuracy aspects of service reliability in UCC due to experiences of failure to offer the service first time an error frequency, 40% were not satisfied with the level of consistence aspect of service reliability offered by UCC while 30% were not satisfied with the level of dependability aspect of service reliability.

Reliability dimension of service quality by UCC had a moderate positive and significant relationship with customer satisfaction with two way radio ($r = 0.467^{**}$ and significance $p = 0.000$). The regression results revealed that reliability was a significant predictor of the variance in customer satisfaction with two way radio ($\beta = 0.289$, $t = 3.390$, sig. $= 0.001$) The implication was that to enhance customer satisfaction and retention of the two way

communication, the management of UCC and its two way radio team needs to continuously improve on the reliability of their service through being more accurate, dependable, and consistent in offering the services whenever called on.

5.2.2. The relationships between responsiveness and customer satisfaction with two way radio communication service in Kampala

It was found that although 60% of the customers of the two way radio were satisfied with the UCC readiness to respond to their requests by being prompt on requests feedback, speed of offering the service, offering of personalized services, and use of a competent response team 40% were not satisfied with the readiness aspect of service quality responsiveness which may lead to their dropout. Similarly, 40% of the customers were not satisfied with the level of flexibility offered by UCC which may lead to their dissatisfaction and dropout due to perceived service irresponsiveness of UCC significant in failure to offer flexibility in the service. About 40% of the customers were not satisfied with the level of willingness by UCC to negotiate payment plans, time based billing, and off setting of license fees which leads to their dissatisfaction and dropout.

Responsiveness had a moderate positive and significant relationship with customer satisfaction with two way radio ($r = 0.432^{**}$ and $p = 0.014$). The regression results revealed that responsiveness was a significant predictor of the variance in customer satisfaction with two way radio ($\beta = 0.192$, $t = 2.502$, sig = 0.014). The implication was that to enhance customer satisfaction and retention of the two way communication, the management of UCC and its two way radio team needs to continuously improve on

responsiveness of their service through increased readiness to respond, flexibility of services and willingness to listen and respond to customers' needs.

5.2.3. The relationships between empathy and customer satisfaction with two way radio communication service in Kampala

The study found out that about half (50%) of the customers were dissatisfied with the level of care aspect of empathy offered by UCC which may lead to their dropout due to perceived low care aspect of service empathy. Another 50% of the customers were dissatisfied with the level of consideration aspect of service empathy expressed by UCC which may lead to their dropout.

Empathy service quality dimension had a high positive and significant relationship with customer satisfaction with two way radio ($r = 0.549^{**}$ and significance $p = 0.000$) and it was the highest significant predictor of the variance in customer satisfaction withtwo way radio ($\beta = 0.333$, $t = 4.027$, $sig = 0.000$). The implication was that to enhance customer satisfaction and retention of the two way communication, the management of UCC and its two way radio team needs to continuously improve on empathy of the two way communication enhanced care and consideration of customers' needs.

5.3 Discussion of the study findings

This subsection presents a discussion of the study findings in relation to what other previous studies had observed on the relationship between service quality and customer satisfaction and retention.

5.3.1. Reliability and customer satisfaction with two way radio communication services

The study findings revealed that reliability dimension of service quality by UCC had a positive and significant relationship with customer satisfaction with two way radio and it was a significant predictor of the variance in customer satisfaction with two way radio. It was inferred that customer satisfaction and retention of the two way communication depended on the efforts to improve on the reliability of their service through being more accurate, dependable, and consistent in offering the services whenever called on.

This study finding relate to a great extent to the servqual model which indentifies reliability as one of the factors of a service (Parasuraman et. al., 1988). The servqual model asserts that a number of potential benefits arise from implemented service programs of reliability such as customer satisfaction, customer retention, customer loyalty, improved corporate image, gains/financial performance and positive word-of-mouth. In support, Gomolski (2005) pointed out that as a scheme to create lasting value and unsurpassed customer service to clients who subscribe to a particular service automatically translates into customer satisfaction and retention.

This study found out that 40% of the two way radio communication customers were not satisfied with the level of consistence aspect of service reliability offered by UCC necessitating enhanced service dependability to improve on the perceived reliability among 40% of the two way radio frequency. This study finding is supported by Choi and Park (2004) who found service consistence to result into better quality services that later leads to customer satisfaction and creates loyalty. Other scholars conclude that the effects of accurate, dependable and consistent services yields into loyal customers who in

turn share a high category of their spending to the firm and in long run captivates others to become customers; further still, inefficiencies greatly affect customer's perception of service quality (Zeithaml, 2000, Keiningham, Cooil, Aksoy & Andreassen, 2007). Based on the above study findings and discussions, this study inferred that there is a significant relationship between reliability and customer satisfaction with two way radio communication service in Kampala.

5.3.2. Responsiveness and customer satisfaction with two way radio communication services

The study found that responsiveness had a moderate positive and significant relationship with customer satisfaction with two way radio and it was a significant predictor of the variance in customer satisfaction with two way radio. The study therefore inferred that enhanced customer satisfaction and retention of the two way communication depends on the level of continuous improvement on responsiveness of their service through increased readiness to respond, flexibility of services and willingness to listen and respond to customers' needs.

This study observation on the relationship between responsiveness dimension of service quality and two way radio echo the servqual model which indentifies responsiveness as one of the factors of a service (parasuraman et. al., 1988). The servqual model asserts that a number of potential benefits arise from implemented service programs of responsiveness such as customer satisfaction, customer retention, customer loyalty, improved corporate image, gains/financial performance and positive word-of-mouth.

6 in every 10 customers of the two way radio were satisfied with the UCC readiness to respond to their requests by being prompt on requests feedback, speed of offering the

service, offering of personalized services, and use of a competent response team. In support of the relationship between responsiveness and customer outcomes, Shea and Condon (2005) observe that customers judge a firms' responsiveness by assessing how long it takes and the degree of attentiveness shown in response to their questions, complaints and problems. The fast response to customer requests breeds better relations leading to customer satisfaction and retention. In complement, Valarie, et al., (2006) noted that to be successful, companies need to look at responsiveness from the view point of the customer rather than the company's perspective since in this case customers are the reason for which the business's performance is dependent.

This study found that although 60% customers of the two way radio customers were satisfied with the UCC readiness to respond to their requests by being prompt on requests feedback, speed of offering the service, offering of personalized services, and use of a competent response team; 40% of the customers were not satisfied with the readiness of UCC to respond to their requests which may lead to their drop out. It was necessary that the commission undertakes to improve on the speed of service in that segment which was dissatisfied with the timeliness of the service for customer satisfaction and retention. This position is supported by Bullard (2009) who observes that consistently addressing the needs of the customer through attention to detail, prompt and courteous assistance, and the use of knowledgeable employees is the first objective in providing a memorable experience. This study therefore inferred that there is a significant relationship between reliability and customer satisfaction with two way radio communication service in Kampala.

5.3.3. Empathy and customer satisfaction with two way radio communication services

The study found a high positive and significant relationship between empathy and customer satisfaction with two way radio and it was a significant predictor of the variance in customer satisfaction with two way radio. The implication was that to enhance customer satisfaction and retention of the two way communication, UCC needs to continuously improve on empathy of the two way communication through enhanced care and consideration of customers' needs.

These study findings and observations are supported by the servqual model which indentifies empathy as one of the factors of a service (parasuraman et. al., 1988). The servqual model asserts that a number of potential benefits arise from implemented service programs of empathy such as customer satisfaction, customer retention, customer loyalty, improved corporate image, gains/financial performance and positive word-of-mouth. In support of the relationship between empathy and customer outcomes Clark (2006) found out that service quality and customer satisfaction evaluation was the firm's empathy, a finding that he based on the concern shown by service provider for their customers.

The study found out that about half of the two way radio customers were dissatisfied with the level of care aspect of empathy offered by UCC which may lead to their dropout due to perceived low empathy. Similarly, 50% of the customers were dissatisfied with the level of consideration in the service empathy expressed by UCC which may lead to their dropout. This study observation on the influence of empathy indicators of care and consideration relates to a great extent to what Shea and Condon (2005) highlights that empathy relates to the extent to which caring and personalized service is given and

perceived by the customer. It could also refer to the provision of caring and individualized attention to customers. Bullard (2009) interposed that with poor service quality the likelihood of losing customer is consequent. Customer satisfaction or performance of a project is dependent on the firm's ability to retain customers and so this ushers in the need for of meeting and knowing each customers individual needs and expectations. Emerson (2007) said that customers are concerned with empathy and will always remember the way they were treated by the firms employees and what actions were taken to satisfy their needs. This study therefore observed that there is a significant relationship between reliability and customer satisfaction with two way radio communication service in Kampala.

5.4 Conclusions of the study

5.4.1. Reliability and customer satisfaction with two way radio communication services

The study concluded that UCC could still improve on its service reliability by focusing on enhanced accuracy, consistence, dependability of the service and to enhance customer satisfaction and retention of the two way communication, the management of UCC and its two way radio team needs to continuously improve on the reliability of their service.

5.4.2. Responsiveness and customer satisfaction with two way radio communication services

The study concluded that UCC could still improve on its service responsiveness by focusing on enhanced readiness, flexibility, willingness of the service and to enhance customer satisfaction and retention of the two way communication, the management of

UCC and its two way radio team needs to continuously improve on responsiveness of their service.

5.4.3. Empathy and customer satisfaction with two way radio communication service

The study concluded that half of the customers of two way communication were dissatisfied with the level of care aspect of empathy offered by UCC which may lead to their dropout due to perceived low care and consideration of service empathy. It was inferred that to enhance customer satisfaction and retention of the two way communication, the management of UCC and its two way radio team needs to continuously improve on empathy of the two way communication enhanced care and consideration of customers' needs.

5.5. Recommendations of the study

5.5.1. Reliability and customer satisfaction with two way radio communication services

To enhance the customer satisfaction with two way radio communication service, the study recommends that the management of UCC in liaison with two way radio communication team leadership should set and monitor service reliability performance targets focusing on service accuracy indicator of providing the service in first time/real time and an error free frequency to all customers. This should be complemented with setting of targets on service dependability indicators of availability of UCC staff and customer waiting time; and setting of targets on service consistence to be seen as offering desirable service quality with fairness and equality to all customers.

The use of external consultants develop performance targets on each indicator or the use of benchmarking with best performing countries and private sector entities offering the similar services could be sought to establish the service reliability performance targets.

5.5.2. Responsiveness and customer satisfaction with two way radio communication services

To enhance the customer satisfaction with two way radio communication service, the study recommends that the management of UCC in liaison with two way radio communication team leadership should set and monitor service responsiveness performance targets focusing on readiness indicators of prompt customer information dissemination coupled with speed of service and customized services. The management of UCC should equally revisit its policies and express willingness to negotiate tariff plan cost adjustments and offering of waivers as deemed appropriate. The above should be complemented with set service flexibility indicators related to frequency adjustments, offering of flexible service such as data and image, and offering of technical expertise whenever necessary.

The use of external consultants develop performance targets on each indicator or the use of benchmarking with best performing countries and private sector entities offering the similar services could be sought to enhance service responsiveness.

5.5.3. Empathy and customer satisfaction with two way radio communication service

To enhance the customer satisfaction with two way radio communication service, the study recommends that the management of UCC in liaison with two way radio communication team leadership should set and monitor service empathy indicators of

care related to individualized attention and understanding of customers' needs. This should be complemented with the development of service consideration targets related to treatment of customers opinions and UCC staff access on request. The use of external consultants develop performance targets on each indicator or the use of benchmarking with best performing countries and private sector entities offering the similar services could be sought to enhance service responsiveness.

5.6. Limitations of the study

The study relied on primary data collected using a standardized questionnaire and interview guide without use of secondary data to effectively triangulate and enhance the data quality on service quality and customer satisfaction with two radio communication. Use of secondary data gained from the two way radio communication reports if accessed would have enhanced the quality and objectivity of the study findings. Never the less, the views and opinions in this report are representative of the service experiences of the two way radio communication services and could be generalized to other studies.

5.7. Contributions of the study

The study has helped evaluate the service quality of the two way radio communication services for Uganda communications commission and help develop policy recommendations requiring setting and monitoring of service quality performance targets based on experiences of benchmarks. The study has also helped verify the servqual model in the communications sector of which it was confirmed that customer satisfaction depends on reliability, responsiveness and empathy factors of service quality.

5.8. Recommendations for further studies

The study found out that approximately 44% was the variance in the customer satisfaction with the two way communication explained by reliability, responsiveness and empathy putting into consideration all the variables and the sample size of the study. The remaining balance of 56% is explained by other factors other than reliability, responsiveness and empathy not considered in this study. Other studies need to examine the extent to which tangibility aspect of the service could have influenced the customer satisfaction with two way radio communication services by UCC while considering the use of documentary review.

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APPENDIX I

Questionnaire for customers on two way radio communication service under UCC

Dear respondent,
I am **Olivie Nakamatte**, a student / participant of Uganda Management Institute (UMI) pursuing a Masters' Degree in Management Studies majoring in Business Administration carrying out a Research on **Service Quality and Customer satisfaction with a Two Way Radio Communication Service in Uganda Communications Commission Kampala Region.** You are one of the few selected participants in this Research Project, I therefore request you to contribute to it by providing the necessary information required by the questionnaire. It is purely an academic research and the data given will be confidential. Thank you.
(Where alternatives are given, tick the appropriate box)
Section A: Background Information

Your business sector: NGO [ ] Security [ ] Private [ ] other [ ]
For how long have you been a customer/service provider of Uganda communication commission?

a) Less than one year ☐ b) 2-3 years ☐ c) 4- 5 years
d) More than 6 years ☐

Your position in relationship to two way radio communication system in your organization:
User [ ] System Operator [ ] Maintenance [ ]
The radio communication frequency used in your organization: UHF [ ] VHF [ ] HF [ ]
NB: Under the next section you are requested to tick the appropriate response based on your opinion. If you strongly agree 5, agree 4, neutral 3, disagree 2 and strongly disagree 1
Section B: Independent Variable

	Ratings				
A. Reliability	1	2	3	4	5
Accuracy					
11. UCC provide radio frequency service requests at their level as promised					
12. I can rate UCC as providing services right first time					
13. UCC has maintained high level of an error free frequency in our organization					
Dependability					
14. UCC is available to handle radio frequency requests					
If you strongly agree 5, agree 4, neutral 3, disagree 2 and strongly disagree 1	1	2	3	4	5
15. UCC is dependable in handling problems with our radio					

frequency					
16. I am comfortable with the waiting time for UCC to respond to our request					
Consistence					
17. UCC frequently offers the desirable radio service quality to your organization					
18. UCC strives to show that they offer a desirable service quality					
19. UCC offer uniformity in the delivery of all the service at their level regardless of constraints					
20. UCC offer fairness in the delivery of all the service at their level regardless of constraints					
B. Responsiveness					
Readiness to respond					
13. UCC promptly keeps us informed on when our request services will be performed					
14. UCC is always prompt with related services on radio frequency processes					
15. The UCC is always speedy in offering services requested from them					
16. We receive personalized services related to UCC on our frequency with immediacy when ever needed					
17. All our requests to UCC are resolved by a zealous team					
Flexibility					
18. UCC is flexible with radio frequency adjustment.					
19. UCC offers flexible services (e.g data, voice) concerning two way radio communication service in their mandate					
20. UCC is flexible to offer technical assistance whenever our technical service providers fail					
21. UCC is flexible in accepting adjustment in number of two way radio communication equipment					
Willingness					
22. UCC is willing to negotiate payment plans for License fees defaulters.					
If you strongly agree 5, agree 4, neutral 3, disagree 2 and strongly disagree 1	1	2	3	4	5

23. UCC is willing to offset license fees of any customer with/ no explanation.					
24. UCC express willingness to issue bills on frequency fees based on time of usage					
C. Empathy					
Caring					
11. We are always given individual attentions by UCC whenever requested					
12. UCC staff gives us adequate care					
13. UCC always take our best interest at heart.					
14. UCC staff take efforts to understand our two way radio communication needs					
15. UCC resolves promptly complaints raised over two way radio communication services.					
Consideration					
16. Our opinions by customers are treated with high regard in UCC					
17. UCC staff can always be access at our convenient business hours					
18. UCC seriously takes our radio frequency requests					
19. UCC strives to visualize on communication problem in the event of the communication failures on our frequency					
20. Our opinions are generally treated with high regard/consideration by UCC					

Customer satisfaction with two way radio

	Ratings				
Customer satisfaction	1	2	3	4	5
12. I appreciate the set regulations governing two way radio communication services					
13. UCC treats us fairly as its customers					
If you strongly agree 5, agree 4, neutral 3,	1	2	3	4	5

disagree 2 and strongly disagree 1					
14. I enjoy all the entitlements as customers of two way radio communications services on my assigned frequency					
15. We enjoy innovative packages/services by UCC on our two way radio communication service					
16. The two way radio meets my expectations					
17. I have a good experience with the two way communication in this company					
18. Am generally satisfied with the two communication radio service in my company					
19. I would recommend other organisations to join the two way radio communication for its good service					
Customer retention & Growth					
20. It will be difficult for us to do without this two way radio communication in this organization					
21. I always use two way communication for my communications					
22. Your company increased/ intends to increase on the number of users on the two way radio					

Thanks for your participation

APPENDIX II: An Interview Guide for selected customers and service providers of two way radio communication service under Uganda Communications Commission

I am ***Olivie Nakamatte***, a participant of Uganda Management Institute (UMI) pursuing a Masters' Degree in Management Studies majoring in Business Administration carrying out a Research on **Service Quality and Customer satisfaction with a Two Way Radio Communication Service in Uganda Communications Commission Kampala Region.** You are one of the few selected participants in this Research Project, I humbly request you to contribute by providing the information required by the interview guide. It is an academic research and the data given will be treated by utmost confidentiality.

1) Describe your experiences in the reliability of two way radio communication services offered by UCC.
2) Explain your experience with UCC on responsiveness in terms of readiness to respond, flexibility and willing to deliver requests from your company for satisfaction
3) What experience do you have from UCC about empathy i.e caring and customer retention on two way radio communication services?

*******Thanks for your time*******

Appendix III: Table for determining Sample Size from a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

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