

**THE EFFECT OF E-BANKING ON CUSTOMER SATISFACTION IN  
TANZANIA: A CASE OF CRDB BANK**

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**2019**

**CERTIFICATION**

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation entitled; “The Effect of E-Banking on Customer Satisfaction in Tanzania: A Case of CRDB Bank,” in partial fulfilment for the requirements of the Degree of Master of Public Administration of Open University of Tanzania.

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.....  
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I, Lilian Kimario, do hereby declare that this dissertation is my original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

.....

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.....

Date

**DEDICATION**

This work is dedicated to my beloved husband Jackson J. Mbega, my mother Jonayce Geoffrey Nyange and my late father Albini Peter Kimario for all the sacrifices they made for me to have an excellent education, and my lovely sister. I wouldn't have reached this stage without all of you.

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## **ABSTRACT**

This study intended to examine the effect of e-banking services on customer satisfaction. Specifically, the study was constructed under three objectives namely; to determine the level of using e-banking services among customers, to identify factors that influence the satisfaction level of the customers, and to examine the relationship between factor influencing usage of e-banking services and customer satisfaction. The study was conducted at CRDB branch located in Kinondoni District Dar es Salaam region. The study used quantitative approach adopting cross-sectional design in data collection, analysis and presentation. A sample of 100 respondents was selected using purposive sampling method so as to capture the targeted respondents from specified categories. Questionnaire and interview guides were used as data collection instruments. Findings revealed that, ATM service was the most frequently used service compared to the rest of e-banking services, followed closely by internet banking and credit card and mobile banking. Results also disclosed that, reliability, flexibility, accessibility, and security and privacy were factors that influenced customer satisfaction. In addition, these factors were found to have an extremely strong effect on a dependent variable explaining 85% of customer satisfaction. The study recommended that, critical infrastructure like power; security and telecommunication should be strengthened to ensure effective implementation of electronic banking applications in Tanzania. The banks should also train and retrain their staff to ensure that they keep up with the dynamism of information technology.

## TABLE OF CONTENTS

<b>CERTIFICATION.....</b>	<b>ii</b>
<b>COPYRIGHT .....</b>	<b>iii</b>
<b>DECLARATION .....</b>	<b>iv</b>
<b>DEDICATION .....</b>	<b>v</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>vi</b>
<b>ABSTRACT .....</b>	<b>v</b>
<b>TABLE OF CONTENTS.....</b>	<b>vi</b>
<b>LIST OF TABLES.....</b>	<b>x</b>
<b>LIST OF FIGURES .....</b>	<b>xi</b>
<b>LIST OF ABBREVIATION .....</b>	<b>xii</b>
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>1</b>
1.1 Chapter overview .....	1
1.2 Background to the Study .....	1
1.3 Statement of the Problem .....	3
1.4 Objective of the Study .....	4
1.4.1 Specific Objectives.....	5
1.5 Research Questions .....	5
1.6 Significance of Study .....	5
1.6.1 Practical Value .....	5
1.6.2 Academic/ Researchers .....	6
1.6.3 Policy Development .....	6

<b>CHAPTER TWO</b> .....	<b>7</b>
<b>LITERATURE REVIEW</b> .....	<b>7</b>
2.1 Chapter Overview .....	7
2.2 Conceptual Definitions.....	7
2.2.1 Definition of the e-Banking .....	7
2.2.2 Internet Banking Service Quality.....	7
2.2.3 Electronic Commerce .....	9
2.2.4 Satisfaction.....	9
2.2.5 Customer Satisfaction.....	10
2.3 Theoretical Literature Review .....	11
2.3.1 Technology Acceptance Model (TAM) .....	11
2.3.2 Theory of Reasoned Action .....	13
2.4 Empirical Literature Review.....	13
2.4.1 Factors influencing e-Banking Usage .....	13
2.4.1.1 Global Review.....	13
2.4.2 E-Banking Services and Customer Satisfaction .....	18
2.5 Study Gap .....	21
2.6 Conceptual Framework .....	21
<b>CHAPTER THREE</b> .....	<b>23</b>
<b>RESEARCH METHODOLOGY</b> .....	<b>23</b>
3.1 Chapter Overview .....	23
3.2 Research Paradigm.....	23
3.3 Research Design.....	24
3.4 Study Area .....	24

3.5	Study Population .....	25
3.6	Sample Size and Sampling Procedure.....	25
3.6.1	Sample Size.....	25
3.6.2	Sampling Procedure .....	26
3.7	Data Collection Methods .....	26
3.7.1	Questionnaire .....	26
3.7.2	Interview Guide.....	27
3.8	Data processing and Analysis .....	27
3.9	Ethical Considerations.....	28
3.10	Validity analysis.....	28
3.11	Reliability Analysis .....	29
	<b>CHAPTER FOUR .....</b>	<b>30</b>
	<b>PRESENTATION OF FINDINGS.....</b>	<b>30</b>
4.1	Chapter Overview .....	30
4.2	Demographic Profile of the Respondents.....	30
4.3	Age of the Participants .....	30
4.3.1	Education Level of the Respondents .....	31
4.3.2	Gender of the Respondents .....	31
4.4	The level of usage of e-Banking Services .....	32
4.4.1	Access to Internet.....	32
4.5	Factors influencing Customer’s Satisfaction in Using e-Banking .....	33
4.5.1	Reliability .....	33
4.5.2	Flexibility.....	34
4.5.3	Accessibility.....	34

4.5.4	Security and Privacy.....	34
4.6	Influence of Factors influencing usage of e-Banking Services on Customer Satisfaction.....	35
4.6.1	Assumptions of Multiple Regressions.....	35
4.6.1.1	Assumption of Linearity.....	35
4.6.1.2	Assumption of Normal Distribution.....	36
4.6.1.3	Assumption of Autocorrelation.....	37
4.6.1.4	Multicollinearity Assumption.....	37
4.6.2	Analysis of Multiple Regressions.....	38
	<b>CHAPTER FIVE .....</b>	<b>40</b>
	<b>DISCUSSION, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>40</b>
5.1	Introduction.....	40
5.2	Summary of the Findings .....	40
5.3	Discussion of the Findings.....	41
5.4	The Level of usage of e-Banking Services .....	41
5.5	Factors influencing Customer's Satisfaction in using e-Banking.....	42
5.6	Influence of Factors Influencing usage of e-Banking Services on Customer Satisfaction.....	43
5.7	Conclusion .....	43
5.8	Recommendations .....	44
5.9	Area for Future Research.....	45
	<b>REFERENCE .....</b>	<b>46</b>
	<b>APPENDIX .....</b>	<b>56</b>

**LIST OF TABLES**

Table 3.1: Reliability Analysis .....	29
Table 4.1: Frequency and Percentage of using e-Banking Services.....	32
Table 4.2: Access to Internet.....	33
Table 4.3: Descriptive Statistics showing Factors Influencing Customer satisfaction .....	33
Table 4.4: Linearity Assumption.....	36
Table 4.5: Normality Assumption .....	37
Table 4.6: Autocorrelations Assumption .....	37
Table 4.7: Multicollinearity Test.....	38
Table 4.8: Multiple Regression Model Result .....	38
Table 4.9: Regression Coefficients.....	39

**LIST OF FIGURES**

Figure 2.1: Conceptual Framework of the Study ..... 22

Figure 4.1: Ages of the Respondents ..... 30

Figure 4.2: Education Status of the Respondents ..... 31

Figure 4.3: Gender of the Respondents ..... 31

**LIST OF ABBREVIATION**

ATM	Automatic Teller Machine
CRDB	Tanzania Commercial Bank
CRM	Customer Relationship Manager
EDI	Electronic Data Interchange
IBS	Internet Banking Services
IBSQ	Internet Banking Service Quality (Business to business
ICT	Information Communication Technology
WOM	Word-Of-Mouth

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Chapter overview**

This chapter introduces the study by giving the background information and statement of the problem. Further, specific research questions and objectives, significance of the study, limitation and delimitation are spelt out to guide the study.

#### **1.2 Background to the Study**

Customer satisfaction is an ambiguous and abstract concept. Actual manifestation of the state of satisfaction varies from person to person, product to product and service to service (Shetty & Shetty, 2019). The state of satisfaction depends on a number of factors which consolidate as psychological, economic and physical factors. The quality of service is one of the major determinants of the customer satisfaction (Sequeira, 2019). Satisfied customers are considered to maintain contact with the company, buy more products or services and buy more often. It may also include acceptance of other products in the product line and the favourable word-of-mouth.

The way customers develop the feeling of satisfaction is commonly explained by the confirmation/disconfirmation paradigm (Golovkova *et al.*, 2019; Gupta, 2019; Mittal *et al.*, 2019). At a specific moment in time the customers make the choice to buy a product or a service. The perception of the product's performance leads to a comparison process perceived performance is compared with one or more standards, such as expectations (Gupta & Varma, 2019). In the globalized highly competitive environment, building more unique relationships with customers is vital for companies (Pakurar *et al.*, 2019). Research findings point out that company regard

the implementation of customer relationship management (CRM) as a factor that will allow them to survive in the new market conditions, favoring the relationship with their customers (Rahietal., 2019).

However, in building customer base and customer satisfaction, the modern world has developed new innovation in Information Communication Technology (ICT) that has introduced a number of new systems in all the aspect of life and the economy in general (Amendola *et al.*, 2018). Science has recently joined the world through the use of internet systems which were in the early 20<sup>th</sup> century used for mail communication and advertisement plans by several companies in the world. The Internet massively impacts all aspects of business. In the 21st century, electronic business is no longer an option for businesses; it is a necessity (Waseem-UI-Hameed *etal.*, 2018).

The use of information and communications technologies (ICTs) has changed the way of conducting business transactions and meeting the growing demands of customers for most organizations. The use of ICTs has brought in new products, service market opportunities and developing more information systems that are business oriented and support management processes such as planning, controlling and co-ordination (Isimoya *et al.*, 2018). One of the areas ICT has gained growing significance is in the banking sector where financial institutions seek to be more competitive, increase customer base, reduce transaction costs, improve the quality and timeliness of response, enhance opportunities for advertising and branding, facilitate self-service and service customization, and improve customer communication and customer relationship management (Lone & Bhat, 2019).

Recently electronic banking has been adopted in various commercial activities, advancing services such as sell and purchase of items through the use of internet systems (Rahi *et al.*, 2019). Despite the risks associated with this technology, market economy and the need to make the world one village has necessitated commercial and financial institutions adopting electronic banking to link banking activities or affairs more easily than it was in the past (Fauzi & Suryani, 2019). This is to say, with electronic banking, it is even easier for a holding bank to control its subsidiary bank located at a distant as a result of technological advancement.

The rapid growth of internet has presented a new host of opportunity as well as threat of business. Today the internet is well on its way to become the full-fledged delivery and distribution channel among the customer-oriented applications riding at the fore front of this evolution is electronic financial products and services (YuSheng & Ibrahim, 2019). Today, almost all banks have adopted ICT as a means of enhancing service quality of banking. They are providing ICT based e-services to their customers which is called e-banking, internet banking or online banking (Khan *et al.*, 2019). It brings connivance, customer centricity, enhance service quality and cost effectiveness in the banking services and increasing customers' satisfaction in banking services (Abbasi *et al.*, 2019). Even now, customers are also evaluating their banks in the light of e-service era. However, this study intendsto assess the effect of e-banking on customer satisfaction in Tanzania.

### **1.3 Statement of the Problem**

Commercial Banks in Tanzania strive to achieve a competitive position in the domestic and global market, through building a strong relationship with customers

by provision of new services with good quality and high security (Chille, 2018). To achieve that, banks started to invest and reload their information technology to present services to get confidence and satisfaction that customer aspires through Mobile banking services (Sangali, 2018). At the Dar es Salaam Stock exchanges, CRDB Bank Plc remains the most active and liquid stock, representing 4.0 percent of its overall sales. Nonetheless, as at 31 December 2018, the bank's equity cost decreased by nine percent from TZS 160 in December 2017 to TZS 145. The financial downturn in the last year led shareholders to sell their stocks, including the severe financial circumstances which are supposed to enhance the stock price.(CRDB Annual Report, 2018).

In 2018 the bank began implementing a new five-year business strategy called ' The Digital Transformation Journey' aiming to transform the business activities of branches to improve customer experience and efficiency overall (Matimbwa & Ochumbo, 2018; Tugiramasiko, 2018). Despite the effort of the bank to ensure that customers reap the benefits of e-banking, the bank is met with complaints from customers as regards, malfunctioning Automated Teller Machines (ATMs), network downtime, online theft and fraud, non-availability of financial service and payment of hidden cost of electronic banking like Short Message Services (SMS) (Qorro, 2015). Based on aforesaid issues, this study therefore intends to examine whether E-banking has significant effect on customer satisfaction in Tanzania banking sector, CRDB bank as a case study.

#### **1.4 Objective of the Study**

The main purpose of this study was to examine the effect of e-banking in customer

satisfaction in Tanzania, a case study of CRDB Bank.

### **1.4.1 Specific Objectives**

Specifically, the objectives for this study were:

- i. To determine the level of e-banking services usage among customers in CRDB bank.
- ii. To examine factors that influence the satisfaction of customers in using e-banking services.
- iii. To examine the relationship between usage of e-banking services and customer satisfaction.

### **1.5 Research Questions**

The following are research questions developed from research objectives;

- i. To what extent customers uses e-banking services at CRDB bank?
- ii. What are the factors influencing customer satisfaction at CRDB bank?
- iii. What is the effect of using e-banking services on customer satisfaction?

### **1.6 Significance of Study**

#### **1.6.1 Practical Value**

It is worthwhile to conduct this study simply because its result could be used to improve the banking sector and enhance the quality of internet banking services in Tanzania for the future. It also helps bank managers to understand factors that influence the satisfaction level of the customers in using internet banking service in Tanzania. It may lead to the increased number of banking customers as well as to encourage the general acceptance of the new IT services.

### **1.6.2 Academic/ Researchers**

The undertaking investigation on technology acceptance could enrich the research centre in Open University of Tanzania and Tanzania in general. Provide standard of the research that could receive wider recognition also through this finding and analysis, will provide new knowledge and insights regarding the internet banking.

### **1.6.3 Policy Development**

Lastly is policy development as the study's findings can help and assist the government and their partners' example politicians to determine the importance of having different policies in different development sectors that encourage the e-government.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Chapter Overview**

This chapter reviews the literature on the effect of e-banking on customer satisfaction. It consists of conceptual definitions, theoretical bases of the research, empirical analysis of past studies and conceptual framework.

#### **2.2 Conceptual Definitions**

##### **2.2.1 Definition of the e-Banking**

The concept of electronic banking has been defined in many ways. Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television. Pikkarainen, *etal.* (2004) define internet banking as an internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments. With the exception of cash withdrawals, internet banking gives customers access to almost any type of banking transaction at the click of a mouse (De Young, 2001).

##### **2.2.2 Internet Banking Service Quality**

Many past studies have developed various models for understanding relevant e-service quality dimensions relevant to internet banking. Joseph *etal.* (2006) propose six dimensions of online banking service quality including: convenience/accuracy, feedback/complaint management, efficiency, queue management, accessibility and customization. Zeithaml *etal.*(2009) contend that, attributes of internet service

quality include: access, ease of navigation, efficiency, flexibility, reliability, personalization, security, responsiveness, assurance, site aesthetics and price knowledge. Jun and Cai (1999) in a study of online banking, found that web site design, information, ease of use, access, courtesy, responsiveness, and reliability are significant dimensions that determine service quality. Yoo and Donthu (2010) propose four dimensions, termed SITEQUAL, that include ease of use, aesthetics design, processing speed and security (Cronin, 1999).

The empirical work of internet banking was conducted in an emerging economy of Taiwan Internet banking sector, they developed and validated a five-dimension internet banking service quality model that has 17-item measurement scale for measuring the service quality in internet banking. The dimensions were based on e-service quality model of the emerged dimensions for the internet banking service quality contexts are: web design, customer service, assurance, preferential treatment and information provision (Parasuraman *etal.*, 1985). First is Web design: This dimension covers the design of the web site and includes items like web content layout, content updating, navigability, and user-friendliness. These are consistent with findings of previous studies (Cronin, 1999).

Second, Customer service has been recognized as an important element for enhancing service quality in online shopping and banking. Elements in customer service dimension have been noted in many previous studies (Cronin, 1999). This dimension has to do with service reliability, customer sensitivity, personalized service, and fast response to complaints that have been described as responsiveness to customer needs and complaints.

Third is Assurance which is one of the critical elements of online banking service quality. The assurance dimension describes impressions by the service providers that convey a sense of security and credibility. Security and privacy are related items that affect the confidence to adopt online banking services. Fourth is preferential treatment, which is related to the added value of using internet banking services. Where customers perceive that the incentive of online banking is attractive then they would be more willing to use internet banking (Feeny, 2000). Fifth is Information provision, which has become one of the key elements of online service quality as customer would need the right information that enables them complete online banking transactions successfully (Feeny, 2000).

### **2.2.3 Electronic Commerce**

E-commerce is doing business over the internet using computers and electronic means of communication. The word electronic commerce is self-explanatory just like the popular term E-mail, which stands for electronic mail.

### **2.2.4 Satisfaction**

Satisfaction is the consumer's fulfilment response. It is a judgment that a product or service feature, or the product of service itself, provided (or is providing) a pleasurable level of consumption related fulfilment, including levels of under- or over-fulfilment (Oliver, 1997). This is a remarkable definition. First, the focus is on a consumer rather than a customer. Traditionally speaking, the consumer uses a product or service, whereas a customer pays for the product/service but may not be the consumer (that is, the direct user). Granted, this is a fine distinction that gets lost in daily rhetoric, but it makes a difference in a researcher's modelling of satisfaction.

Satisfaction with a product/service is a construct that requires experience and use of a product or service (Oliver, 1997). Individuals who pay for a product/service but who do not use this product/service should not be expected to have the type of (dis)satisfaction that a product/service user (the consumer) will have. So, the concept of customer satisfaction is about consumer satisfaction (that is, user satisfaction), rather than about buyer satisfaction (which may include non-users).

Second, satisfaction is a feeling. It is a short-term attitude that can readily change given a constellation of circumstances. It resides in the user's mind and is different from observable behaviours such as product choice, complaining, and repurchase. Third, satisfaction commonly has thresholds at both a lower level (insufficiency or under fulfilment) and an upper level (excess or over-fulfilment). This means that a consumer's satisfaction may drop if she/he gets too much of a good thing. Many people focus upon the lower threshold and neglect the potential for an upper threshold (Kunupakan, 2007).

### **2.2.5 Customer Satisfaction**

CS has become a major area of marketing that has received considerable publications from practitioners and scholars in the last two decades. Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a products performance (outcome) in relation to his or her expectation. CS has been recognized as an important element that drives customer retention, loyalty and post-purchase behaviour of customers. The measurement of CS regarding the service quality of firms is a necessary means by which organizations delve into the minds of its customers for useful feedback that could form the basis for effective marketing

strategy (Kunupakan, 2007).

Since firms exist to satisfy customers by meeting their requirements, it is crucial for banks that offer internet banking services to periodically and consistently measure the satisfaction of their customers. As customers use the banking internet services, it might be that they are not satisfied, to some extent, with certain dimensions of the service quality. The lesson from literature is that, satisfaction can be cumulative and also being views it as transactional. Transactional-specific perspective, CS is based on a one time; specific post-purchase evaluative judgments of a service encounter (Moga, et. al, 2012).

CS perspective is conceptualised as an overall customer evaluation of a product or service based on purchase and consumption experiences over a time period. It is argued that since cumulative satisfaction is based on a series of purchase and consumption experiences, it is more useful and reliable as a diagnostic and predictive tool than the transaction perspective that is based on a one-time purchase and consumption experience (Moga *et al.*, 2012).

## **2.3 Theoretical Literature Review**

### **2.3.1 Technology Acceptance Model (TAM)**

Eija (2011) claims that Davis (1989)'s TAM is one of the most quoted theories for predicting and explaining ICT use behaviour, which leads prospective adopters to acknowledge or dismiss use of IT. TAM has two theoretical concepts according to Davis (1989), which are perceived as being useful (the advantage for the users to use the tool for the intended task) and perceived as ease of use i.e. competence (being

efficient in dealing with the environment where it has been used). These are the key determinants for system usage and predict the user's readiness to use the system (Davis, 1993). These are the basic determinants for the system use.

Davis (1989) states that perceived usefulness is the extent to which someone thinks that using a specific scheme (for example, e-banking) would improve his or her efficiency at work, and perceived ease of use means the extent to which an individual feels that it would be effortless to use one specific scheme. TAM has been used in three respects: comparing distinct adoption models, developing TAM extensions, or replicating the model. Davis *et al.* (1989) for example empirically contrasted TRA's and TAM's capacity to predict or justify users' acceptance and dismissal of computer technology voluntarily; Venkatesh and Davis, (2000), created and tested a theoretical extension, called TAM2, to clarify perceived usefulness and purposes by means of a social and cognitive impact.

TAM has been used as a template for supporting underlying concepts within E-banking along with other models through powerful theoretical bases, established empirical assistance and applicability to a broad spectrum of information system innovations. John (2003) created a structure that shows how successfully the e-commerce drivers are exploited by TAM. While TAM has considerable explanatory authority, its main weakness is the small descriptive richness to draw conclusions from scholars and managers. This theory was adopted in this study to link the efficient use of e-banking services to the satisfaction of customers. The theory claims that, an individual's acceptance of technological services is influenced mainly by perception and attitudinal behaviour. This was a helpful idea for analysis of the

connection between the factors, which explains how banking clients view the use.

### **2.3.2 Theory of Reasoned Action**

Fishbein (1967) originally developed the Theory of Reasoned Action, later, Fishbein and Ajzen (1975) extensively refined and tested the theory. Reasoned Action Theory describes links between convictions, attitudes, standards, intentions and conduct. The Theory of Reasoned Action predicts and understands the behaviour of a person, by considering the impact of private emotions (attitude). The theory suggests that, beliefs affect behaviour, which leads to intent and then creates behaviour. The Theory Reasoned Action is one of the fundamental concepts in psychology that was widely used to forecast behaviour (Fishbein and Ajzen, 1975).

TRA is widely recognised for its strengths on strong predictive force for the behaviour of customers, shown by a multitude of consumer products. In addition, TRA is an advanced theory that explains nearly every human conduct. However, the theory is criticised on the fact that, under certain circumstances, consumers do not have full control of their behaviour. Also, it is hard to separate the subjective standards directly from the indirect impacts of attitudes. The approval of this theory in this study is based on the fact that, it links effective use to the customer's behaviour and attitude of electronic banking services and expands TAM theory.

## **2.4 Empirical Literature Review**

### **2.4.1 Factors influencing e-Banking Usage**

#### **2.4.1.1 Global Review**

D'Angelo and Little (1998) found that, other factors such as visual features

(including images background media, content, etc.) play important role in the design of a web service. Lohse and Spiller, (1999) also recommended criticisms and proposals on site service. Liu and Arnett, (2000) identify four factors: 1 - System used 2- Design quality management systems 3- Providing information high quality 4 - Entertainment and described them as a success factor of site.

The study by Liu and Arnett (2000) also found one reason for slow growth and satisfaction of the e banking is the insecurity, the use of electronic services rather than traditional services, fear of Insecurity and being subjected to steal users' personal information. Research in recent years has become more specialized, quality dimensions of internet banking service on customer satisfaction is also considered and research by Jun and Cai, (2001) 6 factor 1 - Content 2 - Accuracy 3 - Ease of use 4 – Timeliness, 5 - Aesthetic 6 - Security were identified as factors affecting the quality of Internet service. Other research in this area can be cited the conceptual model (Yang, Jun, and Peterson, 2004) that identified 6 factors Security, Reliability, Responsiveness, Competence, ease of use, Product portfolio that in present research is used this model.

Internet banking has been found successful to reduce the operation expenses by allowing customers to access directly to their banking transactions without the need to visit to the branches (Liu, 2008). Large banks that spend large sum of money in running branches tend to enjoy the largest benefits to adopt e-banking services. Internet banking transforms the business models of the financial institutions. The emergence of e-banking has changed the way financial institutions conduct their business in several main areas such as distribution, production, payment and trading

(Llewellyn, 1997). Banks that offer electronic banking services have become serious competitors to traditional banks, which rely more on their interpersonal interactions, especially in cities (Llewellyn, 1997).

With the benefits of fast and simple and trouble-free application processes, minimal technical errors, a wide range of funding options and minimal account deposit requirements, electronic banking has been successful in generating higher consumer satisfaction (Liu, 2008). Radomir *et al.* (2010) in the study of improving bank quality dimensions to increase customer satisfaction examined the relationship between service quality dimensions and customer satisfaction with bank territorial units. The study revealed that, human resources had the greatest impact on customers' satisfaction with bank territorial units and that both "Convenience and Efficiency" and "Bank personnel" were dimensions that bank management should consider in their efforts to improve and maintain the service quality level.

Mascareigne (2009) explained about several factors that, influenced customer retention. These included creating customer satisfaction, creating customer trust, customer involvement, creating switching barriers, communication effectiveness, service quality and price and several customer retention strategies and processes for customers to remain loyal and stay longer with the organization, more specifically in the advertising sector. The study revealed that, when it comes to retention of customers, professional service providers neither have any standardized nor normal procedures to follow and the strategies used by the firms are highly customized to each individual customer based on a few numbers of clients in the firms.

Moreover, Filip and Anghel (2009) aimed at researching customer level of loyalty toward Romanian organizations acting in the retail banking sector and the factors influencing customers' actions in the relationships with banking institutions including reasons of customer retention. Findings were that, the Romanian customers remained in banks relationships due to existence of both favorable attitudes or positive motivations and constraint factors or inertia. Also, loyalty level stated by customers did not only depend on satisfaction but also by other factors like bank's attitude towards its own customers, the level of customer trust toward the organization or its employees in ensuring financial interests of clients and by the level of customer commitment. The study found out that, high level of dissatisfaction by customers determines switching behavior.

However, the study failed to show the relationship between customer service, price of banks products, quality of the products developed by banks and customer satisfaction. Furthermore, Kaura (2012) examined whether or not perceived price increases price and price fairness further promoted customer satisfaction in Indian commercial banks. It also tried to find the relationship between perceived price and customer satisfaction. Results suggested that, perceived price increased price fairness and price fairness increased customer satisfaction. It also revealed that, transparency of price structure in banking industry is very important in customer satisfaction. Perceived price did not have any impact on customer satisfaction.

Afsar *et al.* (2010) attempted to find factors of customer loyalty and their relationships with the banking industry in one of the developing countries, which is Pakistan. The study revealed that effect of satisfaction and trust on commitment was positive as

well as significant and the greater the satisfaction, the greater was commitment and the greater the trust, the greater was the commitment. Additionally, Rootman *et al.* (2011) addressed the need for understanding relationship of electronic banks services and customer satisfaction, and related lessons that can be learned from banks in Canada and the United Kingdom (UK). Their findings confirmed that, there is significant positive relationship between use of e-banking services and customer satisfaction.

**Africa Review:** Mohammed and Siba (2009) reviewed reports released by the National Space Research and Development Agency. The reports indicated that, only 2% (about 2.4 million) of Nigeria's over 140 million populations actively use the internet. The report put internet access points in the country at 685,459, with offices having 530,968 of this, representing 77.4%; homes, 122,431 points, representing 18.9%; and cyber cafes accounting for the remaining 32060 points, representing 4.7% of the total internet access points available in the country.

Mohammed and Siba found that, with this service, customers can also access the balance and transactions on their account and perform other banking services such as transfer of funds from one account to the other, carry out transactions with other bank customers through internet. Customers who are increasingly raising the stake of expectations for quality products and customers service can quickly find it at a click of the mouse. Gupta (2008) observed that, banks and customers could engage in dialogue and learn from each other through e-banking services. Studies by Ovia (2005), Mahdi and Zhila (2008) have revealed that, at least 50% of the over 800 banks in Africa offer one form of online banking service or the other. Results from

the study revealed that six banking service delivery variables influenced banks' relationship marketing and customer retention. Bank fees were viewed by respondents to be the most significant variable.

Möller (2007) in his research assessed customer expectations based on service quality factors for retail banks across ten countries in Africa. Specifically, the objectives were to determine whether cross-national differences in customer service expectations existed in the African retail banking sector, to identify relative importance of key service dimensions in African retail banking and to determine whether or not those service expectations were constant over time. Results from the study led to suggest that core dimensions such as responsiveness (driven by staff efficiency and shorter queues) and reliability (performing dependably and accurately) were more important while relational issues surrounding assurance and empathy were of less importance on influencing customer satisfaction.

#### **2.4.2 E-Banking Services and Customer Satisfaction**

Mahdi and Zhila (2008) sought to establish whether the respondents had used e-banking services of National Bank of Kenya for the past 12 months prior to the study. All the respondents indicated that they had used e-banking services of National Bank of Kenya for the past 12 months prior to the study. When asked the e-banking services they had used, they indicated that they had accessed all the services of e-banking including; balance enquiry, mini statement request, full statement request, mobile top ups, stop cheque, forex collection request, interest rate inquiry and other general information.

Further, the study sought to establish the overall satisfaction or otherwise of the respondents with the e-banking service delivery of National Bank of Kenya. Most of the respondents (42%) indicated that the e-banking service delivery by National Bank of Kenya was equal to their expectations, 30% indicated that it was better than expected, while 6% were of the opinion that e-banking service delivery by National Bank of Kenya was much better than their expectations. However, 18% of the respondents indicated that e-banking service delivery in National Bank of Kenya was worse than expected while 4% highlighted that it was much worse their expectations. From the results it is depicted that NBK has satisfied and surpassed customers' expectations in terms of e-banking service delivery as indicated by majority of the respondents (78%).

Marete *et al.* (2014) sought to establish the customers' satisfaction level with customer service provided by NBK through the e-banking and establish whether it met their expectations. The respondents indicated that e-banking in NBK matched customers' expectations in terms of the system's ability to guide customer to resolve problems as shown by a mean score of 3.4819. Further, the e-banking in NBK was shown to be equal to customers' expectations in provision of sufficient and real time financial information through the e-banking portal site as shown by a mean score of 3.3614.

Prompt reception of responses to customer request as shown by a mean score 3.0964 was also indicated to equal customer satisfaction. Therefore, it was depicted that e-banking helped to achieve customer satisfaction by the system's ability to guide customer to resolve problems, provision of sufficient and real time financial. Further,

feeling of relief of customer to transact on E-banking as indicated by a mean score 3.4096 was found to be equal to customer expectations. Therefore, it can be illustrated that e banking in NBK assured the customers of reliability and credibility of transactions on the e-banking portal, protection/security of customer transaction data and a feeling of relief to customer when they transact through E-banking.

Durkin and Howcroft (2003) examined whether the banker-customer relationship had improved through mobile phone and internet banking in Uganda. The authors found that new technology has made the banks very competitive and profitable and internet has played a key role in it. Perception of bankers and customers regarding the use of internet was examined. They pointed out that as consumer usage of remote bank delivery channels increases, relationship management will become more important. Further, the combination of traditional and new delivery channels, if followed, can help to improve their productivity and profitability.

Joseph and Stone (2003) in their paper conducted that customer friendly technology such as ATM, internet banking and telephone banking has been used by the banks to reduce the cost of providing services and to increase the customer loyalty and market share. Technology plays a vital role in delivery of banking service. The study highlighted that access, location, security and ease of use of ATM machines appeared to be the most important component for banking customers for the adoption of e-banking.

Elly (2010) in the study on service quality and customer's retention in Tanzanian commercial banks tried to find out why despite efforts made by commercial banks to

retain customers by having different services like internet banking, customers were still leaving their banks. The purpose of the study was to investigate the link between service quality and retention of customers in Tanzanian commercial banks. The research findings revealed that the overall service quality provided by the commercial banks had a direct relationship with customer loyalty.

Fasha (2007) in the study of the impact of service quality on customers' satisfaction and retention in Tanzanian commercial banks formulated three elements in specific objectives. The elements were provision of information to customers with variables, which were availability of information when needed, understanding consumers' language, and accuracy of information, relevance of information and reliability of information. Findings indicated that information provision, complaint handling and service quality had significant impact on customers' satisfaction and hence, their retention.

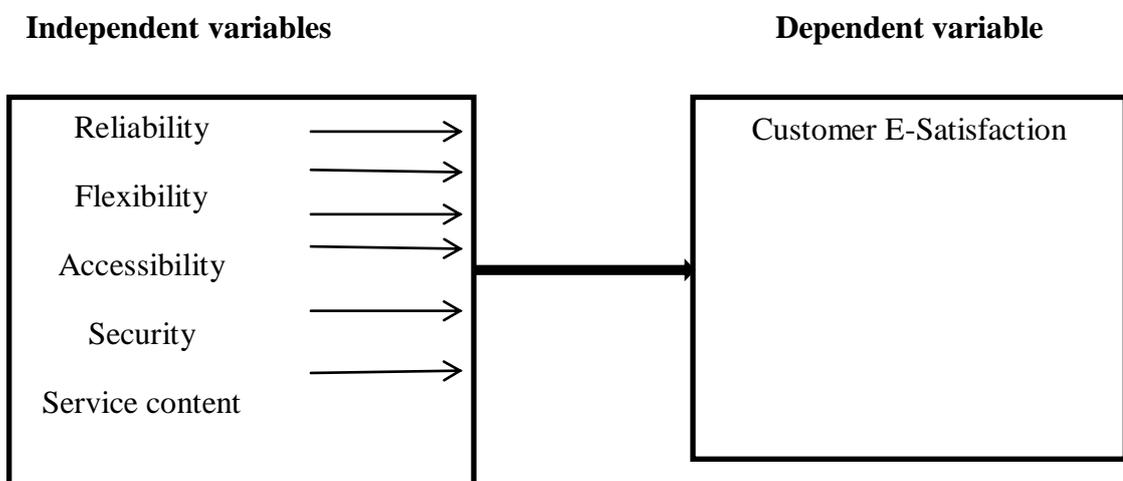
## **2.5 Study Gap**

The review of literature suggests that, most of the studies have been done on issues related to e-banking in countries like USA, UK, Malaysia, Singapore, Finland, Australia and other developed countries. However, the volume of research on customer satisfaction on e-banking is very low especially in Tanzania context. For that case the researcher decided to fill that gap by undertaking this academic investigation on effect of e-banking on customer satisfaction in Tanzania banking industry with a case study of CRDB Bank.

## **2.6 Conceptual Framework**

Figure 2.1 demonstrate conceptual framework of the study. It establishes relationship

between factors that influence usage of e-banking services and customer satisfaction. Whereas, reliability, flexibility, privacy, accessibility, and security of service content were treated as independent variables and customer satisfaction on e-banking as dependent variable. Conceptual framework portrays that, the aforementioned factors acts as predictors of customer satisfaction which is regarded as dependent variable in this particular study.



**Figure 2.1: Conceptual Framework of the Study**

**Source;** Researcher (2019)

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Chapter Overview**

This chapter presents methodology of the study. Specifically, it presents research paradigms, the design of the study, the study area, study population, sample size and sampling procedures, methods of data collection as well as data presentation and analysis procedures.

#### **3.2 Research Paradigm**

The paradigm of research can basically be conceived as a set of principles describing how research should be conducted (Dash, 2005). Variable, conceptual, methodologic tools and related approaches are part of paradigms (Choy, 2014). Since the previous century, different paradigms have emerged as a result of comprehensive development in social science. However, two study paradigms, including positivism and anti-positivism (or naturalistic), were commonly embraced in order to check theoretical recommendations (Kumar, 2014).

The Positivist Paradigm illustrates the way that observation and reasoning enable human behaviour to be learned or understood, because experiments and observations are regarded as ways of generating knowledge (Cohen et al., 2000). The positivist paradigm may be embraced according to Cohen et al. (2000) by taking account of various assumptions such as parsimony, empiricism, generality and determinism. In contrast, anti-positivism defines an individual's ideological position as the core of individual social reality. Individual understanding is based on experience instead of internal acquisitions of the surroundings (Cohen et al., 2000). The paradigm is

subject to thought studies including ethno methodological, phenomenal and symbolic interactions studies. The current research adopts a positivist paradigm because it promotes knowledge generation through quantification. It incorporates quantitative studies.

### **3.3 Research Design**

Research design represents a comprehensive study system incorporating structure, schedule and study methods to solve the research problem (Creswell and Creswell 2017). Cross-sectional design was adopted as study design. Cross-sectional design is particularly helpful when research is carried out in the cross-sectional population to explore the ubiquity, phenomenon, problems or attitude. The researcher adopted this approach since it enabled a researcher to decide what needs to be researched, identify the study population, select samples and contact the study respondents for data collection at CRDB bank.

Due to the survey of just one contact with the sample size, cross-sectional design is regarded cheap and simple for data analysis. It is, however, criticized for not measuring change. Changes may be determined through at least two data collection points, which means that the cross-section design to measure change is to be done on the same population twice at various times (Kumar 2014).

### **3.4 Study Area**

The study was conducted at CRDB bank branches located in Kinondoni District, Dar es Salaam region. Kinondoni is an area most populated amongst the districts, with half of the city's population residing within it, totalling 1,775,049 residents (National

Census, 2012). The area also consists highest number of CRDB branches in the city and country as well comprising eight branches (CRDB Annual Report, 2018).It therefore provided enough evidence for a researcher to conduct study in this district since results obtained in the area can reflect important facet existing in other branches in the country in regard to customer satisfaction and e-banking services.

### **3.5 Study Population**

Population of the study involved bank customers served from CRDB branches located in Kinondoni district. According to CRDB Report (2018), the total number of customers at CRDB Bank branches in this district is approximately over5,000. However, due to time and financial constraints, the study focused on 800 customers served in CRDB branch in Kinondoni ward.

### **3.6 Sample Size and Sampling Procedure**

#### **3.6.1 Sample Size**

In view of the population totalling 800 customers, the formula in Slovin (1967) states that a sample size is provided for a specified population by;

$$n = \frac{N}{1 + N(e^2)}$$

#### **Equation 3-1: Slovin's Sampling formula (1967)**

*Where,*

n= the sample size needed

N= The population size known

e= the significance level fixed to 0.05 when the population is known

N= 800 customers

$n=?$

$e= 0.05$

*Hence,*

Calculated sample size was  $99.7=100$

The sample size was **100** customers.

### **3.6.2 Sampling Procedure**

Purposive sampling technique was employed to select participants for the study. Purpose sampling is a type of non-probability sampling technique in which the researcher decides on the people which should be included in the sample based on different criteria. The aim of this technique is to include individuals of concern and to exclude those who do not fit the criteria (Cohen *et al.*, 2000). The researcher used purposive sampling in order to select clients with suitable features such as data, knowledge, experiences and understanding about electronic banking services and their impact on customer satisfaction.

### **3.7 Data Collection Methods**

The study used structured questionnaire and interview guide to collect data from the study participants.

#### **3.7.1 Questionnaire**

Questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms (Saunders *et al.*, 2000). The study used the structured questionnaires; structured questionnaires are definite, concrete and pre-determined questions. A question that was executed by the researcher was presented with exactly

the same wording and in the same order to all respondents. The form of questions was both closed and open and also fixed alternative questions in which the responses of informants was limited to the stated alternatives. A sample questionnaire has been attached in appendix one of this study.

This instrument was used in this study due to the following merits; there is low cost even when the universe is large and is widely spread geographically, it is free from the bias of the interviewer; answers are in respondents 'own words, respondents have adequate time to give well thought out answers, respondents, who are not easily approachable, can also be reached conveniently and large samples can be made use of, and thus the results can be made more dependable and reliable (Kothari, 2004).

### **3.7.2 Interview Guide**

According to Kothari (2004) interview is a method of collecting data which involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. This method was used through personal interviews and telephone interviews. Respondents were selected by the researcher who are ready to be interviewed and have the access to the information required and understand the questions to be asked were given priority. The instrument was used to supplement the questionnaires for more information.

### **3.8 Data processing and Analysis**

In analysing and process information into helpful outcomes, the computer package Statistical Package for Social Science (SPSS) was used. SPSS is a system package of implementation that uses sophisticated data manipulations to perform a broad variety

of statistical techniques. This included a high level of data description and various statistical tests, the exchange of statistical systems (SPSS, 2018). The method was mainly used in the descriptive and inferential methods. A descriptive analysis was utilized in the summary and description of the results on first and second objective while inferential statistics to reach a conclusion on the huge population sample as well as on a link between two factors specifically on the third objective.

### **3.9 Ethical Considerations**

In data collection, ethical issues are essential. The rules of behaviour, principle or mechanisms that guide scholars either to make or not to make plagiarism and confidentiality before, during and after their study operations (Akaranga and Makau, 2016). However, the study got approval for the respondent, who is chosen in order to engage in studies. The researchers strictly complied with ethical guidelines and rules, including anonymity, confidentiality, privacy, plagiarism and beneficence, to guarantee the research subject's integrity. Appropriate ethical processes were dealt with in receiving a letter of introduction from Tanzania's Open University for study data collection.

### **3.10 Validity analysis**

The measurement validity is described as a measuring tool or scale capability to measure what should be measured. It is the exactness and the truth of the data and the findings. Krishnaswami (1993) also describes validity as an instrument's efficacy success in evaluating its specific property. Researchers conducted test-retest pilot studies to ensure the validity of the data tools. The participants were administered with 20 questionnaires. The same respondents were repeated after one week after the

same operation. The instruments for pre-test data collection are essential, because pre-test data collection instruments guarantee validity prior to the main investigation (Lee *et al.*, 2016).

### 3.11 Reliability Analysis

The reliability of a tool is the degree or extent to which a tool for study outcomes the data after repeated tests in a coherent way. The quality of measurement is responsible for reliability. The measurement is reliable when the same outcomes or outputs for various tests and times are achieved (Msabila and Nalaila, 2013). In the Table 3.1, the findings of this study showed that, the Cronbach coefficient of all factors was above 70% indicating a statistically accurate data collection tool. Msabila and Nalaila (2013) indicate that internal consistency, calculated from two wise interrelations between items, is measured with Cronbach's alpha, which is between zero and one.

**Table 3.1: Reliability Analysis**

<b>Item</b>	<b>Number of Respondents</b>	<b>Cronbach's Alpha</b>	<b>Number of items</b>
Level of usage of e-banking services	100	0.924	7
Factors influencing usage of e-banking	100	0.878	10
Customer satisfaction	100	0.936	5

**Source:** Field Findings, 2019

## CHAPTER FOUR

### PRESENTATION OF FINDINGS

#### 4.1 Chapter Overview

This chapter is about presentation of the findings. The first part gives the summary of the study population characteristics followed by analysis of the specific objectives. The chapter serves as a baseline for making conclusions and recommendations. Data is presented and discussed with an aid of tables and figures

#### 4.2 Demographic Profile of the Respondents

This section present summary of the demographic profile of the respondents. Descriptive statistics were employed to summarise the results.

#### 4.3 Age of the Participants

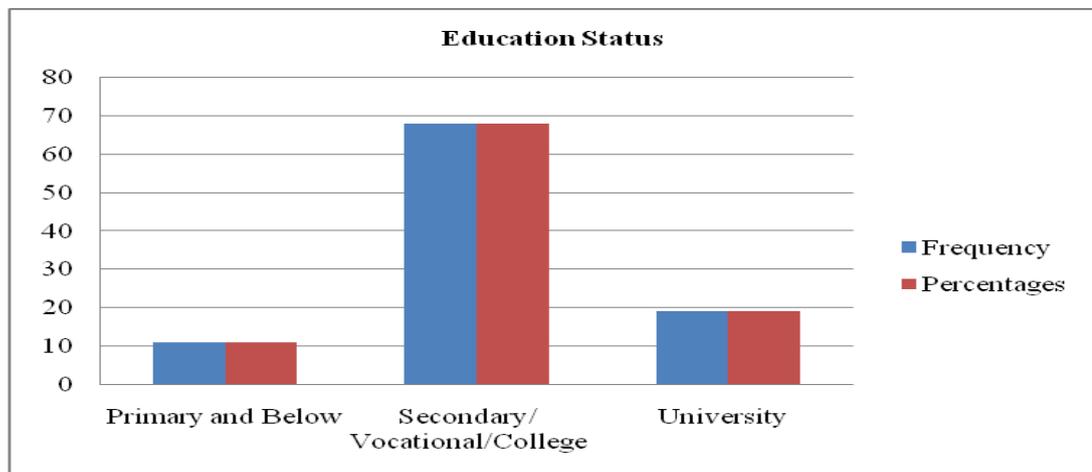
The data in Figure 4.1 shows that, respondents with the age below 25 were 10%, 26-36 were 28%, the age group 37-47 were 51%, and lastly respondents fall in the age category of 48-58 (11%). Most of the respondents as bank customers and officers fall in the age 37-47 to imply that this is the group of people who are using bank services than other age groups.



**Figure 4.1: Ages of the Respondents**

### 4.3.1 Education Level of the Respondents

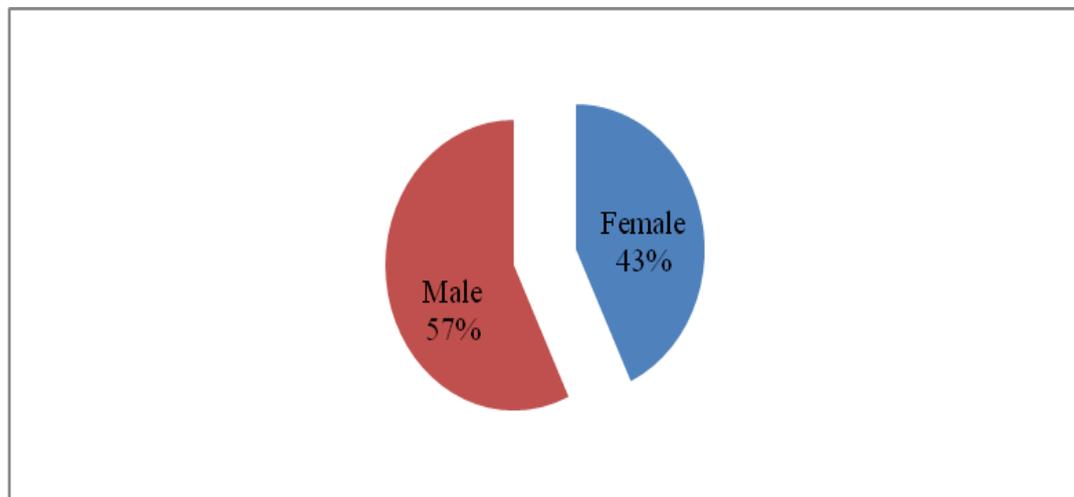
Figure 4.2 illustrates data on respondents' level of education. Data from this figure reveals that, a majority (68%) of respondents have secondary and college education, while customers with university level of education make total 19% and lastly respondents with primary education and below comprise only (11%).



**Figure 4.2: Education Status of the Respondents**

Source: Research Data (2019)

### 4.3.2 Gender of the Respondents



**Figure 4.3: Gender of the Respondents**

Source: Research Data (2019)

In terms of gender, most of the respondents were males (57%) while females were only 43% of the total sample size as shown in Figure 4.3

#### 4.4 The level of usage of e-Banking Services

Descriptive statistics were also employed to calculate frequency and percentage of the findings. Four e-banking services were considered; ATM, sim banking, credit card, and internet banking. Level of usage was determined by summing average frequency to most frequently used percentage as shown on Table 4.1. Results indicate that, ATM service was 100% most frequently compared to the rest of e-banking services, followed closely by internet banking (96%) and credit card (96%). Mobile banking was also found to be frequently used by 90%. Al-Hawary and Hussien (2016) also found ATM as the most frequently used e-banking services due to its easy accessibility. Also, Mazwile (2014) revealed ATM and credit card were the most frequently used e-banking services at NMB bank.

**Table 4.1: Frequency and Percentage of using e-Banking Services**

Variable	Not used		Sometimes used		Average used		Frequent used		Most frequently used	
	F	%	F	%	F	%	F	%	F	%
Mobile banking	6	6%	4	4%	16	16%	48	48%	26	26%
ATM					15	15%	44	44%	41	41%
Internet banking	2	2%	2	2%	26	26%	48	48%	22	22%
Credit card	1	1%	3	3%	34	34%	31	31%	31	31%

**Source:** Research Data (2019)

##### 4.4.1 Access to Internet

The study sought to establish number of customers who have access to internet. Results indicate that, majority of the customers were found to have access to internet (59%) whereas 41% had no access to internet as indicated on Table 4.2.

**Table 4.2: Access to Internet**

Variable	Frequency	Percentage
Access to internet	59	59%
No access to internet	41	41%

**Source:** Research Data (2019)

#### 4.5 Factors influencing Customer's Satisfaction in Using e-Banking

Several factors were analysed to check whether they have an influence on customer satisfaction. These include reliability, flexibility, accessibility, and security and privacy. Analysis was carried out by means of descriptive statistics as depicted on Table 4.3.

**Table 4.3: Descriptive Statistics showing Factors Influencing Customer satisfaction**

Variable	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Reliability	2	2%	6	6%	27	27%	44	44%	21	21%
Flexibility	2	2%	4	4%	15	15%	44	44%	35	35%
Accessibility	5	5%	6	6%	24	24%	41	41%	24	24%
Security and privacy			2	2%	11	11%	59	59%	28	28%

**Source:** Research Data (2019)

##### 4.5.1 Reliability

Based on Table 4.3, majority of customers (65%) were satisfied with reliability of e-banking services. On the contrary, only 8% were not satisfied while 27% were not neutral. Regarding high frequency of satisfied customers, it affirms that, e-banking services were reliable. Similar findings were reflected by Ajmal *et al.* (2018) on the fact that, reliability as quality dimension was found to positive influence customer satisfaction. Pakurar *et al.* (2019) also aligns with current results as they also revealed reliability of e-banking services influenced customer satisfaction.

### **4.5.2 Flexibility**

As indicated on Table 4.3, 79% of the customers agree with flexibility of e-banking services. However, 15% did not support that the services were flexible, whereas 6% remained neutral. Results attest that, flexibility of e-banking services satisfied customers. Matimbwa and Ochumbo (2018) were in consistent with these findings as their findings revealed also that, flexibility of e-banking services particularly ATM significantly influenced customer satisfaction. Eklof *et al.* (2018) also supports the notion that, flexibility of services affects customer satisfaction in banking sector.

### **4.5.3 Accessibility**

Results on Table 4.3 also indicate that, 65% of the customers had accessibility of e-banking services whereas 24% claim the services were not accessible. Besides, 11% remained neutral. In regards to perception of majority, it affirms the fact that, accessibility of the services satisfied customers. In consistent with present findings, Muluka *et al.* (2015) found accessibility of digital banking services has positive relationship with customer satisfaction. Muluka (2015) also suggest that, accessibility of digital services in banking institutions improve adaptability and satisfaction of customers.

### **4.5.4 Security and Privacy**

Table 4.3 also suggest that, majority of the customers (87%) were satisfied with security and privacy of e-banking services. In contrast, only 2% evince no satisfaction with this aspect while 11% were neutral. This bring a notion that, security and privacy of e-banking services were satisfactory. Belas *et al.* (2016) in the same vein, suggest that, trust in security and privacy of banking services

associates with customer satisfaction as it is one of most sectors that is targeted by hackers and thieves.

#### **4.6 Influence of Factors influencing usage of e-Banking Services on Customer Satisfaction**

Multiple regressions were employed to establish the connection between the use of e-bank services and customer satisfaction. Multiple regression is a modelling method that defines strength and direction for one dependent variable (result) and two or more independent (predictors) variables (Osborne and Waters, 2002). It is however suggested that the assumptions of multiple regressions be checked before analyses are conducted because failure to measure assumptions might result in inaccurate estimates (Keith, 2006).

##### **4.6.1 Assumptions of Multiple Regressions**

Prior to the analysis, five assumptions were evaluated, including linearity, normality, multicollinearity, and autocorrelations, as suggested by Osborne and Waters (2002).

###### **4.6.1.1 Assumption of Linearity**

This hypothesis aims to establish a linear interaction between dependent variables and independent variables (Stevens, 2009). When the relationship is linear, the effect size of the independent variables is significant for their dependent variable. Pearson correlations were used to examine linearity between variables. As shown in Table 4.4, the result showed a powerful linear connection between dependent and independent variables. It was discovered that, the customer satisfaction has a substantial beneficial association with all predictors: reliability,  $r(100)=.92$ ,  $p<.000$ ;

flexibility,  $r(100)=.86$ ,  $p<.000$ ; accessibility  $r(100)=.88$ ,  $p<.00$ ; security and privacy,  $r(100)=.94$ ,  $p<.000$ . The statistics show the presence of a linear connection between outcome and predictors.

**Table 4.4: Linearity Assumption**

	Reliability	Flexibility	Accessibility	Security and privacy	Customer Satisfaction
Reliability	1				
	100				
Flexibility	.342**	1			
	.000				
	100	100			
Accessibility	.610**	.514**	1		
	.000	.000			
	100	100	100		
Security and privacy	.415**	.315**	.231**	1	
	.000	.000	.000		
	100	100	100	100	
Customer Satisfaction	.921**	.856**	.879**	.941**	1
	.000	.000	.000	.000	
	100	100	100	100	100

**Source:** Research Data (2019)

#### 4.6.1.2 Assumption of Normal Distribution

This test needs the normal distribution of all factors subjected to the study. It assumes that the estimates, when normally distributed, are valid and reliable (Osborne and Waters, 2002). Kurtosis and Skewness were used as proposed by Hair et al. (2010) to test this hypothesis. All variables were observed to be distributed in a normal range, which indicates a range of acceptable Kurtosis and Skewness coefficients as shown on Table 4.5. The acceptable range of Skewness-Kurtosis is  $\pm 2.58$  (Tabachnick and Fidell, 2007).

**Table 4.5: Normality Assumption**

	<b>N</b>	<b>Skewness</b>		<b>Kurtosis</b>	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Reliability	100	-.514	.201	.512	.314
Flexibility	100	-.713	.201	.114	.314
Accessibility	100	-.312	.201	-.104	.314
Security and privacy	100	-.842	.201	.323	.314

**Source:** Research Data (2019)

#### 4.6.1.3 Assumption of Autocorrelation

The independence of errors is sometimes referred to as autocorrelation. This test assumes that errors in the variables are separate from each other and suggest that the subject reacts independently (Keith, 2006). Breach of this assumption may result in inaccurate results of the significance test and thus result in Type I or Type II errors. The test of autocorrelation between variables was calculated by Durbin-Watson in Table 4.6. The autocorrelation of independent variables was low as the Coefficient Durbin-Watson was within an acceptable range (1.74) in Table 4.6. Durbin-Watson coefficient of less than 1.5 (or above 2.5) may raise concerns (Field, 2009).

**Table 4.6: Autocorrelations Assumption**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error</b>	<b>Durbin-Watson</b>
1	.891 <sup>a</sup>	.850	.847	1.527	1.741

**Source:** Research Data (2019)

#### 4.6.1.4 Multicollinearity Assumption

The researchers can interpret regression coefficient values to assess the effects of independent variables on the dependent variable when their collinearity is small (Keith, 2006). In order to test collinearity among independent variables, VIF

(variance inflation factors) and Tolerance Rate were used as proposed by Osborne and Waters (2002). The result on Table 4.7 shows a low multi-collinearity among the separate variables because of the very low tolerance rate, whereas VIF was large. Keith (2006) proposes high VIF and low tolerance, which implies low collinearity. VIF ranges between 1 and 10 while tolerance between 0 and 1.

**Table 4.7: Multicollinearity Test**

Model		Collinearity Statistics	
		Tolerance	VIF
	Reliability	.174	7.211
	Flexibility	.182	8.112
	Accessibility	.197	8.413
	Security and privacy	.134	9.121

Source: Research Data (2019)

#### 4.6.2 Analysis of Multiple Regressions

After fulfilling its five assumptions, multiple regressions were made. Table 4.8 and Table 4.9 showed the results. As shown Table 4.8, independent variables were found to have an extremely strong effect on a dependent variable (R square=.85). Reliability, flexibility, accessibility, and security and privacy were thus strongly linked to customer satisfaction. Current results were consistency with Iberahim et al. (2016) who also revealed that, these factors explained above 50% of customer satisfaction model.

**Table 4.8: Multiple Regression Model Result**

Model	R	R Square	Adjusted R Square	Std. Error
1	.891 <sup>a</sup>	.850	.847	1.527

Source: Research Data (2019)

In addition, all factors had a major impact on customer satisfaction, as shown in Table 4.9. The individual predictor inspection showed that, 1 reliability unit increase

explains a significant 1.1 customer satisfaction increase. Also, an increase of 1 unit of flexibility explains 0.9 increases of customer satisfaction. Further, an increase of accessibility by one unit predicts 0.7 increase of customer satisfaction. Whereas, security and privacy 1 unit explain 0.2 increase of customer satisfaction.

**Table 4.9: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.712	.484		1.533	.000
	Reliability	1.151	.602	.156	1.127	.000
	Flexibility	.922	.400	.355	8.913	.000
	Accessibility	.720	.505	.828	3.133	.000
	Security and privacy	.212	.308	.202	.411	.000

**Source:** Research Data (2019)

Regression model was developed from general regression equation as shown below;

$$\text{From } y = \alpha + x_1\beta_1 + x_2\beta_2 + \dots + x_n\beta_n + \varepsilon$$

Then,

$$y = \alpha + \beta_1(RE) + \beta_2(FL) + \beta_3(AC) + \beta_4(SP) + \varepsilon$$

Hence,

$$y = 1.7 + RE(1.2) + FL(0.9) + AC(0.7) + SP(0.2)$$

Where,

$Y$  = Customer Satisfaction

$\alpha$  = Constant

$RES$  = Reliability

$FL$  = Flexibility

$AC$  = Accessibility

$SP$  = Security and Privacy

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents discussion and conclusions on key findings of the study. It specifically includes summary of findings, discussions, conclusion and also provides the recommendations and areas for future research.

#### **5.2 Summary of the Findings**

The main objective of this study was to examine the effect of e-banking services on customer satisfaction in Tanzania banking industry with a case study of CRDB Bank. In addition to the main objective, the study specifically intended to determine the extent of using e-banking services by Tanzania banking customers, to examine factors that influence the satisfaction level of the customers, and to examine the relationship between customer satisfaction and usage of e-banking service.

Most of the respondents interviewed were males 57% and females cover 43%, most of the respondents were literate as 68% they were secondary education level and college, 19% had attained university education while 13% were primary education level. Over half of the respondents interviewed by the study were between the age 37 and 47 and the rest was below and above. Based on the first objective, the study specifically intended to determine the level of using e-banking service among customers, the study found that ATM service was 100% most frequently compared to the rest of e-banking services, followed closely by internet banking (96%) and credit card (96%). Mobile banking was also found to be frequently used by 90%.

Second objective found that reliability, flexibility, accessibility, and security and privacy influenced customer satisfaction. Results indicate that, majority of customers (65%) were satisfied with reliability of e-banking services. 79% of the customers agree with flexibility of e-banking services, 65% of the customers had accessibility of e-banking services, and majority of the customers (87%) were satisfied with security and privacy of e-banking services. On the third objective, independent variables were found to have an extremely strong effect on a dependent variable ( $R^2=0.85$ ). This means that, reliability, flexibility, accessibility, and security and privacy were thus strongly linked to customer satisfaction.

### **5.3 Discussion of the Findings**

#### **5.4 The Level of usage of e-Banking Services**

The extent of using e-banking services was found widely in some few products of the E-banking such as ATM and Mobile banking, these are mostly wide used channel of customer interaction with banks. e-banking appears to be rapid in gaining popularity in Tanzania particularly in Dar es Salaam where there is well developed internet services infrastructure as it was revealed only 2% of the respondents who didn't use internet service completely.

However, study finding simply that, e-banking in Tanzania is in its infancy. Most of the interactivity provided by the e-banking services at the basic information, and transactional levels are far from being developed in sophisticated ways that can give sustainable added value to all parties. Most of the services provided by banks such as internet banking, mobile banking and ATM are provided at the basic level. The findings align with Donner et al. (2008) on the conception that, level of the services

used by customer in developing country is highly depending with the awareness and economic activities of the customers.

### **5.5 Factors influencing Customer's Satisfaction in using e-Banking**

Based on the findings, four factors were found to influence positively customer satisfaction in using e-banking. These include reliability, flexibility, accessibility, and security and privacy. These findings provide several notions. First, the fact that, 87% of the customers were satisfied with security and privacy o e-banking services implies thatcustomers were satisfied with security and privacy policies of CRDB bank. This is supported by one of the bank staff argument saying that;

*“Privacy policy provides highly security to customer private contents. Bank security policy do not allow client private information to be exposed, all the features provided by privacy policy of the bank help to improve customer satisfaction by providing personalized services to them.”-CRDB Staff 1*

This is also in line with El Kiki *et al.* (2012) on the notion that, effective security and privacy policy lead to customer satisfaction on the use of the e-banking services. Second, results give an indication that, positive perception of customers on flexibility, accessibility, and reliability enhance their satisfaction on using e-banking services. For instance, some of the customers commented that;

*“Flexibility and reliability were factors that influences the use of Internet banking, and related to an easy-to-remember URL address, well-organized, easy in site navigability, concise and understandable contents, terms and conditions. Not only that but also all of these if work properly lead to customer satisfaction.”-CRDB customer 1.*

These findings were also consistent with other research findings. For example, (Polatoglu and Ekin, 2001; Suganthi et al, 2001; Gerrard and Cunningham, 2003) found that e-banking provided higher degree of security, reliability, and accessibility

that enhanced customers' satisfaction and usage of these services.

## **5.6 Influence of Factors Influencing usage of e-Banking Services on Customer Satisfaction**

The results of the study signal that, there is variation in the effect of e-banking functionality factors based on customer satisfaction and empirical evidence. Research findings suggest that, e-banking usage factors have a significant degree of influence on customer satisfaction. It was revealed that, security and privacy, accessibility, flexibility and reliability explain 85% of customer satisfaction. This implies that, customer is likely to be satisfied when one has a reliable access of e-banking service as well as using a secured and flexible service. Results were in harmony with Akinc et al. (2004) who ranked reliability, flexibility and security as the most important facets influencing mobile banking usage and customer satisfaction in France.

## **5.7 Conclusion**

This study aimed at examining the effect of e-banking services on customer satisfaction. The study identified four significant factors which influence satisfaction level of customer in using the e-banking services. Satisfaction of the customer directly linked with the customer perception on using the services which modern banking provides. In particular, reliability, flexibility, accessibility, and security attribute positive effect on customer satisfaction towards use of e-banking services. For instance, reliability showed a moderate effect on satisfaction of the customer in using internet banking services. Flexibility of e-banking services also assisted customers to ease navigate and carrying out of transactions.

To conclude, customer satisfaction on e-banking services relies on various dimensions including service quality factors and user perception. Quality of services provided by the e-banking improved customer satisfaction. Besides, customers were willing to use the e-banking services such as online banking, ATM and credit card due to perceived ease of use and usefulness of the services as the matter of accessibility and flexibility.

### **5.8 Recommendations**

This study has the following recommendations; having identified-banking to be very crucial to Banks and its effectiveness, organizations are therefore encouraged to utilize e-banking to the fullest advantage in order to enhance their effectiveness. As ICT reduces the work of the manager in terms of close supervision. It also improves the drive, initiative and quality of work of the employees thus assist them to be more committed to achieving the goals and objectives of the organization. The study recommends that critical infrastructure like power; security and telecommunication should be strengthened to ensure the application of electronic banking in Tanzania and optimum satisfaction on the part of customers.

The banks should always train and retrain their staff to ensure that they keep up with the dynamism of information technology. Implied from the above, foreign direct investment will increase, productive capacity will be doubled. This will improve standard of living of citizenry and further engender economic growth and development. In order to increase customer satisfaction, it is recommended that, banks should improve the information channel by making motivational strategies regarding methods of using services and their benefits. Security, trust and reliability

should also be focused by banks in order to enhance security of transactions, ensure proper network system and timely service provision.

### **5.9 Area for Future Research**

Further, research on evaluation of customer satisfaction towards use of internet banking in Tanzania banking industry can be conducted with large sample size covering the major cities of Tanzania. Further research can also consider the influence of demographic factors such as age, education and gender on customer's satisfaction towards the use of e-banking services. There is the need to check other dimensions of services quality associated with e-banking and assess its impact on customer satisfaction.

This will enable strengthen the generalization of the findings to the Tanzania economy. This study was limited to customer satisfaction, but there is a need for other researchers to examine the effect of customer satisfaction or dissatisfaction on the switching cost of banks offering e- banking or the switching intent of customers of these banks. Finally, further studies should research into the relationship between the heterogeneity of the various customers of internet banking and issues of electronic payment such as funds transfer, security and bills payment.

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**APPENDIX I**  
**QUESTIONNAIRE**

**Purpose of questionnaire**

These questions will be used during the research work by Student of Open University of Tanzania. We deeply appreciate if you help us to answer these questions to the best of your knowledge. If you can't or do not wish to answer some questions, that is no major problem. Thank you for your very important help.

Best regards,

Lillian Kimaro

Dar es Salaam. 20/02/2015

**1. Demographic**

Please select the response that best describes your answer

**a) Which of the following age category are you?**

Below 25

26-36

37-47

48-58

**b) Please indicate your gender**

Male

Female

**c) Marital status**

1, Married

2 single

3 widows

4 Divorced

**d) What is your education level?**

- 1. Below Secondary education
- 2. Above secondary education
- 3. College/university

**2. What is your position in Institutional management.....**

**3. I use internet banking**

Most Frequently  frequently  infrequently  less frequently

**Part I: Level of usage of e-banking services**

Tick the appropriate field

**1=very low extent , 2=low extent, 3=average extent 4= high extent, 5=very high extent**

	1	2	3	4	5
ATM					
Mobile banking					
Credit card					
Internet banking					

**PART II:Factors influencing customer satisfaction**

Tick the appropriate field

**1=strongly disagree, 2=disagree, 3=neutral, 4= agree, 5=strongly agree**

	1	2	3	4	5
Security and privacy					
Flexibility					
Reliability					
Accessibility					

**Part III: Customer satisfaction**

Tick the appropriate field

**1=strongly disagree, 2=disagree, 3=neutral, 4= agree, 5=strongly agree**

	<b>strongly disagree</b>	<b>disagree</b>	<b>Neutral</b>	<b>agree</b>	<b>strongly agree</b>
Easy completion of online transactions					
Easy logging on online portal					
Easy understanding which button to be clicked for the next step.					
Helping customer to complete a transaction quickly.					
Validity of the hyperlinks on the bank's portal.					
Quickness of the Web page on bank's portal site loading.					
Sufficient and real time financial information provided					
Reliability and credibility of transactions					
Feeling of relief of customer to transact on internet banking					
Offering preferentially lower fees/ rates and charges					
Reasonability of the transaction fee for this banking portal site.					
Protection/security of customer transaction data.					
Complete and sufficiency of the information					
Accuracy of the online transaction process of the bank.					

## INTERVIEW GUIDE

1. What are feedbacks does your office get from E-banking users?  
Where do they satisfy and where are not satisfy?
2. Is the prevailing state of IT infrastructure sufficient to encourage and sustain the adaptation of Internet banking?
3. How does the quality of internet providers in terms of speed and connectivity influence the process?
4. Is the government taking sufficient steps to encourage e-commerce?
5. Does the governments' laws, policies and regulations in place to provide security and assistance to online buyers and sellers?
6. Logistics challenges are also considered to be a barrier for e-banking development. Do you think the delivery system in Tanzania domestically and internationally is cost effective and reliable?
7. Is there a preference towards face to face transactions to the extent it hinders on-line transactions?
8. Does the level of literacy, understanding of English, computer and e-commerce knowledge, theft and trust affect and challenges the use of E-banking?