THE IMPACT OF E-BANKING ON SERVICE DELIVERY EFFICIENCY IN TANZANIA:
A Case Study of NBC Bank

BY
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A Dissertation submitted in Partial Fulfillment of the Requirements for Award of the Master of Business Administration in Corporate Management of Mzumbe University
CERTIFICATION

We the undersigned, certify that we have read and hereby recommended for acceptance by Mzumbe University, a dissertation entitled Impact of E-Banking on Service Delivery Efficiency in Tanzania: A Case study of NBC Bank, in partial fulfillment of the requirements for award of Masters of Business Administration in Corporate Management of Mzumbe University.

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I acknowledge the efforts made by my supervisor, Dr. Joshua Mwakujonga who played a great role in facilitating the completion of this report, including his support, positive criticism and direction towards bringing into being a credible output that would benefit the current and future generations.

I also thank my parents for their endless encouragement and support rendered to me ensuring that I achieve my goals, my classmates as they were a great support to my work as we labored together to attain our achievement at Mzumbe University.

Lastly, I would like to thank staffs of the NBC bank for being part of the sample population and being willing to participate in an interview and filling the questionnaires and completion of this work.
DEDICATION

I would like to dedicate this dissertation to my adorable family for their love, support and encouragement during the entire time of my studies. May the Almighty God bless them abundantly for endeavoring a lot of inconveniences and discomfort while I was away for my studies.
# List of Abbreviation

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>ATM</td>
<td>Automated Teller Machines</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>NBC</td>
<td>National Bank of Commerce</td>
</tr>
<tr>
<td>POS</td>
<td>Point of Sales Machine</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on Asset</td>
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<td>ROE</td>
<td>Return on Equity</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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ABSTRACT

This study aimed at assessing the impact of E-banking on the efficiency on service delivery in banks in Tanzania, a case of NBC bank. The study specifically centers on examining the impact of E-banking on the efficiency on service delivery, assessing how the E-banking has improved the efficiency on service delivery in Tanzania, evaluating the customers’ satisfaction after adopting the E-banking system as a factor for the efficiency on service delivery as well as exploring if there has been an increase on the market share of the bank industry after adoption of E-banking system.

The study has applied qualitative and quantitative research approaches. The research methods that were used for data collection were interview and documentary review. Data collection instruments were: questionnaires, interview guides and documentary review schedules.

The study exposed that the most dominant internet banking services are: the use of online credit cards and seeking product information. Since its creation in mid-2005, there has been slow adoption of internet banking caused by the impaired unavailability of infrastructure and lack of supportive legislation for internet banking, regardless of the enhanced performance of the banking industry and the increased efficiency, effectiveness and productivity.

The study concluded that the adoption of E-banking technology should go together with winning customers’ confidence by ensuring the provision of suitable security of transaction back up of critical data files and alternative means of processing information. The recommendations for the study include: NBC bank ought to guarantee good connectivity and power base that will allow them to serve customers in efficient and effective manner.
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CHAPTER ONE

INTRODUCTION

1.1 Introduction
This study intended to examine the impact of E-banking on the efficiency on service delivery, drawing experience from the National Bank of Commerce Tanzania as a case study. The study explains the banking business and how technology particularly the invention of E-banking has impacted the banking sector specifically in efficiency on service delivery.

1.2 Background of the Problem
The use of information technology is one of the factors that determine the success and progress of modern business. In the banking sector, IT plays a vital role. The implementation of an e-bank system has streamlined the process of serving customers by enhancing the delivery of services. The e-banking system has become more critical in the business environment in this regard. Currently, all banks have adopted to use information Communication Technology (ICTs) as a means to facilitate their daily operation. E-banking system supports daily bank’s activities as well as boosting the efficiency and effectiveness in providing better services to their customers (Tasmin 2012).

With the existing economic situation, the ICT plays a big role in strengthening the competitive mode of business. The combination of ICT, organization and environmental factors, make the business to create its competitive environment, customers being the main target. However, these factors are not systematic and predictable. This situation makes each business struggles to retain its customers by providing them with the best services in a simplified manner. (Frank et. al, 2012).
Black et al., (2001) asserted that, there is the growing number of financial service functions that are supported by ICT. For instance, the financial products which are advertised physically or online, influence the consumer choice and their behavior.

Globalization has helped to develop Tanzania's e-bank system. Banks and consumers in Tanzania, Africa and the world at large are increasingly demanding ICT in the banking system. Consistently, future prospects of banks lie on ICT. Banks these days employ the information technology to run their operations as well as to create banking product and to deliver financial services (Ovia, 2005).

In Tanzania, ICT has increased and improved the use of electronic banking in banking systems as a means of scurrying the bank activities Ngonga, (2015). E-banking has adopted and brought different challenges in the industry such as risk exposure. In Tanzanian context, E-banking has been adopted and among the channels and types in which it involves are internet banking, smart card and mobile telephone banking. Smart card such as ATM card can be used by the customer for withdrawing money without been served by the bank teller. Mobile banking transaction allows the customer to make transaction using mobile phone. This has been found to be effective in cost and time saving.

Ngonga, (2015) argued that, the adoption of E-banking could be complex and multifaceted process. The social, personal, psychological and behavioral aspect of customers is much important to be considered as far as efficiency on service delivery is concerned, because in one way or another it plays the important role in achieving efficiency in E-banking.

The importance of E-banking has been observed in different aspects of bank operation systems, whereas operational reform made in such sector has brought changes and the status of banks has improved. The reform which has been recently made and introduced including the establishment of the asset reconstruction companies, establishment of the transparency and efficiency have compelled the banks to use ICT.
By the use of ICT, many companies have increased the efficiency of their business. The effect use of ICT varies significantly among sectors and countries. Banking is among the sector which enjoys the use of ICT on its operations especially through E-banking system. The use of E-banking in the bank’s financial transactions is advantageous in the bank industry as well as to customers since its use reduces the movement time, increases the number of served customers. In spite of the importance of ICT to the banking industry, ICT has some risks that are directly connected to its customers.

1.3. Statement of the Problem

Formerly, customers’ demand for banking services was for the purpose of accrual and safeguarding their monies. Unlike nowadays, whereby customers’ demand has shifted from just financial security to effective service delivery. The motive is that, customers require efficient, fast and convenient services (Wisdom, 2012). Different banks have common products which are directly used by the customers when they need to do transaction such as PesaFasta, SimBanking and ATM which help the bank industry to grow. Banks are also conducting corporate banking, terrestrial, and transactional services such as corporate payments, collections and trade finance.

Literatures indicate that, banks adoption on the use of ICT, have allowed collection of detailed data on customer that meet the needs of individual customer. The expanded use of automation and robotics aims to improve the quality of service. ATMs have 24-hour operations that are supposed to reduce the queue and related costs. E-banking's aim is not only to provide a balance on the actions of consumers, but also to improve the efficiency and effectiveness of service delivery. E-banking was expected to lower the cost, increase speed of service delivery and customization (Chase, 2003).

In addition, e-banking is expected to help customers make their real-time transfer and immediately receive feedback on money transfer processes. On the contrary, banks face many challenges by depending on ICT, despite the fact that e-bank
technology facilitates connectivity across different business areas; interactions between service providers and customers.

The satisfaction of the customer is the indicator of adequate service delivered to meet the expectations of the customer. The perception of the consumer is the pre-conceived notion of what quality of service customer in companies will provide from a specific service. If it exceeds expectations by a large amount then the customer will be highly satisfied or happy and the customer will be disappointed when service delivery is beyond expectations. It is proposed that the needs of consumers should be met as planned (Buffa, 1983).

Despite the positive findings on the use of ICTs and the adoption of such business models by the e-banking and Tanzania banking sector, there is minimal evidence to suffice and shows the extent to which the e-bank has influenced Tanzania's banking sector. This research therefore aimed to investigate the effect of e-banking on service delivery performance, using as a case study the National Bank of Commerce (NBC) in Tanzania.

1.4 General Objective
The general objective of this study was to examine the impact of E-banking on efficiency on service delivery in Tanzania.

1.4.1 Specific Objectives
i) To assess how the E-banking has improved efficiency on service delivery at NBC bank.

ii) To evaluate the customer’s satisfaction after adopting the E-banking system as a factor for efficiency on service delivery.

iii) To find out if there has been an increase on the market share in the bank industry after the adoption of E-banking system in Tanzania

1.5 Research Questions
The study was guided with the following research questions:

a) How has E-banking system increased efficiency on service delivery at NBC bank?
b) To what extent has E-banking increased customer’s satisfaction impacted sufficiency on service delivery?

c) To what extent has the E-banking system increased the market share on the bank industry with relation to efficiency on service delivery?

1.6 Significant of the Study

The study was considered significant as it enables the author to increase knowledge and skills in the contribution of the persistent dichotomy to the e-banking system as well as in the process of customer management and service delivery performance. This study provides information to be used as a guide to other researchers and helps them to learn new knowledge about e-banking and service delivery performance. The analysis also helps the company to learn about the role of e-banking in banking system and customer satisfaction. The analysis also helps researchers and the company to know more about the performance of e-banks to avoid different operational risks.

1.7 Organization of the Study.

This study is organized into five chapters. Chapter one describes about overview of the study which includes the background of the study, problem statement, objectives of the research, research questions, significant of the study and the organization of the study. Chapter two includes literature review; which comprises conceptual definitions, theoretical review and empirical literature review. Chapter three carries research methodology which include research design, study population, sampling, and source of data and method of data collection as well as data management and analysis. Chapter four deals with study results and findings while chapter five is summary conclusion, and recommendations.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter represents the review of different materials related to the study. It also provides definitions of key terms that were used in this study, empirical part and theoretical studies. The aim of the research over the theoretical review is to make sure that the researcher familiarizes the problem, and help to come up with solution to the study.

2.2. Definition of Key Terms

2.2.1 Service delivery
Service delivery is an expected result of the strategies in which the company or organization employs to achieve market orientation and financial goals (Suriyaperuma et al., 2015).

2.2.2 Information and Communication Technology (ICT)
Information and communication technology is defined as the processed, automated, controlled and produced information by using the computer, software and auxiliary equipment example ATM and debit cards (Khalifa, 2000).

2.2.3 Return On Assets (ROA).
Return on asset can be defined as the net income after deducting tax by the total assets. The ratio indicates how the management of bank is able to convert bank’s assets into a net earnings, or in other way how the managerial efficiency is (Adegbaju&Olokoyo, 2008).

2.2.4 Customer Satisfaction
Customer’s satisfaction can be described in terms of quality of services through its reliability, responsiveness, appearance, friendliness, communication, access and availability of services (Ngango, 2015).
2.2.5 Financial Performance

Financial performance can be described in terms of profitability, liquidity and capital structure. The increase of each item determines the performance of the bank or any business (Dang 2011).

- **Profitability**
  The profitability is situation where the firm or business yields the profit or financial gain. This can be measured using the profitability ratios.

- **Liquidity**
  Is a calculation of how much cash an individual or organization has to meet immediate and short-term commitments, or resources that can be quickly converted to do so.

- **Capital Structure**
  This is the situation where the bank/business finance and its overall operations and grows by using difference sources of funds (Athanasoglou et.al, 2005)

2.2.6 E-banking Services

The Electronic banking comprises the following services; Internet, Mobile banking, Telephone banks and Electronic card banking.

- **Internet Banking**
  Internet banking is the use of electronic tools to make transaction without visiting the bank. A person can use internet banking in conducting his/her bank transactions such as transfer payment, accounting inquiry and printing of bank statement. The E-commerce also is facilitated by the E-banking where the payment transaction can be made in purchase of goods and services.

- **Mobile Banking**
  Mobile banking means making or settling financial transactions using a mobile phone. This allows the individual to transfer funds to someone else. Mobile banking also uses the payment movement card network in tandem with SMS to verify receipt to the recipient (James, 2009).

- **Electronic Card Banking**
Electronic card banking is the use of electronic card which identifies the holder, for financial transaction. Example of electronic card includes Automated Teller Machine (ATM) and Point of Sale (POS). The electronic card comprises of debit card which is linked with local bank and credit card which is normally linked with local and international bank (Ngango, 2015)

2.2.7 Know your Customer (KYC)
Is the ways on which the bank are using to obtain more information from the customer, this include identification and verification of customer details/information

2.2.8 Due Diligence (DD)
These are bank controls and procedures taken so as to know more information on the customer they want to start relationship with.

2.2.9 Risk.
Are all uncertainties, damage, loss or any negative occurrence that can be seen due to external or internal vulnerabilities and can be prevented by preemptive action.

2.3. Empirical Literature.
E-banking is a platform for banking services to be provided. For years, banks have been using digital channels to talk to each home and international corporate client and transact money. With the advancement of the network and the industry wide web (www), the use of online networks to seek feedback and provide products and services to their customers has increased. This form of banking is generally referred to as e-bank or net banking. The range of products and services provided by banks through the digital channel varies widely in content material, capacity and class from bank to bank. The concept of e-banking is automated direct delivery to customers of new and conventional banking products and services via digital and interactive channels of conversation.

The concept of e-banking differs among researchers as digital banking refers to several varieties of offers through which bank customers can request records and
perform most retail banking services through pc, tv or cell phone (Daniel, 1999; Sathye, 1999). Salehi et.al, (2008), describes e-bank as a digital interface for storing, managing and regulating financial transactions between financial institution and client. It can also be described as a variety of electronic banking on the following platforms: (a) net banking (or online banking), (b) mobile banking, (c) fully banking-based television, (d) cell phone banking, and (or offline) e-banking.

E-banking includes the structures that allows economic organization clients, individuals or businesses, to get admission to debts, behavior monetary transaction and collect information about economic products and services through a public or private network, together with the internet or mobile smartphone. Using a clever digital device, including a non-public pc (pc), a non-public virtual assistant (PDA), an automated teller system (ATM), a kiosk, or a touch cell phone, customers receive entry to E-banking offers. Although some writing limits the use of the term internet banking (Daniel 1999), it says the duration is restricted to retail banking or both retail banking and corporate banking (Simpson 2002). Banking Supervision (1998), states that e-banking refers to the provision of banking services and products for retail and low cost banking across digital channels. Such products and services may include the provision of savings, borrowing, account management, Investment advice, electronic invoice cost, and the provision with digital money of various electronic payment products and services.

By playing a crucial role in economic improvement, digital banking has long been established on the premise of its ability to create liquidity in the financial system through economic intermediation between savers and debtors. It also provides financial services and products that speed up the settlement of transactions and the process it reduces coin intensity within the financial gadget, fosters banking lifestyle, and fasters monetary growth (Al-Mahtani, 2001). However, the payment structures should be secure and efficient for the effective functioning of the monetary gadget, in any other case there may be room for others to worry about one part of the financial system or monetary device. That is why key banks are involved.
in the sale of sound and green fee systems in search of ways to reduce system-related hazards (Al-Mahtani, 2001).

Anyanwaokoro (1999) defines an idea and money and banking practices, charging machine, as a device in which agreement of economic responsibilities is obtained by using credit playing cards or perhaps drag some of the edge switch the amount of their financial institution to some other person's account through the pc. According to Orjih (1999), a payment system is collectively illustrated consisting of a number of payment methods, including checks, credit cards, drafts of banks, order and photographic credits for swift transaction settlement.

Edwin, et al., (2014) made a study on the impact of information communication technology in the strategic management of the financial institution. The researcher has applied qualitative approach methodology. During the study, 20 employees were interviewed for the purpose of collecting information. The study used descriptive analysis since its aim was to find the reasons on the independent variables, therefore, there was no need on the use of formulas in this study. The study explains that, through E-banking, ICT basically contributes much in the strategic management of financial institution which in turn enhance performance. The study used only descriptive analysis to analyze the results obtained using SPSS tools but does not describe the relationship between the variables.

The use of E-banking technology is also seen on the use of mobile in banking operation or mobile banking. This was further described by the study made by Kigen in 2010 who revealed that, the costs of transactions has found to be lowered by the use of mobile banking since it is not directly felt by the banks. The study revealed that there is an increase number of adoption of mobile banking and banks itself. This study much concentrated in the financial performance rather than transactional costs.

Aladwani (2001) highlighted quicker, smoother, and more efficient customer service, as well as enhancing the competitive position of the bank as the most critical drivers of online banking between Kuwait's bank and IT managers.
A mobile banking is now a powerful instrument/tool which is used in delivering the financial service to many people who own a mobile phone but they do not have bank account which led by the challenges in the accessing of the financial services in their areas, such as rural areas (Mwangi, 2010).

The research on mobile banking and economic development by Donner and Tellez (2008) shows that mobile banking systems are a very significant technology for world development. Measuring its significance requires multiple tests, various methodologies and conceptual context before the questionnaire on the added acceptance and effect begins to be answered.

Ogare (2001) conducted the Kenya report on the bank performance effect of e-banking. The study used the secondary information from commercial banks and central banks' annual report. Inferential statistics and descriptive analysis were used to analyze the data. The ordinary least square was used as a research model in which the STATA was used as a method to promote the study's analysis. The findings in this study revealed that e-banking has a powerful and significant impact on the commercial bank's profitability.

In relation to this study, the use of E-banking in business is quiet important but the risk which are mostly associated with it is not basically considered much but rather much concentration made on the business performance especially bank industry using E-banking.

2.4 Application of Electronic Banking

For many consumers, a 24-hour electronic banking system can be used to cash into checking or financial savings bills via an automated teller machines (ATM) or direct paycheck deposit. According to Simpson (2002), Fox and Beier (2006), instead of using laptop and electronic generation of checks and exceptional paper transactions, electronic fund transfers (EFT) could be part of digital banking. EFTs are enabled by gadgets such as cards or codes that allow you or those you authorize to access your account. (Fox and Beier, 2006). For this reason, several economic institutions use ATMs or debit cards and PINs. Some use debit card forms such as folks who want
to test your signature. For example, a few use RFID or other forms of touch lens age
to check the facts without direct contact.

Cash machines are electronic terminals that, by placing an ATM card and entering
your PIN, allow you to withdraw coins, make deposits or pass budget between bills.
Some economic institutions and ATM owners value the cost, particularly if you
have no debts with them or if you have no debts with them have interaction in
transactions at far flung places. commonly, ATMs should inform the card users on
the fee charged and its amount at the terminal screen before you complete the
transaction. Instead, this procedure requires you consult your financial institution to
acquire the information needed. (Simpson 2002).

Direct deposit allows you to authorize on a regular basis specific deposits (such as
paychecks and checks for social security and various benefits) to your account. You
must collectively pre-authorize directwithdrawals in order to automatically pay
ongoing payments (such as coverage rates, mortgages, consumer computer
payments). Use caution before pre-authorizing direct persistent withdrawals to pay
agencies that you are not accustomed to as finances can be improperly withdrawn
from your bank account. Also, monitor your bank account to confirm that the correct
quantity of direct continuous payments from your account to others (Simpson 2002)
Pay-by-telephone structures allow you to decide your organization with instructions
for paying positive payments or transferring budget between money owed. To create
such a switch, you must have an agreement with the establishment (Simpson 2002).

Personal banking software helps you to use your laptop computer to perform many
banking transactions. You will, for instance, use your computer to view your
account balance, demand transfers between accounts, and digitally pay bills
(Simpson 2002). Open-end credit or group payment operation allows you to make
open-ended credit payments or transfers that may even be your ATM card. This
could happen online or by telephone in a store or business. The technique is
analogous to the Mastercard for Mistreatment, with some necessary exceptions (Fox
et al 2006), whereas the method is quick and straightforward, open-ended credit
purchase or payment transfer cash–fairly quickly–from your account to your
account. This implies that you want to keep accurate records of your open-end credit purchases, payments, and ATM withdrawals dates and amounts. Even be sure that you recognize a store or business before offering your open-end credit data in order to avoid achievable loss of funds by fraud. Your responsibility for unauthorized use and your right to error correction may also be entirely different from a mastercard for open-end credit. (2002 Simson)

Once a company receives the sign on the mail (Fox and Beier 2006), the electronic check language transforms a paper check to an affiliate electronic payment. After checking a cashier, the test runs via an electronic machine associate that captures your banking statistics information as well as the amount of the check. You are asked to sign a document and the documents are also copied. If your check is returned to you lower, it must be cancelled and labelled by the business person, so it could be reused. The businessman sends information from the check electronically (although no longer the test itself) through the system, and also the budget are transferred from your account into their account. You still need to get advance notice from your company for a mail-clad test that expects to deliver your check facts electronically via the process. as an instance, the businessperson or distinct organization can also include the attention in your monthly statement. Joint awareness should be provided if a business person or a corporation can electronically collect a price from your account–a "bounced check" rate–if you have been granted shy finances to conceal the transactions (Simpson 2002)

2.5 Theoretical Framework

This study has used a number of theories/models on E-banking performance. Two prominent theories are chosen to provide theoretical framework for this study. These are: Technological Acceptance Theory and The theory of reasoned action.

2.5.1 Technological Acceptance Theory

Davis et al., (1989) suggested technological acceptance theory (TAT) so as to explain the intention of users towards the new technology. The theory was established based on the perception of the usefulness and easy to use. Perceived utility refers to beliefs in order to improve an individual's job performance and eventually the business performance by using new technology such as e-banking.
How easy an individual can learn to operate or use the new technology can be referred to as perceived ease of use. TAT is based on the crucial factors of perceived usefulness and easy use of the new technology. In line with this study, the new technology is E-banking system which was not used in the past. Pavlon (2003) suggested the e-commerce acceptance model of the online consumer. Therefore the acceptance of the technology depends on the easy use by the customers.

2.5.2 The Theory of Reasoned Action
Fishbein and Ajzen developed this concept in 1975, where they used it more in market research. The term was used to explain the technology's acceptance. Four principles are included in the theory: behavioral disposition, social standards, expected use and actual use. In addition, the useful aspect of rational action theory from the viewpoint of technology indicates that its claim on to some extent other aspects that can effect actions achieved only indirectly by the impact of attitude and particular norms.

2.6 Determinant of Bank Performance
Al-Tamimi (2005) classified the determinant of service delivery efficiency into two categories. One is specific i.e. internal and macroeconomic issue. This factor has found to be influenced by the decision made internally by the management and board as well. It also determines output as a stochastic variables/ individual bank characteristic that affect the banks performance. Normally, the external factors are sector wise or country-wide factors that are beyond the control of the company and eventually affect the bank profit. Compared to the specific factor/internal factors, these are factors that are within the control of bank but also can influence the performance of the bank.

2.7 Internal Factors/ Banks Specific Factors.
These are variables which are specifically influence bank profit. These are factors which are within the scope. Normally, these factors vary from bank to bank. It includes capital size, deposit liabilities, credit portfolio, interest-governing policy, labor and IT state productivity, risk level, quality management, bank size and ownership (Dang, 2011).
i. **Capital Adequacy**

Among the influential factors which have been found to impact the performance of the bank is capital. The meaning of capital is amounts of funds that are available for the bank support and become a buffer especially when the bank are in adverse situation (Athanasoglou et al., 2005).

Kusa, (2013) identified that bank capital creates liquidity for the bank because of the most fragile deposits. Nonetheless, it is not without drawbacks that it creates a susceptible demand for liability, the cheapest sources of fund capital adequacy are the amount of capital needed by banks to allow them to cope with the risks that include credit score, business and operational hazards to which they are exposed in order to absorb capacity losses and protect the company's borrowers.

ii. **Asset Quality**

Another specific variable affecting bank profit is the quality of assets. Bank resources involve current assets, loan portfolio, fixed assets, and other assets. However, the growth of assets is usually linked to bank age (Athanasoglou et al., 2005). Bank loan is the major asset that generates the major share of bank income, particularly in commercial banks. When a bank has a portfolio of value loans, this dictates the bank's profitability. The loan portfolio, however, varies from one bank to another and directly affects the profitability of the bank.

iii. **Efficiency Management**

Efficiency can be used by internal factors to assess the banks’ income. It can be represented by various types of financial ratios, such as the growth rate of total assets, loans and earnings. In terms of management performance, organizational efficiency is another factor. Management output is typically evaluated qualitatively by analyzing the management system, organizational structure, system control, and the reliability of the workers.

iv. **Liquidity Management**
Liquidity is among the factors that indicate bank’s efficiency on service delivery. This refers to the capability where banks fulfill its obligations to its depositors. Dang (2011) He argued that the bank's productivity has a positive relationship. In addition, the most common ratios reflecting the bank's liquidity condition are customer deposits over the overall asset and total customer deposit loan.

2.8 E-banking with Bank Customer Satisfaction
The Use of engineering for data exchange in operating banking systems is electronic banking. Electronic banking is known as e-commerce in banking and financial services. ILO et al. (2014) note that digital banking can also be defined as a business-to-customer (B2C) sector for checkbook enquiries, checkbook enquiries, checkbook enquiries, stability transfer training, account opening and other traditional banking offer types. Banks always provide their customers with the payment service, especially when shopping online (e-shop). This shows that its customers are widely covered by the E-banking in value-added products and services.

Hence through the use of E-banking, the customer gets service quickly Similar to E-banking before it was implemented. Customers are happy with the use of technology since they save time and the service is now brought near them at an affordable cost.

2.9 ICT Products and Applications
Ilo et al. (2014) argued that the information communication technology service adopted by banks is primarily ATMs, EFTs, smart cards, mobile banking, point-of-sale, home and office banking and electronic data exchange. It has been observed that the use of information communication technology has a positive impact on banking services and bank industry growth.

2.10 Analysis of the Performance of monetary establishments
2.10.1 Performance mensuration
The performance is that a company used the method of standard and systematic assortment of information, analysis and reporting to point. The tools used, as well as the results obtained from the product and services provided (Bamberger, 2003). The
overall performance can be calculated using a balanced scorecard (BSC) in accordance with Koplan et al. (2002). This addresses alternate elements that do not include money calculation in connection to E-banking prior to adoption. Customers are happy with the however, as a substitute for intangible and high-brow properties such as top exceptional services or royal customers necessary for business success. In 2000, . Dixon said that activity quality helps to promote employee growth and subsequent main functions by: providing feedback and direction, setting performance goals, setting distinctive coaching criteria and providing management input to pay administration, compensation and promotion successful performance measures include: defining key performance areas and setting annual goals for each key performance variable; identifying key attributes of effective overall performance; daily performance assessment; and reviewing overall performance with employees; and recognizing training and development needs.

If you have a genuine interest in running your own business or jointly by your savings, you want to understand a way to assess the facts and numbers that helped your service delivery ability. The company needs to look at many pieces. Here are some tips to live a good business and make appropriate changes to achieve your goals effectively.

Mercy assessed the company's assets and liabilities from the report in 2001, evaluating the profits to determine operation, cash, and funding activities. The effects of these operations can be interpreted by means of financial gain and expenditure from the declaration of financial gain to the internal correlation Price and revenue to be grasped as stock amounts accumulated increase when sales stagnate, implying a low use of inventory. Mercy insisted that quality and liabilities equate people's values to live credit history between past and gift balance sheets, view customer satisfaction by pinnacle customer proceedings and criticism, consistent and best in overall performance and reliability improvements (Dixon, 2000).

Liker (2008), was of the view that service delivery performance suffered due to poor design and implementation difficulties. An organization's service delivery the output
of both must be measured at the level of the organization and the work unit, providing complementary measurements and data for evaluation and progress preparation and monitoring.

Wahab (2000) argues that the Service Delivery Potency Measurement should look at what contributes to it, identify and communicate success drivers, support structure Training, and offering an appraisal and incentive basis. Dixon (2000) adds that the performance metrics that apply are those that change the company to direct its actions towards its strategic objectives. The live delivery of cost-effective service should support business goals. It may be because of the company's performance that the core of the long-term wellbeing linked a company's wealth.

Profit was the widely used live monetary performance, according to Sajama (1996). Profitability is that much more than financial gain over expenditure that could be expressed in terms of ratios such as gross profit margin, net income margin and return to equity. Nonetheless, there are drawbacks to benefit as a live for cost-effective service delivery. Burns (1999) debated that profit is uncertain because different people like economists and accountants will have completely different views. This co-involveslots of calculations such as depreciation and stock valuation which find themselves offering completely different values in line with the techniques used. Rucker (1990) facts out that the standard accounting live performance of profit and cost seldom supports adjustments in structure and scale, so non-financial metrics such as management and expertise of the employee and their turnover should be used to operate the strategic process at intervals.

2.10.2 Business Performance Dimensions
Herciu et al. (2008) and Lopez et al. (2005) describe the struggle as a contrast between the success of a business and the performance commonplace within the company in terms of relative market share and location, and sales growth because of the consumer base's live. Monetary overall productivity performance; stability, capital shape and marketplace quantitative relationship, excellent Products in terms of reliability; responsiveness, appearance, cleanliness / cleanliness, comfort,
friendliness, verbal communication, courtesy, safety access and practicality, delivery pace versatility; and configuration, use of assets in phrases. (Fitzgerald et al., 2006).

2.11 Challenges Faced by Banks on the Use of E-banking

There are numerous factors related to the development of the associated degree economic financial transfer system. These are infrastructural weaknesses, such as the provision of Erratic relations between power and communication, especially in developing countries. In this situation, it requires the govt. And organisations supplying reliable and economical control to telecommunications networks (Oleka, 2009) In order to prevent insufficient skilled management and resources on end-users and consumer services, efforts should be made to provide infrastructure and skilled labor.

The e-payment terminals (ATMs) also have a high charge or cost. Banks should therefore set standard e-payment charges (Littler, 2006). In the absence of adequate security to prevent fraud, banks should strive to produce stand-by camera in each ATM machine to identify the account of the operator and use a good computer wizard to dictate and prevent computer hacker fraud. There is also a shortage of support from the government to develop e-banking. Therefore, central banks should be involved in public awareness campaigns and through infrastructure issues.

2.11.1 Other Challenges Include:

a) Power failure and persistent communication failure result in network failures such as ATMs and computers slowing down the speed of electronic transactions and mutual failure ties from Nitel lines usually arising from spikes and surges induced by continuous electronic power supply (Akinuli, 1999).

b) Lack of pc backups once the bank system becomes corrupt resulting in the loss of customer data. This leads to customer account misappropriation, which means that the bank needs a manual backup (leader) containing all information about customers (Akinuli, 1999).
c) Lack of sufficient investment funds to purchase new information technology and upgrade existing systems. Some of the current banking technologies are in use, a banking machine that retains developments in brand enhancement has also been added, and excellent progress has been made with the speed at which price ranges are moved within and outside the home financial system (global money switch) (James, 2009).

d) Reduces jobs within the borders E-banks in the United States have now lowered the payment for employment in the region where the majority of works to be done by human means are performed by machinery, resulting in a minimum employment fee and a high unemployment cost in the use of machinery (Oleka, 2009).

e) Excessive fees on machines; fees or costs imposed by banks are simply too high, thus discouraging customers from using the electronic transaction system, such as withdrawal of ATMs and online interbank transfers (James, 2009).

f) Low acceptance by the public; consumers and the public do not trust the computer in the sense that fraudulent staff can use the device to conduct criminal activities such as looting money from their accounts from customers. Many customers complain that the machines often grab the card without withdrawing the money, but the money is deducted in their accounts when they go for withdrawal in the ATM machines. The consumer becomes frustrated during the implementation of this issue as the process takes longer or ends unanswered (James, 2009).

g) Bank insecurity; most electronic computers are not confident enough nowadays, making it easier for dishonest workers to carry out their fraudulent activities without being detected. Banks can not save you, forestall or control any fraudulent interest because of insecurity. In addition, computer hackers use the device to thehive data or documents by cracking codes (Hodagho, 1996).
2.13 Conceptual Framework

Reichel and Ramey (1987) defined the conceptual framework as a group of an idea which are broader and principles which are taken in relevant fields of enquiries that use to structure the presentation. This can also be described as the outline which is presented in a narrative or diagrammatically form to portray variables that are to be studied together with its hypothetical relationships among them.

The conceptual framework is normally an elementary and sometimes is theory that driven or a causal. This shows specific variables to be studied and the nature of the relationship which is expected among them. This is also a tool which assists a researcher to make a meaning in the findings especially when the conceptual framework is well established. This forms parts of the issues that are to be studied and tested. In this study conceptual framework consist of independent and dependent variables.

2.13.1 Independent Variables

These are variable that has an influence on the dependent variables which may have positive or negative effect. This means that if there is an increase of one unit or decrease of one unit in independent variables, there must also be an increase or decrease in the dependent variables. Also the variance which may occur in the dependent variables is also considered by the independent variable. In this study, the independent variable is the impact of E-banking whereas the dependent variables are bank’s efficiency on service delivery.

2.13.2 Dependent Variables

This is the variables which are affected by the independent one. This as a main variable it lends itself for scrutinize as a feasible factor. It was possible to find the solution of the problem through the analysis of the independent variable. The performance of the financial institution is dependent variable that is influenced by the ICT (E-banking).
2.14 Research Gap

The banking industry has been threatened by globalization and the stress of competition from non-bank approaches that add value to services. From various literature discussed above, it shows that e-banking has spread rapidly throughout the world in every country as it facilitates payment transactions. Ngango (2015) identified the relationship between the bank's e-bank and financial performance. Consequently, studies carried out by other researchers on the impact of e-banking in banking performance show that many banks have tried to enforce the use of e-banking in their business, but there are still challenges facing banks in their operations. The problem or challenges faced by banks are the number of clients waiting for banking services. This shows that there is a need for further study on impact of E-banking in efficiency on service delivery since the study suggests that the use of E-banking will simplify payment transactions. Therefore, this study bases on the extent to which E-banking has impact on the banks’ efficiency in service delivery.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter deals with research methodology that allows the researcher to focus on the study's goals and questions that provide a systematic way to conduct a research. Kothari (2004) argued that the methodology of research is the systematic way to solve research problems. Different measures are being studied that researchers usually have to take to the research issue. Methodology of research is not only a method of study, it goes hand in hand with the reasoning behind the methods and techniques.

3.2 Research Paradigm
The researcher's approach to conducting a study is known as a research methodology. There are two kinds of paradigms of research: one is positivism and the other is anti-positivism (Kothari, 2004). Saunders et.al, (2009) defined a paradigm as a condition of thought and give away facts about the study under investigation.

The three forms of study paradigms are shown by Creswell (2014). These are: inductive, logical, deductive. The deductive method starts by viewing at a hypothesis, generates conclusions from that theory that also contribute to the research's assumption and then continues with the theory's check. Deductive approach focuses on evaluating the hypothesis after verifying, disproving or changing the theory. Deductive approach indicates that the qualitative approach is assisted. It also notes that the knowledge reality is being created independently of the researcher and respondents (Creswell, 2014).

In other words, empirical work is told by deductive, positivist and objectivist epistemology and essentially aims to extend causal rather than abnormal control as in social behaviors by statistically testing what it believes to be a fixed reality (Saunders et al., 2009).
The inductive approach starts by focusing the research and by the use of various methods through the investigation which aims on generating the theory from the research. All plans were made through data collection and data analyzed and finally reviewed to see if they suggest the relationship among qualitative and inductive approach in generating the theory. The use of inter-prevised model gives the lifestyles of a couple of subjective views and building expertise instead of looking for it in fact (Creswell, 2009).

3.3 Research Design

Kombo (2003) said that research design is the arrangement situation for the purpose of collecting and analyzing the data in order to combine meaning with the purpose of research. Kothari (2014) supports that research design is a situation-setting arrangement for the purpose of collecting and analyzing data in the sense of combining the required information with the research purpose in conjunction with the economy procedure, or otherwise constitutes a blue print for data collection, measurement and analysis. Research design explains the plan, organization and how the study will be conducted by taking time and resources into consideration (Mbwambo, et.al, 2011).

3.4. Descriptive Design.

Descriptive research design discloses the correct profile of the person, events or situation which may be an extension of, indicator to some sort of the explanatory research or more often (Sunders, 2009). It is also known as the way to gather the information used in a sample of the individuals / groups by examining or administering the questionnaire. The aim of descriptive design is to show the state of the affair as it exists, for example, if the issue is well described and if the work is based on explaining the characteristics of something like people that is suitable for descriptive design.

The research used a concise structure as it helped not only to report findings but also to quantify, evaluate, compare and interpret the data. Nonetheless, the research believes that descriptive structure is acceptable and relevant for the study since the
problem was clearly defined in advance and the theme is to assess the efficacy of the marketing strategy and its performance roles in financial institutions (Kombo, 2003)

3.5. Types of Measurement.
By some law of correspondence, the mapping component of the domain on the other side of the range is known as calculation (Kothari, 2003). Marginal, ordinal, interval and ration scale are the most commonly used definition of the measurement scale.

Comparatively low scale is a system where numbers are assigned to the event to be classified (e.g. Male 1 and Male 2) where the ordinal scale shows the event in order but does not make the interval of scale equal under certain rules. The metric is more effective than the ordinal in accordance with the mean.

This research used nominal scale in which the number was assigned. In the other words, the number does not indicate the magnitude of any kind but identify or distinguish what they present. The study was able to describe different between variables such as male and female as well as various user departments (Mselenga, 2010)

3.6. Data Collection Techniques
3.6.1. Questionnaires
Data was collected from the intended respondents through structured questionnaires which was done either face to face or through the phone. The questionnaires were a purposive discussion which is between the two or more people (Khan, 1957). The use of questionnaire helped to bring the valid and reliable data that are significant to the research questions and objectives (Sunders, 2009).

3.6.2 Documentary Review
The study explored crucial information or data from the secondary data source such as circulated media, organization report and NBC bank report so as to obtain the information which relates to the study.
3.7 Types of Data
Both primary and secondary data were used. The researcher decided to use both, due to the fact that he can cover a wide range of data collection.

3.7.1. Primary Data
Kothari (2004) identified that primary data are those which are collected from a fresh source and for the first time. The method which was used to collect the data was through questionnaire, interview and observation.

3.7.2. Secondary Data.
Kothari (2004), secondary data is the statistics or information already gathered and recorded by others and handed over through the statistical technique. The author wants the specific documents and reports related to marketing strategies and bank results to be checked.

3.8. Sampling Techniques.
Trochim (2005) and Levira (2007) argued that sampling is a process of selecting the unit from the population of interest in regard to the objective of the study. Time and financial constraint made the researcher not to accumulate information from the whole population as a substitute sampling techniques became used to get representative pattern. For this, research used a simple random sampling method if you want to come up with an amazing sample. The study used convenience sampling because the entire respondents to be interviewed are known.

3.8.1. Population and Sampling Techniques
Population is the collection of elements which has some or other characteristic in common.

This study has used a sample frame from employee of NBC bank, especially in marketing department, administration, finance and heads of the departments together with other sections. Kombo et.al, (2003), argued that population is a group of objects or items where the sample are drawn for e purpose of examination. This refers to an entire group of people or elements that have at least traits in common.
3.8.2. Sample and Sample Size.
In this study, sample was selected from the population of NBC bank in view that it's far impracticable to deal with the whole populace. Due to the limits and the want for effectively evaluation of the troubles under research, a pattern of seventy five personnel had been decided on to represent the whole population of the NBC personnel.

Table 3.1: Sample Size

<table>
<thead>
<tr>
<th>S/N</th>
<th>Department/Units</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NBC Corporate Branch</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Finance Department</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Corporate Banking Department</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Heads of department</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>International Payment Division</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Fin crime Department</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>IT Department</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>Sample size</strong></td>
<td><strong>75</strong></td>
</tr>
</tbody>
</table>

Source: Field Data 2018

3.8.3. Sampling Procedures.
Kothari (2004) argued that sampling procedure involves the decision of the type of sample and techniques that are to be used in selecting the items for sample. Since it is difficult to collect data from each individual at NBC bank, the researcher got a sample of employee as representative of others in the entire population.

3.9. Reliability and Validity of Data.
The author collected the accuracy and validity of data when cross-checked to ensure that data collection methods are deemed to be accurate and legitimate through interview and documentary analysis.

3.9.1 Reliability
This is the extent to which results include the consistency of information over the time (Joppe, 2002). Another definition was obtained from Kothari (2004) who argued that reliability is the measurement instrument which is reliable to provide the
consistency results. The research standardized the condition which measurement takes place so that when external variations such as boredom and fatigue appear, it could be minimized. In order to ensure reliability, the study should employ different methods of data collection techniques so as to compare the same results.

3.9.2 Validity

Kothari (2004) claimed that validity is a situation showing the degree to which the instrument was able to measure as it was intended to do. To ensure accuracy, the researcher must ensure that the measuring instrument provides adequate coverage of the topic through an appropriate universe test. In addition, the validity-related parameters were also considered by predicting the outcome or prediction in some current condition. These have two key components: external and internal.

3.10. Management and Data Analysis.

3.10.1. Data Management

Questionnaire were distributed to the respondents so as to ascertain whether the questions asked were well answered. The analysis of these data was presented using the tables, graphs frequency that reflecting the research variables. Eventually the technique to be used was qualitative.

3.1.2. Data Analysis

Collected information/data was qualitatively analyzed. Mode of analysis which was used for qualitative data was descriptive analysis. This included the organization profile, composition, effectiveness, favorites and the issue that are associated to the study. SPSS software has been used to support data analysis where graphs and figures were established in relation to the finding.
CHAPTER FOUR
STUDY RESULTS AND FINDINGS

4.1 Introduction
This section presents empirical results on the research questions discussed in chapter one. Both primary and secondary sources reported these results. By using frequency tables and percentages, they are presented and analyzed. The aim was to determine the impact of E-banking on performance of the banks in Tanzania.

4.2 Key Characteristics of the Respondents
In the study, the following key characteristics of the respondent were considered including: gender, age, year of service in the bank system as well as education level of the respondent.

4.2.1 Gender of the Respondents
The study revealed that about 45 respondent which represented 60 percent of the interviewed respondents were males, while 30 respondents which represent 40 percent were females as shown table 4.1. This implies that in NBC large number of employee are males rather than females, also this is influenced by the nature of the work and the qualification required.

Table 4.1: Gender of the respondent

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45</td>
<td>60.0</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2018
4.2.2 Age of the Respondents

In the field area we have group the age of the respondent from 18-24 up to 36-40 as well as the respondents who has age above 40. According to the finding about 42.7 percent of the respondents were between age 31 to 35 representing a large number of the respondents in our study followed by 20 percent whose age was 24-30 years, 17.3 percent whose age is 36-40 of all respondent, 10.7 percent aged between 18 to 24 years lastly, 9.3 percent who aged was above 40 as indicated in Table 4.2 below.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>8</td>
<td>10.7</td>
</tr>
<tr>
<td>25-30</td>
<td>15</td>
<td>20.0</td>
</tr>
<tr>
<td>31-35</td>
<td>32</td>
<td>42.7</td>
</tr>
<tr>
<td>36-40</td>
<td>13</td>
<td>17.3</td>
</tr>
<tr>
<td>Above 40</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2018

This implies that, there was honest illustration of the population as the majority of the aging groups the majority of the respondents are matured, which implies they'll provides a good view of the entire population. Moreover, were depicted and also the knowledge provided mirrored the views of the complete population. More illustration in the figure 4.1 below.
4.2.3 Years of Working at NBC

According to the data collection from the field area and its analysis it has been obtained the following result; 33 respondent which represents with 44 percent have shown that they have less than 5 years in their position since been employed by NBC, followed by 21 respondent which represent 28 percent showing that they have worked with NBC within 11 to 20 years, 14 respondent which represent 18.7 percent shows they have 5 to 10 years at NBC, while 7 respondent representing 9.3 percent has showed that they have worked at NBC for over 20 years, as shown in table 4.3 below.
Table 4.3: Number of the Years Working at NBC bank

<table>
<thead>
<tr>
<th>Duration</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>33</td>
<td>44.0</td>
</tr>
<tr>
<td>5-10 years</td>
<td>14</td>
<td>18.7</td>
</tr>
<tr>
<td>11-20 years</td>
<td>21</td>
<td>28.0</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Data 2018

This implies that almost all respondents had taken a reasonable time to serve the banking sector and thus data provided are likely to be reliable. More illustration on figure 4.2

![Bar chart showing number of years at the bank for respondents](image)

Source: Field Data 2018
4.2.4 Level of Education of the Respondents

The majority of respondents who were interviewed had a degree level which accounted to 46 respondent representing 61.3 percent, while diploma level accounted to 13 respondent equivalent to 17.3 percent, the respondents with master degree level was 9 equals to 12.0 percent, 4 respondents have certificate level equivalent to 5.3 percent while 2 respondents which represent 2.7 percent were form six level, 1 respondent which represent 1.3 percent had a qualification of PhD level who work as a part time employee as shown in the table 4.4 below.

Table 4.4: Level of Education of the Respondents

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form six level</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td>Certificate level</td>
<td>4</td>
<td>5.3</td>
</tr>
<tr>
<td>Diploma level</td>
<td>13</td>
<td>17.3</td>
</tr>
<tr>
<td>Degree level</td>
<td>46</td>
<td>61.3</td>
</tr>
<tr>
<td>Masters level</td>
<td>9</td>
<td>12.0</td>
</tr>
<tr>
<td>PhD level</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Data 2018

The study explored that all respondents add value to NBC banking system making it more competitive in the bank industry in Tanzania especially in the E-banking system. It means that questionnaires can be read, understood, and correctly interpreted by the respondents. It was assumed that the information collected was accurate and was therefore analyzed to present results.

4.3 E-banking and Banking Performance

This part was considering the way E-banking affect the performance of the NBC in the bank industry.
4.3.1 Application of E-banking in the Bank Operation

According to data collected in the field area it the following results were observed: all 75 respondents which is equivalent with 100 percent affirmed that NBC has adopted the E-banking system, as show in the table 4.4 below. This implies that all services offered by NBC, use internet to serve the customers and the bank also has good E-banking infrastructures.

Table 4.5: E-banking on the Operation

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>NO</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2018

Respondents stated that use E-banking system like ATM card, mobile banking, internet banking, PeS service when performing transactions.

4.3.2 E-banking’s Influence towards Bank’s Profit

E-banking system help many customers to use bank, especially when they need to pay some bills like water bills, school fees and other simple transaction. This is due to the fact that, the use of E-banking system help the bank to increase the number of the customer after knowing the advantage was to reduce the time; serving the customers from moving from one area to another in search of bank services. The study has also came up with different thoughts of the respondents on the way E-banking influences profit making as follows:

Large number of respondents which is equivalent to 45% said that E-banking convinces the customer to bank with NBC because of its great wide coverage for customers to access their funds, 21 percent of the respondents said that E-banking increases the efficiency of the bank and this attracts customers to bank with the NBC making the bank increase the number of the customers who performs transactions.
Transactions made by the customers enable the bank to increase its earnings. 16 percent of the respondents said that the E-banking itself help the bank to get profit because of the transactions charges and enable the bank to create the profit. 10 percent of the respondents stated that the process of partnering with merchants (PoS) facilitates payments and collections, making the bank increase its earnings, while 8 percent of the respondents said that the E-banking has increased the performance of NBC, as shown in the figure 4.3 below.

This suggests that the customers are comfortable with all the services offered by NBC bank even if there are a number of the competitors in the banking industry.

**Figure 4.3: E-banking Increase the Profit**

![Figure 4.3: E-banking Increase the Profit](image)

Source: Field Data 2018
4.3.3 The Use of New Technology to Enhance Efficiency on Service Delivery

There is an advantage which the bank obtains by using a new technology in offering its services as it adds values on the efficiency on service delivery on banks and their employees, which leads to more return on investments. According to the data collected in the field, the following results were obtained: 32 respondents which represent 42.7 percent agreed that technology increases the employees’ performance, 18 respondents which represents 24 percent said that it can be neutral means it can help or not, there is also 15 respondents equivalent to 20 percent strongly agreed that it help to increase the employees’ performance. 7 respondents equivalent to 9.3 percent disagreed while 3 respondents which represent 4 percent strongly disagreed that new technology increases the employees’ efficiency on service delivery as shown in figure 4.2 below. This implies that the new technology has impact on employees’ daily activities.

Figure 4.4: Use of new technology and result of bank performance

Source: Field Data 2018
4.4 The Use of E-banking in Bank and Customers’ Satisfaction

4.4.1 Use of E Banking and Customers’ Satisfaction

Table 4.5 shows how the use of E-banking in NBC bank has improved the customers’ satisfaction and retention.
Table 4.6: Use of E-banking and the Customer Satisfaction

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Agree</td>
<td>20</td>
<td>26.7</td>
</tr>
<tr>
<td>Agree</td>
<td>36</td>
<td>48.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>11</td>
<td>14.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>Strong Disagree</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Data 2018

There is a relationship between e-banking and the productivity of the bank in banking service delivery. Various studies have studied the enhancement of service delivery quality and customer satisfaction. The study obtained the following results from the field area: 36 respondents, which is equal to 48%, agreed that the use of e-banking in the banking industry would mean, 11 respondents, equivalent to 14.7 percent, had positive answers, 7 respondents, equal to 9.3 percent, disagreed with the argument that customers' satisfaction was focused more on other factors than on the Internet because they sometimes encounter network problems. It indicated that the loyalty of customers depends more on other variables than just e-banking.
4.4.2 Status of the Customer in the Use of E-banking

Table 4.6 shows the current position of the customers after the introduction of the E-banking system at the NBC bank. The use of E-banking in the banking industry, have impacted the nature of the service offered to different customers on transaction basis. The E-banking has made revolution in services which are common to the customers. According to data collected in the field, the following results were obtained: 43 respondents which is equivalent to 57.3 percent opposed that the introduction of e-bank does not reduce the number of the customers visiting the bank when they need to do transactions, 32 respondents which is equivalent to 42.7 percent acknowledged that the introduction of E-banking has reduced large number of the customer to visit the bank when they need to do some transactions. This suggests that, the bank needs to do more advertisement on the services offered in
order to bring awareness to customers that they can access bank services through E-banking without visiting the bank.

**Table 4.7: Current Position of the Customer in Use E-banking**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>42.7</td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td>57.3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Feld Data 2018

### 4.4.3 Benefit of E-banking to Customers

Introduction of the Information Communication Technology has brought different changes in the business environment. Table 4.7 shows the benefit of E-banking to the customers in the banking industry.

**Table 4.8: The Benefit of E-banking to the Customer**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time saving</td>
<td>24</td>
<td>32.0</td>
</tr>
<tr>
<td>Easy access of funds</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Quick service</td>
<td>15</td>
<td>20.0</td>
</tr>
<tr>
<td>Cost serving</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Availability</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Wide bank coverage</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2018

The adaptation of E-banking in the banking industry in Tanzania, has a great impact on its customers. This was supported with data collected in the field area and its analysis. In the process of the data analysis it was observed that: 24 respondent which is equivalent to 32 percent concluded that the E-banking saves time to the customers on the transaction basis. 17 respondents which is equivalent to 22.7 percent responded that the E-banking make easy access of funds as the customer does not need to visit the bank when in need of transaction service. 15 respondents
which is equivalent to 20 percent have given out their opinion that E-banking simplified service delivery when the customer want to do transactions because there is more than one alternative of accessing funds, either by using ATM Card or Mobile Banking. 11 respondents which is equivalent to 14.7 percent replied that E-banking reduces the costs of saving because there is no need for the customers to move from home to bank as the mobile banking can be accessed to deposit cash. 7 respondents which is equivalent to 9.3 percent responded that the availability of E-banking has increased moral of customers to bank with NBC. 1 respondent which is equivalent to 1.3 percent came out with its opinion that the E-banking help to be have a wide bank coverage. With this regard, E-banking make huge revolution to the banking industry by helping the bank to introduce the application which is customer user friendly on transaction basis, to withdraw or to deposit the cash.

Figure 4.6: Illustration on E-banking Benefit to Customers

Source; Field Data 2018
4.5 E-banking and Customer Satisfaction

4.5.1 Reliable Service in Bank through E-banking Adoption

According to data collection and analysis, the following results were obtained: 19 respondents which is equivalent to 25.3 percent said that E-banking by using Mobile Banking has made the service reliable during transactions, 15 respondents which is equivalent to 20 percent stated that E-banking has balanced the inquiry or both sides bank and customer at the same time, 14 respondents which is equivalent to 18.7 percent concluded that the use of ATM makes the service reliable to the customers when they need to bank with NBC, 10 respondents which is equivalent to 13.3 percent also said that E-banking facilitates transfer of fund in a fastest manner. 7 respondents which is equivalent to 9.3 responded that E-banking has facilitated bill and tax payment hence becomes reliable to customers, and 3 respondents which is equivalent to 4 percent concluded that E-banking helps to do international transfers.

Table 4.9: Reliable Service in Bank through E-banking Adoption

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of ATM</td>
<td>14</td>
<td>18.7</td>
</tr>
<tr>
<td>E-banking (Mobile banking, Internet and Telephone banking)</td>
<td>19</td>
<td>25.3</td>
</tr>
<tr>
<td>Balance enquiry</td>
<td>15</td>
<td>20.0</td>
</tr>
<tr>
<td>Transfer of fund faster</td>
<td>10</td>
<td>13.3</td>
</tr>
<tr>
<td>Bill Payment</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>Tax payment</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>International Transfer</td>
<td>3</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Data 2018

It signifies that E-banking makes the service more reliable to customers when using NBC. See the illustration on the figure 4.5 below.
4.5.2 The Use of E-banking as a Time Saver

The table 4.9 below shows the use of E-banking as a time saver.

Table 4. 10: Use of E banking in bank influence time saving

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Agree</td>
<td>-</td>
<td>00</td>
</tr>
<tr>
<td>Agree</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Neutral</td>
<td>-</td>
<td>00</td>
</tr>
<tr>
<td>Disagree</td>
<td>-</td>
<td>00</td>
</tr>
<tr>
<td>Strong Disagree</td>
<td>-</td>
<td>00</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2018
According to the findings, 75 respondents which is equivalent to 100 percent agreed that E-banking is a time saver. This shows that the introduction of the E-banking has added advantage in the banking system because it saves time when the customer need to bank with NBC as indicated below:

**Figure 4. 8: The Use of E-banking as a Time Saver**

<table>
<thead>
<tr>
<th>Entities</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger prints</td>
<td>41</td>
<td>54.7</td>
</tr>
<tr>
<td>Entry/Exist card</td>
<td>21</td>
<td>28.0</td>
</tr>
<tr>
<td>Security camera</td>
<td>13</td>
<td>17.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: Field Data 2018*
In order to ensure safety in the bank, bank surroundings must be secured. NBC uses finger prints, Entry/Exist card and Security camera for security purposes. It was the interest of the study to know if the respondents are familiar with these security gears that are used by the bank. 41 respondents which is equivalent to 54.7 percent said there is finger prints, followed by the 21 respondents which is equivalent to 28 percent who mentioned entry/exist card, whereas 13 respondent which is equivalent to 17.3 percent said there is a security camera as shown in the table 4.10 below. This means that NBC has a security systems that ensures the bank’s protection.

Figure 4. 9: Security Entities for Bank’s Safety

Source: Field Data 2018
4.6 Performance of the Bank

Table 4.12: Electronic bank and Performance of the Bank

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit Increase</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Reduce cost</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Satisfaction customers</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Increase in liquidity</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Adequacy of capital</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Asset increased</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Data 2018

There is a link between the introduction of the E-banking and efficiency on service delivery in the banking sector. All 75 respondents which is equivalent to 100 percent, agreed that E-banking enhance bank’s performance and the bank profit has been increasing. The cost which customers incur in terms of money and time has been reduced after introduction of the E-banking system as shown in the table 4.11. For the customers’ satisfaction presentation indicates that all 75 respondents agreed that customers are satisfied with the bank services and this can be reflected in the bank return on investment profit they accrued over years.

All 75 respondents which is equivalent to 100 percent, agreed that E-banking system has increased the liquidity of the bank. This means that, after the introduction of E-banking system the customers has increased to bank with NBC and automatically bank liquidity has also increased. Moreover, all 75 respondents which is equivalent to 100 percent proposed that E-banking has contributed to the bank’s adequate capital by widening the customers’ base. All 75 respondents which represents 100 percent agreed that bank assets have also increased.
4.6.2 Performance of Bank of NBC bank

According to the findings show that all 75 respondents which equivalent to 100 percent stated that NBC has increase performance after the adoption of E-banking system as shown in the table 4.12 below;

Table 4. 13: Performance of bank of NBC Bank

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Good</td>
<td>45</td>
<td>60.0</td>
</tr>
<tr>
<td>Good</td>
<td>30</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2018

This implies that the bank is performing well before and after the adoption of E-banking system in terms of offering banking services
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction
This chapter includes the summary of the study based on data analysis, objectives of the study, conclusion of the research and the recommendations according to what have discovered in the study.

5.2 Summary of the Findings
NBC Bank's electronic banking platforms demonstrate that the bank has various e-banking systems, such as ATM, which is one of the e-banking services widely used by NBC Bank customers. Certain e-bank systems are; pay directly, which encourages you to approve different transactions (such as paychecks and social protection assessments and various benefits) to your account on a normal basis; mobile banking, which allows you to call your financial institution with instructions to pay certain bills or transfer funds between accounts by entering into an agreement with the institution to do so.

Debit Card Purchase or Payment Transaction allows the user to make a debit card purchase or payment, which may also be your ATM card. This may happen in a store or company, online, or by telephone. The process is similar to using a credit card, with some major differences, as stated by Fox et al. in 2006. While the process is fast and easy, the purchase or payment of a debit card moves cash from your bank account to the account of the organization fairly quickly.

So, to cover your order, it is important that you have funds in your account. Finally, electronic check payments turn a paper check into a virtual price; inside the envelope, an agency or man or woman is checked. The check is conducted through a digital device that records your banking information and the quantity of the test as
you submit the sample to a cashier. You are asked to sign a receipt and you will receive a copy on your records.

Generally, it can be concluded that banks of Tanzania have varieties of E-banking services for their clients in order to deliver the service in efficient and effective manner. These variety of electronic banking, Promoting service delivery efficiency and effectiveness, as customers can easily remove and deposit money, approve payment and check the balance of their account.

5.1.1 E-banking and Efficiency on Service Delivery
According to data collected from 75 respondents which is equivalent to 100 percent, the study concluded that NBC’s E-banking system efficiency on service delivery is equivalent to 100% as show in the table 4.4. The E-banking system used by NBC are ATM card, Mobile Banking, Internet Banking, PoS service as shown in the figure 4.1. with regard to the bank’s profit making from E-banking, the study has explored the following results: 32 respondents which represent 42.7 percent have agreed that technology increases employees’ performance, 18 respondents which is equivalent to 24 percent said that it can be neutral means it can help or not help, 15 respondents which represent 20 percent strongly agreed that it help to increase employees’ performance, 7 respondents which is equivalent to 9.3 percent disagree while 3 respondent which represent 4 percent strongly disagreed that the new technology increases employees’ performance as shown in the figure 4.2.

5.1.2 The Use of E-banking in Bank and Customer Satisfaction
In the field area we have collect and analysed data where respondents have given out their opinion as follow; the study firstly looked at the uses of E-banking in NBC and how it improve the customer’s satisfaction. The followings are the outcomes: 36 respondents which is equivalent to 48 percent agreed that the use of E-banking in the banking sector improves customer satisfaction and retention, 20 respondents which is equivalent to 26.7 percent strongly agreed that the use of E-banking in NBC help to increase customer satisfaction, 11 respondents equivalent to 14.7 percent were neutral, 7 respondents which is equivalent to 9.3 percent disagreed, while there was
1 respondent who is equivalent to 1.3 percent who strongly disagreed that the E-banking system improves customer’s satisfaction.

Secondly, it was the interest of the study to know how the presence of E-banking affects the system of serving the customer physically. The results were as follows: 43 respondents which is equivalent to 57.3 percent said No, while 32 respondents which is equivalent to 42.7 percent said Yes. This means that E-banking has reduced physical movement of the customers to the bank when they need to do transactions, as shown in the table 4.6.

Thirdly, the study had an interest of knowing the benefit of E-banking. The following was obtained: 24 respondent which is equivalent to 32 percent said that the E-banking saves time to the customers when they need to do some transactions, also 17 respondents which is equivalent to 22.7 percent responded that the E-banking makes it easy for them to access funds, 15 respondents which is equivalent to 20 percent stated that E-banking enables to have the fastest banking services, 11 respondents which is equivalent to 14.7 percent said that E-banking reduces cost of serving, 7 respondents which is equivalent to 9.3 percent responded that the establishment of the E-banking has increased customers ethics to bank with NBC, while 1 respondent which is equivalent to 1.3 percent came out with the response that the E-banking helps to increase banking coverage.

5.1.3 E-banking and Customer’s Satisfaction

In this case we have obtain the following opinion; first we have look on the service reliable and result are as follows; 19 respondents which is equivalent to 25.3 percent responded that the use of E-banking in Mobile Banking has largely made the service reliable on transaction services, 15 respondents which is equivalent to 20 percent stated that the E-banking has balanced the inquiry from the customer to the bank and vice versa, 14 respondents which is equivalent to 18.7 said the use of ATM has made the service to be reliable to the customers, 10 respondents which is equivalent to 13.3 percent said that transfer of fund faster it’s the one of the reason which shows that there is reliability of services after the bank adopted E-banking system, 7
respondent s which is equivalent to 9.3 stated that the E-banking is reliable during
the payment of bills or tax whereas, 3 respondents which is equivalent to 4 percent
concluded that E-banking helps to make an international money transfer.
With regard to E-banking time saving, 75 respondent which is equivalent to 100
percent agreed that E-banking is a time saver.

The study explored wanted to enquire about the safety of E-banking system at NBC.
41 respondent who is equivalent to 54.7 percent explained that there is a finger
prints which controls the system’s security, 21 respondents which is equivalent to 28
percent has mentioned the entry/exit card finally we have 13 respondent which is
equivalent to 17.3 percent said there is a security camera as shown in the table 4.10
below.

5.1.4 Efficiency on Service Delivery of the Bank
In the case of efficiency on service delivery at NBC bank with relation to E-banking
system, the results were as follows; all respondents (100%) agreed that the bank
profit has been increasing, has increased the liquidity of the bank, adequacy of the
capital and asset of the bank has also increased. 75 respondents which equivalent to
100 percent stated that NBC has increased efficiency on service delivery after the
adoption of E-banking system, as shown in the table 4.12.

5.2 Conclusion
Digital banking has turn out to be an essential existence weapon and is basically
converting the banking quarter worldwide. Today, the press of a mouse offers bank
customers services at a decrease price and also provide the customers with
unparalleled freedom in selecting carriers for his or her economic service wishes. No
use nowadays has a desire - whether to put in force E-banking or now not, given the
worldwide and aggressive nature of the economy. Banks need to improve and
continuously assume of recent revolutionary, custom designed programs and
offerings to remain aggressive. The advent of records generation has made banking
offerings more appealing.
The objective of the study was to investigate an increase of efficiency on bank’s service delivery after adoption of the E-banking system. It was the interest of the study to find out if there is customer satisfaction on the adoption of the E-banking system as a factor that impact the bank’s performance and to examine if the adaptation of E-banking system has increased the market share of the bank industry with relation to bank’s efficiency on service delivery. The research has discovered that there is a link between the adoption of E-banking and efficiency on service delivery on the banking sector. Moreover, the study has discovered that, service has improved because large number of commercial banks now use internet banking to offer services to their customers.

The study has also discovered that, the adaption of E-banking system has brought the use of Electronic Banking System like ATM, Pay direct, mobile phone banking, debit/visa card payment and electronic check payment, which have a great impact on the efficiency on service delivery by increasing profitability, improving bank management quality, increasing bank assets and promoting bank growth and expansion.

The take a look at revealed that, most dominant net banking services have been: in search of product fee records and using on line credit score cards. Considering the fact that its introduction in mid-2005, the adoption of internet banking has been slow because of impaired unavailability of infrastructure and lack of supportive legislation for net banking. However, the adoption of net banking has superior efficiency on carrier shipping on the banking industry due to increased performance, effectiveness and productiveness.

5.3 Recommendation
The followings are the recommendations of the researcher which can help the commercial banks to operate competitively;
• ATM should be located in different places to be easily accessible by customers, to enable quick service and maintaining conveniences, hence, improving bank operations. At the same time, constant services should be ensured in order to provide reliability of the services.

• Banks need to subscribe to dependable net vendors for powerful and efficient carrier delivery.

• Financial institution ought to hire experienced, skilled employees on community management with a purpose to make certain the reliability of network. There should additionally be workshops for imparting instructions to clients for powerful and efficient use of the services.

• To order to solve the problems of energy interruptions and fluctuations, regular power lower back up should be ensured. Reflect on the quality and blessings of electronic banking services and products, how they work. Banks must plan public displays and talk shows and make all customers' merchandise available. Similarly, to explain the blessings of electronic banking services and products, they must improve their provider transportation. This way, the interest of consumers would be motivated.

• Banks must try to win clients' self-belief by way of providing ok security of transaction, again up of essential facts files and alternative way of processing records. They must also make sure right connectivity and power base with a view to enable them to serve clients quicker and in a convenient way. Banks must make sure that services do not give up as a result of network problem.

• The authorities should offer ok regulatory framework in an effort to ensure patron safety, and comfortable transactions. That manner, financial institution customers’ self-assurance in digital banking would be secured.
• The study recommends that, NBC should lower the transaction fees incurred through clients, introduce cell banking reimbursement and disbursement service, and enhance the exceptional of mobile banking offerings as a way to encourage them to use the cell banking offerings.

5.4 Suggestions for Further Research

The study revealed that there is a small significance between internet banking and efficiency on service delivery as it has been seen at NBC bank. This is attributed by the short period internet banking that has been in place. A research consisting of a longer period of time as well as large sample size should be done.

This study also concentrated on bank’s efficiency on service delivery, therefore, further research on non-financial benefits or other forms of performance measures such as effectiveness should be undertaken. Also research should be undertaken focusing on the factors impeding the benefits of internet banking on Tanzanian commercial banks than it is in other developed markets. Of key interest would be, factors affecting usage/unit of sale on the internet/e-channel and using break-even analysis to determine profitability. This includes costs of implementation; technology based banking frauds and user awareness of these products.
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APPENDICES

APPENDIX I: QUESTIONNAIRE

Questionnaire

Dear Sir/Madam

I am Rosemary Petro, a student of Mzumbe University Dar es salaam Campus College, Pursuing Master of Business Administration in Corporate Management. As a partial fulfillment of the requirement for the award of the degree, a student is required to do research and thereafter submit a dissertation. This questionnaire serves the purpose of data collection. The study is about “IMPACT OF E-BANKING IN BANK PERFORMANCE”

This questionnaire aims to acquire data and the responses obtained will only serve the stated purpose and confidentiality is guaranteed. Answering the questionnaire is not time consuming and due to limited time to conduct the research a timely response will be appreciated.

Respondent profile (Circle the appropriate answer)

1) Gender of respondents
   a) Male
   b) Female

2) Age group of respondents
   a) 18-24
   b) 25-30
   c) 31-35
   d) 36-40
   e) Above 40
3) Number of years in bank
   a) Less than 5 years
   b) 5 – 10 years
   c) 11-20 years
   d) Over 20 years
4) Level of education
   a) Primary education
   b) Secondary education
   c) Diploma
   d) Degree
   e) Masters
   f) PhD

**E-banking and bank performance**

1) Is your bank has E-banking in their operations? *(Circle the appropriate answer)*
   a) Yes
   b) No

If your answer is YES above mention any among the E-banking used by your bank/office e.g. ATM, Smart card etc.
   a.  
   b.  
   c.  
   d.  
   e.  

2) How does the use of E-banking in banking influence increase to bank profit
   a)  
   b)  
   c)  
   d)  
   e)  

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3) The use of new technology has increased the performance of banks employees which in turn leads to more return on investments. **(Circle the appropriate answer)**
   a) Strong Agree
   b) Agree
   c) Neutral
   d) Disagree
   e) Strong Disagree

**The use of E-banking in bank and customer satisfaction**

1) Does the use of E-banking in your bank improve the customer satisfaction and retention? **(Circle the answer which is appropriate)**
   a) Strong Agree
   b) Agree
   c) Neutral
   d) Disagree
   e) Strong Disagree

2) Many customers now are using E-banking as one which facilitate the service and reduce the number of customer to be saved face to face by bank officer. **(Circle the answer which is appropriate)**
   a) Yes
   b) No

3) What are the benefits of E-banking to customer?
   a)  
   b)  
   c)  
   d)  

**E-banking and customer satisfaction**

1) The following service is reliable in bank through E-banking adoption when customer needs it. (Tick the appropriate answer)
   1=strongly agree 2= Agree 3= Neutral 4= Disagree 5= strongly disagree
<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>1 Use of ATM</td>
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<td>2 E-banking (Mobile banking, Internet, and Telephone banking.</td>
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<td>3 Balance enquiry</td>
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<td>4 Transfer of fund faster</td>
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<td>5 Bill payment</td>
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<td>6 Tax payment</td>
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<td>7 International Transfer</td>
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</table>

2) Does the use of E-banking in bank influence time saving? **(Circle the appropriate answer)**
   a) Strong Agree
   b) Agree Neutral
   c) Disagree
   d) Strong Disagree

3) Mention at least 3 among the E-banking services used by your bank/office
   e.g. computer etc. as the control measure for any kind of risk
   a) ---------------------------------------------------------------
   b) ---------------------------------------------------------------
   c) ---------------------------------------------------------------
   d) ---------------------------------------------------------------

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**Performance of bank**

1) Do you think the electronic bank has promoted performance of bank in the following ways?

(1 strong disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree)

<table>
<thead>
<tr>
<th>Performance measure</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>Profit increased</td>
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<td>Reduced cost</td>
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<td>Satisfaction of customers</td>
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<td>Increase in liquidity</td>
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<td>Adequacy of capital</td>
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<td>Asset increased</td>
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