

**ASSESSING THE IMPACTS OF INFORMATION
TECHNOLOGY ON THE PERFORMANCE AND GROWTH OF
THE BANKING INDUSTRY IN TANZANIA**

**ASSESSING THE IMPACTS OF INFORMATION
TECHNOLOGY ON THE PERFORMANCE AND GROWTH OF
THE BANKING INDUSTRY IN TANZANIA**

**By
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**A Dissertation Submitted to Mzumbe University Dar es Salaam Campus in
Partial Fulfilment of the Requirement for the Award of Degree of Master
Business Administration in Corporate Management (MBA-CM) of Mzumbe
University**

2014

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled **Assessing the Impacts of Information Technology on the Performance and Growth of the Banking Industry in Tanzania**, in partial/fulfilment of the requirements for award of Master of Business Administration (MBA) Corporate Management of Mzumbe University.

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AND

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I, **Leyla Kassim Dahal**, declare that this research study is my own original work and I affirm that this study has not been submitted before in any other University and I have obtained all the necessary authorisation and consent to carry out this research study.

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DEDICATION

This research study is lovingly dedicated to my daughter, Taneesha who have always been my constant source of inspiration. She has given me the drive and discipline to tackle any tasks with enthusiasm and determination, without her love and support this research study would not have been made possible.

LIST OF ABBREVIATIONS

ICT	-	Information Communication Technology
IT	-	Information Technology
SCBTZ	-	Standard Chartered Bank Tanzania
MIS	-	Management Information System
S2B	-	Straight to Bank
ATM	-	Automated Teller Machine
ACH	-	Automated Clearing House
EFT	-	Electronic Funds Transfer
TT	-	Telegraphic Transfer
RTGS	-	Real Time Gross Settlement
BT	-	Book Transfer
LBC	-	Local Bankers Cheques
CC	-	Corporate cheques
MICR	-	Magnetic Ink Character Reader
ROI	-	Return on Investment
TBA	-	Total Branch Automation
PIN	-	Personal Identification Number
DBMS	-	Database Management System
NEFT	-	National Electronic Fund Transfer

ABSTRACT

The objective of this study is to assess the impacts of Information Technology on the performance and growth of the banking industry in Tanzania: The case of Standard Chartered Bank Tanzania. However, the study also sought to examine the contribution of Information technology on the performance and growth of the banking industry, to identify the Information technologies used on the banking industry and analysing the impacts of Information Communication Technology on the performance of the banking industry during pre-information technology and post information technology.

Based on the objective and research questions, the research instruments such as questionnaires, interviews, observations and documentary reviews were used so as to get information that addresses the issue under study. The research instruments contained specific questions that answered research questions directly and other general questions that had no direct reflection to the objective of the study, but added value to the research.

Data were analysed according to research questions which guided the study with support of tables and graphs. This helps to intensely show and summarize findings. Findings of the study show Information Technology as key to performance of the banks and this is likely to boost growth of the banks.

This study recommends and suggested that investment in information and communication technology should be key component in overall strategies. This will allow IT providers to market their innovations well hence better services for the banks. Financial institutions should sensitize IT developments by offering programs and workshops that will give knowledge to both staffs and customers.

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CHAPTER ONE

BACKGROUND INFORMATION

1.1 Introduction

Banking has come a long way from the time of ledger cards and other manual filling systems. Most banks today have Electronic systems to handle their daily voluminous tasks of information retrieval, storage and processing. Irrespective of whether they are automated or not, banks by their nature need the continuous management on a daily basis.

Information Technology in banking industry after the liberalization period (1991), positively affected computer and communication network in banking development of Management Information Systems (MIS) and reporting systems at bank level. Scientific job chart substantially affect managerial capabilities of banks in future. This exercise would enable the banking sector to have readymade data for taking quick managerial decisions through the process of data analysis (Shroff, 2007).

Although, the effectiveness of the Information and Communication Technology (ICT) deployment in banks is another matter, the fact remains that ICT usage is now a reality. This is to be expected in view of the huge amount of information being handled by banks on a daily basis. On the customer's side, cash is withdrawn or deposited, cheques are deposited or cleared, statement of accounts are produced, etc. At the same time, banks need up to date information on accounts, credit facilities, interest, deposits, charges, income, profitability indices and other financial control of Information.

IT refers to software and hardware that capture, process, transmit or present and store information. Since 1960's some organizations especially larger and those with many and complex processes like the ministry of finance and army have been computerized their operations very slowly until the current time when almost all organizations, small and larger become very aggressive and crazy with IT.

Many organizations are turning to IT for many tactical, operational and strategic benefits. Some tangible benefits of investing in IT include cost cut, market creation and expansion, improving the speed of decision making and rendering of services and improving the quality of services and corporate image, these are the main strategic issues in larger corporations. It has proved to be very effective in solving most business problems especially those which are routine and repetitive in nature and in some cases, a very effective tool in assisting quality decision within the organization. (Fawcet P and G Flower, 2000).

The name bank derived from the Italian work banco ‘bench/desk’, which used during the Renaissance by Florentine bankers who used to make their transactions above a desk covered by a green tablecloth. The word traces its origins back to the Ancient Roman Empire, where moneylenders would set up their stalls in the middle of enclosed courtyards called macella on a long bench called bancu from which the words banco and bank are derived. Stephan (2006) explained how all this moneychanger as the merchant at the bancu did not invest so much money as merely converting the foreign currency into the only legal tender in Rome.

Banks are the backbone of the economy of the country. Implementation of ICT has brought revolution in the functioning of the banks. ICT has been used effectively in nearly every industry to improve performance and productivity. Many innovations have taken place over years in the world. And the most remarkable and most recognized is the aspect of information technology. Banks today are confronted with rapidly changing market condition, demand which indicate high merger rate and strong competition.

Reynolds (2009) explained the role of technology in the information age as a well recognized by banks, business, industries, governments and as such has completely woven in to their organizational structure and strategic planning process. The integration of banks structure, business processes and strategies by the use of specialized IT is considered a fundamental part of performance management concept. It has to be ensured that, strategic changes activate modification on the business

process level and the supporting IT and that innovation on the information system initiates the adjustment of the company strategy.

In recent years, banking industry in Tanzania has faced the competition which has been escalated by modern technology which has revolutionized the way banks deliver their services and products to their customers. The matter is how effective is the ICT deployed by banks. ICT investment by bank include ICT infrastructure such as Hardware, Software and networking (Local, Wide Area and Internet). For the IT to be effective these areas must be well managed. IT has brought new product and services, alternative delivery channels, flexibility in usage of products and services and has lengthened banking business timings from 8 hours to 24/7 services.

Developments in the field of IT strongly support the growth and inclusiveness of the banking sector by facilitating inclusive economic growth. IT improves the front end operations with back end operations and helps in bringing down the transaction costs for the customers. (Jain and Popli, 2011).

The important events in the field of IT in the banking sector are:

- (i) Arrival of card-based payments- Debit/Credit card in late 1980s and 90s
- (ii) Introduction of Electronic Clearing Services (ECS) in late 1990s
- (iii) Introduction of Electronic Fund Transfer (EFT) in early 2000s
- (iv) Introduction of Real Time Gross Transfer (RTGS) in 2004
- (v) Introduction of National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund Transfer/Special Electronic Fund Transfer in 2005/2006

In today's fast moving global work environment, success depends on the ability to communicate and collaborate with others including co-workers, colleagues, clients and customers. Network IT includes information systems that improve communications and support collaborations among members example, web conferencing and electronic directories (Reynolds, 2009).

Liberalization and de-regulation process started in 1991-92 has made a sea change in the banking system. From a totally regulated environment, banking have gradually moved into a market driven competitive system. However, the impact of IT in performance and growth of banking industry has not been studied properly in Tanzania; this is due to the fact that most of the banks are focusing in delivering the services and products and not analyzing the importance of IT implementation and its effects.

1.2 The Statement of the Problem

All around the world there is rapid tremendous growth and changes of the Technology that has brought many changes in business processes. Some of these changes are the increases in the efficiency and effectiveness of the day to day operations in banking industry. It has been observed that there are number of banks in Tanzania and other parts of the world which have not yet employed the use of IT and by not doing this it has brought them into tremendous problems. Among of these problems are poor performance, time consuming processes and longest queues in banking halls and a job duplication to employees.

Rowe (2005) argued that financial service providers should modify their traditional operating practices to remain viable in the 1990s and the decades that follow. He claim that most significant shortcoming in the banking industry today is a wide spread failure on the part of senior management in banks to grasp the importance of Technology and incorporate it into their strategic plans.

Those banks that overhaul the whole of their payment and delivery systems and apply Information and Communication Technology to their operations are likely to survive and prosper in the new millennium (Woherem 2000). He advices banks to re-examine their services and delivery systems in order to properly position them within the framework of the state of the dynamism of Information and Communication Technology.

The question for survival, maintenance of existing market share, global relevance and sustainable development has made exploitation of the many advantages of ICT through the use of automated devices imperative in the banking industry. This study assesses the response of Tanzania banks to this new trend and examines the extent to which they have adopted innovative Technologies in their operations and the resultant effects. Therefore there is a need for the banks in Tanzania and all over the world to employ the use of IT in their day to day task and operations so that they can increase the efficiency and effectiveness to their performance.

1.3 The Research Objectives

1.3.1 General Research Objective

To investigate the impacts of Information Technology on the performance and growth of the banking industry in Tanzania.

1.3.2 Specific Research Objectives

The specific objectives are stated as follows:

- (i) To examine the contribution of Information technology on the performance and growth of the banking industry.
- (ii) To identify the Information Technologies used on the banking industry.
- (iii) To analyze the impacts of ICT on the performance of the banking industry during pre-information technology and post information technology

1.4 The Research Questions

1.4.1 General Research Question

What is the impact of Information Technology on the performance and growth of the banking industry in Tanzania?

1.4.2 Specific Research Questions

The specific research questions are as follows:

- (i) What are the contributions of Information Technology on performance and the growth of the banking industry?

- (ii) What are the types of the Information Technologies used in banking industries?
- (iii) Do the impacts of IT on the performance of the banking industry on pre-information technology and post information technology relate?

1.5 Significance of the Study

The findings of this study will be of the most potential significance to the individual level, banking society and the public in general.

Those potential applications of the findings can be outlined as follows:

- (i) Firstly for the researcher, it is an integral part of the academic fulfilment for the Master's degree in Business Administration – Corporate Management. It will provides an excellent unique opportunity to learn and analyses the issues patterning to the impacts of the IT on the performance and growth of the banking industry and being able to provide suggestions on how to improves the performance of the local banks in the future if at all they are not employing the effective use of the IT.
- (ii) Secondly to the banking organizations, findings of the study will assist the banks in Tanzania to know their positions interms of IT in the worldwide view and recommendations given will help them to improve the present status so as to increase the effectiveness and efficiency of the IT in their working zone.
- (iii) To the public, this study will act as a stimulus to other researchers to undergo further studies related to this present study on the impact of Information Technology to the banking Industry. It will also increase the awareness to public about the IT and lastly it will provide better understanding on how the IT works in Banking Environment for the efficiency and effective performance of the banking industry.

1.6 Scope of the Study

The research is conducted at Standard Chartered Bank Tanzania (SCBTZ) International house building in Dar es Salaam.

It will be conducted in this area because it is the headquarters of the SCB bank in Tanzania which have all the operational departments for the operations of their daily products and services.

1.7 Limitation of the Study

A major limitation of this study is the availability of data since some documents in a bank are confidential. Also due to time constraint many respondents may claim to be busy with organisation activities which result to low in response rate. Similarly because of the time and financial limitations the study is limited to headquarters of SCBTZ in Dar es Salaam.

1.8 Delimitation of the Study

In the course of undertaking this study concentrating in SCBTZ headquarters alone is a purposeful activity as it is easy to access respondents in the offices and get the information direct. This will be a stepping stone towards a successful research approach by overcoming restrictions of the study such as time and funds.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of what other researchers and writers have written under this topic of the study. It provides the reviews of previous studies related to the topic under study giving a summary of a specific area of research that allow anybody reading the paper to institute why researcher is pursuing a particular research. In this study there are several parts in this chapter such as the main key terms and concept used, theoretical reviews, empirical studies and conceptual framework used in this study.

2.2 Theoretical Review

2.2.1 Information and Communication Technology (ICT)

IT defined as the term that encompasses all forms of technology used to create, store, exchange and use information in its various forms such as business data, voice conservation, still images, motion pictures, multimedia presentations and other forms, including those not yet conceived (Plantech, 2006).

IT is the automation of processes, controls and information production using computers, telecommunications, software and ancillary equipment such as automated teller machine and debit cards. Khalifa (2000) defined IT as a term that generally covers the harnessing of electronic technology for the information needs of a business at all levels.

IT in banking is fast evolving, from enabling banking services to driving transformation in the industry, IT holds a promise to change the face of banking in the next few years. New entrants are looking to leverage their existing strengths in the Indian banking arena. The opportunity available to these entrants through leveraging their understanding of technologies and markets they operate in, promises

innovative business models with a focus on delivering customer value. The pace of change aided by regulatory directions, will push banks to direct their strategies to a customer centric focus over the next four years. (Jain and Popli, 2011)

Baskerville, DeGross and Stage (2000) defined IT or MIS of an organisation consists of the information technology infrastructure, application systems and personnel that employ information technology to deliver information and communications services for transaction processing/operations and administration/ management of an organisation. The system utilizes computer and communications hardware and software, manual procedures and internal and external repositories of data. The systems apply a combination of automation, human actions and user-machine interaction.

Information technologies are devices or systems that capture, process, exchange or store information. Thus, Information technologies are systems of hardware and/or software that capture, process, exchange, store, and/or present information using electrical, magnetic, and/or electromagnetic energy. (Aksoy and DeNardis, 2008)

Reynolds G.W. (2009) defined set of IT hardware, software and networks as IT infrastructure. An organisation's IT infrastructure must be integrated with employees and procedures to build operate and support information systems. These systems enable a firm to meet fundamental objectives, such as increasing revenue, reducing costs, improving decision making, enhancing customer relationships and speeding up their products time to market.

2.3 The Importance of ICT

Shroff (2007) argued that banks are passing through a phase where in drastic changes in all spheres of life are taking place. What one experiences that even in performing certain simple task (like booking a rail ticket or withdrawing cash from a bank), computer or IT is increasingly used. Therefore the present age is rightly called as "Cyber Age". The revolution in IT has been so fast and effective that it encompasses almost all sorts of human activities. So far, we have experienced such technology in

banking through partial computerisation, Total Branch Automation (TBA), Automated Teller Machines (ATMs) and more recently Core Banking Solutions.

Irechukwu (2000) lists some banking services that have been revolutionized through the use of ICT as including account opening, customer account mandate and transaction processing and recording.

Jain and Popli (2012) debated that in today banking innovations there is electronic payment system along with currency notes. India's financial sector is moving towards a scenario, where it can have new instruments along with liquidity and safety. Migration from cash and cheque based payment system.

The two most common technologies used for electronic payments are as follows:

- (i) National Electronic Fund Transfer (NEFT) – It is a nationwide payment system facilitating one to one funds transfer. Under this scheme, individual, firms and corporate can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the scheme.
- (ii) Real Time Gross Settlement (RTGS) – It is a funds transfer mechanism where transfer of money takes place from one bank to another on a real time and on gross basis. This is the fastest possible money transfer system through the banking channel.

Davenport (2013) argued that the final rationale for process innovation is that it suits our business culture. Even if Western firms could solve their financial problems and satisfy their customers through incremental improvement, why should they suppress their appetite for innovation? Perhaps what American companies need is a process approach that marries radical innovation and the discipline of continuous improvement. Though, a Western version of quality might focus on results as well as process. U.S. firms need a process management approach that embraces both human enablers of process change and the tool that has changed business most over the past three decades IT. This means firms can only hope that the combination of

process thinking/operations and effective use of technological and human innovation enablers will allow them to catch up with and surpass their global competitors.

Chitiga and Piciu (2011) indicated that technological innovations have enabled the industry to open up efficient delivery channels. It has helped the banking industry to deal with challenges the new economy poses. Technology is also changing the supervisory and regulatory landscape. It is creating new tools for supervisors and new supervisory challenges. Technology driven issues such as privacy and the nature of electronic communications have reached the forefront of the policy agenda. And the line between electronic banking and electronic commerce is becoming more difficult to define clearly. More than most other industries, financial institutions rely on gathering, processing, analyzing and providing information in order to meet the needs of customers. Given the importance of information in banking, it is not surprising that banks were among the earliest adopters of automated information processing technology. (Chitiga and Piciu, 2011)

ICT has provided self-service facilities (automated customer service machines) from where prospective customers can complete their account opening documents direct online. It assists customers to validate their account numbers and receive instruction on when and how to receive their chequebooks, credit and debit cards. Communication Technology deals with the Physical devices and software that link various computer hardware components and transfer data from one physical location to another (Laudon and Laudon, 2001).

2.3.1 Contributions of IT in Banking Industry

(i) Increase in Customer Services

The use of IT has increased the customer service. SMS-Banking allows you to access information and perform certain transactions on your account by using your mobile phone to send SMS to your banking systems. It is Convenient, Safe, faster and affordable. Automatic Teller Machine provides a financial institution's customers a secure method of performing financial transactions in a public space without the

need for human clerk or teller. E-banking allows customer to perform banking transactions electronically.

(ii) Minimizing Administrative Cost

E-banking automate your activates and interact electronically with your bank with comprehensive tools that help reduce administrative coasts, because customer interact with computer system and also the Automatic teller machine reduce the administrative cost because it allow the customer to perform transaction without the need for a human clerk or bank teller.

(iii) Quick Movement of Transactions

A system can perform quicker than people doing work manually for example processing 1000 transaction by the system may take few minutes while If done manually take some hours to be completed. SMS banking is a Quick means of receiving your account information and moreover customers can access their accounts transaction information through SMS.

(iv) Security and Data Management

In a business environment, a network allows the administrators too much better to manage the company's critical data. Instead of having this data spread over dozens or even hundreds of small computer in a haphazard fashion as their users create it; data can be centralized on shared servers. This makes it easy for everyone to find the data, makes it possible for the administrators to ensure that data is regularly backed up.

(v) Performance Enhancement and Balancing

Under some circumstances, a network can be used to enhance the overall performance of some applications by distributing the computation tasks to various computers on the network.

(vi) Data Sharing

One of the most important uses of networking is to allow the sharing of the data; True networking allows thousands of employees to share data much more easily and quickly. Moreover it makes possible applications that rely on the ability of many people to access and share the same data such as database, group software development and much more.

(vii) Promotion of Business

Information technologies help the organizations to promote the products and services; the use of website in business promoting your business to millions of customers around the world. This task is impossible to be achieved by any other means without application of IT. Since a business success depends solely upon the marketing therefore website designing is of crucial significance in the success of any business.

(viii) Reduction of the Expenses

This is the main advantage of IT where by the company use website as a tool of marketing and whenever the company uses website. It greatly reduces the cost of hiring an offline organization for marketing. IT also promotes your business without customary charges via a website designed whereby the services such as electricity bills and inhouse expenses associated to offline marketing are not charged directly to customers. When you decide to use website designing all work is being done for you. You don't have to go to any specific location to promote your business as the design website is accessible to the entire world through the use of internet.

(ix) Communication to Customers

IT can be used as a communication tool to customers, examples customer can get information from the website, information about a new product or services which offered by the business.

2.3.2 Information Technologies that Applied in the Banking Industry

The technologies driven delivery channels are being used to reach out to maximum number of customers at lower cost and in most efficient manner.

The following are some of the common Information technologies available at the banking industries:-

- (i) Straight to bank (S2B)/E-banking
- (ii) Mobile Banking/SMS banking
- (iii) Automatic Teller Machine (ATM)
- (iv) Computer Networks
- (v) Database
- (vi) Website

Straight to bank (S2B)/E-banking

According to Microsoft (2006), refers to automate banking activities and interact electronically with your bank with comprehensive tools that help reduce administrative in a costs, increase productivity and improve cash management in security enhanced environment. Straight to bank (S2B) is about using the infrastructure of the digital age to create opportunities to both local and global.

S2B enables the dramatic lowering of transaction costs, and the creation of new types of banking opportunities that address the barriers of time and distance. Banking opportunities are local, global and immediate in S2B. Electronic banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick and mortar institution (Bankers online, 2006). The internet banking is changing the banking industry and is having the major effects on banking relationships. Internet banking involves use of internet for delivery of banking products and services. The services offered by S2B are as follows:-

- (i) Automatic payments such as the automated clearing house (ACH), Electronic funds transfer (EFT), Telegraphic Transfer (TT), Real time gross settlement

(RTGS) ,Book Transfer (BT) /inter account transfers, Local bankers cheques (LBC) and Corporate Cheques (CC)

- (ii) Automatic delivering of payments through the LBC Originated by clients from their ends
- (iii) Review account histories, get account balances and see which Cheques have cleared
- (iv) Get loan payment amounts and due dates
- (v) Make loan payments through Marcis system
- (vi) Request advances on your line of credit
- (vii) Download account data into personal finance software

SMS Banking/Mobile Banking

SMS Banking is a service that enables Banks customer's access their accounts through SMS. Banking allows you to access information and perform certain transactions on your account by using your mobile phone to send SMS to the banking systems at SCBTZ.

Most present day technologies are multifunctional, as they capture or exchange not a single type of information but integrate multiple forms of information for different purposes. The term multimedia describes this integration. For example, cell phones are classified as multimedia devices because they can transmit information in the form of text, numbers, sound, images and video. The term convergence describes the unification of technologies to offer different information services through a single device or system. A cell phone is an example of convergence because it can be used for a multitude of purposes including telephony, accessing internet and SMS banking. (Aksoy and DeNardis, 2008)

SMS Banking brings your account to your fingertips. It enables you to send receive textual information anywhere 7 days a week and 24 hours a day.

Benefits of SMS Banking

Convenience, being able to do your banking transactions whenever and wherever you want. Fast-Quick means of receiving your account information affordable and also it saves you a trip to the branch or ATM. You use normal SMS messages to perform query based transactions.

Safe and protected as every message requires you to include your personal identification number (PIN) which means no one else can access your account through this service. Services offered by SMS banking:-

- (i) Account balance-enquire about your current and available balance.
- (ii) Enquiry: customer receives automatic information on their mobile phone as per notifications, pre-configured notifications chosen at the time of registration.
- (iii) Mini Statement - Access a mini statement for your account (last ten entries) requesting
- (iv) Tariffs enquiry being informed on different rates and charges
- (v) Big credit/ debit - receiving automatic information on every high credit or debit advice transaction
- (vi) Foreign exchange-enquire about the latest Foreign Exchange Rates
- (vii) Ordering transfer of funds - order for money transfer from your account to another within the Bank
- (viii) Salary credit - be informed each time your salary is credited to your account
- (ix) Utility payments - pay utility bills on your mobile

Automated Teller Machines (ATM)

Automated Teller Machines can be on-line offsite or off-line onsite. ATMs provide the customer 24 x 7 hour access of money in his/her savings and or current accounts. The channel offers simplicity of usage and visibility. They help banks reduce the transactions costs. They reduce branch traffic and enable banks with small branch network to offset the traditional disadvantages by increasing their spread and reach. Besides cash dispensing, ATMs cater to other functions like collection of cheques

through drop boxes an issuance of statement of accounts, transfer money between their bank accounts and purchase goods and services (Shroff, 2007).

ATM Frauds: As with any service containing objects of value, ATMs and the systems they depend on the faction and targets of fraud. Fraud against ATMs and people's attempts to use them takes several forms.

(i) Operational Fraud

In some cases, bank fraud could occur at ATMs whereby the bank accidentally stocks the ATM with bills in the wrong denomination, therefore giving the customer more money than should be dispensed.

(ii) ATM Card Fraud

In an attempt to prevent criminals from surfing the customer's PINs, some banks draw privacy areas on the floor.

Jain and Popli (2012) claimed that ATM originally developed for cash dispenses, now it includes many other bank related functions such as cash withdrawal, paying routing bills fees and taxes, printing bank statements, funds transfers, purchasing online products, train tickets reservations, products from shopping mall, donations and charities, adding pre paid cell phone/mobile phone credit, advertising channels for own or third party products and services and payments of insurance premiums.

Computer Networks

According to Rowe (2005) Networks can be many things depending on the context. A network can be thought of an interrelated group of objects connected together in some way. Computer Network connects many computers and computer related pieces of hardware such as printer and modems.

Network is collection of computers or other hardware devices that are connected together, both physically and logically using special hardware and software to allow them to exchange information and cooperate (Kozierok, 2005).

Advantages /Benefits of Networking

A network connects computers and the users of those computers. This makes the transmission of business information easier, more efficient and less expensive than it would be without the network.

- (i) Data Sharing - one of the most important uses of networking is to allow the sharing of the data. True networking allows thousands of employees to share data much more easily and quickly than without networking. Moreover it makes possible applications that rely on the ability of many people to access and share the same data such as databases, group software development and much more.
- (ii) Internet Access - small computer networks allow multiple users to share a single internet connection. Special hardware devices allow the bandwidth of the connection to be easily allocated to various individuals as they need it.
- (iii) Data and Security Management - in a business environment, a network allows the administrators too much better to manage the company's critical data. Instead of having this data spread over dozens or even in the hundreds of small computers in a haphazard fashion as their users create it; data can be centralized on shared servers. This makes it easy for everyone to find the data, makes it possible for the administrators to ensure that the data is regularly backed up.
- (iv) Performance Enhancement and Balancing - under some circumstances, a network can be used to enhance the overall performance of some applications by distributing the computation tasks to various computers on the network.

Database

According to Post (2002) Database is defined as a collection of data stored in a standardized format, designed to be shared by multiple users.

Database Management System (DBMS) is defined as the complex software system that constructs, expands and maintains the database. It also provides the controlled interface between the user and the data in the database (French, 1996). Database system provides the following Advantages to the business organization:-

- (i) Minimal Data Redundancy
- (ii) Integration of Data.
- (iii) Sharing of Data.
- (iv) Uniform Security
- (v) Privacy and integrity.
- (vi) Data independence
- (vii) Provision of local facilities without the loss of central control.

Internet Banking

This delivery channels allows customers to conduct banking transactions 24 x 7 hours, such as anytime, anywhere from his desktop at home or office (work stations). Except for withdraw of cash, the customers can conduct almost any routine banking transactions through internet (Shroff, 2007).

The Internet has initiated an electronic revolution in the global banking sector. Its dynamic and flexible nature as well as its ubiquitous reach has helped in leveraging a variety of banking activities. The Internet has emerged as one of the major distribution channels of banking products and services for banks in the U.S and in European countries. Customers are embracing the many benefits of Internet banking like improved customer access which facilitates the offering of more services, attract new customers and reduce customer attrition. (Jain and Popli, 2012)

The following are the advantages of Internet Banking:

Advantages to customers

- (i) Banking from your desk: with e-banking services, one can actually carry out a number of transactions sitting on one's seat with a few click. Net banking customers view their account balance and also open fixed deposits, transfer funds, pay electricity, telephone or mobile phones bills.
- (ii) Instant Information: the accounts of the customers are updated as soon as the transaction takes place such as the accounts show the Information updated to the last second. This means if a cheque issued by you has been debited from

your account in the morning, your account status will reflect this when you log in to your accounts in the afternoon as against the earlier updating at the end of the day.

Advantages to the Banks

- (i) Lesser personnel required: online banking has encouraged a chunk of people, through a smaller one to carry out most of their transactions from a distance. This has resulted in lesser pressure on the employees in terms of entertaining customers.
- (ii) Easy publicity: banks can easily pass on the information about their new avenues/schemes without any wastage of time. Customers interested in the schemes would revert back and can be attended to later.

In summary all the above theories are relevant to this study because all of them are concerned with the IT in banking industry which geared towards growth and performance of banking to ensure modern services are offered.

2.4 Empirical Literature Review

There are several studies that have been done in IT in banking industry in Tanzania and outside of Tanzania. The banking industry of Tanzania is in the focus of an IT revolution. A combination of regulatory and competitive reasons has led to increasing importance of total banking automation in this industry. IT has basically been used under two different avenues in banking. One is communication and connectivity and other is business process reengineering.

In this research the researcher reviewed the work of other researchers that relate to the topic under discussion. It basically aims at relating the theoretical literature review with the findings of other researchers who investigate on the same topic of investigation.

Several authors have conducted similar investigation on the impacts of ICT on the banking sector of the Nigeria economy and come out with the following evidences;

Agboola (2001) studied the impact of computer automation on the banking services in Lagos and discovered that Electronic Banking has tremendously improved the services of some banks to their customers in Lagos. The study was however restricted to the commercial nerve centre of Nigeria and concentrated on only six banks. He made a comparative analysis between the old and new generation banks and discovered variation in the rate of adoption of the automated devices.

Agboola (2002) discussed the dimensions in which automation in the banking industry evident in Nigeria. These scopes include;

- (i) Bankers Automated Clearing Services: This involves use of the Magnetic Ink Character Reader (MICR) for cheque processing. It is capable of encoding, reading and sorting cheques
- (ii) Automated Payment Systems: Devices used here include ATM, Plastic Cards and Electronic Funds Transfer
- (iii) Automated Delivery Channels: These include interactive television and the Internet.

Khan (2010) studied how Automated Teller Machine Service Quality and customer satisfaction in Pakistani banks. The study analyses significant of ATM service quality and its effect in customer satisfaction in order to increase performance in banking sector. Samples of questionnaires were done and data were collected from a sample of 500 customers of national and multinational banks. Results indicated that ATM service quality has a huge impact in customers overall terms of convenience, security and privacy where it positively contribute to customer satisfaction. This study has made an important contribution of the quality management of the ATM in literature in aspect of banking industry in Pakistan.

Alu, Adagunodo and Idowu (2002) studied the effect of Information Technology on the growth of the Banking Industry in Nigeria. The study described the impact of IT on the banking industry in Nigeria as indicated. The questionnaire was employed to collect data from customers at five major banks in Nigeria on the extent to which customers believe that IT exerts an impact on banking services. The results of the

study clearly indicate that IT has contributed immensely to the growth of the banking industry in Nigeria.

The study revealed that IT has appreciable positive effects on the bank productivity, cashiers work, banking transactions, bank patronage, bank services delivery, customer services and bank services. These affect the growth of the banking industry in Nigeria positively because customers can now collect money from any branches of their bank. Also customers do not need to move about with large sums of money, and customers are being attended to within a short period of time. However, the major hindrance to the use of IT in the banking industry in Nigeria is inadequate electric power supply. Electricity supply is not regular because of the limitation of the machine that is supplying electricity to Nigeria.

Aragba-Akpore (1998) wrote on the application of IT in Nigerian banks and pointed out that IT is becoming the backbone of banks services regeneration in Nigeria. He cited the Diamond Integrated Banking Services (DIBS) of Diamond Bank Limited and Electronic Smart Card Account (ESCA) of All States Bank Limited as efforts geared towards creating sophistication in the banking sector.

2.5 Conceptual Framework

2.5.1 Dimensions for Performance and Growth of the Banking Industry

The conceptual framework to build on this study is the performance and growth of the banking industry which needs to be measured as the dependent variable of the study. Whereas, the impacts of IT as independent variables to be controlled by the banking sector to contribute in the good performance. The variables such as modern quality services, automation systems, IT inventive management and cost reduction on banking operations affects positively or negatively the use Information technology to banking sector. These are controlled by the Information Technology facilities that are interceding variables such as development of ATMs, use of E-banking/S2B, mobile banking, auto customer services facilities, websites and banking databases. These variables if implemented well the outcome will be the

growth and performance of the banking industry operations. These will be used in studying the impact of modern quality services, automation systems, IT inventive management and cost reduction on banking operations to growth and performance of the banking industry.

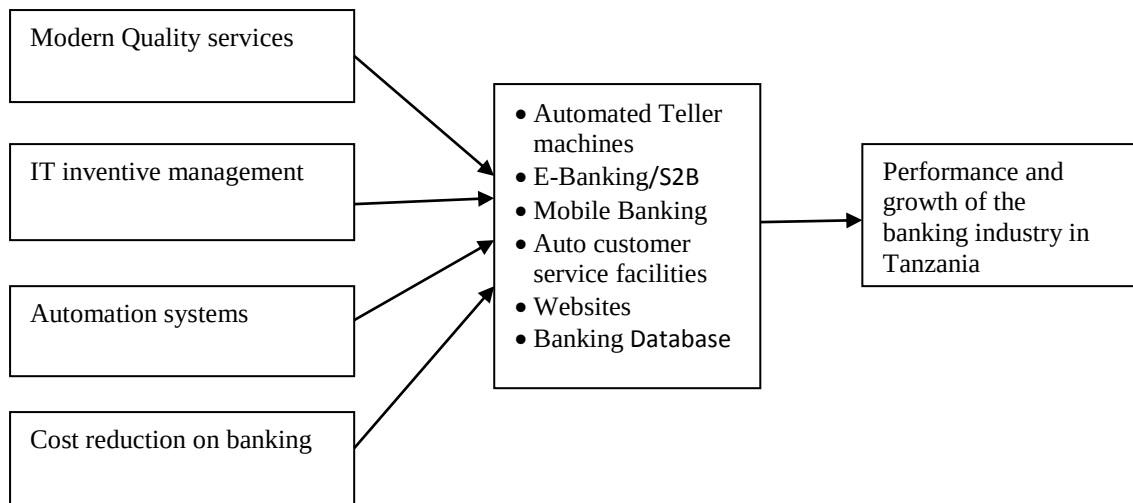
The focus of this study is to carry out an investigation to find out the positive or negative impacts of IT investment on the banking performance such as increases on the modern quality services, the use of automation systems, implementation of IT inventive management and cost reduction on banking operations in the banking industry. The task of IT in the community, restricted and foreign sector banks is to evaluate and measure the observation of the banks employees towards the implementation of IT in the banks during pre-information technology and post-information technology periods to assist the awareness and fulfilment of the clients with the banks.

However study gap in this study is the reality that the organizational performance cannot be shaped only by IT applications, other factors such as business strategies and organizational culture should also be taken into consideration while measuring the impact of IT on overall performance improving banking performance and growth.

The figure below indicate the relationship between modern quality services, automation systems, IT inventive management and cost reduction on banking operations towards performance and growth of the banking industry.

Figure 2.1: Variables Influencing Performance and Growth of the Banking Industry and Their Relation in Information Technology

Conceptual Framework model



Source: Designed and Compiled by the Researcher

2.5.2 The Relationship between the Variables

It is under this assumption that (other things remain equal-ceteris peribus) these variables relate as follows; the more and active employment of the variables will result to higher in growth and performance of the banking industry where by the lack of implementation of the said variables will result to poor growth and performance of the banking industry.

2.6 Synthesis

In summary, this chapter has discussed the literature review of the study both in theoretical and empirical, conceptual framework of the study which explained the relationship of the variables in the study. Chapter three will inspect the methodology used for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describe methodology that was applied in the study. Research methodology refers to a systematic way applied to solve the research problem (Kothari, 1999). This chapter describes the methodology applied in conducting this study. Outlined in the chapter are the research design, area of the study, research population, sample of the study, sampling techniques, research data, data collection methods and instruments, reliability and validity of data and data processing and analysis.

3.2 Area of the Study

The area to be studied will be in Dar-es-Salaam at SCBTZ headquarters. This was due to the fact that Standard Chartered Bank is an international bank with a huge deployment of the various banking technologies within the local area.

3.3 Research Design

Research design is the plan for conducting research (Kothari, 2004). It is the arrangement of conditions for collecting and analysing data in the manner that combine the significance to the research purposes. Saunders (2007) stated that Research strategies, research choices and time horizons are the three layers in his so called “research onion” that can be thought of as focusing on the process of research design, that is turning research question into a research project.

This was the general plan of how the research will be carried out on answering the research questions. It contains clear objectives derived from research questions, specify the sources from which the study has collected and consider the constraints that have inevitably facing the study (Saunders, 2009).

Referring the significance and objectives of this paper, the research design used during the collection of data was a case study with the interest of assessing the impacts of IT on the performance and growth of the banking industry in Tanzania based on case of Standard Chartered Bank Tanzania. This research design enabled the researcher to get comprehensive information about the problem under study.

3.4 Research Population

The population of this study comprised SCBTZ management team, department of Technology and Operations (T&O), all other units within SCB (internal customers), Staffs of the headquarters branch and cooperate customers will also be part of the area of the research studied.

3.5 Sample of the Study

A sample can be defined as a set of respondents (people) selected from a larger population for the purpose of a survey. Sampling is the process of selecting/picking a research sample from entire population (Kothari, 2004). In a population of 450 staffs working at SCBTZ, samples of 90 respondents were selected by the researcher.

3.6 Sampling Techniques

According to Kothari (2004), sample is the number of items to be selected from the universe to represent the entire population. In selecting respondents purposively sampling and simple random sampling techniques were used.

Purposive Sampling

The researcher will practise his own decisions for a specific reason on the elements to be selected. The sample elements will be selected using their criteria therefore purposive sampling will be applicable when it comes to selecting of elements to be examined. The sampling unit will include 5 staffs from IT department, 15 staffs from headquarter branch, 8 staffs from management team, 40 staffs from T&O department and 22 external customers. Through the application of this technique

each person from the selected sample have the equal chance of being selected into the study.

Simple Random Sampling

Simple Random will also be practised in selection of respondents as it will provide equal chance to all individual in the department to be selected and hence avoid biases. Sample of 90 individuals from SCBTZ and external customers will be examined. The selection will depend on the number of sampling units available in the section as a sampling frame.

3.7 Research Data

This study used both Primary data and Secondary data.

3.7.1 Primary Data

Primary data are the data collected from the field for the first time. These data were collected through communication which involves interview conducted by the researcher, Questionnaires designed by the researcher and Observation data collected by the researcher. Primary data was used to gather information on variables such as high quality services, automation systems, market share and cost reduction on banking operations in the study.

3.7.2 Secondary Data

Secondary data are data that have been collected by other researchers elsewhere. The researcher collected secondary data via library research, documentation from sources such as newspaper articles, textbooks and websites both published and unpublished documents. Secondary data was used to obtain information on such variables as impact of IT in banking industries, its advantages and disadvantages and effects towards the performance and growth of the industry.

3.8 Data Collection Methods and Instruments

The data collection on this study will be collected at SCBTZ and the research instruments such as Questionnaire, interviews, Observation and documentary reviews will be of more potential towards collection of the reliable and valid data.

3.8.1 Interviews

This method involves two people or more, one asking a set of question (interviewer) and the other answering questions (respondent or interviewee) (Kothari, 2000). This method was chosen by the researcher due to its flexibility, non-verbal behaviors and control over the environment. Interviews were conducted whereby due to shortage of time only 30 respondents were interviewed.

3.8.2 Questionnaires

A questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. In this study, questionnaires were distributed to respondents; IT Manager and SCB staffs and customers. Researcher distributed 90 questionnaires during the research process. Questionnaires are advantageous in terms of economy, lack of interviewers' bias and possibility of anonymity. The questions covered will be both closed ended and open-ended in order to increase the reliability and validity of the responses. The questionnaires will be filled by respondents, the findings and analysis will follow in the next chapter.

3.8.3 Observations

This is a research method which involves the researcher to have a direct overview on the real field of the research or the environment where the data are collected. Through observation the researcher have an opportunity to see how the IT technologies are employed at the IT room by visiting and observing the IT Manager and the cooperate customers on their site. At this point the researcher was in a good position to collect the information which is accurately, consistently, valid and reliable about impacts of IT performance on the banking industry as well as the quality services offered to the customers.

3.8.4 Documentary Review

This is a research tool where a researcher have an opportunity to review the documentation from the previous documented materials about the IT banking technologies offered to customers as well as information systems mostly applies to customers in the processing of the on line payments. The country IT manager was responsible to offer the documented materials for the researcher to review.

3.9 Reliability and Validity of Data

Validity and reliability data will be developed by the use of triangulation whereby multiple sources of data will be employed to minimize biasness. Saunders (2009) highlight that triangulation as refers to the use of different data collection techniques within one study in order to ensure that the data are telling you what you think they are telling you.

3.9.1 Reliability of Data

Reliability refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings. In the human sciences reliability has the meaning of observation without systematic bias, firstly derived from this general definition, it also means stability or reproducibility of the results of a scientific observation (measurement): repeated application of a research instrument upon identical persons has to show identical results. The claim of reliability in quantitative research of which the survey is the most prominent representative has led to a quite rigid and fully standardized research structure. It is clear that such research can be repeated quite easily. Methodologically speaking, we face a specific problem that the reproducibility is partly the result of the standardized research procedures themselves. This kind of criticism has hardly heard social and professional norms are more influential here than methodological accuracy. Therefore to minimize or avoid this, procedures was carefully explained, structured approach followed, interview guide and questionnaire designed to increase reliability of the data.

3.9.2 Validity of Data

Validity is a term which can be applied to a lot of phenomena. Validity is concerned with whether the findings are really about what they appear to be about. In its most general form, it can be applied to a complete study and even to a whole theory and all its related empirical investigations. For the validity of data collection the researcher constructed the data in the kind of validity that takes place in three steps. First the researcher checked if the operationalization was adequate with respect to content. Second the researcher examined if the stated relationship between the indicators or items was according to the theory. And third the researcher examined the relationships between the operationalized variable and other variables which one checks if the empirically established relationships were congruent with the relationships as worked out in the theory. Concentrated on small area that was SCBTZ will be seen as a proof of the data validity, although within certain limits.

3.10 Data Processing and Analysis

3.10.1 Data Processing

Data may be characterized according to the source from which they were to be obtained. The data were gathered accordingly to their relationship and analysed using descriptive studies and quantitative studies whereby data was analysed through diagrams and tabulations. In analysing the data, answers from different respondent and information obtained from documents were checked out and compared for their validity. Prior to data entry, each questionnaire was inspected and correct for the purpose of detecting errors. Under this situation, the researcher had arranged interviews with respective respondents in order to get accurate data. The purpose was to add value to the study findings. The analysis was basically considering the objectives of the study while taking into consideration of the research question.

3.10.2 Data Analysis

Data analysis, whether its qualitative or quantitative required a researcher to recognize designs and themes in the collected study data. This was very important in the research particularly with qualitative data which are non-numeric frequently in a

textual or narrative form. Using this research strategy the researcher carried order to the data without getting stuck down in the process.

The data collected were edited for accuracy and completeness before they were used for analysis. Questionnaires were coded, tallied and then rates of response for each item was calculated and computed into percentage. For non-numerical data information were summarized and then displayed by using tables. Descriptive analysis was employed to measure and arrive at conclusion on the accuracy into identifying the impacts of IT on the performance and growth of the banking industry in Tanzania citing a Financial Institution SCBTZ as a Case study for this research.

3.11 Expected Results

The findings from this study were estimated to contribute towards the body of knowledge of understanding better, the impacts of IT on the performance and growth of the banking industry in Tanzania. Only the information that has been received from the respondents and observations during data collection were analysed to ensure analysis is ethical. The researcher was expecting the results to answer the research questions and meet the objectives. As a result, it helped in suggesting the ways of effectively employing IT to enhance growth and performance of the banking industry in Tanzania.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the findings and analysis obtained when answering the research questions. The major aim of the study is to identify the impacts of IT on the performance and growth of the banking industry in Tanzania using the case of SCBTZ. The study also sought to examine the contribution of IT on the performance and growth of the banking industry. To identify the Information Technologies used on the banking industry and also to analyze the impacts of ICT on the performance of the banking industry during pre-information technology and post information technology.

Based on the research questions and objective of the study, the research instruments such as questionnaires, observations and interview guides were used so as to obtain information that addresses the subject under study. The first research instruments consist of specific questions that answered the research questions directly and other general concerns that had no direct similarity to the objective of the study, but then added value to it. The second set of questions provided only general information beneficial to the study. The data analysis using research questions guided the study with the support of tables to intensely help show and summarize findings of the study.

4.2 Data Presentation

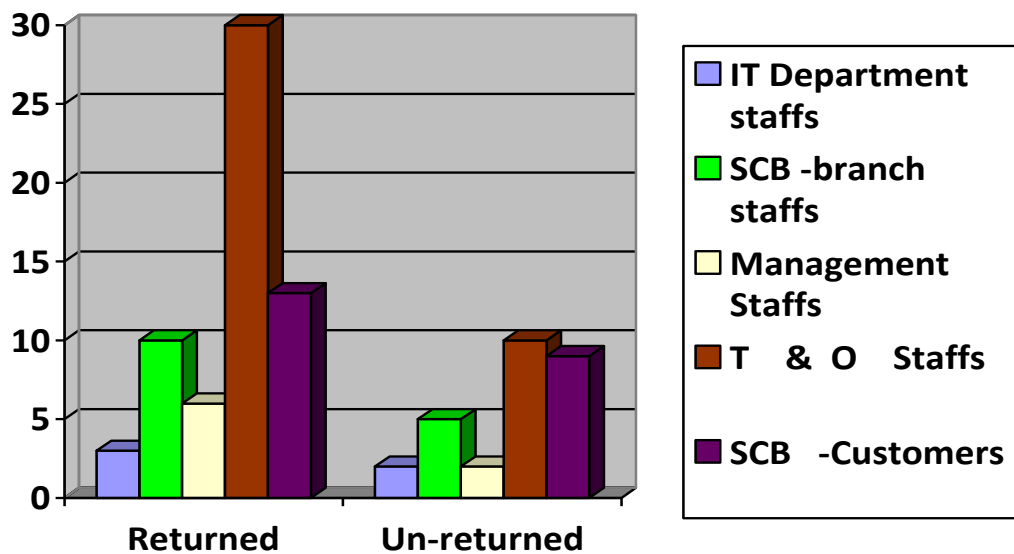
The data is presented in the form of tables and subjected to descriptive statements to show different views and answers from respondents who answered questionnaires, interview and observation. Most of the results are presented in percentages, tables and descriptive forms. The research findings on this study are based on 62 (68.88 %) questionnaires returned out of 90 total questionnaires distributed for the research study.

Table 4.2: Distribution of Questionnaire Response

Category	Returned	Un-returned	Administered	Returned (%)
IT Department staffs	3	2	5	3.33
SCB -branch staffs	10	5	15	11.11
Management Staffs	6	2	8	6.67
T & O Staffs	30	10	40	33.33
SCB -Customers	13	9	22	14.44

Source: Survey data, 2014

Figure 4.2: Questionnaire Responses



4.3 Demographic Characteristics of the Respondents

The research study sample comprised of 90 total questionnaires which were distributed to staffs and customers of SCBTZ. The respondents returned 62 questionnaires out of those 90 questionnaires circulated to them. The respondents included IT department staffs, SCB branch staffs, Management staffs, T&O staffs and SCB customers. The respondents were kindly asked to give their information

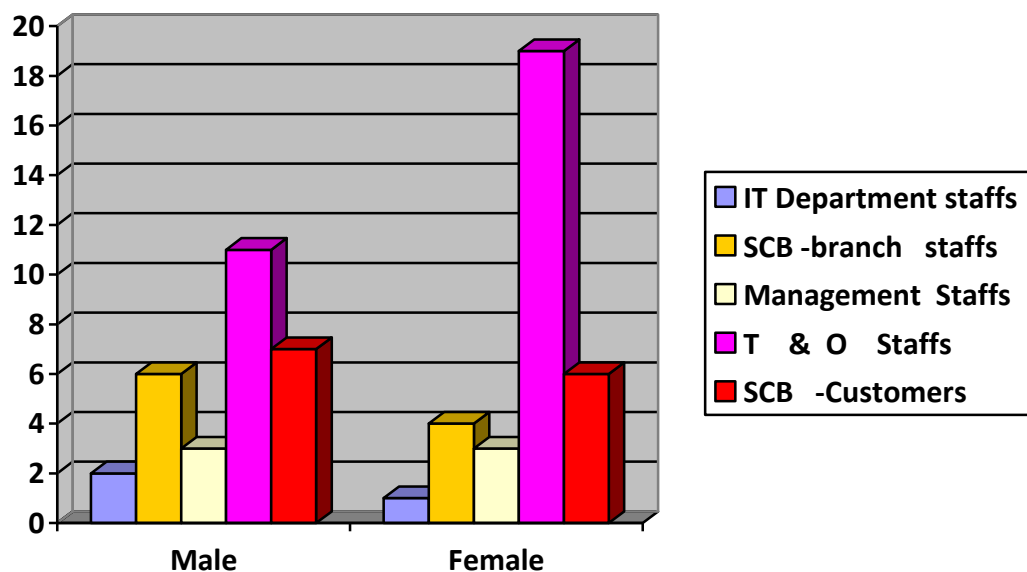
about their sex, marital status and duration of employment for SCB staffs so as to understand their demographic characteristics.

Table 4.3: Sex of the Respondents

Category	Male	Female
IT Department staffs	2	1
SCB -branch staffs	6	4
Management Staffs	3	3
T & O Staffs	11	19
SCB -Customers	7	6

Source: Survey data, 2014

Figure 4.3: Respondent's Response on Their Sex



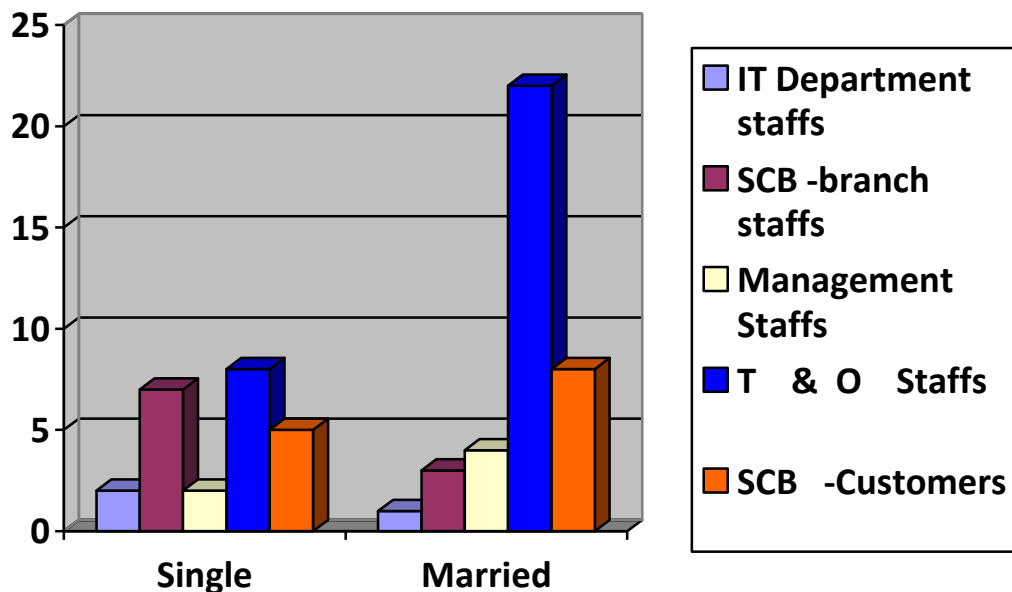
Generally, both males and female participated in the research findings. However, most of the females emerged in the T&O department where all the operations processes are taking place. From the research point of view, males respondents were mostly from the IT department where majority of our research is focusing.

Table 4.3.1: Marital Status of the Respondents

Category	Single	Married
IT Department staffs	2	1
SCB -branch staffs	7	3
Management Staffs	2	4
T & O Staffs	8	22
SCB -Customers	5	8

Source: Survey Data, 2014

Figure 4.3.1: Respondent's Marital Status



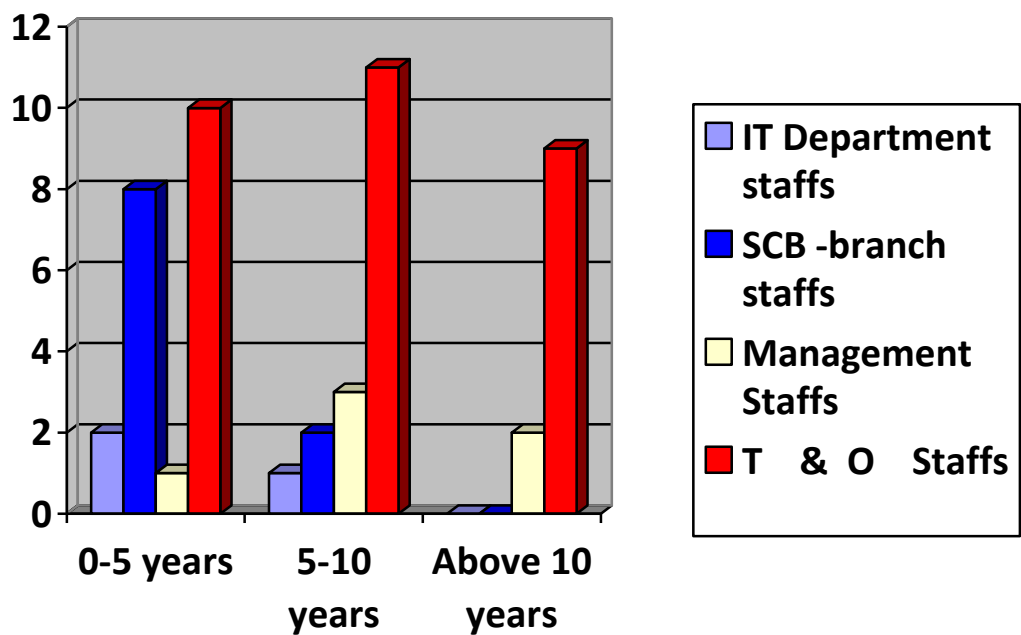
From the data analyzed in table 4.3.1 shows that most of the married respondents were from T&O department where all the operations are taking place where SCB branch staffs are the ones who appear to be single compared to all other group of the respondents. Both results indicated that both single and married respondents have been impacted by the IT on the developments and implementations of the banks systems.

Table 4.3.2: Duration of Employment for Staffs Respondents

Category	0-5 years	5-10 years	Above 10 years
IT Department staffs	2	1	0
SCB -branch staffs	8	2	0
Management Staffs	1	3	2
T & O Staffs	10	11	9

Source: Survey data, 2014

Figure 4.3.2: Duration of Employment for staffs



The findings of duration of employment for staffs from table and figure 4.3.2 shows that respondents were a mixture of both new employees to the bank and senior employees who have been with the bank for long time. T&O staffs emerged to be working with the bank for long time, thus the response will surely give the insights of the movement of old technology to the new one considering that T&O department involves IT in their daily operations. Taking consideration that the impacts of IT looked at the pre-information technology and post-information technologies then the

long service respondents response have given the experience achieved before, during and after the implementations of the IT technologies to the bank.

4.4 Contributions of Information Technology on Performance and Growth of the Banking Industry in Tanzania

From the research study, out of 90 total questionnaires distributed to the respondents only 62 (68.88%) respond on the questionnaires and these includes IT staffs 3.33%, Headquarter branch staffs (11.11%), Management staffs (6.67%), T&O staffs (33.33%) and External customers of SCBTZ (14.44%). All these responses can be categorized as the responses from both internal and external customers of SCB. Both internal and external SCB customers argued that, IT has greatly contributed to the increase of the qualities on the performances and growth of the banking services. Such developments includes processing of the transactions via online banking which has increases to the extent of processing payments in a quicker way, accurately and up to date.

There has increased volumetric payments processed automatic via electronic systems whereby the expenses and cycle time for processing payments has also decreased from time to time, security of data management for electronic payment has also increased through the use of IT.

The responses from internal customers which are SCB staffs and SCB external customers on the contribution of IT on the performance and growth of banking industry can be summarized as follows:

Table 4.4: Contribution of Information Technology on performance and growth of the banking industry

Category	A	B	C	D	E	F	%
Increase customer services	-	1	1	7	1	10	16.13
Security and data mgt	-	2	1	4	1	8	12.90
Quick movement of transaction	1	1	-	4	3	9	14.52
Increase Productivity & profitability	2	3	2	5	2	14	22.60
Lower-expenses, lower-cycle for processing	-	1	1	6	4	12	19.35
Quicker means of accessing Information	-	2	1	4	2	9	14.50
Total	3	10	6	30	13	62	100

A: IT Department staffs,

D: T&O Staffs

B: SCB -branch staffs,

E: SCB (T) Ltd -External customers

C: Management Staffs,

F: Total respondent for each category

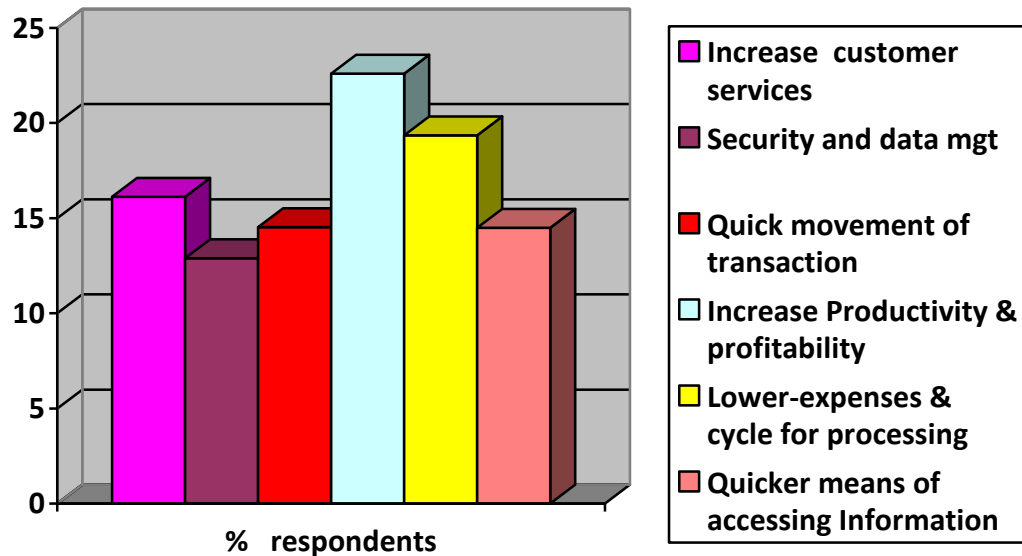
Source: Survey data, 2014

Table 4.4: The Summarized Respondent's Responses on the Contribution of IT on the Performance and Growth of the Banking Industry

Category	% Respondents
Increase customer services	16.13
Security and data mgt	12.90
Quick movement of transaction	14.52
Increase Productivity & profitability	22.60
Lower-expenses & cycle for processing	19.35
Quicker means of accessing Information	14.50
Total	100

Source: Survey Data, 2014

Figure 4.4: Respondent's Response on the Contribution of IT to the Performance and Growth of the Banking Industry at SCB (T) Ltd



Generally, both internal and external customers including SCB staffs, commented that, there is an enormous impact on the contributions of IT to the performance and growth of the banking services at SCBTZ. From the research point of view, 13 external customers supported the research out of the total 62 respondents who respond positively on this research question. This means that 13/62 (20.97%) of all respondents were the external customers who respond positively and they were the customers who are holding bank accounts at SCBTZ.

These customers argued that IT investment has greatly contributed to the increase of the performance on the banking services such that, there has been an increase in access of ATM services like 24 hours withdrawing cash via ATM, transferring of funds via mobile banking, access of information about the mini-statement, access of balances of the personal accounts, credit and debit delivered SMS messages once any transaction is done within the personal accounts.

In data collected, 49 respondents (79.03%) out of 62 respondents on this study were SCB staffs such IT department staffs, T&O department staffs and management team and staffs at headquarter branch. They also supported on the greater performance established on the application of IT on the banking services which includes the increase on the efficiency, effectiveness and cost saving services on the processing of payment via IT.

4.5 The Impacts of IT on the Performance and Growth of the Banking Industry in Tanzania

The research findings from interviews conducted using a reasonable sample size of 30 respondents which includes SCB external customers and SCB staffs. The respondents were selected randomly to avoid biasness on the results of the research. The interviews were carried to 10 SCB external customers, 11 staffs from department of T&O, 6 management staffs and 3 IT staffs. The interviewed respondents emerged with the following comments on their views about IT contributions on the performance and growth of banking industry. These comments can be summarized in the table 4.5.

Table 4.5: Responses for the Interviewed Respondents on the Contribution of IT to the Performance and Growth of the Banking Industry

Category	Respondents	% Respondents
Increase customer services	8/30	26.67
Security and data management	2/30	6.66
Quick movement of transaction	5/30	16.67
Increase Productivity & profitability	6/30	20.00
Lower-expenses & cycle for processing	5/30	16.67
Quicker means of accessing Information	4/30	13.33
Total	30	100

Source: Survey Data, 2014

From the data analyzed on the table 4.5, most of the respondents on the interviews conducted argued that IT plays a big role on the increase of the customer services by 26.67%, quick movement of transaction by 16.67%, increases productivity and profitability by 20% and 16.67% of respondent comment that IT reduces the costs and cycle time for processing payments. This is because the payment processing will no longer be processed manually instead via IT operating systems which are more effective, efficient and accurately with very minimal errors that might be caused by the human errors on instructing the operating systems.

All these respondents marked the total respondents support on the IT as 80.01% where as 19.99% of respondents respond to the items such as IT that it helps on the security and data management and it also plays role to quickly accessing the information stored in the Database.

Moreover 19.99% of the respondents were having concern that the impacts of low network effect on the banking operation may affect the whole banking operations and services such as the accessing balance on the accounts, credit/debit transactions on the bank statement, fund transfers processing and various informations may not be processed. However they concluded if all network failures may be under control then the IT investment will increase the effectiveness and efficiency performances on the banking industry in general.

4.5.1 Researcher's Observation on the Impacts of IT on the Performance and Growth of the Banking Industry

From the researcher's observation done to the customers and services offered to the banking hall of SCBTZ, most of the customers are served by bank officers in a ratio of one to one. Therefore, for example, one customer is being served by a bank teller within a short time as the information are accessed through online with a minimal use of paper works done on the credit and debit vouchers presented by customers.

The researcher's observation shows that customers in need of the account balances, withdrawing of funds and accessing of the mini statements of at least ten transactions

/entries were not in queue to bank tellers rather they were accessing self-information by the use of ATM. The process of withdrawing cash was done within a short time which implies efficiency on the time management and high quality services offered to both internal and external customers.

4.6 The Information Technologies Available at Standard Chartered Bank

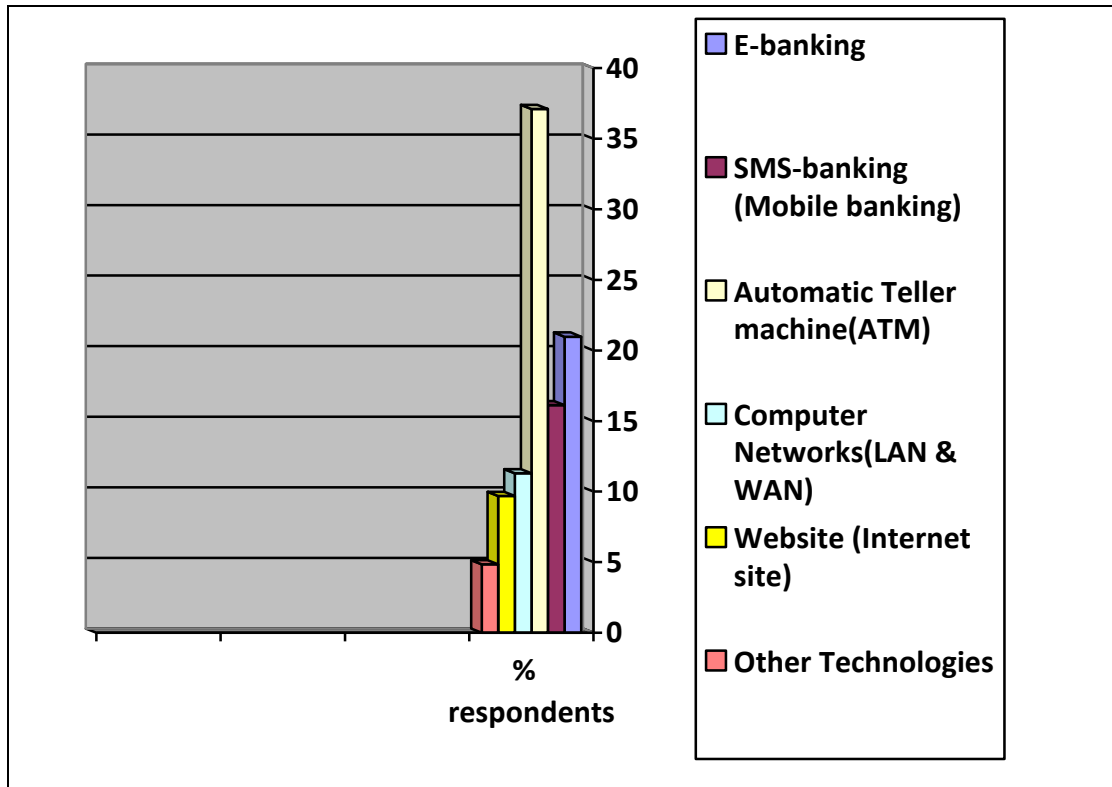
The response from 62 respondents on the research questionnaire given on the availability of IT technologies available at SCB Tanzania was shown as follows.

Table 4.6: Available IT Technologies in use to Both External and Internal Customers at Standard Chartered Bank

Category	Respondents	% Respondents
E-banking/Straight to Bank(S2B)	13/62	20.97
SMS-banking (Mobile banking)	10/62	16.12
Automatic Teller machine(ATM)	23/62	37.10
Computer Networks(LAN & WAN)	7/62	11.29
Website (Internet site)	6/62	9.68
Other Technologies	3/62	4.84
Total	62	100

Source: Survey Data, 2014

Figure 4.6: The Findings on Available IT Technologies at Standard Chartered Bank in Tanzania



From table and figure 4.6 shows the arrangement of the IT technologies in relation to the importance of the technologies to customers both internal such as SCB staffs and external clients. The table indicates that most of the customers were using ATM and E-banking/S2B. Internal customers (staffs for T&O, Headquarter branch, IT experts and Management team) were using ATM and most of them were using E-banking and SMS banking for inter account transfer within the bank. ATM cards were most used as cash withdraw which can be done at any location provided there is VISA card detecting machine.

4.6.1 The Available Information Technologies

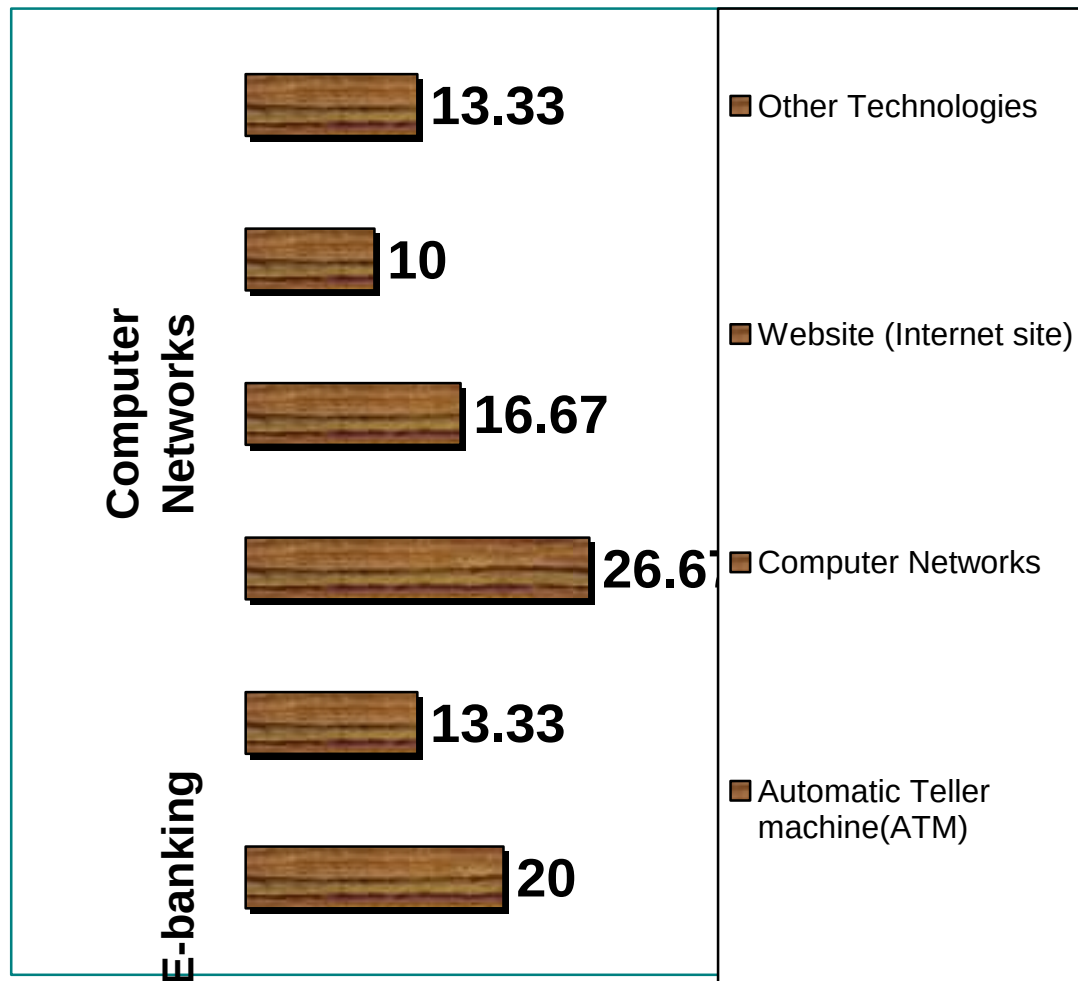
Only 30 respondents were interviewed on the technologies in use for both internal and external customers of the SCBTZ. The shown below are the Interviews responses from the research question on the availability of IT in use at SCBTZ.

Table 4.6.1: Responses on the Available Information Technologies in use

Category	Respondents	% Respondents
E-banking/Straight to Bank(S2B)	6/30	20
SMS-banking (Mobile banking)	4/30	13.33
Automatic Teller machine(ATM)	8/30	26.67
Computer Networks(LAN & WAN)	5/30	16.67
Website (Internet site)	3/30	10.00
Other Technologies	4/30	13.33
Total	30	100

Source: Survey Data, 2014

Figure 4.6.1: The Most Accessible IT Technologies



4.6.2 Researcher Observation on the Availability of Information Technologies

From researcher's views on IT, there are available Information technologies in the bank. In the operational departments, the researcher observed that the bank relying heavily on desktop computers, Laptop, minicomputers, microcomputers and workstations. Local area networks (LAN) are more popular than Wide area network (WAN) and the use of client server systems appears to be on growth. In terms of other computer technologies used by the bank are the electronic fund transfers (EFT) under E-banking. These are mostly used by corporate customers specifically on the processing of transfers for salary repayment and others followed by ATMs which are mostly used by the individual customers both internal and external.

Moreover, there is a huge increase on the use of executive Information systems, decision support systems, electronic data interchange and auto-operating system set for the loan repayment depending on the date of repayment. Additionally, the bank has invested much in software, hardware, system development, system maintenance and training. Though, the researcher interest was to identify available Information technologies such as ATM, S2B, Computer network, Mobile banking, Website and other technologies in use for the efficient and effective use of IT on the performance and growth of the banking industry at SCBTZ.

4.7 The Comparison on the Impacts of Pre Information Technology and Post Information Technology

The impacts of IT on the performance of the banking industry during pre-information and post-information technologies can be examined as follows:

In the questionnaires and interviews done to both internal and external customers the comments stated that during pre-information technology the payments were processed manually and the study revealed that the period between 1993 and 2005 was characterized by fundamental changes in the contents and quality of banking business in the Tanzania. Technology has been discovered to be the core driving force of competition in the banking industry during the period of study. In 1993 - 2004 the bank had 3 ATMs one each in three branches, the number of the EFT'S processed also increased from 200 to 20,000 by 2012 and within a month visa cards increased from 20 to 1000. As a result, the banking branches then increased from 3 to 7 branches within the same period hence the innovation increased the efficiency of the banking services.

The adoption of IT in the banking industry has improved customer services, facilitated accurate records, provides for Home and Office banking services, ensures convenient business hour, prompt and fair attention and enhances faster services as compared to the era of pre-information technology. The adoption of IT has improved the banks image and leads to a wider, faster and more efficient current market. It has also made work easier and more interesting by improving the

competitive edge of banks, improving the relationship with customers and assists in solving basic operational and planning problems.

Today's business environment is very dynamic and experiences rapid changes as a result of technological advancements, increased awareness and demands from customers. IT directly affects how managers decide, how they plan and what products and services are offered in the banking industry. As a result, IT has continued to change the way banks and their corporate relationships are organized worldwide and the variety of innovative devices available to enhance the speed and quality of service delivery.

CHAPTER FIVE

DISCUSSION RESEARCH FINDINGS

5.1 Introduction

This chapter presents discussion of findings, conclusion and recommendations regarding the study. The information obtained in the survey carried out in this study indicates the importance of information technology in growth and performance of the bank. The study findings indicates optimistic relationship among the executed IT together with the productivity and cost savings. The main concern of this study is to assess the impacts of IT on performance and growth of the banking industry in Tanzania: case study used was SCBTZ.

The study also sought of examining the contribution of IT on the performance and growth of the banking industry. To identify the Information Technologies used on the banking industry and to analyze the impacts of ICT on the performance of the banking industry during pre-information technology and post-information technology. Based on the objective and research questions, the research instruments such as questionnaires, observations and interview guides were used so as to get information that addresses the issue under study.

The research instruments contained specific questions that answered research questions directly and other general issues that had no direct reflection to the objective of the study, but added value to it. The second group of the questions provided only general information useful to the study. Data were examined conferring to research questions which guided the study with support of tables. This helps to intensely show and review findings.

5.2 Contribution of IT on the Performance and Growth of the Banking Industry at Standard Chartered Bank in Tanzania

Referring to Table 4.4 from the research study, 68.88% respondents responded positively on the contribution of the IT on the performance and growth of the

banking industry at SCBTZ. All these respondents argued that, IT has greatly contributed to the increase of the qualities on the performances, up to date technology products and services results into growth of the banking services such as the processing of the transactions using online banking which has increases to the extent of processing payments in a quicker way.

Also, the accessible means of information has immensely improved which increased volumetric payments processed automatic via electronic systems whereby the expenses and cycle time for processing payments has also decreased from time to time. For these reasons, the purpose of examining the contribution of the IT on the performance and growth of the banking industry have answered the debate of whether the investments of IT technologies is key to the productivity and development of the banking operations to reach their desired goals which will be saving costs on their operations and focusing on automation.

These 68.88% respondents indicated that SCB is implementing Information technologies by automating its services and products to ensure they are up to date and stay competitive in the market. The results specify that there are substantially high returns to increase IT investments in banks which will results into growth and improvement in competitive banking business.

5.3 Types of Information Technologies used in Banking Industry

This results agrees with the findings of David (1982) that there has been a very modest move away from cash. Frazer (1985) also contends that the advantages of cash diminish as the value of transactions increases. Some payments are now being automated and absolute volumes of paper transactions have declined under the impact of electronic transaction brought about by the application of IT to the payment systems. From the table and figure 4.6 the popular technologies used at SCB were ATMs, E-banking services and Website (Internet site). These technologies have enhance more of quality customer services, saving time of the customer and increase customer base which leads to substantial growth and development of the bank.

Recent literatures showed that the relationship concerning Information technology and banks performance have two encouraging outcomes. Firstly, IT can bring down the operational costs of the banks which results into the cost advantage. The second encouraging outcome is that IT can promote transactions between customers within the same network.

From Table 4.6, the study findings indicate that ATM ranked least in its spread that means one ATM available at each branch. For that reason ATM are obtainable in use where 26.67% of the respondents agreed on the positive responses for being used by the small medium enterprises and individual customers while 16.67% respondents on Computer Network (LAN and WAN), 10% Website (internet site) and 13.13% other technologies which are least in use compared to other technologies identified by the researcher.

Low rate of spread of these technologies in use might be due to cost, fear of fraudulent practices and lack of facilities necessary for the customers to be in their operations. Nevertheless, from other evidences the research findings have been supported positively as the ATM has been the most successful delivery medium for consumer banking in banks. And for banks that delayed the implementation of their ATM system, have suffered irreparably. (Banahene, 2002)

5.4 The Impacts of IT on the Performance of the Banking Industry on Pre-Information Technology and Post Information Technology

Furthermore, the findings shows that adoption of IT products in the banking industry at the period of post-information technology have impacted positively on all the criteria that is in local level and global level criteria. In the local effects criteria such as in time saving, error rate reduction, management decisions and speed of transaction respondents commented that IT saves time, reduces error, speeds up transaction and assists management to take quality decisions. Correspondingly, for global criteria impacts respondents supported that IT improves competitive strength,

enhances proper market segmentation, improves revenue and ensures modernization and proper forecasting.

The result of the interview conducted to the customers also showed their positive response towards the adoption of IT. Customers were pleased with great improvement on bank statement generation, bank accounts reconciliation and balance enquiry making. Manual recording system through the use of ledger, cash books have been replaced by computerized information system. They concluded that IT directly affects how managers decide, how they plan and also what products and services are created and offered.

Similarly, the selected customers argued that IT adoption enhanced convenient business hour, facilitated prompt and fair attention, enhances faster services and makes home and office banking available to customers. Woherem (2000) claimed that only banks that overhaul the whole of their payment and delivery systems and operations and apply IT devices are likely to survive and prosper in the new millennium.

The long service staffs in SCB above 10 years from T&O department and Management levels pointed towards the pre-information technology times where banking techniques were used and consume a lot of its customers time results into queues and delays in services to a modern post-information technology time where every services and products are digitalized to provide easy, automated services and quality customer services. From the above notion, the only bank which will have their strategy towards moving the bank into techno- bank then will become a market leader in the banking industry.

CHAPTER SIX

SUMMARY CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter presents the summary of the study, conclusion and recommendation to what are the impacts of IT on performance and growth of the banking industry in Tanzania. It comprises the research findings corresponding with the research objectives and methodology used in the data collection for this study as well as the implication and recommendation for further study.

6.2 Summary of the Study

In recent years, the employment of Information technology has been magnificently increased in services industry predominantly banking industry in Tanzania. In SCBTZ using IT in related products such as internet banking, electronic payments, security investments and information exchanges results in the financial organization to built the capacity to deliver high quality services to client with less effort.

The researcher cited SCBTZ as the case study to identify the impacts of IT on the performance and growth of the banking industry in Tanzania. The researcher had several objectives of the research study. The following were the objectives for the research study undertaken; To determine the research technologies available at SCB, To determine the impacts of IT on the banking performance and the growth of the banking industry and To compare the impacts of IT on performance and growth of banking industry in the period of pre-information technology and post information technology.

The research study was conducted by the researcher and data were collected through the use of the Questionnaire, Interviews and observation done in real environment at SCB Tanzania. The research findings on the impacts of IT on the performance and growth of the banking industry at SCBTZ are: The study indicates optimistic relationship among the executed IT together with the productivity and cost savings.

Generally, recent literatures showed that the relationship concerning Information technology and banks performance have two encouraging outcomes.

Firstly, IT can bring down the operational costs of the banks results in cost advantage. For example, internet technology facilitates and speeds up banking procedures to accomplish standardized and low value added transactions such as bill payments and balance inquiries processes through online network. Thus, this technology will help banks concentrating their capitals on exceptional, high-value added transactions such as personal trust services and investment banking via branches. The second encouraging outcome is that IT can promote transactions between customers within the same network.

6.3 Conclusion

In conclusion it can be argued that IT has made major impact in banking industry despite the challenges during the implementation. The arrival of foreign and new private sector banks with their higher technology levels based services has forced the commercial banks in Tanzania to change over to the new technology in their day to day operations. The use of Technology in expanding banking industry in Tanzania is one of the key focus areas to performance and growth.

SCBTZ is using IT to develop their own internal processes and also improve facilities and services to their customers. Some payments are now being automated and absolute volumes of paper transactions have declined under the impact of electronic transactions brought about by the application of IT to the payment system in SCBTZ. The use of IT has increased customer service levels in banking industry lead it to performance enhancements within banks.

Moreover, the efficient use of IT in SCBTZ has facilitated accurate and timely management of the increased transactions volumes of banks which comes with larger customer base. Tanzania banking industry is greatly benefiting from IT uprising all over the world. With the powerful use of IT, banks in Tanzania has enabled sophisticated product developments, implement techniques for risk control, enhanced

market infrastructure and supported the financial intermediaries to reach geographical distant and diversified markets.

In today's environment, having innovative products and services have become an essential part in the banking industry which lead to cost and time saving but at the same time support growth and performance of the banks.

6.4 Implication and Recommendations

6.4.1 Implications of the Study

The research studied is concerned with the impacts of IT on the banking industry as banks are the intensive users of IT. The usage of IT can result to lower costs, but the effective and efficiency on profitability and returns remains questionable owing to the possibility of network effects that arise as an outcome of competition in financial services. The research study analyses both theoretically and empirically how IT related spending can affect bank profits through competition in banking industry. The report utilizes a Hotelling model to examine the differential effects of the IT in moderating the relationship between costs and revenue.

Both static and dynamic panel econometric techniques are utilized to examine the differential impact of IT on average prices, market share and profits. The results described the role of IT on the cost and revenue in banking and show the impact of network effects on bank profitability.

Although IT might lead to cost saving likewise the higher IT spending can also create network effects lowering bank profits. Besides the fact that IT spending has a positive effect on operational services and financial performance still the relationship between IT expenditures and banks financial performance or market share is conditional upon the extent of network effect. Therefore, if the network effect is too low, IT expenditures are likely to: reduce processing expenses, increase financial services and increase revenue and profit.

The indications however suggests that the network effect is relatively high in the US banking industry, suggesting that although banks use IT to improve competitive advantage, the net effect is not as positive as normally expected. IT affects banks by easing enquiry, saving time and improving service delivery. In a broader context the innovation in IT, deregulation and globalisation in the banking industry could decrease the income streams of banks and thus the strategic responses of the banks particularly the trend towards mega-mergers and internal cost cutting are likely to change the dynamics of the banking industry.

6.4.2 Recommendations of the Study

Adoption of IT has influenced the content and quality of banking operations. From all investigation findings, IT presents great potential for business process to reengineering of its banking processes in the industry. The research has the following suggestions to the managements of the banking operations at its industry.

- (i) Investment in Information and communication Technology should form an important component in the overall strategy of banking operators to ensure effective performance at SCBTZ.
- (ii) It is imperative for bank management to intensify investment in IT products to facilitate speed, convenience, and accurate services, or otherwise lose out to their competitors. Therefore, SCBTZ should develop and formulate projects which will be concentrating in increasing awareness in IT investments in the bank.
- (iii) Since, the banking industry in Tanzania presents IT providers with great opportunity to market their innovations. SCBTZ should focus on success in this area however depends on how they can customise their services to appeal to the ready minds of various stake holders in the banking industry.
- (iv) The financial institutions should offer programs which will reassure customers' safety with regard to IT through sensitization, workshops and durbars and also support the skills development among bank personnel.
- (v) Since new technology is so expensive, SCBTZ should consider moving in selling insurance and investment products. That way telephone banking can bring financial services to the home or office.

- (vi) There should be a central monitoring unit permanently manned by personnel to check the operations of all the banks ATM's so that shortage of funds, occasional shut downs, seizure of electronic cards and many more are handled with dispatch.
- (vii) SCBTZ should educate customers to utilize branches nearer to their communities to minimize the pressure and long waiting hours at the banking halls. Such education must emphasize that all transactions be done at all the branches because of the networking and that there is no need travelling to a particular branch for some special needs.
- (viii) Lastly, the banking organisations should design more electronic products and services to reduce the turnaround time of customers. Such products will give them the opportunity to sit at the comfort of their homes and transact business with the banks. With such products and services a single click of a button will do a lot of work. Hence reduce the number of customers who visit the bank daily and the consequent queues in the banking halls.

6.5 Limitation of the Research Study

The researcher had the following limitations during the research Study.

- (i) The effective and efficient organisational performance cannot be shaped only by IT applications instead there are other factors to be considered such as business strategies and organisational cultures when measuring the impact of IT on overall performance.
- (ii) The traditional measures of IT impacts on performance/productivity of the banking industry such as decrease in operating costs and increase in profits continue to be the most popular measures of efficiency and return on investments. Although these measures may not be suitable for information systems and technologies for the reason that real returns can be gained more from total quality management, continuous improvement, cycle time reduction, improved customer services, business process re-engineering and that all from IT.

6.6 Area of Further Research Study

The researcher found out that the two most measures used to assess the impacts of IT on performance and growth of the banking industry at SCBTZ were reduction in operating expenses and increase in profitability. This is quite unfortunate, since several studies indicate that both the above measures are poor and inadequate to measure the true value and contribution of IT which can sometimes paralyse the organisation.

There are several reasons why traditional measures of return on investment (ROI) fail when it comes to IT. Firstly, some of the significant benefits derived from IT such as added competitive edge in the marketplace and increased customer satisfaction are difficult to measure. Secondly, the true impact of some IT systems can be assessed only over the long term. However the researcher calls for further research on other measures on the effective and efficiency impacts of IT on the performance and growth of the banking industry.

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www.standardchartered.com

APPENDICES

Appendix 1: Questionnaires (Staffs Only)

This questionnaire is aimed at finding the impact of Information Technology in performance and growth of banking industry. Kindly provide information by answering my few questions so that the data results which will be obtained will fulfil the purpose of this study. Your cooperation will highly be appreciated.

SECTION A: General Information (Circle/tick where appropriate)

Department.....

Name of the respondent (optional).....

Gender

- (i) () Male
- (ii) () Female

Marital status

- (i) () Single
- (ii) () Married

Duration of employment:

- (i) () 0 – 5 years
- (ii) () 5 – 10 years
- (iii) () Above 10 years

SECTION B: Please tick on space provided where appropriate and explain very shortly when required.

1. Do you have Information Technology Department at SCB (T) LTD?

(i) Yes ()

(ii) No ()

If NO, why?

(i) () We don't have trained staffs

(ii) () No Sufficient funds

Other specify

2. If YES what do u think are the benefits of using Information Technology.

(i) () Quicker and Greater Access of Information.

(ii) () Lower Cost (Reduce Expenses)

(iii) () Wider Access to Market.

(iv) () Greater profitability (Increase Profitability)

3. What are the Information Technologies available at SCB (T) LTD?

(i) () SMS Banking,

(ii) () E- banking

(iii) () ATM.

(iv) () Computer Networks ,

(v) () Website

Others Specify

4. Do you regularly get trainings to New / Existing staffs about the Information Technologies?

(i) () Yes

(ii) () No

5. If the answer to Question 5 is YES, then select the methods of training which used.

(i) () Training after Every 3 months,

(ii) () Training Once a Year,

(iii) () Training Every Month,

(iv) () Training at the Introduction of the each New Technology

6. If the Answer to Question 5 is NO then WHY?

(i) () No Sufficient funds (Financial Constraints)

(ii) () Lack of Trainers

Other Specify

7. What are the Contribution of Information Technology on banking performance?

(i) () Increase Customer Services

(ii) () Minimizing Administrative Cost

(iii) () Quick movement of Transaction

(iv) () Security and Data Management

(v) () Performance Enhancement and Balancing

(vi) () Increase Productivity

Other Specify

8. Does Information Technology have any Contribution in Marketing Performance?

(i) () Yes

(ii) () No

9. If the answer to Question 9 is YES then what are they?

(i) () Wider Access of Market

(ii) () Reduce Expenses

(iii) () Promotion of Business

Others Specify

10 If any, explain on the IT negative Impacts.

12. Comments on the growth usage of IT products as compared to the Era of pre information technologies and the present era, On- going era of improvement on investment of IT technologies.

Appendix 2: Questionnaires (Customers only)

This questionnaire is designed to gather information or data on Impacts of Information Technology on the banking Industry in Financial Institutions in Tanzania as partial fulfilment of my Master Degree at Mzumbe University. Information/data gathered will be held in strict confidence and used for the stated purpose only.

SECTION A: General Information (Circle where appropriate)

Name (Optional).....

Gender:

- (i) Male
- (ii) Female

Marital status:

- (i) Single
- (ii) Married

SECTION B: Please tick (✓) where appropriate and explain very shortly when required.

1. Which Services do you use most during your a/c queries?
 - (i) () SMS –Banking
 - (ii) () E- banking
 - (iii) () Automatic Teller Machine
 - (iv) () Website

2. Do you use Automatic Teller Machine (ATM) Services?
 - (i) () Yes
 - (ii) () No

3. If YES to question 2, what are the benefits do you get

4. If NO to question 2, why?

- (i) () I don't know how to use it
- (ii) () It is not available
- (iii) () They are very few

Other Specify

5. What are your preferable IT products available at SCB (T) LTD?

- (i) () SMS Banking /Mobile banking
- (ii) () Electronic Funds transfer (EFT)
- (iii) () Automatic Teller Machine (ATM)
- (iv) () Telegraphic Transfer (TT)
- (v) () Internet banking /Straight to bank (S2B)
- (vi) () Book transfers (BT)

Other Specify

6. What are the Contribution of Information Technology on banking performance?

- (i) () Increase Customer Services
- (ii) () Minimizing Administrative Cost
- (iii) () Quick movement of Transaction
- (iv) () Security and Data Management
- (v) () Performance Enhancement and Balancing
- (vi) () Increase Productivity

Other Specify

Appendix 3: Checklist for Interviews to Both SCB (T) LTD Staffs and Customers

The following are the Interview checklists designed together information or data on the Impacts of Information Technology in products on the banking Industry in Tanzania specifically SCB (T) Ltd.

1. Mention IT products/Technologies mostly available in use for processing customer payments at SCB (T) Ltd.
2. Briefly explain the impact of local and global criteria on the adoption of ICT devices in the banking industry.
The criteria used for the local impact are timesaving, error rate reduction, management decisions and speed of transaction while those considered for global impact are competitive strength, market segmentation, improved revenue, proper forecasting and modernisation.
3. Mention and explain briefly the six roles of Information Technology on banking performance?
4. What are your comments on the impacts of IT in the banking industry as compared to the era of manual operations in a banking industry before investing in applications of IT systems used to process transactions?, comment on time and volume of transactions processed in a day, the efficiency, speeds and quality of the services offered to customers in Queue.

Appendix 4:

ASSESSING THE IMPACTS OF INFORMATION TECHNOLOGY ON THE PERFORMANCE AND GROWTH OF THE BANKING INDUSTRY IN TANZANIA CASE: STANDARD CHARTERED BANK TANZANIA				
S/N	Activity	Timeframe	Start date	End date
1	Proposal writing and submission	Ten weeks	15/01/2014	31/03/2014
2	Approve of research proposal	One week	01/04/2014	10/04/2014
3	Data collection	Four weeks	14/04/2014	14/05/2014
4	Data processing and analysis	Three weeks	16/05/2014	06/06/2014
5	Report writing	Four weeks	16/06/2014	18/07/2014
6	Submission of first draft	One week	21/07/2014	25/07/2014

Source: predicted timeframe prepared by researcher

Appendix 5: Estimated Research Budget

The research will be conducted at Standard Chartered Bank Tanzania and it is expected to cost **TZS 5,900,000.00**

BUDGET ESTIMATE FOR RESEARCH			
S/N	ACTIVITY	ITEM	COST
1	Proposal preparation	Typing and printing	600,000.00
		Binding	100,000.00
		Food and accommodation	600,000.00
		Travel expenses	350,000.00
		Sub total	1,650,000.00
22	Data collection	Typing and printing	450,000.00
		Travelling expenses	350,000.00
		Food and accommodation	1,300,000.00
		Miscellaneous	300,000.00
		Sub total	2,400,000.00
3	Data processing analysis and report writing	Typing printing & binding	350,000.00
		Travelling expenses	150,000.00
		Food and accommodation	1,050,000.00
		Miscellaneous expenses	300,000.00
		Sub-total	1,850,000.00
		Grand total	5,900,000.00

Source: compiled by the researcher