# **Exploring Information Seeking Behaviour of Users** of Self Service Banking Technologies in Zambia

# By Kamyalile Simuchimba, BA LIS

A dissertation submitted to the University of Zambia in partial fulfillment of the requirement for the award of a Master of Arts in Library and Information

Studies

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# **DECLARATION**

I, Kamyalile Simuchimba so hereby declare that this dissertation represents my own work,
and that it has not previously been submitted for a degree, diploma or other qualification by
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# **CERTIFICATE OF APPROVAL**

This dissertation of Kamyalile Simuchimba has been approved as partial fulfillment of the requirement for the award of the degree of Master of Library and Information Studies by the University of Zambia.

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#### **ABSTRACT**

Developments in the information technology sector have forced banks to introduce and upgrade Self Service Banking Technologies (SSBTs). Use of SSBTs requires that appropriate information is available and accessible. The information seeking behaviour of users of SSBTs in Zambia is not known; and this study explores this behaviour in relation to Automated Teller Machines (ATMs), Mobile banking and Internet banking services.

The main objective of the study was to explore the information seeking behaviour of SSBT users by trying to understand their information needs, the use of the SSBTs and also by identifying some of their information sources and problems they face in accessing self service banking information.

The study was both qualitative and quantitative in nature. Questionnaires and interviews were used to collect data. One hundred and fifty (150) questionnaires were distributed and one hundred and ten (110) questionnaires were returned. For data analysis, the Software Package for Social Science (SPSS) version 15 was used as well as qualitatively making inferences of data.

The findings of the study revealed that most of the SSBTs users used ATMs in preference to Mobile and Internet banking. Some of the information needs of SSBTs users identified in the study were information on the location of ATMs and technological information. SSBTs users also need information on how much banks charged for using SSBTs. The findings indicated that the major information sources that most SSBT customers used were the commercial banks. Inadequate resources were ranked first as one of the challenges that users of SSBTs faced.

The findings reveal that SSBT users need to be availed more information in an appropriate format in order for them to effectively use the banking services. Awareness campaigns can be carried out by commercial banks so as to inform the SSBT users on the available banking services. Mobile and Internet banking services in Zambia were only deployed in 2008 thus the need to educate and train customers about the merits of using them.

The study recommended that commercial banks should provide information services using more accessible information formats, channels and sources. Commercial banks can take advantage of email addresses to electronically inform customers on the status of SSBTs. Unlike paper based documents, commercial banks can use emails and short message services (SMS) to reach a wider audience at one time. Furthermore, commercial banks can use their websites to display information on SSBTs. Information provision by commercial banks can assist them to tailor design their banking services in order to meet its customer's information requirements. The commercial banks should also increase awareness campaigns and internet access to bank customers. The awareness campaigns should be carried out in various local languages to ensure that most of the customers are sensitized. The commercial banks can offer customers training on how to use SSBTs. Bank customers will become sensitized on benefits of using SSBTs.

# **DEDICATION**

I would like to dedicate this thesis to my son Mushilo Chileshe.

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# TABLE OF CONTENT

LIST	Γ OF TABLES	XII
LIST	Γ OF FIGURES	.XIII
CHA	APTER ONE	1
BAC	CKGROUND OF THE STUDY	1
1.1	Introduction	1
1.2	Overview of Self Service Banking Technologies (SSBTs)	1
1.3	The Banking sector in Zambia	4
1.4	Financial institutions in the banking sector	7
1.5	Definition of Self Service Banking Technologies	9
	1.5.1 Automated Teller Machines	10
	1.5.2 Mobile banking services	10
	1.5.3 Online banking services	11
	1.5.4 Benefits of using Self Service Banking Technologies (SSBTs)	12
	1.5.5 Challenges of using Self Service Banking Technologies (SSBTs)	13
1.6	Self Service Banking Technologies In Zambia	14
1.7.	Information Seeking Behaviour	18
1.8	Statement Of The Problem	19
1.9	Objectives Of The Study	19
1.10	Research Questions	20
1.11	Significance Of The Study	20
1.12	Structure Of The Study	20
1.13	Conclusion	21
CHA	APTER TWO – LITERATURE REVIEW	22
2.1	Introduction	22
2.3	Review of empirical literature	25
2.4	Conclusion	35
CHA	APTER THREE - METHODOLOGY	37
3.1	Introduction	37
3.2	Research design	37

3.3	Study Population	38
3.4	Study Sample	38
3.5	Data Collection Procedure	39
	3.5.1 Ethical Permission	39
3.6	Data Analysis	40
3.7	Limitation Of The Study	40
3.8	Conclusion	40
CH	APTER FOUR - FINDINGS	41
4.1	Introduction	41
4.2	Results	41
	4.2.1 Characteristics of the respondents	41
	4.2.2 Use of Self Service Banking Technologies (SSBTs)	43
	4.2.3 Banking years of SSBT users	44
	4.2.4 Age of SSBT users	45
	4.2.5 Educational qualifications of SSBT users	45
	4.2.6 User Friendliness of SSBTs	46
	4.2.7 Convenience of SSBTs	46
	4.2.8 Format of SSBT information	47
	4.2.9 Information sources of SSBT users	49
	4.2.10 Information Needs of SSBT users	52
	4.2.11 Levels of satisfaction of SSBT information	53
	4.2.12 Problems faced in accessing SSBT information	55
4.3	Interview results	56
	4.3.1 Background information on interview participants	56
	4.3.2 Bank network in Lusaka	56
	4.3.4 Provision of information on SSBTs	57
	4.3.5 Challenges on the use of SSBTs	57
4.4	Conclusion	58
CH	APTER FIVE - DISCUSSION	59
5.1	Introduction	59
	5.1.1 Use of Self Service Banking Technologies	59

	5.1.2 Banking years of SSBT users	60
	5.1.3 Age of SSBT users	61
	5.1.4 Educational qualifications of SSBT users	62
	5.1.5 User friendliness of SSBTs	62
	5.1.6 Convenience of SSBTs	63
	5.1.7 Format of SSBT Information	63
	5.1.8 Sources of information of SSBT users	64
	5.1.9 Information needs of SSBT users	66
	5.1.10 Levels of satisfaction of SSBT information.	68
	5.1.11 Problems faced by SSBT users in accessing information	69
5.2	Conclusion	. 70
CH	APTER SIX – CONCLUSION AND RECOMMENDATIONS	71
6.1	Introduction	. 71
6.2	Conclusions	. 71
6.3	Recommendations	. 74
7. R	EFERENCES	<b>76</b>
APF	PENDIX 1: INTERVIEW GUIDE FOR COMMERCIAL BANK OFFICIALS	83
APF	PENDIX 2: RESEARCH QUESTIONNAIRE	. 85

# LIST OF TABLES

Table 1: Demographic profile of respondents	42
Table 2: Use of SSBTs	43
Table 3: Frequency of use of SSBTs	44
Table 4: Mobile banking years of SSBT users	44
Table 5: Age of Mobile banking users	45
Table 6: Educational qualification of Internet banking users	46
Table 7: Commercial Bank used by SSBT users	51
Table 8: Educational qualification and Commercial Bank	51

# LIST OF FIGURES

Figure 1: Wilson's Model of information Behaviour (1996)	23
Figure 2: Convenience of information Format.	47
Figure 3: SSBTs information Format.	48
Figure 4: Commercial Banks' information Provision.	48
Figure 5: Information Sources.	50
Figure 6: Information needs of SSBTs user	52
Figure 7: Preference between SSBTs or Bank Tellers	53
Figure 8: Level of Satisfaction of respondents.	54
Figure 9: Problems faced in accessing SSBT information	55

# LIST OF ABREVIATIONS

ACCA Association of Chartered Certified Accountants

ATMs Automated Teller Machines

BBZ Barclays Bank Zambia

BOZ Bank of Zambia

E-banking Electronic Banking

EFTPOS Electronic Fund Transfer at Point Of Sale

FBZ Finance Bank Zambia

FSP Financial Service providers

HDFC Housing Development Finance Corporation

HSBC Hongkong and Shangai Banking Corporation

I-banking Internet banking

ICICI Industrial Credit and Investment Corporation of India

I-Finance Internet Finance

ICT Information Communication Technology

M-banking Mobile Banking

POS Point of Sale

SICIA Situation, Complexity and Information Activity

SSB Self Service Banking

SSBTs Self Service Banking Technologies

SMMEs Small, Medium and Micro Enterprises

SMS Short Message Service

TAM Technology Acceptance Model

TPB Theory of Planned Behaviour

UNCTAD United Nations Conference on Trade and Development

USA United States of America

ZANACO Zambia National Commercial Bank

ZESCO Zambia Electricity Supply Company

#### CHAPTER ONE

#### **BACKGROUND OF THE STUDY**

#### 1.1 INTRODUCTION

This chapter provides a brief background of the study and looks at the banking sector in Zambia. It starts by giving a brief history of some of the commercial banks that are under study and the services that are offered by them. It further takes into account the financial institutions and their performance in the banking sector. It defines self service technologies and identifies some of their benefits as well as challenges of offering these services. It highlights the various self service baking technologies that are offered by banks. The self service banking technologies that are defined in this chapter are Mobile banking, Internet banking and Automated Teller Machine services (ATMs).

This chapter also provides the statement of the problem, objectives of the study, research questions and significance of the study. It also gives the structural presentation of the dissertation.

# 1.2 OVERVIEW OF SELF SERVICE BANKING TECHNOLOGIES (SSBTs)

The rapid pace of technological development in the world has created opportunities in various sectors that contribute to economic development. Self service banking technologies (SSBTs) are automated delivery systems that allow customers to access a service independent of service employees (Loonam and O'Loughlin, 2008). These technologies include Automated Teller Machines (ATMs), online banking and mobile banking. Self service banking is the practice of making bank transactions, request of check books or paying bills via the Internet, mobile phones, telephone lines and ATMs. In general, Europe and America have been and still are the leaders in self service banking technology and usage (Pikkarainen et al, 2004). About "120 largest United States of America (USA) banks offered self- service banking technologies" in 2002 (Pyun, Scruggs and Nam 2002). However with the advent of the Internet, the way bank services are delivered has fundamentally changed in the last five years in almost every industry (Pikkarainen et al, 2004). The development of the Internet has also paved way to making online banking a

reality. According to Gurau (2002) exploiting the new communication channels offered by the Internet, the number of websites owned by banks has increased rapidly. At present there are more than 1,500 websites of banks from all over the world. The majority of banks with Internet presence in the world have increased in number especially from the USA (Gurau, 2002).

According to Pikkarainen et al (2004) the acceptance of self service banking technology has been rapid in many parts of the world. And in the leading electronic banking (e-banking) countries such as America and Britain; the number of e-banking contracts has exceeded 50 percent. These self service banking technologies, such as Automated Teller Machines (ATMs) have fostered competition between banks in the USA (Pikkarainen et al, 2004). These developments of information technology have forced banks to introduce and quickly upgrade their websites and the number of ATMs. In Pakistan for instance, the number of ATMs increased from 206 in 2000, to more than 3,999 in 2009 (Khan, 2010). As of October 2007, the number of ATMs deployed in India was 31,708 (Singh and Komal, 2009). Banks are increasing their technology services in order to be the best and more competitive and therefore attract more customers.

Information technology developments in Africa have also influenced commercial banks to improve the way they offer products and services. The developments of technologies have enabled banks to provide better services for customers' satisfaction (Khan, 2010). Tunisia, for instance has invested enormous funds in order to increase the number of online channels and to establish the needed infrastructure (Azouzi, 2009). Most banks in Nigeria offer electronic banking services with the use of Information and Communication Technology (ICT) as a platform of efficient and effective delivery of banking services. For example, Afribank Nigeria, Diamond Bank, Access Bank and First Bank Nigeria have all increased the number of these services in order to be efficient in their operations. Ayo et al (2007) reveals that all the banks in Nigeria offer e-banking services and 52% of them offer some form of mobile banking service. In 2006 South Africa had half a million mobile banking users (Porteous, 2007).

Mobile phone banking customers are much more driven by convenience than people who transact in the bank in general, both in terms of deposits and withdrawals and in terms of making payments. Convenience is what motivates cell phone banking customers as they do not need to

go to the bank to do their banking transactions. In the Southern Africa region, South Africa is dominant in providing self service banking technologies. Malawi, like most developing countries in Africa does not have a fully-fledged mobile banking. It remains mostly a cash based society (Saidi, 2009). In the Zimbabwean banking sector, the adoption of Internet banking has been sluggish as not many customers are using the innovations despite the convenience it brings (Dube, Tofara and Langton, 2009).

With the use of technology, the Internet in particular, transactions can be done from homes. Laukkanen (2007) says that in order for a customer to be online, he or she needs to have a computer with an Internet connection either at home or in the office. On the other hand mobile banking users only need a mobile phone connected to a telecommunication network in order to do their banking. Online banking allows people to make deposits, withdrawals and pay bills all with the click of a mouse. For Internet banking, a customer only needs to log onto a banks' website and provide his/her user name and a password. Bank statements can be checked online without standing in a long queue or waiting for it via postal mail. ATMs allow customers to access mini statements of their accounts as well as carry out other banking transactions such as cash withdrawals and cash/check deposits. Mobile banking also allows customers to check for their account balance and other banking transactions by sending a message from their phones. Customers can pay for bills and also buy and send airtime using mobile banking services with their cell phones. In order to do this, a customer has a password in order to access their account and carry out a desired banking transaction.

People that are computer literate and are comfortable in using them for other purposes find it easier to start banking over the Internet. As argued already, account information can be accessed anytime, day or night, and can be done from anywhere. These users find online banking as an easy and useful tool though it may have some security and privacy concerns. For example in Internet banking, users are concerned with the safety of putting their private information online and the vulnerability of their accounts to hackers. Furthermore, customers do not need to relate with a bank's front desk employee as they have access to the banks information system online; so issues of trust may come into play.

However from the banks point of view, Internet banking means significant cost cutting on transactions, improvements on their image on the market and in addition they are able to respond better to the demands of the market (Kerem, 2003). The transactions done electronically are paperless; and reduce the amount of labour required in processing transactions. Additionally one can argue that a paperless banking system is friendly to the environment. With the use of self service banking technologies, banks are able to offer almost all their products and services online; without requiring the need for a human interface.

## 1.3 THE BANKING SECTOR IN ZAMBIA

The banking sector in Zambia has tremendously changed from independence to date. Over the years, there has been an increase in the number of banks operating in the country. This change has been facilitated by different types of governments that have put up various economic reforms impacting on the banking sector. From a one party closed state to a multiparty open state, this has had an impact on the development of banks in Zambia. The number of banks operating in Zambia has increased from only 4 banks at the time of independence in 1964 to 18 commercial banks (Bank of Zambia, 2009). The type of services offered has developed with the emergence of various electronic banking services like ATMs, Mobile banking and Internet banking. Most of the banks in Zambia are online thus money can easily be sent from one town to another using branch networks in the shortest possible time. The introduction of transferring money electronically has benefited several bank customers such as traders that import goods by enabling them pay for them regardless of where the beneficiary is located internationally (Bank of Zambia, 2009)..

All the commercial banks in Zambia are supervised by the Bank of Zambia. In this regard, the central bank has set up rules and regulations on the operations of the commercial banks and other financial institutions in Zambia. The main aim of the Bank of Zambia therefore is to formulate and implement monetary and supervisory policies that achieve and maintain price stability and promote financial system stability in the republic of Zambia. This is achieved by supervising commercial banks and putting in place policies that contribute to economic growth in the nation.

The banking system is made up of the Bank of Zambia, which is the central bank, and 13 commercial banks, with a branch network of 159 as at the end of December 2005 compared to 123 in 1990 (Fundanga, 2006). In addition, there are 247 branches compared to the 159 branches in 2006. The increase in branch networks shows that there has been some significant growth in the banking sector. In 2009, the commercial banks' branch and agency network increased by 10.3% from 224 to 247 (Bank of Zambia, 2009). There were four new banks that were granted licenses in 2008 and 2009, namely, Ecobank Zambia Limited, United Bank of Africa Zambia Limited, International Commercial Bank Zambia Limited and First National Bank Zambia Limited. The entry of new banks on the market was expected to further enhance competition in the local banking sector. These commercial banks offer various services to their clients such as account services, personal loans, cash services and electronic banking.

Chileshe (2003:7) says "at the time of independence in 1964, Zambia had four commercial banks operating in the country, namely Barclays Bank, Standard Bank, the National and Grindlays Bank and the Netherlands Bank of South Africa. In addition to these commercial banks there was the Merchant Bank of Central Africa as well." The development of banks in Zambia begins with the establishment of the Bank of Zambia. It came into being after the breakup of the federation of Northern Rhodesia, Southern Rhodesia and Nyasaland. This was when Northern Rhodesia became Zambia and gained its independence from British colonialism (Chileshe, 2003:7). The Bank of Zambia gained monetary and financial independence of the newly independent state of Zambia. It was established on August 7, 1964 under the Bank of Zambia Ordinance of 1964. The title of the Bank and the Ordinance originally incorporated the old name of "Northern Rhodesia" but this changed to "Zambia" under the Zambia independence order of 1964 (Bank of Zambia, 1984). Although the Bank of Northern Rhodesia became Bank of Zambia, an Act to recognise it as such was not passed until June, 1965, when the formal dissolution of the Bank of Rhodesia and Nyasaland was finally accomplished (Bank of Zambia, 1984). Bank of Zambia has been operating since then.

According to Fundanga (2006), "with the liberalisation of the financial sector, several bank and non-bank financial institutions were established. The financial sector has expanded remarkably over time and the services provided have been improved". The liberalisation of the economy

experienced in the 1990s brought about the emergence of several banks and companies. From 1991 onwards, commercial banks changed the way they offered services to their clients and the type of services offered. The banking sector experienced a rapid change and growth as banks upgraded their services to be more competitive.

New banks have emerged in the banking sector despite the global financial crises that was experienced in 2009. According to the Ministry of Commerce, Trade and Industry (2010:22) "despite the global financial crisis and its adverse impact on banking systems globally, the overall financial condition of the banking sector in Zambia as at end September of 2009 was satisfactory and all the banks remained adequately capitalised". Nussbaumer et al (2009) points out that "in light of the financial crisis, it has become even more critical for financial service providers to remain competitive". Financial crises in banking have been blamed on insufficient regulations of banks and this has led banks to change their regulation of banking services so as to attract more customers. Customers want to go to banks that are offering lower interest rates when getting loans and the ones that will assist them to run their finances efficiently without having any losses. Commercial banks avoid situations where its depositors suddenly withdraw money from their accounts in fear of losing it. Therefore, most banks decide to upgrade their banking services and offer new services that will draw more customers to bank with them.

Most of the Zambian banks were not affected by the global financial crisis because they were not as developed as European countries (Ministry of Commerce, Trade and Industry, 2010). For example, they were not connected to the international stock market and are heavily supervised by the Bank of Zambia. Moreover, after the financial crises, some banks were still able to open more branches and offer various banking services effectively (Standard Chartered Bank Zambia, 2009). For example, Standard Chartered Bank Zambia, by rigidly adhering to various strategies like aligning products and services to meet customer needs and focusing on them was able to move forward and created sustainable value for its stakeholders (Standard Chartered Bank Zambia, 2009). Standard Chartered Bank Zambia was also able to operate effectively in that it was able to launch a number of products and services as well as open two branches in Lusaka at Ody's and Intercontinental Hotel and another in Livingstone at Falls Park. The bank also launched a number of new products and services such as mobile banking (m-banking), online

banking, as well as the junior millionaire account for children and the marathon savings account. Even in uncertain times, Standard Chartered Bank was able to seek for opportunities to further grow and make improvements to drive better service for customers and enhance its performance (Standard Chartered Bank Zambia, 2009).

## 1.4 FINANCIAL INSTITUTIONS IN THE BANKING SECTOR

As alluded to earlier, there are 18 commercial banks operating in Zambia namely: Access Bank Zambia, African Banking Cooperation Zambia Ltd, Bank of China, Barclays Bank Zambia Plc, Cavmont Capital Bank Ltd, Citibank Zambia Ltd, Ecobank Zambia Ltd, Finance Bank Ltd, First Alliance Bank Zambia Ltd, First National Bank Zambia Ltd, Indo-Zambia Bank Ltd, Intermarket Banking Corporation Zambia Ltd, International Commercial Bank Zambia Limited, Investrust Bank Plc, Stanbic Bank Zambia Ltd, Standard Chartered Bank Zambia Plc, United Bank for Africa Zambia Ltd and Zambia National Commercial Bank Plc (Bank of Zambia, 2009).

# 1.4.1 Zambia National Commercial Bank (ZANACO)

Zambia National Commercial Bank is one of the first banks to be established in Zambia. It was created by the merger of the National Commercial Bank and Commercial Bank of Zambia in 1975. The Commercial Bank of Zambia was incorporated in Zambia in 1965 to take over the business previously transacted by the Netherlands Bank of South Africa Limited. The National Commercial Bank was incorporated in 1969 as the first wholly owned bank (Bank of Zambia, 1984). ZANACO was established by the government of the republic of Zambia to foster national development and has over the years been and continues to be instrumental to the country's progress through various achievements. It has since evolved into a leading bank nationwide. Prior to 2007, the bank was 100% owned by the government. In that year, 49% of its shares were sold to the Rabobank Group, a banking company from the Netherlands (Zambia National Commercial Bank, 2010). Under this partnership, Zanaco has designed broad based, affordable banking services for its retail customers and structured innovative financial solutions for large corporations, agri-business and the public sector. In 2008, the shares of Zanaco were listed on the Lusaka Stock Exchange. The bank remains majority owned by Zambians and thus is considered "citizen owned". The relationship with Rabobank enables Zanaco to benefit from technical

assistance and best practice in various areas of banking (Zambia National Commercial Bank, 2010).

According to the <u>Bank of Zambia</u>, Zanaco was the most profitable commercial bank in Zambia during the first six (6) months of 2009 (Zambia National Commercial Bank, 2010). Zanaco has invested substantially in a versatile banking information technology platform. The bank offers various self service banking technologies from ATMs, POS (Point of Sale) terminals, Zanaco Bill Munster, Internet banking and Xapit instant banking which, with the use of a mobile phone; bill payments, transfers and the buying of airtime can be done (Zambia National Commercial Bank, 2010). Zanaco is well placed to respond to the diversity of Zambian society with a national presence of 56 branches and agencies nationwide and the development of new exciting e-commerce products (Ministry of Commerce, Trade and Industry, 2010).

# 1.4.2 Barclays Bank Zambia (BBZ)

Barclays Bank is a company incorporated in the United Kingdom. It opened its first branch in Zambia, then Northern Rhodesia in 1918 and is now the largest private bank in the country. At the time of independence the bank had on its establishment a total number of 199 employees, of whom 174 were expatriates and the remainder Zambians. The bank, even though it remains a subsidiary of an international banking group was locally incorporated in 1971 under its present name. In 1983, the bank had the largest level of assets among all commercial banks. In 1991, Barclays Bank opened the first business banking centre in the country, in the capital city, Lusaka. Currently, it has 90 offices, branches and sales centre's throughout the country. Barclays also offers retail banking, corporate banking and the Barclaycard (Barclays Bank Zambia, 2010).

## 1.4.3 Finance Bank Zambia (FBZ)

Finance Bank Zambia was incorporated in Zambia in 1986. It offers a full range of services to the public and aims to be a first class financial services institute (Finance Bank, 2010). The year 2008 saw the successful completion of the acquisition of 40 percent of the issued capital of FBZ by Credit Suisse. This partnership has speeded up the bank's expansion programme and Finance Bank has applied for a banking license in the Democratic Republic of Congo and Zimbabwe. FBZ is one of the leading and largest private banks in Zambia. It has an impressive branch

network of over 60 ATMs and 50 outlets strategically positioned in major commercial and agricultural centres across the country (Ministry of Commerce, Trade and Industry, 2010). Finance Bank Zambia has ATMs, Internet banking (i-finance) and has a strong brand having launched a new Television advertising campaign (Finance Bank, 2008).

#### 1.4.4 Stanbic Bank Zambia

Stanbic Bank can trace its origins to 1956 when a branch of National and Grindlays Bank opened its doors in Ndola. In 1992 Standard Bank of South Africa acquired the African branches of Grindlays Bank as part of its Southern African business development. Currently, Stanbic has ATMs and a number of branches in Lusaka, Ndola, Kitwe, Mkushi and Chingola (Stanbic Bank, 2010).

#### 1.4.5 Standard Chartered Bank Zambia

Standard Chartered was formed in 1969 through a merger of two banks. The Standard Bank of British South Africa founded in 1863 and the Chartered Bank of India founded in 1853. It was prominent in financing the development of the diamond fields of Kimberly from 1867 and later extended its network further north in Johannesburg to Southern and Central Africa in 1953. The Standard Bank of South Africa Limited started operations in 1906 when its first branch was opened in Kalomo. In 1964 the bank establishment comprised of approximately 395 employees of whom 323 were expatriates and only 72 Zambians (Bank of Zambia, 1984). From the early 1990s, Standard Chartered Bank has focused on developing its strong franchises in Asia, Africa and the Middle East. The London headquartered group has operated for over 150 years. Standard Chartered Bank Zambia Plc has 25 outlets and is listed on the Lusaka Stock Exchange (LUSE). The bank has a number of products and services such as ATMs, m-banking which is a mobile banking solution and online banking to meet the borrowing, wealth management and transaction needs of individuals (Standard Chartered Bank Zambia, 2010).

## 1.5 DEFINITION OF SELF SERVICE BANKING TECHNOLOGIES

The evolution of the internet has forced banks to improve on the services that are being offered to their clients by using various technologies. These technologies are called Self service banking technologies. SBBTs are the various services that are offered by the bank electronically and can

be done from outside the banking hall without the help of a bank employee. Self service banking technologies include mobile banking using a phone, internet banking and automated teller machines well known as ATMs. According to Mcphail and Fogarty (2004:4), "there are three key self service technologies (SSTs) that have affected the traditional face-to-face delivery of banking services: ATMs, which were introduced in the late 70s; telephone banking in the mid 90s; and internet banking, which emerged in the late 90s."

#### 1.5.1 Automated Teller Machines

ATMs were the first known machines to provide electronic access to customers (Singh and Komal, 2009). Khan, (2010: 333) says the "ATM is an innovative service delivery mode that offers diversified financial services like cash withdrawals, funds transfer, cash deposits, payment of utility and credit card bills, cheque book requests and other financial enquiries". The ATM services that are offered by banks have evolved and have become better and more advanced. These machines perform the basic deposit and withdraw tasks of tellers and are more dependable as most customers prefer ATMs to talkative and error prone human tellers (Jaffee, 1989).

# 1.5.2 Mobile Banking Services

Mobile banking is the provision of banking services, notably a bank account, which can be accessed via a mobile phone. It's generally banking using a mobile phone. Laukkanen and Pasanen (2005) define mobile banking as a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone. There are several services that a bank can offer through mobile banking. For instance, payment of bills can be done using mobile banking as well as money deposited and transferred from one account to another.

Mobile banking is popularly known as Short Message Service (SMS) banking or M-banking; and has been facilitated using restrictions of passwords for security reasons. According to the United Nations Economic and Social Commission for Asia and the Pacific and the International Trade Centre (2005) in countries with high ICT literacy rates and well-developed telecommunications networks, customers can make financial arrangements wherever they are and at any time. However a congested network may result in poor reception. For mobile banking to be able to

take place and to be of benefit to the bank and the customer, there needs to be a telecommunications network.

Commercial banks and telecommunication networks sign agreements on how the mobile banking services will be provided to the client. The agreement outlines how much the client is charged on each transaction and how much goes to the telecommunication network. The user of a mobile banking service must be a client to both the bank and the telecommunication network. Banking transactions over mobile phones are usually performed by sending an SMS requesting a financial transaction, it travels to the SMS centre of the clients' cellular service provider and from there it goes to the bank's system. Then the client receives the response that is sent by the bank via the service provider, all within a few seconds. Therefore, for mobile banking to be effective and a success, commercial banks have to establish agreements with telecommunication companies (i.e. Airtel, MTN and Cell-Z) as these are the mobile phone network providers in Zambia.

# 1.5.3 Online Banking Services

Online Banking (or Internet Banking) allows customers to conduct financial transactions on a secure website operated by a bank or financial institution. As described by Laukkanen and Pasanen (2005: 108) "mobile banking services enable customers to check the balance and transactions of their accounts, pay invoices (also abroad) and transfer funds between accounts monitor the use of credit cards and even check when invoices fall due". Pikkarainen et al (2004) says Online Banking Services are like an Internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments. Therefore a bank's web sites that offer only information on their pages without a possibility of doing any transactions cannot be qualified as offering online banking services. Online banking includes features of making a transaction by using a banks website. The transactions that can be done include; paying a bill, transferring money from one account to another or even applying for a loan or opening an account by just a click of a mouse.

Internet banking also makes it possible for bank customers to manage their finances effectively; by checking their online accounts regularly whenever they are online. Some banks make it possible for bills to be paid online; thereby serving the customer time and the hustle of paying

their bills in queues. However, security is a major concern in Internet banking. As the amount of products and services offered via the Internet grows rapidly, consumers are more and more concerned about security and privacy issues. Generally, many consumers are unwilling to give private information over the telephone or the Internet (Pikkarainen et al, 2004). As a result, banks spend millions of money to install high tech firewalls as security to protect their clients' transactions. Furthermore, Pikkarainen et al (2004) states that consumers often rely on their bank to protect their privacy for instance; a bank's website protects its clients by requesting for a single password authentication for login. In addition, high tech firewalls can be used to protect trojan horses from stealing login information of a banks client.

# 1.5.4 Benefits of using Self Service Banking Technologies (SSBTs)

Self service banking technologies reduce queues in the banking hall as customers are able to bank from outside the bank wherever they are located. The adoption of SSBTs makes it easier for customers to use more cost-effective services such as phone banking and I-banking (Internet banking) by giving customers 24-hour access (Chung and Paytner, 2002). The role of technology in service organisations has been predominantly employed to reduce costs (Shan, 2005). For example, withdrawing money from one's account can cost two times more than withdrawing from an ATM. The cost of establishing SSBTs is much lower than the cost of establishing a physical branch outlet (United Nations Economic and Social Commission for Asia and the Pacific and the International Trade Centre, 2005). As alluded to earlier, banks are able to come up with a range of SSBTs for reducing their cost of operation and providing accessible and faster services to a client. Pikkarainen et al (2004) indicates that it has been proved that online banking is the cheapest delivery channel for banking products once it has been established and banks get notable cost savings by offering it.

Self service banking technologies assist to save on travel costs. There are no problems of looking for a branch where you can do your banking as ATMs can be located anywhere; whilst Mobile and Internet can be used at anyplace and time. Customers are also able to enjoy easy access to bank statements and this eliminates paper wastage. As discussed by Kerem (2003:5) "being on the Internet has allowed banks to cut costs on transactions, improve their image on the market,

and respond better to the demands of the market. Banks have used their sites also successfully to promote and cross sell their services and products among existing customers."

SSBTs offer a lot of advantages to banks, individual clients as well as corporate clients. Internet banking allows banks to collect additional and detailed information about their customers online without having to use printed questionnaires or interviews. The information collected can help banks to easily design new, customised products and services for their clients. Mobile banking makes it easier to facilitate for quick questions and answers.

# 1.5.5 Challenges of using Self Service Banking Technologies (SSBTs)

Self Service Banking Technologies (SSBTs) use has its own challenges. There is no social presence when using SSBTs; it's not face to face. Kerem (2003:8) says that "the power of person-to-person communication and word of mouth can never be underestimated". In a face to face environment it's easier for the teller to guide a discussion and maintain control. According to the United Nations Economic and Social Commission for Asia and the Pacific and the International Trade Centre (2005) personal contact between banker and client is diminished when using SSBTs, and the banker losses some influence over his clients. A customer may miss the personal service of interacting with a teller and is not able to ask for information that he/she needs. Customer's needs and requirements may not be met in the information provided by SSBTs whilst this can be made possible by asking a teller as the SSBTs are not designed to meet all of a customer's information preferences. The United Nations Economic and Social Commission for Asia and the Pacific and the International Trade Centre (2005) further say that concentrated effort must be made to educate and train people and businesses on using SSBTs. It is important that people are trained in order for them to confidently use the SSBTs as they will know what to do and how to use the SSBTs. Setting up electronic banking requires substantial investments; for it is very complicated to move from old technologies to new ones (Kerem, 2003). Investing huge sums of money to buy new technologies is one of the challenges faced by some banks as there is also need to train employees as well as SSBT users. Some people are computer illiterate and need to be shown how to use a computer or even a mobile phone. Training employees and customers on how to use the SSBTs may boost their confidence as they would have the right technological know-how.

Some customers avoid Internet banking as they perceive it to be too vulnerable to fraud. There is also the danger of password cracking and physical theft of passwords if they are written down by careless users. The online world may be too vulnerable to spies and hackers, so sensitive financial information cannot be displayed where anyone can have access to it. This makes Internet banking to be perceived as insecure. According to the United Nations Economic and Social Commission for Asia and the Pacific and the International Trade Centre (2005: 158), "one risk relates to the security of systems and transactions including data confidentiality and authentication of the parties involved."

Other challenges to using SSBTs are poverty, slow speed of the Internet, high cost of Internet subscriptions and the non-availability of Internet services in the rural areas. Kerem (2003:6) states that "the positive motivation of speed is challenged by the fact that relatively huge share of home customers still use slow, unstable and expensive dial-up connections which may make Internet banking as time consuming as branch banking".

## 1.6 SELF SERVICE BANKING TECHNOLOGIES IN ZAMBIA

The increase in the number of banks has forced many banks to improve the various banking services offered so they can compete effectively among their customer base. Traditionally, banks have maintained the traditional way of banking which is carrying out banking transactions within the banking hall with the assistance of a teller. However, today banks in Zambia use both the traditional and non-traditional models of providing banking services. Bank of Zambia has supports non-traditional models of providing banking services such as mobile banking, internet banking and truck banking services" (BOZ, 2009). Banks have traditionally been early adopters of technology. Even before people had computers in homes, banks already had mainframe computers to do banking transactions. Before the internet era banks had private networks to securely transit data across any country in real time (United Nations Economic and Social Commission for Asia and the Pacific and the International Trade Centre, 2005). With the rapid development of information and communication technologies, banks are today moving aggressively to introduce new self service banking technologies with a view of expanding their customer contact points beyond banking within branches.

Zambia has also created opportunities for different kinds of electronic banking services. The exploitation of online service technology is one of the most advanced changes in the banking environment. And with new entrants on the banking market, globalisation and service innovations have intensified competition on the local market and forced banks to offer customers more choices. The development of information technology has also influenced bank service providers to improve their services and offer flexibility; allowing banks to increase their trading hours and opting to close late. In this regard, Zambia's banks are modernising by offering electronic services to their customers, thus laying the infrastructure for secure and efficient e-commerce in the country. Technology applications such as electronic and mobile phone banking speed up investment in the economy and could accelerate economic growth (Malakata, 2005). Therefore the development of these services could ease the difficulties experienced by clients in accessing bank services such as long queues and shorter banking hours. However banks have come up with some solutions t solve these challenges.

For example, Standard Chartered Bank offers its banking services till 22:00hrs at the Manda Hill Branch (Standard Chartered Bank, 2009) and Finance Bank does the same till 16: 00 hours at all branches and to all its customers (Finance Bank, 2008). Other banks such as Barclays Bank have invested significantly in information technology to facilitate electronic cash movement, automated on-line cashier terminals and centralised database processing facilities (Barclays, 2010). The introduction of self services banking technologies is meant to increase service access using new delivery channels like the Internet and Mobile phones.

As alluded to earlier, Self service banking technologies reduce long queues and make it easier for bank customers to access banking services long after the banks are closed. Zambia National Commercial Bank (ZANACO) has introduced Internet banking, e-tracer, and Short Message Service (SMS), all of which make banking easier. ZANACO also provides Internet banking to its customers (Malakata, 2005). Zambia National Commercial Bank has got an online service called XAPIT which enables its customers to pay for water bills, recharge airtime and send money to other people using their mobile phones by just sending an SMS. University of Zambia students are able to use online banking services through ZANACO to pay their fees. Those that are

sponsored by the government are able to access their meal allowances by the use of ATMs and also check their account balance by SMS. This has reduced the long queues that were experienced by the students when getting their meal allowances and paying their tuition fees. ZANACO has also introduced a facility that helps Association of Chartered Certified Accountants (ACCA) students in Zambia pay their fees to the United Kingdom through VISA card electronically over the Internet; therefore eliminating the need for the students to go to their local banks and get bank drafts. In addition, Self service banking technologies (SSBTs) offer possibilities of consumers accessing banking services regardless of their location.

#### 1.6.1. Automated Teller Machines

Fundanga (2006) argues that in Zambia "commercial banks have improved the range of products offered to customers, in line with global innovations. These include Automated Teller Machines (ATMs), foreign exchange accounts, Visa, mortgages, and leasing services. In 2005, a few commercial banks launched the E-switch facility to allow their customers to share their ATMs and other payment delivery channels, like point of sale terminals".

The number of ATMs offered by most commercial banks has doubled over the years. According to Bank of Zambia (2010) there were 54 ATMs in 2004 that now have increased to 489 in 2010. This has been in an effort to provide better banking services to their clients. Zanaco(2009) increased to 106 installed Zanaco 24 branded ATM machines nationwide. Zambia's commercial banks offer a wide range of financial services. Almost all the commercial banks now have Automated Teller Machines (ATMs) and Point-of-sale (POS) terminals and the roll-out of the Eswitch is underway (Ministry of Commerce, Trade and Industry, 2010). Bank of Zambia (2010) further reported an increase of transactions processed though the automated teller machines (ATM) payment stream by 41.2% to K10,684 billion from K7,567 billion in 2009. This growth was attributed to customers' increased use of the electronic payment method.

# 1.6.2 Mobile Banking

Mobile Banking is available in the Zambian banking sector and relatively cheaper to use. For instance, Standard Chartered Bank Zambia charges K3500.00 for ATM withdrawals and K50, 000.00 for over the counter withdrawals. Online banking is free and mobile banking only charges K500.00 per successful session (Standard Chartered Bank Zambia, 2009). It is therefore, much cheaper to use them than in the banking hall. In addition, the speed at which banking services are delivered in online transactions is increased. Zambia National Commercial Bank (2009) recorded over 100,000 registered mobile banking users making over 1,000,000 transactions per month.

Mobile banking may also involve paying for a bill using your cell phone. Currently in Zambia, this is possible with service providers like Zambia Electricity Supply Corporation (ZESCO), Multichoice, Nkana Water and Sewerage Company, Lusaka Water and Sewerage Company and University of Zambia. Using mobile banking, customers are able to buy airtime as well as send airtime to other people.

# 1.6.3. Online Banking Services

In Zambia, Internet banking enables customers to check for their bank balances online and possibly print out a bank statement of their transactions. Internet banking services are available in most commercial banks like Finance Bank and Stanbic bank. Internet banking makes it possible for customers to manage their finances based on timely and accurate information. Internet banking enables customers to transfer money into another account. In order to facilitate online banking, banks in Zambia require to pay huge amounts of money to install high tech firewalls, so that their clients are protected and issues like security of the banking transactions are addressed. Besides this, it is also important to ensure the security of financial transactions even when a device i.e. mobile phone or ATM card is stolen. If these concerns are properly addressed then it would help in increasing the popularity of SSBTs by instilling a sense of trust among the customers. Some people will not use SSBTs due to lack of trust. Trust is a challenge faced by most banks as they need to be trusted in order for a client to make a decision on using that bank.

Poverty is a major challenge in Zambia as most people lack money to buy the hardware and software required to be online. i.e. Internet access may be expensive to these categories of people making Internet banking impossible. Another challenge of banking online is that it can be slow

for a webpage to open due to inadequate bandwidth. In Zambia, telecommunication companies have no network coverage in some rural areas and mobile banking would be impossible.

## 1.7. INFORMATION SEEKING BEHAVIOUR

In self service banking, knowledge of the information behaviour of customers is critical to its effective utilisation. Information behaviour is a concept that looks at activities a person may engage in when searching for information. It identifies the information needs and how people use information or transfer it. Information seeking can be defined as a process of finding information to fill a knowledge gap. Information behaviour is a broad term encompassing the ways individuals articulate their information needs, seek, evaluate, select, and use information. Information behaviour according to Wilson (2000:49) "is the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use."

Self service banking customers employ various information seeking strategies to acquire information from the services offered by a bank to meet their needs. In this context, Case (2006:333) defines information seeking as "behaviour that occurs when an individual senses a problematic situation or information gaps, in which his or her internal knowledge and beliefs, and model of the environment, fail to suggest a path towards satisfaction of his or her goal". This definition of information seeking brings out the aspect that an information seeker has a desired goal to attain. The information seeker may not stop looking for information until his/her need of attaining a specific goal is reached. Wilson (2000:49) also states that "information seeking behaviour is the purposive seeking for information as a consequence of a need to satisfy a goal." Therefore information seeking behaviour is a concept which can be defined as to what people do when they are looking for information to answer their need.

#### 1.8 STATEMENT OF THE PROBLEM

Self service banking technologies have great potential of bettering banking services in Zambia, yet this potential is not fully utilised. Information about these services is not widely disseminated so that consumers can effectively benefit from the services. Knowledge of the information behaviour of self service banking consumers is therefore critical in order for the banks to better tailor information products that would assist users in utilising the services. Bank customers also benefit because they get information products that best meets their information needs. Yet not much is known about the information behaviour of self service banking consumers. Knowledge of the information seeking behaviour of bank users benefits banks as they are able to tailor design their self service banking technologies according to the needs of the users. The absence of information on self service banking technologies affects the way customers use the services as they are not well informed. Without information services on SSBTs, banks are not able to market their financial products. The lack of information provision affects the effective use of self service banking technologies to their full potential. By analysing the utilisation of self service banking technologies, the study hopes to point out what barriers and benefits affect the users and their information behaviour.

# 1.9 OBJECTIVES OF THE STUDY

The overall objective of this study is to explore information seeking behaviour of customers of self service banking technologies.

The specific objectives are as follows:

- (i) To explore the utilisation of self service banking technology.
- (ii) To identify information needs of self service banking technology users.
- (iii) To determine the sources of information of self service banking technology users.
- (iv) To investigate the challenges faced by consumers in accessing self service banking information.

# 1.10 RESEARCH QUESTIONS

This study is guided by the following research questions:

- (i) To what extent is self service banking technology used by customers?
- (ii) What are the information needs of the users of self service banking technology?
- (iii) What are the information sources used by self service banking technology users?
- (iv) What are the difficulties experienced by customers in using the self service banking information?

## 1.11 SIGNIFICANCE OF THE STUDY

The results of this study are important in providing service providers such as banks a better understanding of the information needs of the users. It is also important to understand the information needs of the users of self service banking technologies so that commercial banks may tailor their services towards meeting the information needs of its users. The findings of the study will be of great use to the commercial banks to better the way self service banking technologies are tailored as commercial banks will be aware of the information seeking behaviour of its users.

The results of this study will further offer service providers a better knowledge and understanding of the typical self service banking user, regarding their information needs and use: thus adding value to their marketing actions in the field of electronic banking. The results of this study will be informative for managers when planning and implementing new self service banking technologies in the financial industry. The study may assist in the provision of information services using more information accessible formats, channels and sources. Results of the study may improve policies on self service banking information services and give these policies a firm empirical verification. Further, this study will be a contribution to empirical research on self service banking information services.

#### 1.12 STRUCTURE OF THE STUDY

This study is organised as follows; Chapter two reviews the theoretical and empirical literature that have not only contributed to broadening the knowledge base of information behaviour in the

banking sector but also in the choice of variables used in this study. Chapter three discusses the methodology and data collection. The results of the study are presented in chapter four and discussed in chapter five. Finally chapter six gives the conclusions and recommendations.

#### 1.13 CONCLUSION

The banking sector is regulated by the Bank of Zambia and there are currently 18 commercial banks operating in Zambia. The large number of commercial banks that have developed over the years shows that there are favourable conditions in the banking sector for customers. The history of the development of banks in Zambia was discussed. Furthermore a brief history of the commercial banks was given. The banking sector has undergone major developments from independence to date. The above discussion shows that Zambia has increased in the number of commercial banks operating. The chapter also looked at the available self service banking technologies and the benefits and challenges of using them in order to have an understanding of the services. It has also briefly looked at information behaviour.

Furthermore, this Chapter has outlined the statement of the problem, objectives of the study, the methodology to be used in the study, the significance of the study.

# **CHAPTER TWO**

#### LITERATURE REVIEW

## 2.1 INTRODUCTION

This chapter looks at empirical studies exploring information seeking behaviour of self service banking technology users. However there are no such studies exist in Zambia yet. Internationally there are several studies undertaken on each of the self service banking technologies particularly on user satisfaction. Most of these studies investigate how these technologies are diffused and what variables influence their adoption. These studies use various theoretical frameworks to find the various factors that influence a user to adopt and use a technology. The studies used the TAM (Technology Acceptance Model) and either looked at ATMs or Internet or Mobile banking services. However, very little research has been done on actual information seeking behaviour of users of SSBTs. In this case, a few studies using TAM model and those of information seeking behaviour in various contexts will be discussed.

# 2.2 THEORETICAL FRAMEWORK

Wilson's model on human information behaviour provides a framework to better understand the information behaviour of SSBT users and how information flows in the commercial banks. The main activities in exploring the information seeking behaviour of SSBT users is to look at how information is gathered, processed and how the information is provided to them. Wilson's model of information behaviour is well suited to study how users of SSBTs gather, process and use information. This model presents an individual who needs specific information and who actively/passively seeks information. The model also states that there are potential barriers the information seeker may face. Figure 1.Illustrates Wilson's Model of 1996.

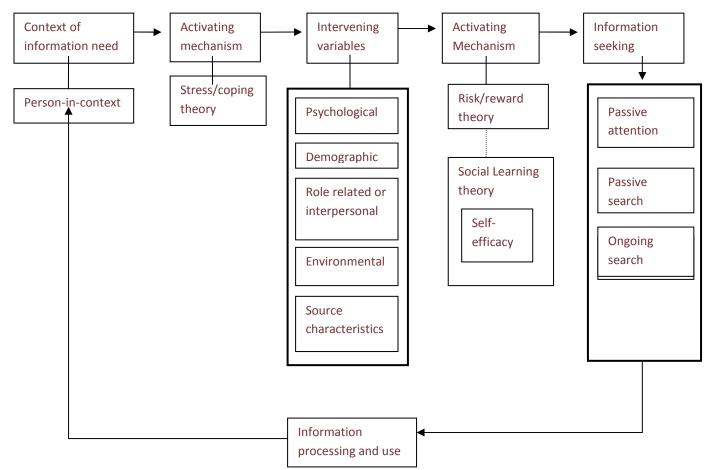


Figure 1: Wilson's Model of Information Behaviour (1996)

Source: Case, D. (2006:137)

Wilson's 1996 model is a major revision of his 1981; drawing upon research from a variety of fields other than information science including psychology, health communication, research and consumer behaviour. However, the basic framework of the 1981 model persists in that the person in context remains the focus of information needs, the barriers are represented by intervening variables and information seeking behaviour is identified. The activating mechanism can be looked at as what motivates a person to search for information and to what extent? In the first activating mechanism, there is the stress/coping theory. This is a general theory from psychology, where stress is defined as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering his or her well-being (Wilson and Walsh, 1996). They further define coping as behavioural effects to master, reduce or tolerate the internal and external demands that are created by stressful

situations. It is in these situations that prompt people to start looking for information. When they are stressed, this becomes an activating mechanism. However, there are other people that are able to cope with that stress and ignore it, meaning that they actually ignore their information needs. The motivators are affected by intervening variables of six types: psychological, demographic, role-related interpersonal, environmental and source characteristics. These intervening variables may even act as barriers for someone to start looking for information.

Wilson adds two theories under the second activating mechanism as risk/reward theory and social learning theory. These theories link with information seeking behaviour in that the individual looks for information knowing that he/she will benefit when the information is found. In risk/reward theory the information seeker is motivated to look for information knowing that there is a reward when the information is found. In social theory, when the information is found the information seeker benefits by learning something. Wilson further describes information seeking behaviour as being passive attention, passive search, active search and ongoing search. Active in the sense that an individual can actually be searching an information source or system with an intention of finding information, whilst information behaviour becomes passive when a person finds information unintentionally, for example when walking in the streets an individual reads a poster which gives him information without him having any intention of looking for information. Passive search is where an information seeker unintentionally comes across information without looking for it. Active search is where the information seeker intentionally looks for information for example, checking for information in journals or books. Another example is that of SSBT customers who use Internet banking services with an intention of finding information on their accounts. Ongoing search is when a person finds information he uses and processes the information and if the person is not satisfied he/she may continue searching until he/she is satisfied.

In this study, information seeking behaviour of customers using self service banking technologies will be explored. The way these customers go about looking for information and what they do when looking for information will be studied. Barriers that prevent self service banking customers from seeking and getting information are also of great importance in understanding their information-seeking behaviour. Information use is a behaviour that leads an

individual to the use of information in order to meet his or her information needs. An information need arises out of needs of a more basic kind; and in an effort to discover information to satisfy a need, the enquirer is likely to meet difficult barriers of different kinds.

#### 2.3 REVIEW OF EMPIRICAL LITERATURE

## 2.3.1 Technology Acceptance Model

A study was conducted by Deng et al (2010) that explored Chinese user adoption of mobile banking. The aim of the study was to explore peoples' perceptions of mobile banking services in China. The study applied TAM (Technology Acceptance Model) and trust to examine the factors that influence the adoption. According to Deng et al (2010), TAM is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new software package, a number of factors influence their decision about how and when they will use it. Deng el al (2010:177) points out these factors as "perceived usefulness which is the degree to which a person believes that using a particular system would enhance his or her job performance and perceived ease of use as the degree to which a person believes that using a particular system would be free from effort." The proposed model was empirically evaluated by using survey data from 209 users concerning their perceptions of mobile banking. Deng et al (2010) point out that in China mobile banking services are now mainly conducted through short message service (SMS). Users send messages to different specific code numbers to check their account and then in return receive a short message about the transaction. The findings of the study were that TAM can predict consumer intention to using mobile banking. The results also indicated that perceived ease of use and perceived service cost were found to have no significant effect on user's behavioural attitude toward mobile banking. This is because consumers owned their mobile phone for more than a year and were familiar with their use and many other services offered by the mobile network, so they perceived the mobile service as easy to use and therefore perceived ease of use as not a determinant for positive or negative attitude toward mobile banking.

An empirical study of significant dimensions of Automated Teller Machine service quality and its effect on customer satisfaction in Pakistan banks was conducted by Khan (2010). The

objective of the study was to examine the essential dimensions of ATM service quality and analyse its effect on customers' satisfaction in the banking sector of Pakistan. Questionnaires were used to collect data from a convenience sample of 500 customers of national banks. Regression analysis results indicated that convenience, efficient operation, security and privacy, reliability and responsiveness are significant dimensions of ATM service quality, positively and significantly contributing toward customer satisfaction.

Yaseen and Zayed (2010) applied the TAM model to explore critical determinants in deploying mobile commerce technology amongst customers in Jordan. The TAM model used the following variables: perceived trust, perceived usefulness, perceived ease of use, social and cultural values and economic issues to explore determinants. The results of the distributed questionnaires to mobile commerce users in the Amman stock exchange revealed that perceived trust, perceived usefulness, perceived ease of use; social culture values have significant association with intention to deploy mobile commerce technology in the Jordanian marketplace.

Haytko and Simmers (2009) conducted a study on "what's your preference: an exploratory examination of the effect of human versus automated teller machines versus online interactions on overall consumer satisfaction with banking services". The purpose of the study was to explore the effects of human interaction versus interactions with technology in overall customer satisfaction with banking services. Two studies were conducted through surveys with students who had a bank checking account by using consent forms. Multiple regression analyses were conducted to determine the effects of the interactions on overall satisfaction. The study utilised student samples which could be biased but students are also users of banking services as they represent a traditional target market for financial service firms. The findings were that while human encounter was more important before online banking became so prevalent, the convenience of online banking has displaced the importance of human interaction.

## 2.3.2 Information Seeking Behaviour

Mahajan (2009) carried out a study on the information seeking behaviour of students at Panjab University in India. The study explored the information seeking behaviour of undergraduates, postgraduate students and researchers at the university. The study examined the kinds of

academic information needed by the respondents, the resources they preferred and whether they were satisfied with the library collections and their general pattern of information seeking. In the study Wilson's definition of information seeking behaviour was applied as an activity a person engages in when identifying their own needs for information, searching for information in any way and using it. Data was collected using questionnaires from 250 respondents. Interviews were also used to get respondents opinions and suggestions. The study identified books, reference sources, journals, conference proceedings and online databases as some of the formal sources of information used by the respondents. The informal sources were email, discussions with teachers, seminars and discussion with librarians. The findings indicated that email and discussions with teachers were mostly preferred by most respondents. Since information is available in various formats as a result of the implementation of ICT, users were asked to indicate its impact on their information seeking behaviour. All the respondents were aware of its impact and found it beneficial. The findings revealed that respondents preferred information in both print and electronic form and they also expressed a need for training in the use of ICT resources. The implication of the study was that libraries as well as service providers needed to understand information seeking behaviour of their users in order to re-engineer their services and provide information efficiently.

Nussbaumer et al (2009) carried out a study on understanding information seeking behaviour in financial advisory services. The research discussed new perspectives on the problems of today's advisory services, including the customer's dissatisfaction with personalisation and individualisation of financial services. Wilson's model on human information behaviour was used to understand the information behaviour of clients. The findings were supported by data collected from mystery shopping episodes and focus group discussions. Mystery shopping is where a person visits a shop or store or other business pretending to be a customer in order to get information on the quality of the service (Oxford Advanced Learner's Dictionary, 2006). Mystery shopping was used to gain a deep understanding of the current banking advisory and focus group discussions were conducted with the aim of having an understanding of the information seeking behaviour of affluent banking customers. Four researchers conducted a total of 21 mystery shops that entailed conducting consultations with retail banks where each session lasted from 60 to 90 minutes. In the mystery shops the researchers requested advice about

investments in the typical range of the affluent customer. In the focus group discussions, employees discussed their information behaviour; their satisfaction and their expectations of advisory services. Regarding their overall satisfaction with advisory services, the focus group expressed mixed feelings - few positive aspects of advisory services were raised. However, the majority of participants criticised their advisors as being very passive, inexperienced, lacking an in-depth understanding of the Financial Service Providers (FSP)'s products and showing a tendency to take advantage of an uninformed customer. Though some participants expressed strong interest in having such information incorporated, the majority of the participants perceived advisory as not individualised or personalised to their preferences or learning progress. The participants expressed a strong consensus that the application of information technology based systems with the advisor would be useful.

Singh and Komal (2009) in a comparative study of three major banks in India researched the impact of ATM on customer satisfaction. The three banks were the State Bank of India, the Industrial Credit and Investment Corporation of India (ICICI) Bank and the Housing Development Finance Corporation (HDFC) Bank. The main aim of the study was to examine the scenario of ATMs in three major banks. A sample of 360 respondents equally representing each bank was taken through questionnaires. Data was also collected through interviews and a personal visit was made to the three banks. The results of the study were based on three elements; fee charged, frequency of problems faced and post purchase behaviour. It was concluded in the study that material satisfaction level was highest in the State Bank of India, then second was ICICI Bank India and third was HDFC Bank. This was due to the fact that the State Bank of India was larger than the other banks and it had been established for longer years.

Chiware (2008) sought to examine the business information needs and seeking patterns and existing business information services for Small, Medium and Micro Enterprises (SMMEs) in Namibia. The survey research method was used; applying both quantitative and qualitative techniques in the gathering and analysis of data. The survey research technique was carried out with the aid of three data collection instruments: a structured questionnaire for SMME operators, a structured questionnaire for business support organisations and an assessment guide for the existing business information services. The findings of the study were that 65% of the

information needs of the SMMEs were finance information followed by marketing information. Technical information was one of the least information needs. Information accessibility was also a focus of the study; it was found that it was not easy to obtain most of the important information required by the business operators. Chiware (2008) also stated that information access is often cited as one of the major obstacles to development in many economic activities in developing countries. For the information seeking behaviours of SMMEs the findings indicated that 63% of the respondents were not aware of where to obtain information.

A study on Irish online banking by Loonam and O'Loughlin (2008) specifically explored eservice quality. The purpose of the study was to explore the emergence of self- service banking technology and customers' perception of Internet banking self service within the Irish financial services sector. A purposive sampling technique was employed to recruit 20 consumers representing the desired range of demographic characteristics; previous Internet experience levels and product related knowledge. The findings of the study were that many traditional service quality attributes were found to be redundant and instead electronic dimensions such as web usability, trust, access and information quality service recovery and flexibility emerged as important to e-banking service provision. The findings also pointed out that security played an important role in online banking adoption and continued use, with respondent security concerns directly linked to limited e-banking use. Some of the respondents noted that they only logged on to check for information rather than to carry out banking transactions due to security concerns. Loonam and O'Louglin (2008) found that information quality was important as customers were less interested in general information but needed more specific information. The prevailing attitude among respondents was that they did not appreciate banking information being pushed on them. Respondents revealed a detached attitude with regard to banking information and generally felt if they needed it they would acquire it.

Laukkanen (2007) study explored and compared customer value perception in Internet and Mobile banking. Further it was intended to compare customer perceived value and value creation between Internet and Mobile bill paying service. A qualitative in-depth interviewing design was applied in order to ascertain the factors that create value perceptions in fund transfer service via personal computer and mobile phone. Means-end approach and laddering interviewing technique

were used in order to reveal how different value creating factors are hierarchically structured and related to each other. A means-end approach refers to a set of methods for conducting customer interviews about the reasons for their choices and interpreting consumers' responses in terms of links between outcomes. The approach suggests a hierarchical representation of how customers view products and services. A laddering interviewing technique is basically a one-on-one semistructured in-depth interviewing technique in which respondents describe freely why something is important to them and researchers try to find linkages between the key perceptual elements across the range of attributes, consequences and desired end-states (Laukkanen (2007). The results indicated that customer value perceptions in banking actions differ between Internet and mobile channels. They differ in that mobile banking displays a small amount of information on the small screen of a phone and this makes the device very difficult to use in fund transfer. The respondents claimed that the visual display was insufficient and they were not able to see the entire bill on the screen. This was perceived as inconvenient and increased the feeling of uncertainty in service consumption. On the other hand, it was much easier [via computer] to get the whole picture, the sums and index numbers. In addition, it was easier to check the information on the computer screen instead of the mobile phone, which gives you one piece of information at a time. The findings further suggested that efficiency, convenience and safety are salient in determining the differences in customer value perceptions between Internet and mobile banking.

Miranda and Tarapanoff (2007) carried out research on "information need and information competencies: a case study of the off-site supervision of financial institutions in Brazil". The specific purpose was to study how information need and information competencies of this professional group could be identified by applying an informational point of view. Qualitative epistemology was used and the research strategy was a case study. The research techniques used were document analysis, interviews, participant observation, work process analysis and focus groups. The object of the study was the central bank of Brazil. The focus of the study was the activity of off-site supervision, responsible for the monitoring of the Brazilian financial system. Eight decision makers and forty seven off-site supervisors were considered in the research to represent the professional group. The analysis of critical success factors of off-site supervision and the observation of the work process performed by its professionals confirmed that the

activity is information intensive and is based on information technologies and on the information cycle (collecting, processing, distributing and using of information). The importance of analysing the activity from the point of view of information parameters was stressed. It was concluded that off-site supervisor's information needs and competencies are closely linked to the specific needs of their work processes, situational factor, tasks, routines and technologies. In addition the role played at work defines a group of need which could only be attended to through a specific professional profile, developed in daily work practice.

Islam et al (2006) researched "customer satisfaction of ATM service" which was a case study on the Hongkong and Shangai Banking Corporation Limited (HSBC) in Bangladesh. This study investigated the satisfaction levels of HSBC ATM cardholders (both staff and non-staff of HSBC) with respect to various aspects of using HSBC ATM. The samples of the study were selected on a convenience basis. The study only provided information for analysing ATM scenario of HSBC. Structured questionnaires were used to collect primary data for the study. In the questionnaire, respondents were asked ten questions of which eight were related to their level of knowledge and comments on various issues of the HSBC ATM. Secondary sources used in the research included the bank's annual report, the group ATM branch procedure manual, relevant web-based materials and prior research reports. Data had been analysed by using descriptive statistics.

The findings of the study indicated that the satisfaction of both staff and non-staff ATM users was greater than neutral state of satisfaction with respect to various aspects of ATMs. The various aspects in question were promptness of card delivery, performance of ATM, service quality of ATM personnel, quality of notes and the relative position of HSBC ATMs. The study indicated that the average satisfaction level of staff ATM users was greater than that of non-staff ATM users in all respects. The study also concluded that staff respondents held a good impression of their organisation and generally provided positive responses. Sixty five percent of the non-staff and 38% of the staff felt that machine breakdown was the main problem area of HSBC ATMs. In the study, Islam et al (2006) defines machine breakdown as a situation where the ATM machine cannot function at all due to poor quality notes or high frequency use. As an ATM is a machine, the probability of going out of order rises with the high frequency of use of

the machine. Islam et al (2006) argue that if the notes supplied in the ATMs are of poor quality, the chance of machine breakdown increases as the sensor that picks the notes from the cassette can't operate smoothly. About 53% non-staff users and 31% of the staff users felt that the location of HSBC ATMs was unsuitable for users. Recommendations made by the customers were for HSBC management to increase the number of ATM locations, provide new ATMs, better currency quality and increase of safety-security.

Laukkanen and Pasanen (2005) describe the characteristics of the users of mobile banking as a distinct group of online customers. The aim of the study was to investigate how the marginal group of mobile banking users differs from other users of online banking services. An internet survey was conducted and 2,675 responses were collected and analysed. The data collection procedure produced 320 respondents who used mobile banking services and 2355 users who used Internet banking services. Logistic regression was used to find variables differentiating the users of mobile banking from other online banking services. The results indicated that age and gender differentiate these groups of customers. This is because the usage rate of mobile banking services was highest in people aged between 30 – 49 years which was contrary to the general assumption that mobile banking services are mostly used by young age groups. The results further indicated some gender differences in the use of mobile banking. It seemed that men were more likely to use the services than women, the usage percentages being 13.7 % for male against 10.9 % for female. The study concluded that age and gender were the main differentiating variables of Mobile and Internet banking customers.

Thivant (2005) conducted a study of the information seeking and use behaviour of economists and business analysts. The aim of the study was to explore the information seeking and use problem in a professional context and to understand how activity can influence practices, by taking as examples, the research undertaken by economic analysts. The models that were mainly used in the research were those of Cheuk, Ellis and Wilson. Three economic institutions were looked at: Central Bank of France, the National Institute of Statistics and Economic Studies and the Lyonnais Local Economic Observer. Qualitative methods were used for the research. Eight economists were interviewed using a questionnaire and the Situation, Complexity and Information Activity (SICIA) method. The SICIA method is a qualitative approach which

underlines the relationship between situations, professional contexts and strategies. Business analysts from financial institutions were interviewed. To interpret the interviewees' comments, a qualitative mode of analysis was used. The findings of the study showed that similarity in information seeking and use strategies used by these two groups. Five situations were used and these were; new situation, transitional situation, facts situation, problematical situation and decisive situation. The findings of the study concluded that economists and analysts seem to proceed identically, especially in new problematical and decisive situations. The most difficult to compare are the transitional and facts situations because the economists and analysts use different information seeking strategies according to habits, practices and perhaps tools and means. Some of the information strategies used by the economists were browsing, monitoring, and selection; checking and strengthening. Finally the study allowed the researcher to better understand the environments of economists and analysts, to show the different information sources and to improve information seeking and use models. The study identified a number of information sources that were consulted by the economists as economic, financial and strategic reports at various levels. Other information sources were national publications, regional periodicals, books and CD-ROMS. Thivant (2005) pointed out that economists have different goals and will therefore utilise different information sources and have different information seeking behaviours.

McPhail and Fogarty (2004) conducted a study on mature Australian consumer's adoption and consumption of self service banking technologies. The study analysed the mature Australian market through a segmentation approach based on the level of use of SSBTs. The three segments were non-users, low users and medium-to-high users of SSBTs who were profiled by frequency of use and demographic variables. The medium-to-high users did not exhibit the technophobia that is often associated with mature consumers. Even though they had not grown up with the various forms of SSBTs they used them quite readily. The non-user segment and to some degree the low user segment displayed a level of innovation resistance to some or all SSBTs. The major finding from the analysis was that there was a substantial group of mature users across all age groups using a variety of SSBTs. Finally, a low level of replacement and disenchantment was evident among the participants of the study. McPhail and Forgarty (2004) also points out that replacement discontinuance is exhibited by respondents when they cease to use an SSBT and

replace it with another SSBT not currently being used. The findings indicated that 2% (3) respondents ceased to use ATMs, with two respondents replacing it with Electronic Fund Transfer at Point of Sale (EFTPOS) whilst one respondent selected Internet banking and continued use of Mobile banking. Further, a respondent stopped using EFTPOS due to the bank withdrawing the EFTPOS scheme and thus the cause did not relate to the respondent. The findings further indicated lower percentages of respondents stopping to use SSBTs without replacing it with another SSBT. Reasons were not given as to why respondents stopped using the SSBTs.

Another study was conducted on online banking information: "what we want and what we get" by Waite (2004). The study was on young adults' expectations and perceptions of online retail banking information. A combination of qualitative and quantitative research was used. Data was collected using focus groups and questionnaire surveys. The results indicated that respondents expected bank web sites to be easy to use and to provide them with basic account/product details. These features were valued more than the technological aspects. Yet, perceptions of actual information provision differed. While basic account and price information were perceived to be provided, certain features were perceived to be less prevalent, rendering bank web sites ineffective at aiding consumer decision making. The research questions the role of the Internet in information provision and suggested how banks can improve their web sites to assist consumer decision making.

A study on the adoption of electronic banking was conducted by Kerem (2003), looking at the underlying consumer behaviour and the critical success factors in Estonia. The aim of this study was to understand how customers perceived electronic banking using interactive channels. The main aim of the research was to analyse Internet banking as a mainstream transaction and service delivery platform. The findings indicate that the main reason the user base could not grow was due to limited access to the Internet and the growing digital divide. Another issue raised in this study was that if banks participated in training projects and supporting public Internet access points then Internet access would be improved.

Further a study was conducted on understanding older consumers' usage of Self Service Banking Technologies based on two models by McPhail et al (2003). The two models, namely the Theory of Planned Behaviour (TPB) and Technology Acceptance Model (TAM) were compared in terms of the extent to which each model could be used to explain intention to use and usage behaviour of SSBT's by older consumers. Data was collected from older consumers (over 50 years of age) who were randomly selected from a large Queensland Seniors database. Questionnaires were mailed to 600 selected respondents which resulted in the return of 208 usable questionnaires. The findings indicated that the use of SSBT's was higher than expected. Most of the consumers used ATMs followed by Electronic Fund Transfer at the Point of Sale (EFTPOS) whilst Internet banking was used less. The study concluded that the modified TAM was favoured over the TPB. The modified TAM yielded better indices as compared to TPB model because the modified TAM included the key attitude and intention linkage. Therefore it gave a better account of how attitudes are formed. For example, based on the TAM model older consumers who perceive SSBT's as easy to use are more likely to find it useful and thus develop a positive attitude toward using one or more SSBT's.

## 2.4 CONCLUSION

Information is one of the main factors that may contribute to any technology system to be used efficiently and effectively. The studies reviewed in this chapter have pointed out that information plays a role in enabling the ease of use of SSBTs. These studies were specifically on the use of self service banking technology and what contributed to their use.

Wilson's information behaviour model of 1996 is widely used by most researchers in the library and information discipline to understand users in their information seeking and use. This is a model that looks at the barriers to use, storage and dissemination of information. In this model, the user is faced with demographic, environmental, psychological barriers in accessing the information needed. These barriers have an effect on the information seeking behaviour of an individual even to the point where some users are passive and do not look for information at all. The model identifies variables that are critical to information seeking behaviour and are also important in this study.

The findings of the reviewed studies are important as they pointed out various variables for research. The reviewed studies also reveal that age and other demographic variables influence the use of SSBTs. Young users have more technological skill and are much more able to retrieve information than older users that do not know how to use the latest technologies. More customers were able to use SSBTs if they were easy to use. Trust and reliability of the SSBTs was also another factor raised in the reviewed studies. When the SSBT users are well informed about the security of using the electronic banking services, they will be able to rely and trust the SSBTs. In addition, the security concerns by SSBT users are also diminished when the users are well informed.

The studies reviewed identified newspapers, friends and journals as some of the many available information sources that an individual might draw upon to solve a specific query on SSBTs. In this regard, collaborative information channels should be made available to users seeking information in order to use the SSBTs. Therefore it is the banks' responsibility to gather, process and transfer information to the customer. Other studies concluded that ease of use and service cost did not have any significant effect on the behaviour of SSBT users. Similarly not having information on the cost of using mobile banking services had no significant effect on the users as they were still able to use the service. The major conclusions of the studies reviewed were that information provision was important in order to assist the SSBT users.

#### **CHAPTER THREE**

#### **METHODOLOGY**

#### 3.1 INTRODUCTION

This chapter covers the following areas: research design including ethical permission, study population, study sample, data collection and data analysis. It outlines the research instruments used in the study and further explains how data was collected. Finally, it gives the limitations of the study.

## 3.2 RESEARCH DESIGN

The study was exploratory and descriptive; encompassing both qualitative and quantitative approaches to data collection and analysis. There were two groups of respondents. The first group of respondents was users of SSBTs. The second group consisted of bank employees responsible for providing customers with information on SSBTs. The study was exploratory in nature as it aimed at gaining familiarity with the information seeking behaviour of self service banking technology users by understanding and achieving new insight in this area. Furthermore, the study was descriptive as it portrayed the characteristics, experiences or perceptive of SSBT users. In the quantitative approach, questionnaires were administered both personally by the researcher to the respondents and through email. The questionnaire consisted of two sections which had both open and closed ended questions. Section 1 collected personal information on the respondents such as gender, age, highest education qualification and the number of years the respondent held the bank account. Section 2 collected data on the information need and use of the SSBTs by the respondents. Questions in this section focused on the following areas: information sources used by the respondents, use of the SSBTS and adequacy of the banks in providing information on the SSBTs.

In the qualitative approach to the study, producers of self service banking information were interviewed using a semi structured questionnaire. Furthermore, annual reports were collected from the five commercial banks understudy.

#### 3.3 STUDY POPULATION

The target population for this study was users of SSBTs of commercial banks in Zambia. Specifically, the study surveyed customers who held accounts at the commercial banks. The population of the study included all the 18 commercial banks in Lusaka.

### 3.4 STUDY SAMPLE

The study was conducted on 5 commercial banks in Lusaka. These banks were selected using purposive sampling. In purposive sampling, the samples that were relevant to the study were intentionally selected. According to Sidhu (1984) purposive sampling is a type of sampling where the selection of the cases is governed by some criterion acting as a secondary control. A particular group is selected from the population to constitute the sample because the category is considered to mirror the whole with reference to the characteristics in question. The banks in this study were selected based on the following factors: the commercial banks needed to have been in operation for more than 10 years; and have more than five branches operating in Lusaka. This was because banks that have been in operation for more than 10 years are well established and known by the public. Another criteria used to select the banks in this study were assets. All the banks were ranked in terms of assets. The five largest banks in terms of assets were selected and these were Barclays Bank, Zambia National Commercial Bank, Standard Chartered Bank, Stanbic Bank and Finance Bank (Bank of Zambia, 2008). These banks cover 76% of the banking industry's total assets.

### 3.4.1 Sampling Procedures

Users were sampled from all the banks with self service banking technologies as it was imperative to understand the information behaviour of users from the different commercial banks. Random sampling was used to select the 150 respondents from the 5 commercial banks. The customers who received the questionnaire were selected on grounds that they hold an account with one of the five selected commercial banks in the study. The customers were selected randomly by approaching each customer in the banking hall after carrying out a transaction. Before leaving the banking hall, customers were asked to fill in a questionnaire as the researcher waited for it. According to Gnosh (2003), in random sampling, individuals are

selected from the population in such a way as to accord every individual of the population the chance of being selected.

The bank officials that were interviewed from the commercial banks were the ones that work in consumer banking department as they are the ones that interact with SSBTs users. One Consumer banking personnel was identified by each Bank to be interviewed by the researcher. Consumer banking is mainly concerned with deepening customer relationships by providing friendly, fast and accurate services that solve customer's financial needs (Standard Chartered Bank Zambia, 2009).

## 3.5 DATA COLLECTION PROCEDURE

## 3.5.1 Ethical Permission

Permission was sought from the Director of Economics of the Bank of Zambia to collect data from the commercial banks. With the letter from the Director of Economics of the Bank of Zambia, the researcher then sought permission from the relevant bank officials. In addition the researcher obtained an official letter of introduction from the School of Education at the University of Zambia.

## 3.5.2 Questionnaire Data

Data for this study was collected with the help of the commercial bank officials in Lusaka over a period of two months from October to November 2010. A total of 150 questionnaires were distributed by hand to the commercial bank customers with 30 questionnaires per bank and 110 questionnaires were returned. The response rate of the questionnaires returned was 73%. The researcher with the help of commercial bank officials gave the self administered questionnaires with a cover letter to the SSBT customers, after a bank transaction and waited for it to be completed by those respondents who were able to complete immediately. Some questionnaires were emailed to the bank customers by bank officials who handed them over to bank customers and those answered them were passed on to the researcher.

#### 3.5.3 Interview Data

Bank officials were interviewed by the researcher in their offices. Two bank officials were interviewed out of five. These two were from the commercial banks (Zambia National Commercial Bank and Standard Chartered Bank) that had accepted to be interviewed.

### 3.6 DATA ANALYSIS

The Software Package for Social Sciences (SPSS) version 15.0 was used to compute and analyse the data collected. The analysis was presented in frequencies, cross tabulations, graphs and tables. Data from open ended questions on the questionnaires and interviews were analysed qualitatively by grouping the data into themes and looking for patterns. Data from documentary sources was analysed qualitatively. Questionnaire data and Interview data were be analysed separately by first reporting results from the questionnaire. This was then followed by an analysis of interview data.

## 3.7 LIMITATION OF THE STUDY

One of the major limitations of the study was that the branches selected only included the ones in Lusaka. Therefore, this sample could have an impact on bank users in rural areas. Respondents from rural banks in Zambia may point out other issues that are unique to their locality.

Another limitation of the study was the lack of willingness of some commercial banks to provide statistics on the use of SSBTs that was needed through the interviews. The commercial banks stated that they did not help researchers as there was a security concern to the information that may be given. Other banks stated that information on the use of SSBTs was private and they could not give it to researchers for academic purposes. However, where this was the case, information from the bank publications was used to elicit some of the required information.

#### 3.8 CONCLUSION

The research design of this study was both quantitative and qualitative. The study instruments used were questionnaires, interviews and annual reports. The researcher faced challenges in holding interviews with some bank officials who were adamant not to give any information from their banks.

### **CHAPTER FOUR**

### **FINDINGS**

#### 4.1 INTRODUCTION

This chapter presents the findings of the research by interpreting the data collected. The general information of the respondents which include sex, age, qualification background and the banking years of the SSBT users are firstly outlined. The chapter further gives the findings on the use of the SSBT and their frequency of use. The chapter further presents the findings on the information sources and format. The information needs are also represented and then the chapter concludes by giving the challenges faced by SSBT users.

### 4.2 RESULTS

The findings of the study were mainly from questionnaires and the use of interviews. Questionnaires were answered by the customers who held accounts at any of the five selected commercial banks. The questionnaires response rate was 73 percent of the distributed questionnaires. Interviews were conducted with two bank officials. The banks that gave interviews were Zambia National Commercial Bank and Standard Chartered Bank whilst the other three declined to give interviews. Thus the researcher used data that was provided by the two commercial banks that cooperated. Annual reports were collected from all the five commercial banks as well as the banks websites were visited for any information relating to this study.

### 4.2.1 Characteristics of the respondents

The total number of the sample picked was 110 respondents (N=110). Forty percent of the respondent's age range was between 26 - 35 years old. The other respondents were 20-25 years with thirty four point five percent. Only sixteen point four percent and nine point one percent respondents were in the age range of 36-45; and 45 and above respectively. In terms of gender there were 59 percent female respondents as compared to forty one percent male respondents. In terms of banking years, sixty three point six percent of respondents had banked with a bank for 1-5 years. There were twenty two point seven percent respondents that had banked for 6-10 years.

The remaining thirteen point seven percent of respondents had banked for more than ten years. The highest level of educational qualification attained by the respondents was at a degree level with forty percent followed by twenty eight point two percent at diploma level. The respondents with secondary and postgraduate levels were seventeen point three percent and fourteen point five percent respectively, of the total sample. The demographic details of the respondents are illustrated in Table 1.

**Table 1 Demographic profile of respondents** 

Demographi	c Characteristics	Frequency	%
Age	20 - 25	38	34.5
	26 -35	44	40.0
	36- 45	18	16.4
	46 and above	10	9.1
Sex	Male	45	41
	Female	65	59
Banking	1 - 5 years	70	63.6
Years	6 - 10 years	25	22.7
	11 – 15 years	6	5.5
	16 – 20 years	6	5.5
	21 – 25 years	2	1.8
	26 and above	1	0.9
Educational	Secondary	19	17.3
Qualification	Vocational	31	28.2
	Graduate	44	40.0
	Post graduate	16	14.5

## **4.2.2** Use of Self Service Banking Technologies (SSBTs)

To establish the utilisation of SSBTs, respondents were asked questions on the use of the SSBTs and the frequency of use. The respondents were asked if they used each of the SSBTs by giving a response of yes or no. The findings on the use of ATMs indicate that hundred percent of the respondents used ATMs. On the use of Mobile banking, seventy four percent of the respondents had never used this service whilst twenty six percent had used the service. For Internet banking, only ten percent of the respondents had used the service; whilst ninety percent had never used the service. These findings indicate that most people use ATMs and that only a few people use Mobile and Internet banking services. The findings are illustrated in Table 2.

Table 2: Use of SSBTs

		Frequency	%
ATMs	Yes	110	100
Mobile banking	Yes	29	26
	No	81	74
Internet banking	Yes	11	10
	No	99	90

To further establish the frequency of SSBTs use, the research required the respondents to state how often the banking services were being used. The acceptability of a service is defined by how frequent a service is used. The study shows that 36 people used ATMs once a week, 29 people used the ATMs after a week and 29 people used the ATMs once a month.

Mobile banking services were mostly used once a month by 13 respondents whilst Internet banking was used once a month by 6 respondents and 99 respondents had never used Internet banking. The findings on the frequency of use of the SSBTs were similar to those on the actual use of the SSBTs. This was because most of the respondents used ATMs and fewer of them used Mobile and Internet banking services. The findings on the frequency of use of SSBTs are represented in Table 3.

**Table 3: Frequency of use of SSBTs** 

	ATMs		Mobile k	oanking	Internet banking	
	Frequency	%	Frequency	Percent	Frequency	%
Daily	16	14.5	5	4.5	4	3.6
Once a week	36	32.7	6	5.5	1	.9
After a week	29	26.4	4	3.6	0	5.5
Once a month	29	26.4	13	11.8	6	0
Never	0	0	82	74.5	99	90
Total	110	100	110	100	110	100

## **4.2.3** Banking years of SSBT users

A cross tabulation was carried out to establish how many years SSBTs users had been banking with their commercial bank using each particular banking service. This was carried out in order to know how long a particular banking service was being used. There were 70 respondents who had been using ATMs for 1-5 years, 25 respondents for 6-10 years and only one user for 26 years and above. The findings further revealed that most of the SSBT users had not banked for more than five years. Most of the mobile banking users had banked for 1- 5 years with seventy six percent and twenty seven point three percent for Internet banking. Table 4 illustrates the findings.

Table 4: Banking years of SSBT users

	ATMs		Mobile ba servic	_	Internet banking services		
Banking Years	Frequency	%	Frequency	%	Frequency	%	
1 – 5 years	70	63	22	76	3	27.3	
6 – 10 years	25	23	5	17.2	5	45.5	
11 – 15 years	6	5.5	1	3.4	2	18.2	
16 – 20 years	6	5.5	1	3.4	1	9	
21 – 25 years	2	2	0	0	0	0	
26 years and above	1	1	0	0	0	0	
Total	110	100	29	100	11	100	

### 4.2.4 Age of SSBT users

Another cross tabulation was carried out on the use of SSBTs and the user's age. This was done in order to know which age group used a banking service the most. The findings revealed that 38 of the ATM users and 17 of the mobile banking users were aged between 20 - 25 years. These findings represented the respondents that had ever used SSBTs whether once or more times. The respondents were asked if they had ever used any on the three SSBTs and had to tick the ones that they had ever used. The findings further indicated that 44 ATM users and 8 mobile banking users were aged between 26 - 35 years. There were only 4 mobile and internet users that were aged between 36- 45 years respectively. None of the mobile and internet banking users were 46 years and above. ATM users had 10 respondents aged 46 years and above. The findings are represented in Table 5.

Table 5: Age of SSBT users

Age of respondent	ATMs		Mobile bar	0	Internet banking services	
respondent	Frequency	%	Frequency	%	Frequency	%
20 - 25	38	34.5	17	58.6	1	9.1
26 - 35	44	40	8	27.6	6	54.5
36 - 45	18	16.4	4	13.8	4	36.4
46 and above	10	9.1	0	0	0	0
Total	110	100	29	100	11	100

## 4.2.5 Educational qualifications of SSBT users

Furthermore, a cross tabulation was carried out on the Internet banking users and their level of educational qualification. This cross tabulation aimed at testing whether educational qualification as a variable influenced SSBT use. The findings revealed that forty percent of the ATM users, forty four point eight percent of the mobile banking users and fifty five percent of the Internet banking users were at graduate level. This showed that most of the users of all the three banking services were qualified at graduate level. Table 6 illustrates these findings.

Table 6: Educational qualification of SSBT users

	ATMs		Mobile bankir	ng services	Internet banking		
Educational	Educational				services Frequency %		
	Frequency	%	Frequency	Frequency %		%	
qualification							
Secondary	19	17	5 17.2		1	9	
Vocational	31	28	9 31		2	18	
Graduate	44	40	13	44.8	6	55	
Post graduate	16	15	2	7	2	18	
Total	110	100	29	100	11	100	

### **4.2.6** User friendliness of SSBTs

The respondents were asked whether the SSBTs were user friendly or not and the findings indicate that ninety seven percent of them agreed that the SSBTs were user friendly, whilst 3 percent said no. The findings therefore, show that the majority of the respondents found the SSBTs to be easy to use.

#### **4.2.7** Convenience of SSBTs

The respondents were also asked to rate the level of convenience of using the SSBTs by ranking their responses as: Very Convenient, Convenient, Not Sure, Not Convenient and Not Applicable. The ATMs were found to be widely used than mobile and Internet banking. The findings are illustrated in Figure 2.

Most of the respondents who had never used mobile banking and Internet banking were not able to rate the level of convenience because the question may not have been applicable to them. The findings revealed that 58 respondents found ATMs very convenient whilst mobile banking users had 19 respondents and Internet banking had 10 respondents.

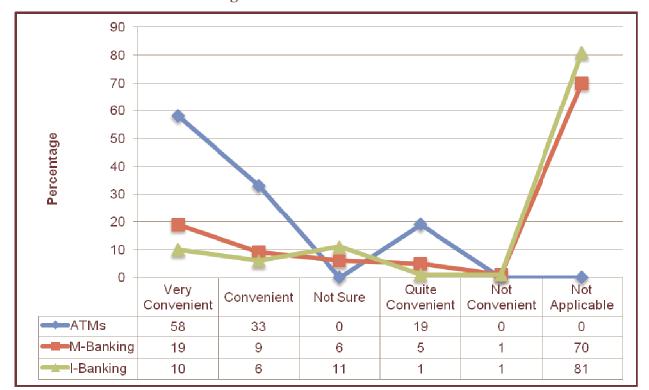
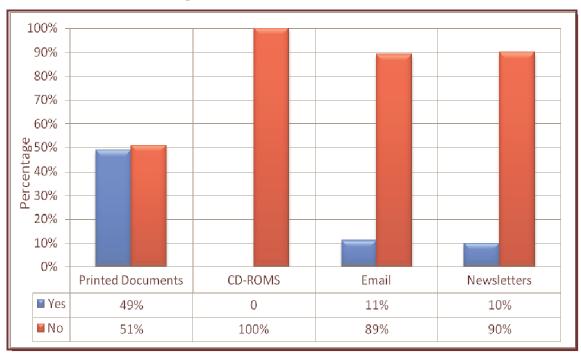


Figure 2: Convenience of SSBTs

## **4.2.8** Format of SSBT information

In order to establish the format of the information provided by the commercial banks, the respondents were further asked in what format they received information. The results are represented in Figure 3.

According to the results, forty nine percent of the respondents received information in a printed format whilst fifty one percent of them did not. This shows that there is a small marginal difference of only two percent between the two. The other formats were not used by the banks especially CD-ROMs as all the respondents denied receiving information on a CD-ROM. Only eleven percent and ten percent of the respondents agreed to using information in email and newsletter format respectively. From such findings it can be concluded that information provided by banks is provided mainly in a printed format like brochures, flyers or letters whilst CD-ROMs are not used at all. Other information formats given by a few respondents were SMS (mobile phone messages), media and through the commercial banks customer desks.



**Figure 3: SSBT Information format** 

A cross tabulation was performed in order to find out which respondents used commercial banks amongst the ones that agreed to using printed documents. The total number of respondents that used printed documents was 54 (forty nine percent) and the results revealed that these respondents; 41 of them agreed to using commercial banks as an information source whilst the other 13 respondents used other information sources. The findings are illustrated in Figure 4.

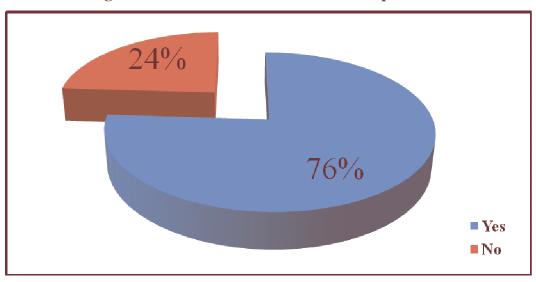


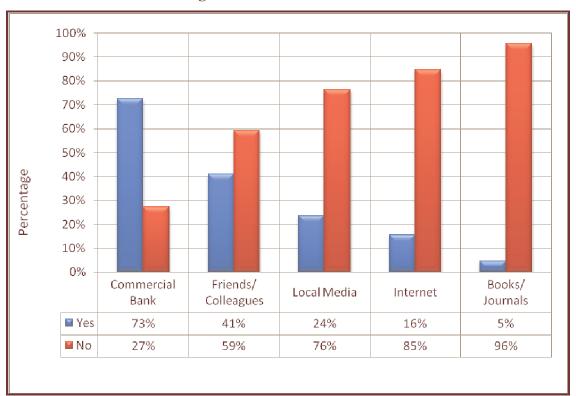
Figure 4: Commercial banks' information provision

Figure 4 shows that apart from the commercial banks being the major information providers, respondents had other sources of information. Examples of other information sources are friends, the Internet, local media or books.

#### 4.2.9 Information sources of SSBT users

In order to establish the source of information of users of SSBTs, respondents were asked to tick which of the sources they used from the following: friends or colleagues, internet, local media, books, journals or newsletter and their commercial bank. The respondents were given an opportunity to list any other information sources that may not have been provided for in the questionnaire. The findings indicated that forty one percent of the respondents agreed to having used friends or colleagues as an information source on SSBTs whilst fifty nine percent of the respondents said no. In comparison, there were more respondents that did not use friends as an information source but with a minimum marginal difference to those that used friends.

The findings indicate that eighty five percent of the respondents did not use the Internet and only fifteen percent used the Internet as an information source. It can therefore be concluded that most of the respondents did not use the Internet as an information source. Only 26 respondents (twenty three point six percent) agreed to having used the local media as an information source whilst 84 respondents (seventy six point four percent) did not use the local media. Local media includes newspapers, television and radio. The findings indicated that 5 percent of the respondents agreed to having used books and journals as an information source whilst the rest of the respondents did not use them. Most of the respondents used their commercial bank as an information source. This was indicated in the findings as 80 respondents (seventy two point seven percent) agreed to using their commercial bank whilst only 30 (twenty seven point three percent) did not use their bank. The ranking of the most used information source is illustrated in Figure 5.



**Figure 5: Information Sources** 

A cross tabulation was carried out to establish which commercial bank had more respondents using a particular SSBT service. The findings revealed that ATM users were mostly from Zambia National Commercial Bank with thirty one percent users and followed by Finance and Barclays Bank with both having twenty three percent ATM users. Mobile banking users were mainly form Zambia National Commercial Bank with forty eight percent users. Internet banking was mainly provided by Barclays Bank with thirty seven percent and seconded by Zambia National Commercial Bank with twenty seven users. These findings are represented in Table 7.

Table 7: Commercial Bank used by SSBT users

	ATMs		Mobile Bar service	_	Internet Banking services		
	Frequency	Frequency %		Frequency %		%	
Finance Bank	25	23	6	21	1	9	
Barclays Bank	25	23	5	17	4	37	
Zambia National Commercial Bank	34	31	14	48	3	27	
Stanbic Bank	6	5	0	0	1	9	
Standard Chartered Bank	20	18	4	14	2	18	
TOTAL	110	100	29	100	11	100	

A cross tabulation was carried out on the name of the bank used by the respondents and their education qualification. The findings revealed that most respondents at secondary level of education banked with Zambia National Commercial Bank with twenty nine point four percent. Most respondents with vocational level of qualification banked with Barclays Bank. Most respondents at graduate level of qualification banked with Finance Bank. Standard Chartered Bank had twenty five percent respondents at graduate level. The findings are illustrated in Table 8.

Table 8: Educational qualification and Commercial Bank Used

	Educational qualification of respondent							
	Secondary		Vocational		Graduate		Postgraduate	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Finance Bank	5	20	4	16	16	64	0	0
Barclays Bank	3	12	9	36	8	32	5	20
Zambia National Commercial Bank	10	29.4	5	14.7	14	41.2	5	14.7
Stanbic Bank	1	17	2	33	2	33	1	17
Standard Chartered Bank	0	0	11	55	4	20	5	25

#### 4.2.10 Information needs of SSBT users

In order to identify the information needs of the respondents, they were asked on whether they needed access to information on the location of SSBTs specifically ATMs, 65 percent of the respondents agreed whilst 35 percent of the respondents denied to having access to information on the location of SSBTs. This shows that information on the location of ATM is one of the needs of users of SSBTs.

Furthermore, the respondents were asked if they had access to information on the transaction costs of SSBTs. The findings indicate that 64 percent respondents agreed whilst 36 percent declined to having information on the charges of the SSBTs. 60 percent of the respondents disagreed having had access to information on the latest trends on SSBTs whilst 40 percent agreed. The findings on the information needs are represented in Figure 6.

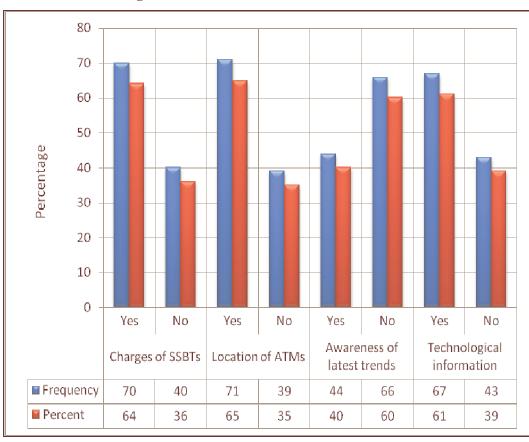


Figure 6: Information needs of SSBT users

Only 44 respondents agreed to have information on the latest trends and developments on SSBTs whilst 66 percent disagreed. There were 61 percent respondents that agreed that the bank provided technical information on how to use SSBTs whilst 39 percent disagreed to having access to such information.

The respondents were further asked what they preferred between using SSBTs and a teller. The findings were that SSBTs were preferred by 95 percent of the respondents whilst the remainder preferred using a teller. These findings are illustrated in Figure 7.

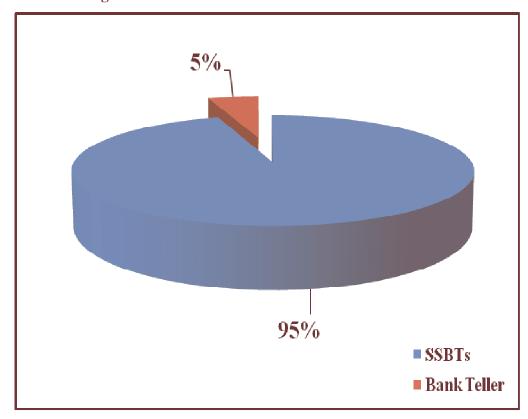


Figure 7: Preference between SSBTs or Bank Tellers

### 4.2.11 Levels of satisfaction of SSBT Information

To further understand the information needs of the respondents, they were asked the level of satisfaction of the information that is provided by the commercial banks. These were respondents using ATMs, mobile and internet banking services. The findings for ATM users revealed that seven percent of the users were very satisfied and fifty three point six percent were satisfied with

the information that was provided by commercial banks whilst twenty four percent were not sure, fourteen percent respondents were dissatisfied and two percent were very dissatisfied. The findings of the level of satisfaction of mobile banking users revealed that most of the respondents were satisfied with SSBT information. Forty eight point three percent were satisfied, three percent were very satisfied, twenty four percent were not sure, six percent were dissatisfied and three percent were very dissatisfied.

The findings of the level of satisfaction of internet banking users revealed that forty five point five percent were satisfied, nine point one percent were very satisfied and another nine point one were not sure, three point six percent were dissatisfied and there was no respondent that was very dissatisfied. These findings are illustrated in Figure 8.

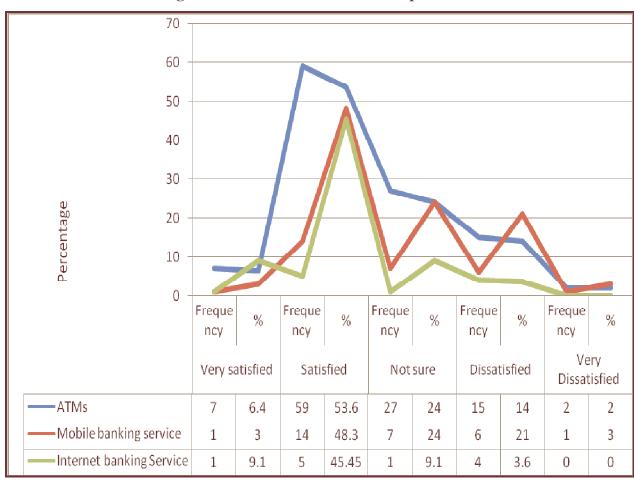


Figure 8: Level of Satisfaction of respondents

# 4.2.12 Problems faced in accessing SSBT information

Users of SSBTs experience various problems in accessing information on SSBTs. In order to identify problems that the respondents faced in accessing self service banking information, responses were provided on the questionnaire to respondents with a few problems that they had to tick if they had experienced them when using SSBTs. This made it possible to rank the problems and in addition, the respondents also had an opportunity to provide any other problem that may not have been listed on the questionnaire. The problems that were listed were lack of an information source, information not in a vernacular language, inadequate resources like money, lack of assistance from staff, lack of technological skills and lack of awareness campaigns.

A respondent was able to provide an additional problem which was that some bank websites were not easy to access. The findings of this area show that inadequate resources was ranked first as one of the challenges that users of SSBTs faced, followed by lack of awareness campaigns and the unavailability of trained staff. Other challenges that were faced were lack of information sources, lack of technological skills and information not provided in a vernacular language were some of the minor challenges. Figure 9 illustrates these findings and their specific frequencies.

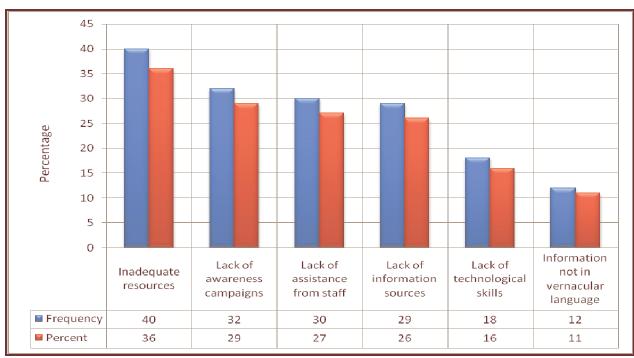


Figure 9: Problems faced in accessing SSBT information

#### 4.3 INTERVIEW RESULTS

# 4.3.1 Background information on interview participants

Interviews were only carried out with two commercial banks namely Standard Chartered Bank and Zambia National Commercial Bank. The other three commercials; Barclays Bank, Finance Bank and Stanbic Bank declined to be of any assistance. One official was interviewed from each of the two commercial banks. The official interviewed from Standard Chartered Bank was a Manager in consumer banking whose job profile included monitoring operations of SSBTs. The official interviewed form Zambia National Commercial Bank was a public relations officer whose job profile was to answer queries from the public. In addition, the researcher retrieved annual reports from the Bank of Zambia library and the commercial banks in order to access public information. Information on the actual statistics of use of SSBTs by bank customers was not made available by any of the commercial banks as this was considered to be private and confidential.

#### 4.3.2 Bank network in Lusaka

According to Bank of Zambia (2010) in Lusaka district, Barclays bank had 15 branches, Finance bank had 14 branches, Stanbic bank had 4 branches, Standard Chartered bank had 5 branches and Zambia National Commercial bank had 13 branches.

#### 4.3.3 Available SSBTS services

All the commercial banks offered ATMs and Internet banking services. Each of the commercial banks had more than 10 operating ATMs in Lusaka. The total number of ATMs in Lusaka was 146 (Bank of Zambia, 2010). ATM service charges ranged from K3, 500 – K 5,000. Mobile banking services were offered by four commercial banks namely; Barclays Bank, Stanbic Bank, Standard Chartered Bank and Zambia National Commercial Bank. Finance Bank was the only bank that did not offer mobile banking services. Internet banking services by all the banks was free. Mobile banking services on average was costing K500.00 (Zambian Kwacha) for every successful transaction. The commercial banks agreed that they provided information on the location and charge of each SSBT.

#### 4.3.4 Provision of information on SBBTs

All the commercial banks offered information in predominantly print format i.e brochures and newsletters. The brochures could be accessed in their banking halls. All the commercial banks had websites that had information on the self service banking technology that they offered. Information by the commercial banks was mainly in the English language. The Commercial banks had no brochures in a local language. In addition there was no information that was available to assist blind customers. The bank official explained that even blind clients were always shown how to use the bank facilities in the banking hall. The same applied to illiterate bank customers.

Through an interview, a Standard Chartered Bank official confirmed that customers were always shown how to use an ATM facility when they came to collect their ATM card. This was a one off kind of training that was provided to customers on the use of ATMs. Through the interview it was further identified that customers were contacted by using email or phone to collect their pin mail from the branches. However, it was found that this was not enough information to help a customer use self service banking technologies on their own afterwards.

### 4.3.5 Challenges on the Use of SSBTs

One of the challenges identified by the commercial banks was limited technological knowhow amongst the users of SSBTs. According to the commercial banks, this prevented the users from effectively exploring and utilising all the features of the SSBTs as they had little or no idea on how to use them. They argued that customers needed to be trained thoroughly in order for them to be confident in using the SSBTs. In addition, more time was needed to ensure that the customers were well trained and that bank staff is readily available to provide the required information on how to use SSBTs.

Statistics on the actual and frequency of use of SSBTs was not availed to the researcher as it was considered to be confidential.

### 4.4 CONCLUSION

The findings from the interviews with bank staff reveal that most bank customers used ATMs as compared to the other types of SSBTs. This may have been due to the fact that ATMs have been in existence for much longer than the others electronic banking services. Other findings reveal that the main format of information provision by the commercial banks was in print form. This may also have had an effect on the most used SSBTs as information on Mobile and Internet banking were not widely disseminated. The study also established that users of SSBTs experienced problems were accessing SSBT information, such as lack of assistance from bank staff on the use of SSBTs, lack of technological skills in the use of SSBTs and lack of awareness campaigns.

#### **CHAPTER FIVE**

#### DISCUSSION

#### 5.1 INTRODUCTION

This chapter discusses the findings that were presented in chapter five. In discussing the findings, the chapter draws upon other studies and their conclusions to inform the discourse. The discussion starts by presenting the findings on the utilisation of the SSBTs; followed by information needs and the sources of information of self service banking technology users. The chapter concludes by discussing the problems faced by SSBT users.

### **5.1.1** Use of self service banking technologies

It was established through interviews with bank officials that all the commercial banks offered ATMs and internet banking services. Mobile banking services were only offered by some of the commercial banks. ATMs were easily accessible by customers as they were 146 ATMs in Lusaka which were visa electronic. Visa electron cards make it possible for customers to use ATMs from either their bank or other commercial banks. Visa electron cards require that all funds should be available at the time of withdraw. Some ATMs do not support Visa electron because their systems cannot check the availability of funds. Accessibility of mobile and internet banking services was dependent on the fact that the SSBT user had access to a computer or a mobile phone. The commercial banks were not able to give the researcher data on the actual and frequency of use of SSBTs as it was considered to be confidential and private information. On the use of SSBTs the researcher mainly used data collected from the questionnaire respondents.

The results from the questionnaire administered to bank customers show that ATMs were widely used as compared to the other SSBTs. According to the findings, all the respondents used ATMs and only a few of them used mobile and Internet banking. This could be a result of the ATM being more accessible than the internet. However, even if mobile banking could potentially be more accessible, the fact that some banks don't offer it limits its access. In a study by Wang (2003) it was discovered that most of the consumers used ATMs followed by Electronic Fund Transfer at Point of Sale (EFTPOS) and then Internet banking which was used less. Chung and

Paynter (2002) in their study found that ATM, EFTPOS and phone banking and counter services are the main banking facilities that customers prefer rather than Internet banking. The reason why ATMs are widely used according to Singh and Komal (2009) is that ATMs facilitate a variety of banking transactions for customers; their main utility has been for cash withdrawal and balance enquiry. Commercial banks in Zambia are evident of long queues when banking using a teller. This has forced many Zambians to use ATMs as an easier and convenient way of carrying out banking transactions. The findings further revealed that 33 percent of the SSBT customers used ATMs. The ATMs are much easier to use when compared to Internet banking; where one needs a computer in order to bank online. There is also limited access and use of the Internet generally affecting the use of Internet banking. Not so many people are computer literate thereby affecting the use of the Internet banking. Chung and Paytner (2002) point out that some customers are unsure about the security of transactions online and thus prevent them from using Internet banking. This security fear may lead to customers to prefer using services that they already know and have used before. Most banks have a high charge on transacting with a teller thereby discouraging bank customers to withdraw from the banking hall. Consequently, clients are forced to use ATMs to withdraw money from their accounts instead of the banking hall as the ATM is cheaper.

It is clear that a strong motivation exists for the banks to convince more clients to use Internet and mobile banking services (Kerem, 2003). This is because there is a relative reduction of people using the banking halls and also may encourage people to use banks that offer ATM services over those that don't. In addition, ATMs in Zambia were introduced much earlier than Mobile and Internet banking and can be considered as a well known means of banking. For example, Singh and Komal (2009) state that in India, the first ATM machine were set up in 1987. However, it is important that SSBT users are well informed about the merits of using Mobile and Internet banking services in order for them to be encouraged to use the services. This may lead to their increased use.

#### **5.1.2** Banking years of SSBT users

The findings of this study revealed that majority of the SSBTs users had not banked with their commercial bank for more than five years. There were only 76% of the SSBT users that had used

mobile banking services for less than 5 years. This could be attributed to the fact that Mobile and Internet banking services have just been recently enacted in Zambia. As indicated by the Ministry of Finance and National Planning (2010) the "enactment of the National Payment Systems Act of 2007 has facilitated the availability of new and innovative financial services such as the introduction of Mobile and Internet banking services". This shows that Internet and Mobile banking were only allowed in Zambia after being enacted in 2007. Therefore these two services have been in existence in Zambia for not more than 4 years. For example, Finance Bank only launched its Internet banking (i-Finance) product in 2008 (Finance Bank, 2008). Sometimes the longer a service is in existence the more familiar users will be with it.

The findings of this study also reveal that most of the SSBT users had been using ATMs much more as compared to the other banking services. ATMs have been in existence in Zambia for more than 15 years and thus many people are aware and familiar with the banking product.

## **5.1.3** Age of SSBT users

The findings of this study indicate that the average age of mobile banking users was 26 - 35 years old. This shows that people aged 26 - 35 years are the most users of Mobile banking services. This age range represents people that are young and youthful who tend to adopt new technologies quickly. Similar findings were indicated by Laukkanen and Pasanen (2005) where the most number of Mobile banking users were aged 30 - 39 years old. The findings also indicated that those above 46 years of age were late adopters of Internet banking. This is evident in the findings as there were no users aged above 46 years using Internet and Mobile banking services. Older users tend to be more conservative in using new technologies. It can be therefore concluded that age has a major influence on the use of the Mobile and Internet banking services. The main reasons suggested for this were practical problems in the use of Mobile and Internet banking services, concerns about the expensive start-up, security and lack of personal service.

On the other hand, ATMs were being widely used by respondents from various age groups with the least being those aged above 46%. Age can be identified as one of the variables that affect the use of SSBTs.

#### **5.1.4** Educational qualifications of SSBT users

The results indicate that majority of the SSBT users had attained a graduate level of qualification. University graduates tend to be more ICT literate and early adopters to new technology. This shows that being computer literate affects the use of Internet banking services. Furthermore, university graduates tend to be in relatively higher paying jobs and are likely to have bank accounts. A study by Kerem (2003) indicated that one of the main reasons why the user base of Internet bankers cannot grow is the limited access to Internet among some customer groups and the growing digital divide. The educational qualification of an SSBT user is an important factor as it may affect the ability of an individual to use a banking service. Through an acquired skill from college or university a user can easily transact using a mobile phone or computer. Most of the SSBTs use English as their main language of interface and there is therefore a need for the user to be able to read and write English. However if there are any specific measures to improve SSBTs carried out by banks, these will only be more effective if undertaken at a national level. These measures may include amongst others; finding ways of improving Internet access and user skills by participating in training projects and supporting public Internet access points. The training projects can assist users know how to use Internet banking services.

#### **5.1.5** User friendliness of SSBTs

The findings of the study showed that most of the respondents find SSBTs to be user friendly. Hardware and software systems should be user friendly for a user to use them. The most critical aspect in choosing electronic banking services for all client groups is ease of use followed by functionality and easiness of finding information (Kerem, 2003). When customers are able to use a service easily, they get encouraged to use the service repeatedly and retrieve information that will enable them to manage their bank accounts. One major aspect that can be pointed out from the study is that the SSBTs were easy to use and perceived as a better way of transacting. In Internet banking, a bank needs to make its web site easy to surf through in order to attract people to bank online (Chung and Paytner, 2002). Mobile phones and ATMs should also be designed in such a way that users can easily retrieve the information that they require.

#### **5.1.6** Convenience of SSBTs

The results indicate that SSBTs are very convenient to use. There were 58 ATM users that perceived them to be very convenient. This showed that of all the SSBTs, ATMs were found the most convenient way of banking. Similar findings were indicated by Singh and Komal (2009) that ATMs are convenient to use, cost effective and much faster especially when trying to withdraw money. The study also revealed that ATMs were mainly used by all the respondents and more than half of them perceived them to be very convenient. ATMs are much more convenient as compared to standing in long queues in banking halls. They are faster means of withdrawing money or checking ones account balance. The findings further showed that mobile and Internet banking services were not applicable to 70 and 80 users respectively. They were not applicable in the sense that these users did not use mobile and internet banking services. The main use of SSBTs are to access bank accounts thus users get attracted to the fastest means of having access to their money regardless place and time. According to (Kerem, 2003) consumers who are at ease with computers and use them also for other purposes find it convenient to start banking over the Internet. In the same vein (Kerem, 2003) says that customers that can easily use computers or their mobile phones can find Mobile and Internet banking as convenient.

#### **5.1.7** Format of SSBT information

Information is very important to the successful use of any information technology system. Information when used and applied properly is power to the one that has it. However that information should be provided in a format that is convenient and easy to access by the SSBTs users. It was established through interviews with bank officials that most commercial banks provide information on the charges of each SSBT in the brochures that are made available at the branches so that users can choose which SSBT to use from an informed position. The brochures are made available in the banking halls at no fee. The brochures when taken by the customers can be referred to even at a later date at their own convenience. Bank websites also have information on banking services available for customers. Nussbaumer (2009:12) states that "the information's presentation format, which has a strong influence on processing and use of information, is not individualised". Information on Internet and mobile banking should be widely disseminated to the customers in various formats apart from printed documents. The results of this study indicate that information was mainly provided in printed format by the banks as

compared to an electronic format. This can affect the use of banking services as the brochures and flyers are found in the banking hall and customers that cannot get to the bank are not catered for. Nussbumer et al (2009) found out, the most used information format was printed documents. This is quite similar to the findings of this research where printed documents are the most preferred and widely accessible format of the information provided by the banks.

#### **5.1.8** Sources of information of SSBT users

Commercial banks were identified as the main information sources that SSBT customers used. Commercial banks play a major role in providing information on SSBTs as they are key players in maintaining customer's bank accounts and therefore they should be able to design SSBT information according to customer requirements. Active searchers of information can readily find information on SSBTs in the banking halls and be easily informed on the latest developments in the banking sector. In other instances, information about a banking service can be found passively by a customer that is reading a newspaper and comes across an advertisement concerning a specific commercial bank and its SSBTs products and services. The findings of the study through cross tabulation identified that Zambia National Commercial Bank had more ATM and mobile banking users than the other banks. This showed that in terms of ATM and mobile banking service provision Zambia National Commercial Bank was the most used and for Internet banking services, Barclays Bank had the highest percentage of users.

Social and cultural factors also affect people's way of preferring and using information sources in everyday settings (Case, 2006). The culture of the organisation is of concern as the employees have to participate in the dissemination of information to SSBT users. The social relations of how employees relate as they are interacting with bank customers can affect the provision of information. Bad relations mean that information will not be effectively disseminated as it can create a lot of mistrust and animosity between a bank employee and a bank customer.

It was also revealed that friends or colleagues, as an information source was rated second from commercial banks which were the main information source for most of the respondents while the Internet was rated very low. In contrast, Nussabumer et al (2009) found that interpersonal sources of information were rated lowest. Chiware (2008) also found that friends and colleagues

were the main information sources that were used by enterprises in Namibia. He further stated that the use of informal information sources was due to the fact that they were more trusted. In addition informal sources may be easily accessible. He further said that there were certain types of information that cannot be obtained from informal sources thus the need to use formal sources which in most instances are perceived to be reliable.

Local media was the third ranked type of information source in this study. Similar findings were indicated by Chiware (2008), that there was limited use of the media as an information source by SMMEs in Namibia. He pointed out that newspapers, radio, television and tailor made newsletters can be used to effectively disseminate information to more people. The media can also be used as an effective tool in disseminating information simultaneously and to a lot of people that are tuned in either by radio or television. Finance Bank for example uses the media to promote its banking services and inform its customers of latest trends. In this regard, Finance Bank (2008) argues that "their brand continues to grow strongly after launching its own television advertising campaign". There are some customers that are not active in searching for information and thus by the use of media, information on SSBTs can reach these customers. The media is ideal for disseminating information to a wide audience even those looking for information passively.

The Internet and books or journals were found to be the least used information sources according to the results of this study. In contrast, Nussabumer et al (2009) say that the Internet was a major source of information. The Internet in their findings was the most frequently used and trusted information source. In this connection, Waite (2004) examined the role of the Internet in information provision and suggested that banks' should improve their websites in order to inform their customers effectively, for bank websites can be an effective information tool. Chiware (2008) on the other also found that the Internet had not yet been embraced as an information source by SMMEs in Namibia. This he attributed to the cost of using information and communication technologies (ICTs). This is similar to the findings of this study where the internet was not a significantly used as a source of information.

#### 5.1.9 Information needs of SSBT users

For information services to be a success, the user's information need and context in which they are accessing that information must be understood. According to Case (2006:333) "information need is a hypothesised state brought about when an individual realises that they are not comfortable with their state of knowledge". A need is where an individual in their mind conclude that he/she wants something which to others may be contestable. Wilson (2000), states that an information need is a result of a consequence of a need perceived by an information user. SSBT users need information about the SSBTs in order for them to be effective and efficient in using the banking services. The information needed can be on the charges of the banking services, the location of ATMs, technical information or even the latest developments concerning SSBTs.

Through the interviews, it was established that SSBT users needed information on the location and charge of the SSBTs. The interviews further established that information on the use of SSBTs was not a need for the SSBT users. Instead SSBT users needed information on how to use the SSBTs. The statistics on the use of the SSBTs was mainly important for the commercial banks as they monitored the performance of the SSBTs. The study indicates that information on the charges of the SSBTs was one of the information needs that the users highly recommended. Sixty four percent of the users needed information on how much banks charged for using the SSBTs. This shows the need for such information to be availed to users of SSBTs.

In certain instances one may find that even the other SSBTs like Mobile banking and Internet banking are not expensive to use as compared to ATMs. In the interviews, it was discovered that some Commercial banks like Standard Chartered Bank Zambia and Zambia National Commercial Bank have no charge on Internet banking; making them a much preferable option the SSBT user. However, the SSBT users may just perceive them to be more expensive than the ATM and therefore avoid using mobile banking and internet banking. This is contrary to what Deng et al (2010) in China who found that the higher service costs do not definitely decrease attitudes to use Mobile banking. This is because Mobile baking services in China were based on Short Message Service (SMS) because users only paid for the messages; making it acceptable for most SMS users. So it was based on convenience and necessity.

Deng et al (2010) also indicates that perceived higher service cost did not lead to significant negative attitude to use of Mobile banking. If people are made aware that a service is cheaper than the other, they may get attracted to saving money by using the cheaper one. There are also people that get attracted to expensive services because they believe that when a service is expensive then it must be a service that is better and of good quality. However, services must be of good quality in order to meet customer requirements and expectations (Chung and Paytner, 2002). The information needs of SSBT users are important in order to know their information requirements as then the SSBTs can be tailor made to the customer.

Knowledge of the bank charges on SSBTs enables SSBT customers to decide on which banking service they prefer to use. Most of the commercial banks have a personal banking tariff guide brochure that gives information on the specific charges of banking transactions made available in the banking hall. The personal banking tariff guide brochures are usually in English which may not be easy to read and understand for bank customers that cannot read English. The provision of information on bank charges will encourage bank customers to effectively use the SSBTs and will also ensure that banking services are fully utilised. This is because users will be able to compare prices and know what the banks are offering and myths about prices will be cleared. For example, Kerem (2003) states that the most important factors in starting to use Internet banking are first and foremost better access to information on the services (convenience), followed by better prices and lastly higher privacy. Kerem (2003) further states that the transactions in Internet banking are either considerably lower priced or without any fee at all but for the transactions in branches the fees are very high according to the Estonian standard. Information on the charges of SSBTs is therefore vital to the users of the services. This is similar to the Zambian situation, where accessing bank services from the banking hall is considerably more expensive that using SSBTs.

The findings clearly show that information on the location of the ATMs should be well communicated to the customers in order for them to use them. It is critical that Banks provide information on the location of the ATMs so that they are used effectively and efficiently by customers. A study conducted by Islam et al (2006) in Bangladesh found that the location of ATMs was positively and significantly related to customer satisfaction. Information on the

location of the ATMs therefore encourages their effective use. Another study in Bangladesh by Shamsdouha et al (2005) says convenient location was a main predictor of customer satisfaction. Joseph and Stone (2003), through a focus group study in the United States of America, found that easy access to location, user-friendly ATM, and security are important factors that influence majority of bank customers' perception of ATM service quality. Provision of information on the location of the ATMs affects the information seeking behaviour of customers as they become aware of where they can find the ATMs.

The results of this study also indicate that technological information and information on the latest trends were not much preferred by most of the respondents. In a study by Chiware (2008), similar findings were revealed that technical information was the least of the information needs of Small, Medium and Micro Enterprises (SMMEs) in Namibia. The findings on the SMME's information needs were that access to financial service information was the main need as compared to technical information. Chiware (2008) also stated that information needs of SMMEs are closely related with solving problems that the enterprises faced. However, customers need information on how to use SSBTs so that they are more confident to use them, therefore technical information may be important. Without information on how to use the SSBTs, customers will not be able to fully utilise the SSBTs as they will not be aware of the various banking services available through using the SSBTs was the least preferred in this study as well confirming the findings of Chiware (2008).

### 5.1.10 Levels of satisfaction of SSBT Information

SSBT users were asked to indicate their level of satisfaction of SSBT information by ticking one of the following; very satisfied, satisfied, not sure, dissatisfied and very dissatisfied. The majority of SSBT users indicated their level of satisfaction of SSBT information as satisfied. SSBT information in this case referred to information that the users were provided with from various sources. The second ranked response in the findings was not sure. The information seeking behaviour of an SSBT user and their different search modes influences their satisfaction. Islam et al (2006) concluded that the security and frequent breakdown of ATMs and insufficient number of ATMs were major contributors to customer dissatisfaction. In contrast, Kerem (2003)

indicated that overall satisfaction was high and the only aspect that was criticised was price level. The way SSBT users seek for information affects their level of satisfaction. For them to be very satisfied they need to check the right information sources and channels.

#### 5.1.11 Problems faced by SSBT users in accessing information

Inadequate resources were identified as one of the main problems that SSBT users faced in accessing self service banking information. Resources include materials or money that is needed in order to access information. When a customer is searching for information it may not be found in one place so the customer needs money to buy the information material or to get to the place where information can be provided at no charge. For example information can be found on the bank's website but without access to a computer and Internet connection, bank customers will not be able to access and use that information.

The second ranked problem to accessing self service banking information was the lack of awareness campaigns. In Chiware (2008) study, he identified one of the problems as a lack of awareness of information services, attributed to the fact that service providers did not hold information awareness campaigns. Awareness campaigns are very important as they help the bank to inform customers of the products and services that they have available. Awareness campaigns can also be used to widely disseminate information to the SSBT users wherever the users are located. This can even be an opportunity for the commercial banks to offer information services in local languages. Awareness campaigns may assist the SSBT users to be aware of the available information services that they can use. The commercial banks have to commit themselves by investing in awareness campaigns that will assist in promoting their services and products. The commercial banks as service providers have to make sure that they provide information centres that will assist SSBT users by having well trained staff and also offering different types of information from various information sources.

The other problems identified by respondents were the lack of assistance from staff, information sources, technological skills and the unavailability of information in local languages. Currently most of the information on SSBT services is offered in English. However, information can also be disseminated in local languages. One of the challenges identified by the commercial bank

officials was limited technological knowhow amongst SSBTs users. They argued that customers need to be trained thoroughly in order for them to be confident in using the SSBTs. Especially ATMs; users need to be taught how to carry out banking transactions. Most of these challenges can be dealt with by the help of the commercial banks investing more to satisfy the needs of SSBT users. Lastly banks need to try to improve their information service delivery as a way of reaching the SSBTs users.

#### 5.2 CONCLUSION

This chapter has discussed the findings of the study that were presented in chapter five. The findings have been discussed in relation to other studies that were reviewed. Access to reliable information on SSBTs is vital for the effective use of banking services. Commercial banks need to offer information services on SSBTs as they are the key players in providing banking services. Information should be packaged in such a way that it meets the information needs of SSBT users. The main information needs of SSBT users have been outlined in this chapter and can be used to tailor design SSBT information services.

#### **CHAPTER SIX**

#### CONCLUSION AND RECOMMENDATIONS

#### 6.1 INTRODUCTION

This chapter gives the conclusion and recommendations of the study. The overall objective of the study was to explore the information seeking behaviour of customers of self service banking technologies. In order to accomplish this, the study set out specific objectives which were to identify the information needs of SSBT users; to explore the utilisation of SSBTs; to determine the sources of information of SSBT users and to investigate the problems faced by SSBT users in accessing information. The methodology used in the study was both quantitative and qualitative in nature. The research instruments used in data collection were questionnaires and interview guides. Data was analysed using the software package SPSS version 15 as well as qualitatively. The recommendations drawn out the study may help improve the banking sector in designing and providing appropriate SSBT information and also assist banks to offer better self service banking information to their customers.

#### 6.2 CONCLUSIONS

The study sought to explore the information seeking behaviour of SSBT users by looking at access to information and use of SSBTs. The findings of this study are expected to play an important role in profiling demand for information on financial services in Zambia. Policy makers and financial service providers can utilize results of this study to develop strategies that will lead to the expansion and improvement of financial information access for banking customers. The conclusions of the study are set out according to the objectives of the study:

• To explore the utilisation of SSBTs: The study found that ATMs were used by most of the SSBT customers. Mobile and Internet banking services were not used by many SSBT users. The study thus concludes that these findings may have been due to the fact that mobile and Internet banking services were only enacted in 2007. This may have contributed to the less use of the services and most of the SSBT customers were not familiar and confident in using the new banking services. The study pointed out that

Mobile and Internet banking services had only been in existence for about four years in the country having being introduced in 2007. The study further pointed out that age had a significant effect on the use of Mobile banking services. The findings indicate that the average age of Mobile banking users was between 26- 35 years. In addition, ATMs were perceived by the SSBT users as easy to use and very convenient.

- It was further revealed in the study that most of the Internet banking users had attained a graduate level of qualification. Most graduates have an opportunity to learn the basics of how to use a computer. Though access to Internet banking services is only limited to customers that have Internet connection. Internet banking services are easy to access when one has easy access to the internet. Access to the internet in Zambia has developed with more opportunities for Zambians to have internet access. The internet can be accessed even by use of a mobile phone. Internet cafes have increased in Lusaka at favourable rates. The main concern to Internet access through an Internet cafe is the security of carrying out a banking transaction using a public computer. Access to the Internet in Lusaka has been made possible much more than for those living in the rural areas. However even in Lusaka, the major challenges are the number of available outlets that bank users can use is limited. The main challenge of internet banking in rural areas is the unavailability of an energy source to use a computer. On the other hand, the main challenge in urban areas to internet access is the high cost of buying a computer and related communication accessories. Not having a computer and internet access affects the use of Internet banking.
- To identify the information needs of SSBT users: The study found that SSBT users need information on the service charge. Other information needs identified in the study are information on the location of ATMs, information on the latest trends and developments on SSBTs and technological information. Information on the cost of a banking transaction is important as it has a significant effect on the use of SSBTs. Information on the location of ATMs would encourage the effective use of ATMs as customers would be well informed. Technological information also enables customers to effectively use SSBTs as the know how and where to find information using the SSBTs.

Technological information assists a customer to retrieve information from the SSBTs and be well informed of their banking transactions. Commercial banks play a very important role of meeting the information needs of SSBTs users by knowing the information requirements and consequently enhancing access to banking information by SSBT users and also providing information that is tailor made and designed for the customers.

- To determine the sources of information of SSBT users: The main source of SSBT information identified in the study was commercial banks. Commercial banks being the key players in providing banking services should be able to provide information to the SSBT users in a timely and reliable manner. Information should be provided to SSBT users in a way that the information seeker does not face problems in accessing the required information. Other identified sources of information include friends and colleagues, local media and Internet. The study also pointed out that the right information format should be used by the commercial banks. For example, electronic media like email, television and radio can be used to disseminate information to a wide audience of SSBT users.
- has shown the major problems faced by SSBT users in accessing information: The study has shown the major problems faced by SSBT users in accessing information which are lack of inadequate resources, lack of assistance from staff, lack of technological skills, lack of awareness campaigns and also the non-availability of information sources in vernacular languages. Inadequate resources may relate to lack of money to get where a customer can use the SSBT or not having a computer or a phone in order to do Internet or mobile banking services. Lack of inadequate resources was pointed out as the main challenge faced by most SSBT users. The second problem faced by SSBT users was the lack of awareness campaigns that would educate and inform customers on SSBTs. These awareness campaigns would be helpful in informing SSBT users on, for example, the information charges of the SSBT and technological information that they need on SSBTs.

#### 6.3 RECOMMENDATIONS

These recommendations are based on the findings and analysis of the research. They give a number of suggestions that can better the provision of information to the users of SSBTs. The commercial bank as well as the government may use the recommendations to better banking information services. The recommendations made are:

- 1. Provide information services using more accessible information formats, channels and sources: Access to reliable financial information is significant to the growth and development of banking services. Information is an essential ingredient to any organisation or bank. Information provision in any bank should be encouraged so that bank customers are fully aware of what is available. In the study, it was established that the commercial banks provide information to the public through their branches. This information provided should be put in such a manner that SSBT users can easily access it and is to their convenience. However, it was found that information is not made readily available at the SSBT machines which users perceive to be convenient for their use. In this case, commercial banks should find ways of making the information accessible by users of the SSBTs. Information about the latest and new developments on SSBTs should also be disseminated to the customers for the benefit of both the commercial banks and the users. Well informed users of SSBTs will enable the effective utilisation of the banking services.
- 2. Offer information training services: SSBT users should be trained on how to use the SSBTs. The bank should be able to orient customers on how to use ATMs so that they can be used effectively. The SSBTs should be able to provide charges on various transactions costs upon request by the customer. They could email for example Internet links to certain banking products and services along with some simple demonstrations on how they work and can clear all fears about the associated risks particularly for Internet and Mobile banking. This would help educate more people on how to use SSBTs especially the widely used ATMs.

- 3. Increase awareness campaigns for customers: Awareness campaigns or road shows should be carried out in the city in various local languages to ensure that customers are sensitised on benefits of using SSBTs. A well designed awareness campaign can help remove fears of security and trust concerns from users of SSBT as they will be well informed and confident to use the SSBTs. Awareness campaigns can also be set up in different communities such as Kaunda Square, Matero, Kalingalinga, Roma, Kanyama or Chilanga. Workshops can also be used to provide information to customers and to know their information needs.
- 4. **Provide free Internet access for bank customers:** One of the main reasons why the number of Internet banking users cannot grow is the limited access to Internet among most customers and the growing digital divide. This means that unless specific measures are employed on a state level the activities taken by banks are not so significant. However, banks should also find avenues of contributing to the improvement of Internet access and user skills by participating in training projects and supporting public Internet access points. The banks can also have an area within the building or outside the building where they provide Internet for users of SSBTS. These could be similar to the way the way they provide ATMs. This will make it easier for the bank to attract customers who would want to learn how to use Internet banking and for them to be more confident when transacting online.
- 5. Implement policies that guide and support electronic banking services: Policies should be put in place to ensure the provision of information in the banking sector is adequate; at national and financial institution level. Pricing policies should be put in place that favours electronic banking services. The policies should support the provision of information to banking customers as a requirement for every financial institution. Without such provision banks should be required to pay certain penalties if the requirements are not met.

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## APPENDIX 1

## INTERVIEW GUIDE FOR COMMERCIAL BANK OFFICIALS

# RESEARCH TOPIC: EXPLORING USER BEHAVIOUR IN SELF SERVICE BANKING TECHNOLOGIES.

NA	ME OF COMMERCIAL BANK:	
1.	What self service banking technologies are offered by yo	our bank?
	a. ATMs [ ] b. Internet banking [ ] c. Mobile Banki	ng [ ]
	d. Other	
2.	Do you offer information services to users of self services	e banking technologies on the following
	a. Information on the use of SSBTs	[]
	b. Information on the location of the SSBTs	[ ]
	c. Information on the charges of each SSBT	[]
	d. Information on the extra services that the SSBTs offer	er []
	e. Other specify	
3.	What type of information services and products do you of service banking technology?	offer bank customers regarding Self
1.	How are these information services and products deliver electronic) i.e brochure or newsletters.	ed, probe for formats (print or
5.	Are there any awareness or training programs offered by technologies users?	your bank for Self service banking

- 6. What are some of the challenges users encounter in accessing information on self service banking technologies?
- 7. How many ATMs do you have in Lusaka?
- 8. Ask about the various charges of ATMs, Mobile banking and Internet banking.
- 9. Request for statistics report on the use of ATMs, Mobile banking and Internet Banking.
- 10. Request for the banks' latest annual report.

## **APPENDIX 2: RESEARCH QUESTIONNAIRE**



#### THE UNIVERSITY OF ZAMBIA

#### SCHOOL OF EDUCATION

#### DEPARTMENT OF LIBRARY AND INFORMATION STUDIES

# COURSE: MASTERS IN LIBRARY AND INFORMATION STUDIES QUESTIONNAIRE

Dear Respondent,

I am a graduate student at the University of Zambia carrying out a research on the topic: **Exploring user behaviour in self service banking technologies: a case study of commercial banks in Zambia.** In this research, self service banking technologies include ATMs, Mobile banking and Internet banking.

You are among the few commercial bank customers randomly selected to complete this questionnaire. The information you will give will be treated with the strictest confidence. In order to ensure anonymity you are not required to indicate your name on the questionnaire. The research is purely for academic purposes.

<u>Instructions</u>: You are required to tick the right answer where as in some cases you have to write the answer in the space provided.

Thank you in anticipation.

Kamyalile Simuchimba

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SEC'	TI()	١.	Rin.	.data

SECTION A: bio-ua	ta
1. Age	
a.20 – 25 [ ]	b. 26 – 35 [ ]
c.36 – 45 [ ]	d. 46 and above [ ]
2. Gender	
a. Male [	b. Female [ ]
3. Highest level of edu	acation attained
a. Primary [ ] b. Sec	condary [ ] c. Vocational [ ] d. Graduate [ ] e. Post graduate [ ]
4. Name of Bank when	re account is held.
a. Finance bank [ ] b	Barclays bank [ ] c. Zambia National Commercial Bank [ ]
d. Stanbic bank [ ] e.	Standard Chartered Bank [ ]
5. Years of banking w	ith the above named bank.
a. 1- 5 years [ ] b. 6	- 10 years [ ] c. 11 - 15 years [ ] d. 16 - 20 years [ ]
e. 21 – 25 years [ ] f.	26 years and above [ ]
SECTION B: Inform	nation need and use of Self Service Banking Technologies (SSBTs)
6. Which SSBTs have	you ever used? Tick all applicable.
a. ATMs [ ] b. Mobil	e banking [ ] c. Internet banking [ ]
7. How often do you u	ise these SSBTs?

	Daily	Once a week	After a week	Once a month	Never
ATMs					
Mobile Banking					
Internet banking					

8. How convenient is the use of the SSBTs?

	Very	Convenient	Not Sure	Quite	Not
	convenient			convenient	Convenient
ATMs					
Mobile banking					
Internet banking					

9. Are the SSBTs user friendly or easy to use?
a. Yes [ ] b. No [ ]
10. What information sources do you use to access information on self service banking
technologies?
a. Friends or colleagues [ ]
b. The Internet [ ]
c. Local media (i.e Newspapers, TVs) [ ]
d. Books or Journals or newsletters [ ]
e. The bank
f. Other
11. Does your bank provide you information on the location of ATMs?
a. Yes [ ] b. No [ ]
12. Do you have information on the service charges of SSBTs?
a. Yes [ ] b. No [ ]
13. Are you constantly updated by the bank on the latest trends on SSBTs?
a. Yes [ ] b. No [ ]
14. Does your bank provide technical information on how to use SSBTs?
a. Yes [ ] b. No [ ]
15. If yes to Q14, how does the bank provide information about SSBTs?
a. Printed documents [ ]
b. CD-ROMs [ ]
c. E-mail [ ]
d. Newsletters [ ]
e. Other specify
16. Are you satisfied with the information on SSBTs provided by the bank?
a. Very satisfied [ ] b. Satisfied [ ]
c. Not sure [ ] d. Dissatisfied [ ] e. Very dissatisfied [ ]
17. What do you prefer to use between SSBTs or a Teller in a banking hall?
a. SSBTs [ ] b. Tellers [ ]
18. What barriers do you face when trying to access information on self service banking
technologies?

a. Lack of an available source of information on SSBTs [ ]
b. Information on SSBTs is not provided in a vernacular language [ ]
c. Lack of adequate resources like directories, product catalogues, brochures and pricelists [ ]
d. Lack of assistance from staff [ ]
e. Lack of technological skills on how to use SSBTs [ ]
f. Lack of awareness campaigns about SSBTs [ ]
g. Other specify
19. What recommendations would you suggest to help the Bank provide better self service
banking technologies to its users?