

**THE INTER-BANKING AUTOMATIC TELLER MACHINES USE (ATMS): ITS
LEGAL CHALLENGES IN TANZANIA.**

By

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**A Dissertation Submitted in Partial Fulfilment of the Requirement for the Award
of Masters of Laws in Commercial Laws of the University of Mzumbe.**

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MZUMBE UNIVERSITY

CERTIFICATION

We, the undersigned, do hereby certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled: **Automatic Teller Machines (ATMs): Its Use and Legal Challenges in Tanzania** in partial fulfilment of the requirements for award of the degree of Master of Laws in Commercial Law (LL.M (CL)) of Mzumbe University.

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While all the persons mentioned herein to whom the author warmly bestows appreciation have significantly served as indispensable thrusts, constant accelerators and reliable reference points to the setting, organisation and compilation of this work, the author fully retains responsibility for all errors, slip-ups, omissions and any anomaly

relating thereto that might have impaired its quality. It is not because their contribution did not suffice but because the author is a human being and human beings are always prone to imperfections.

DEDICATION

To my beloved kids Ibrahim, Salsabil and Abdulrahim for their invaluable patience during my absence in pursuit of my LL.M studies (course work) and in undertaking this research

ABSTRACT

This study is about the Inter -banking Automated Teller Machines (ATMs) its legal challenges in Tanzania. As the use of ATMs expeditiously expanding and almost becoming the way of life to many Tanzanians, the legal framework does not respond to meet with the current development.

The researcher undertook this study to find out these legal challenges the banking industry faces especially in dealing with /providing ATMs services and the protection of the customers ultimately suggested the better ways to protect the customer's right and well deal with the legal challenges brought by these developments in ICTs.

The study is qualitative one; the researcher has used interview and questionnaires as the means of obtaining the information from the respondents such as bankers from NMB, NBC and CRDB. The researcher also collected data from lawyers, judicial officers as well as customers of the banks.

THE STUDY FINDS OUT THAT there are no specific laws and regulations regulating the operation and use of Inter –banking ATMs. All the lawyers who are the respondents stated that ATM transactions are guided in general legal framework hence lack the effectiveness to curb the peculiar features in the area thus the customers' rights are not well protected.

The study also revealed various advantages that are being experienced by not only the bank customers but also the banks and the general public at large. Thus the study recommends that it is high time to have the specific laws to regulate the ATMs in place so as to assure the protection of the rights of those dealing with the instrument.

LIST OF STATUTES

Banking and Financial Institutions Act No. 5 of 2006

Bank of Tanzania Act No. 4 of 2006

Law of Contract Act, Cap345 [R.E. 2002]

The Penal Code, Cap 16 [R.E. 2002]

The Fair Competition Act, No 8 of 2003

The Evidence Act Cap 6 [R.E. 2002]

Postal and Electronic Communications Act No 3 Of 2010

LIST OF ABBREVIATIONS AND ACRONYMS

ATM	-	Automated Teller Machine
B.O.T	-	Bank of Tanzania
BFIA	-	Banking and Financial Institution Act
BoTA	-	Bank of Tanzania Act
CAMEL	-	An acronym for Capital Adequacy, Asset quality, Management,
CAP	-	Chapter
CBO	-	Congressional Budget Office
CRDB	-	Community Rural Development Bank
DACS	-	De la rue Automatic Cash system Earnings capability and Liability management
ICTs	-	Information and Communication Technologies
IJCSI	-	International journal of computer Science Issue
N.B.C	-	National Bank of Commerce
NIGF	-	National Internet Governance Forum
NMB	-	National Microfinance Bank
NPS	-	National Payment System
PIN	-	Personal Identification Number
UK	-	United Kingdom
UTPC.	-	Union of Tanzania Press Clubs

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CHAPTER ONE

1.0 Introduction

Financial sector worldwide is now experiencing a rapid change due to technological advancement especially in information system. Such developments have changed the way through which banks and other financial institutions deal with their customers when they wish to withdraw their money from their respective accounts they hold with them. New products, new entrants and new delivery channels such as Automatic Teller Machine (ATMs) have become the way of life. In the words of Frank Wood this is an alternative mode that customer may use in withdrawing their money.¹

Introduction and development of ATMs has given facility to the banks customers for banking beyond the banking hours.² Through the use ATM a customer can enjoy various services such as withdrawing specified amount in cash around the clock, order the check books, deposit money, transfer money to another account within the bank, and settle various bills and other services of the like.

Despite the fact that ATM provides a great deal convenience to the customers, it also comes with various challenges which range from economic, security and legal challenges. It has been observed by Emmanuel Lallana³ in his briefing note titled ICT for development, Policy, Process and Governance, that technological changes normally outpace legal and regulatory reforms. Hence, we face the situation where old rules are being used to govern new things.

The fact that, the ATM allows a person to access money wherever he or she is in the world connotes the application of international banking law as well as security related matters.

¹ Wood, F and Sangster, A(2008), **Frank Wood's Business Accounting** , Pearson Education Limited, Edinbugrh .p126

² Myneni, S.R(2006) **Law of Banking**,S.P. Gogia(H.U.F), Hyderabad. 1st Ed. P 346

³ Briefing note prepared by Emmanuel C.Lallana, titled ICT for Development, Policy, Process and Governance.

1.1 Background to the Problem

The 21st century has produced a great achievement brought about by revolution in information communication technology (ICT), which has fundamentally changed society and will probably continue to do so in future.⁴ Technological development especially information technology has led to invention of Automatic Teller Machines (ATMs) which has far reaching consequence and has changed dramatically the provision of the core banking activities of deposits taking and payments.⁵ The banking sector takes advantage of such development to provide improved services to their customers.

ATMs were first introduced in 1967 in UK,⁶ and the first machine was installed at Barclays bank in London.⁷ However, at the beginning they faced resistance from users as they did not trust them. The resistance faded as young people especially college students accepted the services with open hands.⁸ The use of this device has now become the way of life worldwide. It has been observed by the Congressional Budget Office (CBO) that technological advances have made the ATM machines more functional, cheaper and easier to accommodate. Hence all ATM users worldwide enjoy the ATM services.⁹

The development of ATMs takes place in paces; originally ATMs were connected directly to an individual bank. Thus it allowed the access only for the customers of the same bank. The situation continued until 1974 when the first networked machines were invented. This allowed the customers to get cash from any ATM in the world regardless of bank affiliation. It is also allowed for banks to place ATMs in more than one area including shopping centres, sports arena or even in cruise ships. Throughout the 1970's and the 1980's interbank network like cirrus which is being

⁴ Mambi, A.J(2010) **ICT Law: Source Book for Information and communication technologies and cyber law**, Mkuki na Nyota Publishers Dar es salaam. p 2

⁵ Howells, P. etal (2008), **The Economics of Money, Banking and Finance**. Pearson Education Limited. at p79

⁶ Hapgood, MQC (2007), *Paget's Law of Banking*, Butterworth's ,p.392

⁷ History of ATM as accessed through [www.ehow.com/about 5052349_atm-machine-history.html](http://www.ehow.com/about_5052349_atm-machine-history.html) last visited on 14th November, 2012.

⁸ Miller, R, (1993). *Citicorp: The story of a Bank in crisis*, McGraw- Hill, Inc , US. pp 118

⁹ A paper by CBO titled "Competition in ATM Markets: Are ATMs Money Machines?"

owned by Master and plus which is being owned by visa were created to authorize transactions between the banks.¹⁰

Tanzania being part of the globalized world, experiences the effect of the rapid growth of technological advancements especially in the banking industry. Like many other developing countries, it is trying to vigorously move forward to catch up with rapid technological changes that have been notably seen especially in electronic arena that are meant to ease various day to day operations. Around 1990's Tanzania made important improvements in reforming its financial system, dismantling the state dominated banking sector and allowing entry of foreign private banks, which among other things brought about diversification of financial services and introduction of technological infrastructures.¹¹

Banks and financial institution in Tanzania started to offer ATM services in the 1990's when the first ATM was put into use on 1997¹². The first bank to introduce ATM in Tanzania is Standard Chartered bank.¹³ Since then the competition among the operators become fierce especially in cities each of the bank shouting out to offer the best ATM service than all others.

The services that ATM customers enjoy have invariably expanded and the machines are made more users friendly. It can now accommodate the customer of other banks provided that those banks belong to the same network for instance CRDB being a member of cirrus network, its ATM cards holders can obtain service from ATM of any bank that is part of the same network.

Unfortunately Tanzania like many other developing countries, the speed to catch up with technological advancement and that of changing the law to cope with such development has never been proportional, as once observed by professor Christopher

¹⁰ http://www.ehow.co/about505249_atm-machine-history.html.last visited on 20th april,2012

¹¹ Simpasa,A.M, (2011)"competitive condition of Tanzanian commercial Banking Industry" African development review, Vol II ,issI p 88-98.

¹² A report by Bank of Tanzania(Payment system in Southern African Development Community-Tanzanian Chapter ,p 9

¹³ www.standardchartered.com/tz/about-us/en/ last viewed on 17th November 2012.

Reed that the laws in most countries were developed over a long time during which physical actors and physical media were the only or at least the primary mechanism by which transaction with legal consequence could be effected.¹⁴ Therefore the rights of the ATM users have not yet featured in our laws.

1.2 Statement of the Problem

Automated Teller Machine (ATM) technology has its significant impact in banking system in the world as well as Tanzania. The most significant impact of ATM technology is the customer's ability to withdraw money outside banking hours.¹⁵ Tremendous refinement in the functioning has made it possible to carry out almost complete banking with the machine at the customers' convenience and banker best interest.¹⁶ The above developments have necessitated inter-banking services on ATMs all over the world, but the issue is how the contract between banks involving customers' use of these services has been featured in our law. Whether the customers, as consumers of these services, are aware with terms and conditions of the contract remain a question of concern.

Likewise, inter banking ATM use is associated with many challenges which are difficult to control. For example, once there is theft in a customer's account it takes too long to identify the thief, and if he/she is identified, the prosecutions normally fail. Besides, the customer is not redressed. When the customer's card is trapped in the ATM other than that of his banker, it takes long to have his card recovered. Despite the general rule that a customer has the right to have his money on his demand, it sometimes becomes impossible to have money when there is a network failure. This becomes a very big problem to the customers who would go in the areas where their banker has no branch on assumption that they would withdraw from other banks vide ATM cards. All these problems are one sided and lie on the side of

¹⁴Reed. C(2000), Internet Law: Text and Materials p.148

¹⁵ An article by Odachi Gabriel Nwabouru titled; ATM technology and banking system in West Africasub region; prospect and challenges found in Africa Research review: An international mult disciplinary Journal. Ethiopia accessed at www.ajol.info

¹⁶ Sharma, R.B (2009) Bank frauds: Prevention and Detection, universal law publishing pvt Ltd, Newdelhi 3rd ed

customers. Therefore, it is the desire of the researcher to explore the Tanzanian ATM regulatory and supervisory framework so as to see whether the rights of customers who use ATM cards on bankers other than theirs are protected.

1.3 General Objective

This research wanted to explore the Tanzanian ATM regulatory and supervisory framework so as to see whether the rights of customers who use ATM cards on bankers other than theirs are protected once the one or more challenges related to the use of machine appears.

1.4 Specific objectives

The research was carried to achieve the following objectives:

1. To explore whether the rights of inter banking customers who use ATM cards are well protected.
2. To examine the law related to banking to see whether the use of ATM machines are regulated and supervised under the law.
3. To examine problems facing the ATM card holders in Tanzania, in the course withdrawing from ATMs.

1.5 Research Questions

The introduction of ATM in banking industry has brought great changes and avail the customers with opportunity to deal with their funds at their convenient time throughout the day. On the other hand the ATM entered the industry with its set of risks which must be addressed within the country's legal framework. The researcher goes with the following research questions:

1. Do the existing laws relating to ATM, protect the customer's rights.
2. How does the right of interbank ATM user is protected
3. Is there assured security against fraud and other related cyber offences to ATM

1.6 Literature Review

Numerous writers have endeavoured their effort in the aspect as will clearly show in this part; **Howells, P** et al, writes among other things about the UK financial system, and major development which actually had a long lasting impact on the overall functioning of the banking sector. These developments include the information technology which led to the introduction of the ATMs, which in turn changed the modes through the core function of banking activities of deposit taking and payment.¹⁷ They point out that the ATM was put into use for the first time in 1967. Writers also notes the improvement by admitting that when the first machine was introduced they did little more than giving access to in fixed amount but currently the services that can be offered by ATM have censurably been expanded. It can now in addition to previous service offer a statement of balance, changing the PIN and ordering the check books.¹⁸ Generally, their discussions have based on technological development point of view and based on UK's platform. Thus makes the whole work different from this research as it intends to explore the legal aspect of ATMs under the Tanzanian laws.

Mehta, R et al discusses the concept of plastic card in India by giving the length description of various plastic cards such as ATM cards, Credit cards, Master cards, Debit cards, Charge cards as well as Digital wallets.¹⁹ They also noted that the development of multifunction automated teller machine was witnessed in early 1980. The author's further states that ATM is computer linked and they are operated by plastic card carrying magnetic strip which contain the card holder's personal details. Just like Howells and Bain they also described the services which can be offered by ATMs such as dispensing cash, giving balance, order check books, transfer of money from one account to the other and settle bills.²⁰

¹⁷ Howells, P and Bain, K (2008), **The Economics of Money, Banking and Finance**, Pearson Education Limited, England pg 79

¹⁸ Ibid

¹⁹ Mehta, R and Mehta ,R (2009), **Credit Cards: A Legal Guide**, Universal Law Publishing Co, New Delhi .second ed. p 1-9

²⁰ Ibid p11

The writer also appreciated the advantages of ATMs to both the bank and customers, to the bank advantages includes; reduction of labour cost, reduction of paper work and documentation, increase number of the customers that can be served and direct input of information into record keeping system. To the customers the advantages of ATMs include: quicker transactions, after office hour's service, convenience as the money can be withdrawn and be deposited outside banking hours.²¹

Writers admitted that the use of ATM is not free from risks as the hands of unscrupulous people can reach the machines hence they revealed various ways which the fraudsters using in committing the ATMs frauds such as trapping, operational fraud, fake ATM cards as well as shoulder surfing.²² They also admitted that the use of the cards is connected with the rights and liabilities of the parties that the issuing bank as well as the card holder in various scenarios.²³ The authors point out that the law governing the relationship between the card holder and issuing bank is law of contract, to be precise it involve standard form contract.²⁴ Despite the valuable contribution on the subject matter the two authors have failed to assess how far the rights of card holders can be protected under the law of contract Act taking into account the complex nature of the ATM transactions. This discrepancy makes this research an ideal.

Wood, F et al ²⁵ eyeing on twenty first century banking in UK, they notes that for a long time if a customer of the bank wished to withdraw money from his account he was supposed to go to his bank draw a check to get the amount required. However the situation has changed since 1967 when Barclays Bank introduced the ATM which provided for alternative means of withdrawing the money from the bank.²⁶ The authors have appreciated the improvement occurred into the ATM since its invention as they noted that at the beginning the ATM dispensed cash in exchange of

²¹ Ibid p 12

²² Ibid p152

²³ Ibid 194

²⁴ Ibid p202

²⁵ Wood ,F and Sangster ,A(2008),**Frank Wood's Business Accounting** ,Pearson Education Limited Edinburgh .p126

²⁶ Ibid

a token. In early 1970's the plastic cards were introduced, it contained a magnetic strip that enables ATM to read the account details and process transaction directly.

Also, at first ATM offered limited services like dispensing very limited amount of money and the same must be withdrawn from the ATM owned with customers' bank only.²⁷ ATM currently in addition to those services it can now allow the customer to order check books, change their PIN number, request their statement of balance, settle their bills and deposits funds. The author further contended that the customer can now access his account through the ATM owned by another bank or financial institution principally through link network.

Despite the substantial contribution made by the author on the subject, it is clear that he has dealt much in explaining the ATM in its technological development point of view, different from this research which intends look at its legal part putting much weight on the protection of the customers' rights.

Cooper, S.K et al discusses among other things various important dimensions of the electronic funds transfer which includes the introduction of the automated machines which are completely automatic and tied directly into computer of the individual finance institution offering the service. Some of these machines are located on the premises while other located off premises.²⁸ The authors also described the variety of services that can be performed by ATMs and just like Wood they stated that for the customer gains access to ATM by using magnetic strip card in association with personal identification number (PIN).²⁹

Hapgood, MQC's contribution is of significance as; he discussed the history of ATM that it has been introduced in the UK in 1967. Just like other writers such as

²⁷ Ibid p127

²⁸ Ibid pp74 Cooper, S.K and Fraser, D.R (1983), **The Financial Marketplace**, Addison-Wesley publishing company inc. p74

²⁹ Ibid

Howells and Frank described the services which can be provided by ATM.³⁰ The editor further stated the important requirement for gaining access to ATM that is plastic card incorporating an integrated circuit chip (ATM card) and four digit personal identification number. The editor also appreciated the ATM card can only be used in the ATMs of issuing bank or other bank with whom issuing bank has reached a reciprocal agreement. He further discussed the reasons of these reciprocal agreements is to provide shared ATM network giving customers access their accounts via any ATM. The editor also mentioned some ATM networks which were established such as four banks MINT and LINK, also the international ATM network like VISA and Master Card.³¹

Sriram,M.R et al and others have provided significance contribution in describing how the ATMs works, they stated that ATM kiosks are connected to ATM switch which in turn is connected to other bank's ATM switch and its own ATM server at the data centre. They further stated that both ATM switch and kiosks have hardware security module which stores encryption key, and all data which are transferred through the devices are encrypted.³²

Authors further provides that ATM switch perform authentication function when the customer insert his ATM card and enters the PIN at the ATM kiosk, to perform the banking transaction, the ATM switch requests central database server which is accessed through the firewall, middleware and ATM server. And records of all transaction are kept at three places namely ATM kiosk, switch as well as server.³³ However all the writers discussion were based on the operation of ATM, their interest on how the machine work, made him ignore the other part or it makes impossible for one book exhaust all aspect of the machines.

³⁰ Hapgood, MQC (2007) **Paget's Law of Banking** Butterworth 392

³¹ Ibid

³² Sriram, MR et al (2008),**Core Banking Solution: Evaluation of Security and Controls**, Asoke Ghosh,Delhi.p 15

³³ Ibid

Miller, R has discussed the story of Citicorp bank generally; he traced the history of installation of ATM within the bank which was one of the steps in the building period. the author appreciated that at the beginning the ATM did not generate as much profit as it is capable to generate due to the resistance from users, however the resistance faded as young people especially college students accepted the services with open arms and in long run the business paid off to the bank.³⁴With the view of expanding the ATM services to their customers the Citicorp bank joined the CIRRUS national wide network.

The author also appreciated that ATM is cheapest way of dealing with so many people at a time but it is expensive. However the bank pioneered the use of ATM in the New York City so as to be leader in providing financial services to consumers.³⁵ Just like Sriram and Hapgood. Miller has not touched the legal part of ATM hence the protection of the customer cannot be observed. Therefore, the concern of this study is to examining the legal part of ATM to see how the rights of ATM card holder are being protected. **Holden**,³⁶ like other writers he discussed the history of ATM and brief explanation on the way ATM operate .The author described various services that are being offered by ATM. This author failed to turn his eye on the legal aspect and how the right of the consumers are being assured.

Sharma,R.B discusses about payment cards in its generality which include ATM cards. He underlined the importance of using those cards. As far as ATM card are concerned, he pointed out that there are two types of ATMs online and off line ATMs. Online ATMs are those which have been connected to the bank computer, and offline ATMs are those which are complete by themselves for the limited client age of a given area. They are not linked to a central data system of the bank. They are installed only at places where ATMs cannot be connected central data base. They are usually away from the bank premise. They are easier to pilfer thus they need extra physical security to protect them from robbers. The author further discusses the

³⁴ Miller, R, (1993).**Citicorp: The story of a Bank in crisis**, McGraw- Hill, Inc , US.P118

³⁵ Ibid p 149

³⁶ Holden, J.M (1970), **The Law and Practice of Banking**, Pitman publishers Ltd. London.

uses off ATMs.³⁷ Despite the nice discussion made by the author he did not direct his mind on the challenges that this technology accompanied with which is the concern of this research.

Mambi,A.J discusses various aspects of ICT development, he noted that banking sector makes heavy use of ICT to provide improved customer service with some banks using very small aperture terminal (VSATs) or public leased lines of interconnect their branch and cash dispensing Automatic Teller machines.³⁸ The author like many other writer various advantages of ATM like cost effectiveness, saving the bank staff and 24 hours service to their customers and that activation of ATM is done by entering PIN number.³⁹

The author in his discussion posed a query whether the use of credit card system or other related card electronically is safe and riskless. He noted the possibility of E-banking of raising issues on the question of privacy as bank records of a customer's debit card transaction will amount to confidential. He also revealed his further worry on the possibility if the customer's PIN obtained by third party observing the number when they key into ATM.⁴⁰ The author admitted that there is misuse of ATM cards and several incidents have been reported, however due to inadequacy of the law to cope with technological advancement the alleged criminals are just being charged with theft and economic sabotage instead of cybercrime.⁴¹

It is the author's view that generally E banking seem to pose security challenges involving technological and legal measures for protecting privacy, cybercrimes and other related financial crimes.⁴² Despite the considerable contribution of this book to

³⁷ Sharma, R.B (2009) Bank frauds: Prevention and Detection, universal law publishing pvt Ltd, Newdelhi 3rd ed. p295

³⁸ Mambi, A.J (2010) The ICT Law: Source Book for Information and Communication Technologies and Cyber law. P2

³⁹ Ibid p14

⁴⁰ Ibid p122

⁴¹ Ibid p 123

⁴² Ibid

our research, the author failed to point out the law governing the ATM in Tanzania and its adequacy in protecting the customers rights which is the objective of this research.

Congressional Budget Office (CBO) They appreciated the fact that ATM has revolutionized the way many Americans handle their banking in particular the transaction in which they withdraw cash from their accounts. They also observed that technological advances have made the machines more functional, cheaper and easier to accommodate. They also traced the rise and consolidation of shared ATM networks they noted that when the banks started to install ATMs they quickly found that they could not individually provide act of the access that card holders desired. In response the banks formed coalitions and developed state and regional networks to which all ATMs today are connected.⁴³

The writer just like other writers they described how ATM networks work, they stated that with minor variation, most of ATM transaction occurs in the same manner. Card holders inserts their card with magnetic strip loaded with account information into the ATM they then enter the PIN so as to verify the identity of the card holder then the process continue as desired by the customer. Although they have discussed about the ATM at length they have not discussed about the protection of the ATM customers which is the concern of this research.

1.7 Significance of the study

This research is important to legal professionals, enforcers of the laws and the entire commercial world as it examined whether the ATM card holders are well protected under the current legal regime. The study has eventually enlightened them with the strength and weakness of the law and proposes the better way forward. It is also important to the general public as most of them are ATM card holders. With this research the entire public will be in a position to appreciate the extent of protection they are enjoying when using their ATM cards whether with their bank (issuing

⁴³ Congressional Budget Office (CBO) Competition in ATM Markets: Are ATM s Money Machines?

bank) or with the other bank, they can also be in a position to know the risks which may likely be encountered in course of dealing with their ATM cards.

The research also help the law makers to have in place the law which will regulate the ATM Card service providers and users of these services.

1.8 Research Methodology

This research was designed to find out whether the ATM card holder has been sufficiently protected under the current legal regime, in the process various laws regulating the relationship between the card holder with issuing bank and third bank whose ATM is being used. To a lesser extent, it involved a historical research in the sense that it traced the introduction and development of ATMS in the banking industry. The researcher used both library and field research. Library research involved an analysis of the problem through statutes, books, journals, articles, case law and other relevant material available, to establish theoretical understanding. The researcher further conducted a field research and collected data relevant to the study.

1.9 Sampling and Sampling Procedure

The selection of respondents based on purposive sampling. The selection of priority focused on professionalism and expertise whereby relevant respondents such as bankers, lawyers, judges were visited due to their significance and involvement in the matter concerned. The general public who are the users of the ATM services were visited to share their experience on the matter.

Basically, the selection of respondents focused on collecting information and data relating to ATM and protection of card owner. The purposive sampling method was used to the professional respondents such as bankers, lawyers, and judges. In addition to that the convenience sampling method was employed to study the units that were available and willing to share the information concerning the subject matter at the time of data collection.

1.10 Sample Size

The research was conducted in Tanzania; the targeted population is located in Dar es Salaam and Singida regions. Taking into account the objectives of the research, time available for carrying out the research and the cost involved the targeted respondents are 15 bankers, 20 members of the public, 15 judicial officers and 10 lawyers. Through the stated sample size, the researcher was expected to gather sufficient information relevant to the study.

1.11 Sources of Data

The researcher used both primary and secondary data. Primary data from the field were expected to provide the information basing on reality and experience that revealed the extent of the problem. The researcher also conducted an intensive review of secondary data such as books, journals, articles and other relevant materials with the view to appreciate what had been said by others on the subject, and establish the existing gaps. Consequently, the researcher was able to address the existing gaps and their practical solution.

1.12 Data Collection Method

The researcher employed various methods of data collection depending on the type of data to be collected such as primary or secondary data. Primary data was gathered by way of questionnaires and interviews while secondary data was collected through library research whereby relevant published and unpublished materials were reviewed.

1.12.1 Primary Data

Primary data refers to that information that the researcher collects or gathers directly from the respondents. For the purpose of collecting primary data, the researcher conducted field research to the relevant institution such as banks, judiciary as well as the general public so as to accord her with the reality and practical aspect of the problem. The researcher used questionnaires and interview as data collection methods.

1.12.1.1 Questionnaires

These are systematically compiled questions prepared by the researcher and distributed to the intended respondents for the purpose of securing response from them. Questionnaires were designed and distributed to the respondents to answer the questions contained therein. With a view of availing more freedom to the respondent, questionnaires were in form of structured open-ended questions for the purpose of gaining respondents' opinions on the subject of the research. The questionnaires also contained structured closed questions that provided limited space to answer by the respondents. The respondents were individuals such as bankers, advocates, lawyers and judicial officers who were possessing legal expertise, other respondents were members of general public who were the users of ATM services and whose rights were subject of this research.

1.12.1.2 Interview

Interview is one among the various ways through which data can be collected by the researcher whereby the researcher meets with an intended respondent and discusses the problem at hand; in the course of discussion the researcher gathers the information. There are various forms of interview categorisation of which depend on different criteria. For instance, classification according to the subject matter; classification according to the role and classification according to the purpose which includes the diagnostic; treatment and research interview which will be used in this study.

An interview guide was prepared so as to lead the researcher in the course of the interview process. This method has been used to some respondents such as bank managers. The guide contained semi structured question for the purpose of helping the researcher to gather more information relevant to the study.

1.12.2 Secondary Data

1.12.2.1 Documentary Review

Intensive library research was conducted in which the problem was analyzed and various part of the research were consolidated through the thorough review and scrutiny of relevant published and unpublished materials such as standard form

contracts that the customers enters with their banks for enjoying inter banking ATMs services and other relevant materials available. The researcher visited libraries at Mzumbe University, and University of Dar es Salaam.

1.12.2.2 Electronic Sources

The researcher used internet source by visiting different websites and search engines concerning the research topic for the purpose of gaining more information.

1.13 Data Processing and Analysis

The researcher conducted careful study of the data collected for the purpose of properly editing, coding, classifying, tabulating and summarizing collected data for the purpose of analysing them.

The properly processed data were qualitatively analyzed for the purpose of highlighting relevant information hence reaching to conclusions.

1.14. Area of Study

The research was conducted in Singida and Dar es Salaam region. The researcher opted for Singida region for the purpose of collecting customer's experience on the matter taking into account the fact that there is no research which has been conducted there in respect of the topic at hand.

1.15 Research Design

Research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from writing the research questions and its operational implications to the final analysis of data. Since this study is a qualitative study the researcher used a case study design with which she collected information regarding the challenges of inter banking ATMs use in Tanzania's regulatory and supervisory regime. Creswell (1994) points out that in a case study, a single person, programme, event, process, institution, organization, social group or phenomenon is investigated within a specified time frame, using a

combination of appropriate data collection devices.⁴⁴ This study is one that concerns narration of facts about a situation which is brought to the fore by the advent of inter-banking and it challenges upon the existing regulatory and supervisory regime in Tanzania.

1.16 Scope of the study

This study focused on examining various laws so as to see whether or not the rights of the ATM customers are well protected. The research was limited to ATM customers who are enjoying the international ATM network.

1.17 Conclusion

This chapter has introduced the study in general; the background and the statement of the problem are given. It also contains the objectives and methodology used in a research. The researcher explored whether the rights of inter banking customers are well protected; she examined the law related to banking to see whether the uses of ATM machines are regulated and supervised under the law. She also examined problems facing the ATM card holders in Tanzania, in the course withdrawing from ATMs. In the course of exploring she used various ways to collect primary and secondary data which she analysed and presented them in a case study design.

⁴⁴ See Creswell, J. W. (1994). *Research Designs: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage. p. 12

CHAPTER TWO

CONCEPTUAL FRAMEWORK

2.0 Introduction

In this chapter the researcher introduces the Automated Teller Machines and explain the key concept underlie it.

2.1. Concept of Automated Teller Machine

Automatic Teller Machine is also known as Automated Banking Machine, Cash Machine, Cash Point, Cash Line or Hole in the wall. This is a computerized telecommunication device that enables the client/card holder to perform financial transaction without the need for cashier, human clerk or bank teller.⁴⁵

ATM card holder is given a personal identification number (PIN) to remember which after he has inserted the card in the machine; he enters into the key body. This action links machines with the banks computer⁴⁶

2.2Components of an ATMs

ATMs have various components. An ATM is typically made up of the following components - the hardware and the software. Hardware is the physical part of the machine which we can see and touch, they include:

The card reader: This is placed inside the machine and reads and decodes the data encrypted upon the card. The card reader is programmed to retain the card in certain circumstances such as when the card is on pick up or is blacklisted or when the user has entered three consecutive wrong PINs.

The display screen: this aimed for communication with the customer as it shows the services provided for the customer to choose the specific service to meet his need.

A simple keyboard or keypad for customer input, this key pad is consisting of numeric keypad and other touch sensitive key pads for selecting items from menu which are presented on the screen.

⁴⁵ En.Wikipedia.Org/Wiki/Atomated_Teller_Machine

⁴⁶ Mehta,R And Mehta ,R (2009),**Credit Cards: A Legal Guide**, Universal Law Publishing Co,New Delhi .Second Ed P11

A cash dispenser consisting of the reservoir of the currency notes of different denominations and the mechanism for counting the correct number of notes to fulfil the customer's request.

An extremely strong casing: This is virtually temper-proof to prevent any physical/technical assault upon the ATM.⁴⁷

Speaker – The speaker provides the cardholder with an audio signal when a key on the keypad is pressed.

Receipt printer – The receipt printer provides the cardholder with a paper receipt of the transaction

The ATM Card and Its Function:

The front-side of the ATM card is embossed with information about the card holder. The back-side of the card has a thin strip of magnetic tape which also holds some important information. The information on the front-side is easily readable with the naked eyes. But the information on magnetic-stripe cannot be read. The same information as embossing and some confidential information concerning the cardholder's financial status are stored there.

The magnetic strip has 3 tracks on it. By simply inserting a plastic card into the machine and key padding-in the owners' account password, one can access one's bank account and receive cash-in hand. When a cardholder inserts his card into the machine and requests a transaction, the machine reads the embossed information from the front side and compares it with the data stored on the magnetic strip, on the back side looking for a "match" of information on both sides. When the card is being processed the ATM tries to match the account number, expiration date and name stored on each track. Once the information on the tracks is confirmed to match, the ATM compares them to the embossed information on the front-side. If all the information matches then transaction will proceed.

⁴⁷ Ibid p 12

The Working of ATM

The ATM has two compartments to store cash in. The first is the ‘deposits’ compartment. This is a small area that receives the daily deposits. It is located in the upper-part of the machine, near all the mechanical devices. The second part is withdrawal compartment. Due to the fact that most ATM transactions are withdrawals the complete bottom-half is filled with cash where the withdrawals are extracted from. The automated teller is connected by wires and cables to a “main computer”. During each transaction the teller sends signals to main computer. The main computer records each transaction (a deposit or withdrawal) and updates the card-holders account. It also sends approval or denial signals to the ATM as regards the transaction requested

2.3 Inter banking ATM services, interbank network or an ATM consortium

This is a computer network that connects the ATMs of different banks and permits these ATMs to interact with ATM cards of non-native banks. Therefore, a card holder of one bank will enjoy the ATM service of another bank which had reciprocal agreement. The interbank networks provide capabilities for all ATM cards within the same network to use other banks’ ATMs that belong to the same network; however the customers will enjoy the basic services such as withdrawals and balance inquiries.

Interbank networks are convenient because people can access the ATMs of other banks who are members of the network when their own bank's ATM is unavailable. For example, card holder of any of these banks; Akiba Commercial Bank, Bank of Africa Tanzania, Dar es Salaam Community Bank, Tanzania Investment Bank, Twiga Bancorp, Azania Bank, Access Bank, Uchumi Commercial Bank, Tanzania Postal Bank, Mkombozi Commercial Bank, Tanzania Women’s Bank and Commercial Bank of Africa who are the members of umoja switch can use their ATM cards in the ATM of either bank. Inter-banking ATM services is especially convenient for travellers traveling abroad, where multinational interbank networks, like Plus or Cirrus, are usually available.

2.4 Uses of ATMs

2.4.1 The ATMs facility allows the customer to do the following;

Withdraw cash, normally up to a maximum limit per day. In spite of a number of innovative services being made available at many ATMs, cash withdrawal still remains the most accessed service at ATMs. However, the migration of routine bank transactions like cash withdrawals and balance enquiries from teller counters to ATMs significantly raises the potential for savings in employee costs and greater employee focus on value-added revenue-enhancing activities such as selling other financial products and advisory services to customers⁴⁸.

2.4.2 Settling various utility bills

Most utilities have inadequate infrastructure for receiving bill payments resulting in long queues at collection centres. Hence, bill payment at ATMs has achieved noticeable acceptance by bank customers. Most banks provide this service through bi-lateral arrangements with bill-payment service providers. ATM users register their water, electricity and telephone utility accounts with banks, check their dues at ATMs, approve bill payments that are debited to their bank accounts and receive printed receipts for the transactions. This service has the effect of improving customer satisfaction for both the bank as well as the bill-payment service providers.⁴⁹ Provide the balance of the accounts Order check book Transfer of money from one account to another account of the same bank

2.5 Advantages of ATMS

The advantages of the ATMs can be viewed at two different perspectives, namely at the bank's point of view and that of customers.

2.5.1 The advantages of ATMs to the banks are as follows;

An automated teller machine provides additional revenue streams:

Each ATM withdrawal transaction generates surcharge income for the owner of the automated teller machine. Additionally, an automated teller machine can provide

⁴⁸ [Http://Www.Banknetindia.Com/Atm/Functionality.Htm](http://Www.Banknetindia.Com/Atm/Functionality.Htm)

⁴⁹ Ibid

revenue from on-screen advertising, couponing, and alternative media (e.g., prepaid phone cards, postage stamps) dispensing opportunities.⁵⁰

Also, it leads to reduction of the labour cost, as one ATM can perform the task which could be performed by several human tellers which cost of maintaining them are of the high side than maintaining the ATM much. Another advantage is that it facilitates reduction in paper work and documentation, With ATM paper work is drastically minimized as the customers receive the services through the machines. Furthermore, it leads to increase of the number of the customers who can be served, as the machine function faster than human being, hence increase the number of customer who can obtain services in a particular time.

Lastly, it facilitates direct input of information into the record keeping system, all the records of the information of the ATM transaction are automatically kept in the banks record keeping system.

2.5.2. Advantages that accrues to the bank customers

There are various advantages that accrue to the bank customers, they are as follows:

Convenience. This is a major ATM benefit. You don't need to get out of the car to use a drive-up ATM. You avoid long teller lines in banks and can use the ATM to withdraw cash, make deposits and check account balances. You can find an ATM quickly if you need cash when cards and checks won't do. Use of the ATM to get cash instead of swiping the debit card can help with budgeting by controlling spending and providing a statement of transactions instead of a bunch of receipts.⁵¹

24-Hour Access. If you are running low on cash and it's later in the evening when all of the banks are closed, you can go to an automated teller machine to get money from your bank account. Instead of having to complete a withdrawal slip or write a

⁵⁰ <http://www.thestudymaterial.com/presentation-seminar/computer-presentation/233-automated-teller-machine-presentation.html>

⁵¹ An Article By Gail Sessoms **Titled Benefits & Risks Of Using ATM Machine Found At** <http://budgeting.thenest.com/benefits-risks-using-atm-machines-23502.html> Viewed On 15th July, 2013

check out to cash, you can use your bank-issued ATM card or a credit card to access your money. You have the option to receive printed receipts of your transactions as well as perform more than one transaction while at the ATM.⁵²

Reduces risk and lowers costs: Having an automated teller machine on the premises can reduce the number of bad checks and cut credit card expenses because customers have the option of withdrawing cash instead.

2.6 Disadvantages of the ATMs

ATM cannot be personalised to individual user. User has no control over which services are offered. Each time customer uses ATM, the services which are never used are still listed on the screen and the frequently used services are still relegated to a secondary screen of options. ATMs are never learning which options the customer need and which ones they do not.⁵³

Fraud

The potential for identity theft is a major disadvantage related to automatic teller machines. Fraudulent card readers, called skimmers, are placed over the authentic reader to transfer numbers and codes to nearby thieves. Spy cameras are also used by password voyeurs to collect access codes. Lost access cards are another potential for fraud.⁵⁴

Eating a Card

Occasionally, ATMs will malfunction and swallow a user's ATM card. The customer will then be directed to contact a service number or their bank and wait for a repair

⁵²An Article By Janise Smith, Titled **The Advantages Of An Automated Teller Machine Found At** [Http://Www.Ehow.Com/List_7244055_Advantages-Automated-Teller-Machine.Html](http://www.Ehow.Com/List_7244055_Advantages-Automated-Teller-Machine.Html) . Accessed On 15th July,2013

⁵³ An Article Titled Conceptual Model for Personalizing An Automated Teller Machine . Accessed On [http://Usabilityetc.Com/Articles/Atm_Conceptual Model](http://Usabilityetc.Com/Articles/Atm_Conceptual%20Model). Viewed on 16th July,2013

⁵⁴ An Article By David B. Ryan Titled **The Disadvantages Of Automatic Teller Machines. Found At** [Http://Www.Livestrong.Com/Article/67746-Disadvantages-Automatic-Teller-Machines/](http://www.Livestrong.Com/Article/67746-Disadvantages-Automatic-Teller-Machines/). Accessed On 18th July,2013

technician to retrieve this card. While this happens only rarely, if it occurs on a weekend or at night, the user may be left to wait for several days before they can again use their card, something that would not happen with a human cashier.

Fees

With the advent of ATMs came ATM fees. Not only do banks of which you are not a member charge fees for the use of their ATMs, but users are often charged surreptitious fees by their own banks for using other banks' ATMs--meaning the customer is docked twice for the same transaction

Privacy

Privacy is not guaranteed because ATM transactions are completed using a keypad or touch screen. The people standing nearby may be able to see your personal identification number, or PIN, and account balance information, making it easier to steal your identity. However, once you are inside a bank, the account numbers and other personal information are maintained behind a desk and the information is more secure

Security

Unlike bank tellers, ATMs do not require the person performing the transaction to present picture identification. Rather, the person must only insert a bank card and enter a personal identification number. If the bank card is stolen and the number ascertained, an unauthorized person can easily access the account.

Inability to Perform Complex Transactions

ATMs can only perform relatively basic transactions. This means that people who need to complete these longer transactions will be forced to use the teller, restricting use of the ATM for people who need to complete simple business. In this sense, the ATM is rather like the express line in a supermarket-faster for some, but unavailable to others.

2.7 Location of ATMs

Basically there are two places where the bank can place their ATMs such as at their bank premises/branches (on premise ATMs), or they can place the ATM at any place outside the bank premises (off premise) which the bank finds convenient. In the early stages of ATM deployment, the ATM was generally located on the bank premises and it was operated by banks. A rapid expansion of ATM deployment in recent years shifted to off premise ATM terminals, such as airports, grocery stores, gas stations, and or anywhere frequented by large number of people.⁵⁵ However Off-premise banking locations are usually very expensive to establish; however, they tend to be profitable entities for the bank over the long run. This is because they tend to have a superior cost-to-transaction ratio than traditional bank locations staffed by personnel.⁵⁶

2.8 Other related terms

Mobile payment, also referred to as mobile money, mobile money transfer, and mobile wallet generally refer to payment services operated under financial regulation and performed from or via a mobile device. Instead of paying with cash, check, or credit cards, a consumer can use a mobile phone to pay for a wide range of services and digital or hard goods. Although the concept of using non-coin-based currency systems has a long history, it is only recently that the technology to support such systems has become widely available

Among the services available to the users of m-money are domestic and international money transfers, mobile payments (airtime top-ups, merchant payments, utility bill payments, and salary transfers), and mobile banking (balance inquiries, withdrawals, and deposits)

Currently, there are four m-money products on the market: Vodacom M-Pesa, Tigo Pesa, Airtel Money and Ezy Pesa (Zantel Z-Pesa). In addition, the National Microfinance Bank (NMB) offers a mobile application, “Pesa Fasta,” which allows

⁵⁵ http://en.wikipedia.org/wiki/automated_teller_machine viewed on 24th july,2013

⁵⁶ <http://www.answers.com/topic/off-premise-banking>

its customers to use their mobile phones to send money to any person in Tanzania, who does not have a bank account⁵⁷

Internet payment systems refer to the various methods by which individuals and companies doing business online collect money from their customers in exchange for the goods and services they provide. A number of different forms of payment exist for online purchases, and more are being developed all the time. After all, it is in the best interest of both consumers and merchants to make electronic commerce as safe and easy as possible

Credit Cards. As of the year 2000, credit cards remained the most common means of online payment. They were also among the easiest payment methods, for consumers as well as for merchants. From the consumer's standpoint, ordering merchandise from the Internet required only entering a credit card number and expiration date in the appropriate fields on a merchant's Web site. Many consumers felt greater confidence in online transactions when they used a credit card, knowing that a third party (the credit card company or issuing bank) was involved and could help protect them against fraud.⁵⁸

Smart Cards. Smart cards are similar to credit cards, except they store information on an imbedded chip instead of on a magnetic strip on the back. Consumers can load money into an account on the card by using an automatic teller machine (ATM) or by placing the card in a slot in a specially equipped computer. The imbedded chip keeps track of how much money is added to and withdrawn from the account. Smart cards are already quite popular for online sales in some international markets.⁵⁹

⁵⁷ see http://www.intermedia.org/wp-content/uploads/FITS_Tanzania_FullReport_final.pdf

⁵⁸ <http://www.answers.com/topic/internet-payment-systems>

⁵⁹ Ibid

Digital Cash. Digital cash is a form of electronic currency that functions similarly to a debit card. Customers can transfer money from savings and checking accounts into an online cash account, from which they withdraw to make purchases over the Internet. This form of payment is particularly well suited to purchases of small, low-cost items. In addition, it offers consumers the benefit of anonymity in their purchases, similar to using real cash. The basic technology involved in digital cash transactions is public-key encryption. Digital signatures are used to authenticate the bank issuing the note and the individual computer user who is spending the money.⁶⁰

2.9 Conclusion.

In this chapter all the key elements and concepts of the study were described and elaborated according to the views of different scholars. It has been clearly that the use of ATM, specifically the Inter banking ATM services has grown tremendously as it is seen as the best way the bank can use to meet customer's conveniences as well as to capitalize.

⁶⁰ Ibid

CHAPTER THREE

ORIGIN AND DEVELOPMENT OF AUTOMATIC TELLER MACHINE.

3.0. Introduction

It is true that most inventions have happened due to sheer necessity as well put...Necessity, it is said is the mother of invention; it is also the mother and father of innovation, improvement and purgation”.⁶¹ Basing on this account Banks have been in the forefront of harnessing technology to improve their product, services and efficiency. They have overlong time been using electronic telecommunication networks for delivering a wide range of value added product and services. One of these electronic devices is ATMs which have been described as one of the top 100 ideas of the 20th century.⁶² In this chapter the researcher is tracing the origin and technological development of ATM at international level as well as the country level.

3.1. Origin of ATMs

Like any case of invention, several people can be seen in the history of invention of ATMs, such people includes Luther Simjian, John Sheferd Barron, Don Wetzel Contribution of each of these cannot be underrated . Many experts believe that the first Automated Teller Machine was the creation of an American inventor named Luther Simjian. Simjian held the patent of several invention including; Army fight stimuli, a colour x-ray machine, a self-focusing camera, an exercise bicycle and teleprompter.

Simjian created the first ATM in 1939, confident to his invention, he persuaded the New York City bank to run his product which remained in the market for six months only. He was disappointed with the performance and lack of users. It was concluded that the ATMs was the wasteful addition to the personal banking. Lack of demands for ATMs finally forced him to take the back seat; it is clear that time was not right

⁶¹ The Words Of CEO Of American Credit Card Issuing Company As Appeared In The Book Titled CREDIT CARD S;A LEGAL GUIDE At P 8

⁶² An Article Titled “Perspectives-Automatic Teller Machines “Written By Ross Anderson, Cambridge University Accessed On Www.Theory.Physics.Ubc.Ca/Atm.Html Viewed On 23th July,2013

for this concept to have been accepted generously. Hence Simjian lost out of success and fame and the same was passed on to two other inventors.⁶³

John Shepherd Barron, a Scottish national born in India. Later relocated to Britain and persuaded his education from university of Edinburg, and trinity college Cambridge.

After returning empty handed from the bank, he was disappointed to have no other solution except to wait till the bank would open next and thus Shepherd thought of a self sufficient cash dispensing machine which in 1960's he invented . The ATM gained Shepherd Barron an everlasting recognition in the banking world and paved the way for hi- tech banking techniques, online bank account, PIN and chip security technology. The four digits internationally accepted standard PIN was also his invention. Finally, in 1967 the first ATM that dispensed paper currency round the clock was unveiled. The ATM was installed outside the Barclays bank in North London started dispensing cash n 24 hours basis.

Don Wetzel graduated from the University of Loyola and then went on to play semiprofessional baseball⁶⁴. After his baseball career, Wetzel went on to work the vice president of product planning for Docutel, a company that developed automated equipment⁶⁵. Wetzel came up with the idea of the ATM one day while waiting in a long line at his bank, as he realized that a machine could be built to perform most of a bank teller's work.

After proposing the idea to his company, he and two other engineers, Tom Barnes and George Chastain, created a machine that read customized ATM cards with magnetic strips to encode account information called Docuteller which Chemical Bank of New York City started using it in 1969, and it was patented in 1973.⁶⁶

⁶³ An Article Edited By Cornelis Robat Titled' Invention Story Of ATM.

⁶⁴ Cashman Shelly. 2005, *Discovering Computers*,; Thomson Learning, Inc.: P.267.

⁶⁵ Ibid

⁶⁶ An Article By John C.L Auzon Titled History Of ATM Accessed At Www.Ehow.Com/About_5121273_History_Automated_Teller_Machine.Html Viewed On 20th July,2013

3.2. Development of current ATMs

ATMs of course, are an establishment part of the payment landscape. But ATMs do not represent a payments type per se; rather, they are an electronic means of dispensing cash. They offer a convenient alternative to more traditional dispensers, such as bank tellers and automatic drive through facilities. Significant, even dramatic, changes are reshaping the ATM industry which in recent years has not only improved consumer convenience, but has expanded business opportunities for non-bank ATM operators as well as for ATM networks.

The late 1960s marked the beginning of modern ATM and point of sales systems, although the concept of ATMs and debit cards existed prior to this. It might be argued that the first ATMs which were cash dispenser was made in 1967, by De La Rue Instruments, and installed at Barclays bank in London. The invention accredited to engineer John Shepherd Barron. The machine uses paper vouchers or token bought from tellers. The machine is called the De La Rue Automatic Cash System, or DACS.⁶⁷

Donald C. Wetzel has being credited with developing the first modern ATM a major part of the development process involved adding a magnetic stripe to a plastic card and developing standards to encode and encrypt information on the stripe. A working version of the Docutel ATM was sold to New York's Chemical Bank in 1969. The installation marks the first use of magnetically encoded plastic. Although the Docutel ATM did use the modern magnetic stripe access card, the technology remain primitive compared with today's. The Docutel ATM only dispensed cash and was an offline machine.

By the early 1970s, ATM technology advanced to the system we know today. ATMs were first accessed primarily with credit cards, but in 1972, City National Bank of Cleveland successfully introduced a card with an ATM but not a credit function.

⁶⁷ An Article By [Billings Farnsworth](http://Ezinearticles.Com/?The-History-Of-The-Automated-Teller-Machine&Id=2307128), Titled **The History Of The Automated Teller Machine**. Found At [Http://Ezinearticles.Com/?The-History-Of-The-Automated-Teller-Machine&Id=2307128](http://Ezinearticles.Com/?The-History-Of-The-Automated-Teller-Machine&Id=2307128)

ATMs were developed that could take deposits, transfer from cheque to savings or savings to cheque, provide cash advances from a credit card, and take payments. ATMs also were connected to computers, allowing real-time access to information about cardholders account balances and activity.

By connecting a string of ATMs to a centralized computer, banks established ATM networks. This allowed cardholders to use all ATMs in the network. Shared network not only enhanced consumer convenience but also extended the geographic service areas of banks at a manageable cost.⁶⁸

3.3 Introduction of Automatic Teller Machines in Tanzania

Tanzania embarked on comprehensive economic reforms in 1985 but reforms in the financial sector only commenced in 1991 following recommendations of the Presidential Commission on banking in 1990. With those recommendations the Financial Institutions Act of 1991 was enacted thus, the banking sector was liberalized and opened up to new foreign and domestic private bank entry.⁶⁹ This Act was repealed and replaced by the Banking and Financial Institutions Act 2006.

The banking sector reforms drew on the need to restructure and modernize the banking industry in order to foster competition and enhance financial development necessary for sustaining broader macroeconomic stability and long-term economic growth. By emphasizing private participation in the banking industry and the economy in general, the main thrust of the financial sector reform programme was one of increasing savings and improving the allocation and operational efficiency of the financial system which was characterized by state-owned banks and other financial institutions.

⁶⁸ An Article By Olufemu Sunday A Deoye ,Titled Evaluating The Performance Of Two Factors Authentication Solution In Banking Sector. Found In International Journal Of Computer Science Issues, Vol. 9, Issue 4, No 2, July 2012

⁶⁹ Simpasa,A.M,(2011)"Competitive Condition Of Tanzanian Commercial Banking Industry "African Development Review, Voli ,Issi P 88-98

The financial sector reforms which also led to the adoption of international best standard regulations accelerated the structural transformation of the Tanzanian banking sector, placing it at the centre of economic policy management and private sector led growth. As a result, since the early 1990s, the banking sector in Tanzania has witnessed marked growth, enthused by the privatization of formerly state-owned banks and removal of operating obstacles and entry barriers in the industry.

The large wave of foreign bank entry into the Tanzanian banking industry is testimony of the incentives created by the policies of open doors to foreign bank participation. Therefore, the expansion in the number of banks raised prospects for increased competition in the banking sector. In particular, the entry of foreign banks brought optimism about diversification of financial services and introduction of technological infrastructure thereby providing a platform for local banks to adapt to new and better technologies⁷⁰. The technologies that the modern banks attracted include, among the other things is Automatic Teller Machines.⁷¹

Banks and financial institution in Tanzania started to offer ATM services in the 1990's when the first ATM was put into use on 1997⁷². The first bank to introduce ATM in Tanzania is Standard Chartered bank.⁷³ Since then the competition among the operators become fierce especially in cities each of the bank shouting out to offer the best ATM service than all others.

Several development have occurred to these ATM services since its introduction Ranging from the number of the machines, which were only few in each bank, location of the ATMs at first ATMs were located at the bank premises only but currently there is the wide range of spread of these ATMs which can be found at various places such as market centers, petrol stations, etc

⁷⁰ Ibid

⁷¹ Part Of The Speech Made By Abdisalam Issa Khatibu (Mp) Depute Minister For Finance At Signing Ceremony Of The Fund Transfer Agreement With The Business Nexion .Deleverd In December ,2006 At Kilimanjaro Kempisk Hotel

⁷² A Report By Bank Of Tanzania(Payment System In Southern African Development Community-Tanzanian Chapter ,P 9

⁷³ www.StandardChartered.Com/Tz/About-Us/En/Last Viewed On 17th November 2012.

Also, at the beginning these ATMs were connected to the bank system but with the development banks have joined into the international ATMs networks such as cirrus, maestro and plus.

Following the importance of the shared networks UMOJA switch was established in Tanzania in 2007, with this switch the card holder of the member banks the switch can enjoy the ATM services of the reciprocal banks. UMOJA switch came about not only to give the benefit to customers but also to the member banks. It is the infrastructure necessary to achieve the reach and convenience to the customers requires massive financial investment way beyond the scope of any of the member banks individually. The UMOJA switch is definitely the most viable and synergistic card solution and forms a unique platform for card based payments.⁷⁴

Appreciating its importance Bank of Tanzania plans to introduce the National Switch that enables the customers of all banks to use the ATM of any bank at any time.⁷⁵

3.4 Conclusion

In this chapter the historical development of ATMs were reviewed. The researcher traced the history of ATMs from its invention in 1939 by Luther Simjian, the development and its refinement to the modern ATMs which allows inter banking services. The researcher also provided the history of ATMs in Tanzania starting from when the first ATMs machines were introduced in the country in 1997 and the current trend of the banks joining in local and international consortiums to provide inter banking ATM services.

⁷⁴ Key Note Address By Mr Charles Singili Chairman Of Umoja Switch Consortium Steering Committee At The Signing Ceremony Of The Fund Transfer Agreement With Business Nexion.

⁷⁵ This Has Been Stated In National Assembly By Ms,Saada Mkuya Salum, Deputy Minister For Finance

CHAPTER FOUR

AUTOMATIC TELLER MACHINES REGULATORY AND SUPERVISORY LEGAL FRAMEWORKS IN TANZANIA

4.0 Introduction

When a person opens an account with a bank, seldom it realized that contract has been entered into between him and the bank. The normal steps to be taken to open an account are simple and short. In fact all that required to be done by prospective customer as at least in the saving account is to provide personal particulars and sign the specimen signature card the rest will be done by the bank. However, out of this apparently simple act will come into existence a debtor creditor contractual relationship which in turn, establishes reciprocal duties and rights? This Banker-customer relationship continues to exist even where the bank issues its customers with ATM cards. The amounts withdrawn from ATMs are debited automatically to the account of the customers whose ATM cards were used for the Withdrawals. The developments of ATMs network or consortiums allows the card holder to use the ATM of any other bank within the network, these developments are not free from challenges, hence it requires a sound legal system which will address all important issues related to ATMs. This part presents the mechanisms of regulation and supervision of ATMs in Tanzania.

4.1 Regulation and Supervision of Banks in Tanzania

Regulation of banks in Tanzania is through a number of various pieces of banking legislations and subsidiary regulations that have been passed to date. The principle Regulatory and supervisory organ in Tanzania is the Bank of Tanzania (BoT). The BoT has the power to supervise and regulate the functioning of all other banks as well as all other financial institutions.⁷⁶ This means no other institution apart from the BoT is legally allowed to partake of this duty with the BoT.⁷⁷ BoT employs a methodology of regulation and supervision which is known as inspection. Inspection

⁷⁶ See section 4(1) of The Banking and Financial Institutions Act, 2006 and 5(1), 6(1)(a)(b) and 7(1)(2) of The Bank Of Tanzania Act, 2006.

⁷⁷ See generally s. 44(1) of the BOT Act, 2006 for the BOT's power of control over other banks.

is done in respect of all commercial banks. There are two ways in which such inspection is effected by On-site inspection⁷⁸ and by Off-site inspection.

On-site inspection:

Full scope or targeted examination on individual banks or financial institutions. The risk management framework of the individual bank or financial institution especially Credit, Liquidity, Interest Rate, Foreign Exchange and Operational Risks are reviewed. Apart from the risk framework review of the five key components of the institutions, that is Capital adequacy, Asset quality, Management quality, Earnings capability and Liquidity (CAMEL) at least once a year for every institution done on site. In addition, supervisors do verify compliance with laws and regulations and assess the effectiveness of the institutions' internal control system⁷⁹.

Off-site inspection:

In the off-site inspection assessment of financial soundness through analysis of the statistical and other returns covering key areas of the institutions is done. From the analysis an Early Warning Report is produced. The statistical returns are submitted periodically (i.e. Daily, Weekly, Bi-weekly, monthly, quarterly, semi-annually and annually or on ad hoc basis if the circumstances so demand).⁸⁰ The BoT is also coordinating the National Payment System (NPS) modernization initiatives in the country through its dedicated directorate of (NPS). The bank assumes such responsibility as part of its effort to ensure that there is in place a well-functioning and effective financial market.⁸¹ The role of BOT in payment systems entails but is not limited to the following functionalities, namely

As a user of Payment Systems: A central bank has its own transactions to carry out requiring the movement of funds e.g. settlement of government securities.

⁷⁸ See s. 47(1) of the BOT, Act 2006

⁷⁹ Information provided by BOT see <http://www.botorg/BankingSupervision/SupervisoryMethodologies.asp>

⁸⁰ Ibid

⁸¹ An article by BOT titled payment system in the southern ,African development Community- Tanzania Chapter

As a member of Payment Systems: The central bank can make and receive payments on behalf of its own customers for example government departments and other central banks.

As a provider of Payment Systems: The provision of settlement account to both the government and the commercial banks operating in the payment systems.

As a guardian of public interest: The role is much broader and may involve any of the following: Acting as payment system regulator, acting as a supervisor of system members, providing administration and planning for the payment systems, arbitrating in the event of complaints and handling compensation procedures.

The BOT may also be involved in wider issues such as promoting competition and cooperation while encouraging the development and adoption of technical standards.

As an overseer of the Payment system: The major oversight role of BOT is principally intended to promote the smooth functioning of payment systems and to protect the financial system from possible “domino effects”. Basing on these role BoT through its directorate of national payment system conduct thorough inspection to ATM machines to satisfy itself as to whether the banks are meeting the required standards.

4.2 Principles and Subsidiary Legislations over Banks Regulation and Supervision

The BoT in discharging its duty of regulating and supervising the banks and financial institutions is guided by various Acts of Parliament of the United Republic of Tanzania and a number of subsidiary legislations that have been purposely enacted to cater for the banking and financial operations in the country .

4.2.1 Principle Legislations

4.2.1.1 The BoT Act, No. 4 of 2006

This is the first important legislation in banking regulation. This legislation had a long history of amendments and repeals in resonance with economic needs from time to time. The present legislation began as the BoT Act of 1965. The BoT was

established then by this law. This law was amended later in 1978 through BoT Act No.17 of 1978. In 1995 the 1978 Act was repealed and replaced by the BoT Act No. 1 of 1995 which was ultimately repealed by the BoT Act No. 4 of 2006. The latter Act is applicable to date. Generally, The BoT Act of 2006 was enacted to provide for more responsive regulatory role of the Bank of Tanzania with respect to the formulation and implementation of monetary policy on the one hand, and to provide for the supervision of banks and financial institutions on the other.⁸² Main provisions relate to establishment of the bank itself,⁸³ issuance of currency,⁸⁴ and other operations of the Bank under which fall its regulatory and supervisory functions.⁸⁵ Thus, this law apart from establishing the Bank, it provides for how the same should be managed and it specifies expressly the functions of the Bank as the regulator and supervisor of banks and financial institutions.

Specifically, under section 6 of BoT Act the Bank has been vested with power to regulate and supervise the payment system including all products and services thereof .The minister also have power to make necessary or desirable regulations to facilitate smooth running of the banking business ,this includes the regulation concerning with ATMs .⁸⁶

4.2.1.2 The BFIA Act, No. 5 of 2006

This law began as the Banking and Financial Institutions Act, No. 12 of 1991. It was replaced by the Banking and Financial Institutions Act No. 5 of 2006 which applies to date. The repeal was necessitated by the need to restructure the banking sector due to a shift in the needs of the country with an impetus from the IMF and the World Bank. This is visible in the preambles to these two laws. That of 1991 consolidated the law relating to business of banking, intended to harmonize the operations of all financial institutions in Tanzania, to foster sound banking activities, to regulate credit operations and provide for other matters incidental to or connected with those purposes. The 2006 Act is geared, among others, to provide for comprehensive

⁸² See Preamble to the Act.

⁸³ See part II of the Act.

⁸⁴ See part III of the Act.

⁸⁵ See part IV particularly sections 44-48 of the Act.

⁸⁶ See section 70 of the Act

regulation of banks and Financial Institutions.⁸⁷ The Act also empowers the minister to make necessary or desirable regulation.⁸⁸

4.2.1.3 Law of Contract Act, Cap 345 R.E.2002

The use of ATMs is primarily governed by contract laws.⁸⁹ Nearly all ATMs processes operate from beginning to end through a series of legal agreements. The contract between the banker and customer for opening an account which is the mandatory requirement for obtaining an ATM card, ATM card agreement between the banker and the customer and other agreements which may involve the ATM card issuing bank and other bank or the ATM card issuing bank with an international body providing the ATM services around the world. Most of these contracts are standard form contract whereby the customer is not in the position to put forth his inputs to the agreement or to suggest any modification to the same. Therefore these contracts must fulfil not only the essentials statutory required by the law of contract but also the general principle of equity good convenience, good faith and fairness.⁹⁰

In Tanzania all contracts are regulated by the Law of Contract Act was enacted in 1961. Since then no substantial amendment which have ever been made as response to accommodate the new circumstances brought by the advancement of technologies. In respect with ATM there are two major concerns in relation to contract namely protection of the rights of the customers who are using the ATM of other banks (inter-banking ATM services)

For inter banking ATM services to take place there should be the contract between the two banks such as the issuing bank and such other bank whose ATM was used. In this contract the customer of the issuing bank is not a part therefore by application of the principle of privity in case of any risk this customer cannot be able to sue the other bank.

⁸⁷ See preamble to this Act.

⁸⁸ Section 71 of Banking and Financial Institution Act

⁸⁹ CRANSTON, R, (1997), **Principles of Banking Law**, New York, Oxford University Press at p 266

⁹⁰ Opsite Mehta p 6

Security is a major concern in ATM systems. Card holders are required under the contract not to be negligent in handling their PIN or passwords and even the cards. Likewise the issuer and the operator of an ATM are required to perform their functions with due care as per the terms and conditions of the contract.

4.2.1.4 The Penal Code, Cap 16 [R.E. 2002]

Penal code forms one of the laws governing/regulating ATMs due to the fact that several crimes like theft and fraudulent activities such as trapping, operational fraud, fake ATMs and shoulder surfing are committed on ATMs, and all of these are taken care under criminal law. Cyber-crimes and other related on-line activities in Tanzania pose a significant threat, yet existing Tanzanian laws do not recognize many cyber space crimes.⁹¹ Lack of cybercrime laws has been causing difficulties in prosecuting criminal cases involving theft which of recent have been reported to have occurred in some banks' Automated Teller Machines (ATMs) in the country.⁹²

4.2.1.5 Fair Competition Act, NO 8 of 2003

This piece of legislation has been enacted to promote and protect effective competition in trade and commerce, to protect consumers from unfair and misleading market conduct and to provide for other related matters.⁹³ This connotes a dual mandate to the Fair Competition Commission (integrated model of institutional set up). Competition policy prevents conducts that interfere or lessen competition in the market; such conducts include but not limited to restrictive agreements, in particular cartels, anti-competitive mergers or abuse of dominance. It is through such prohibitions competition policy ensures that

Consumers have a wider choice of goods and services and mostly, at competitive prices. Competition creates conducive environment by keeping markets effectively

⁹¹ See <http://www.ippmedia.com/frontend/?l=53558>

⁹² Adam Mambi who has specialized in Information and Communication Technologies (ICTs) said in an exclusive interview in Dar es Salaam yesterday in a one day seminar of the National Internet Governance Forum (NIGF) which was organized by the Union of Tanzania Press Clubs (UTPC).

⁹³ see preamble of the act

competitive thus, forcing firms to maintain their reputation as good quality suppliers. High quality products help firms to meet customer satisfaction. By so doing competition reinforces consumer policy.⁹⁴

4.2.1.6 The Foreign Exchange Act, No. 1 of 1992

This Act was passed by the Parliament for the purpose of making better provisions for the more efficient administration and management of dealings and other acts in relation to gold, foreign currency, securities, payments, debts, import, export, transfer or settlement of property and for the purposes incidental to and connected to those. There is a close relationship between the banking activity of intermediation of funds and foreign exchange. The BoT licenses and regulates bureau de change in respect of their activity of foreign exchange.⁹⁵ Money obtained from them may be deposited by any person into specific accounts maintained in the commercial banks.⁹⁶ This means failure in foreign exchange market may restrict cash in the banks to a certain extent and this would in turn affect flow of the same into the economy.

4.3 .1 Subsidiary Legislations.

As discussed above three authorities are empowered by law to make various rules, by-laws, regulations directives and circulars useful to make the banking and financial system operate smoothly within the realm of the objectives of the Bank of Tanzania. These authorities are the Board of Directors of BoT, the Governor of BoT, and the Minister of Finance of the United Republic of Tanzania.

4.3.1 .1The Banking and Financial Institutions (Physical Security Measures) Regulations, 2008:

These Regulations became effective in December, 2008. The principal objective of these Regulations is to prescribe minimum security measures to be instituted by all banks and financial institutions for the purpose of: - preventing acts of robbery and burglary, assisting in identifying and apprehending persons who commit acts of

⁹⁴ see competition and consumer protection policy: a Tanzanian perspective. paper for presentation at unctad ad-hoc expert group meeting on the interface between competition policy and consumer welfare Thursday 12 and Friday 13 July 2012 Palais des nations, Geneva, Switzerland

⁹⁵ See section 4 of the Act. See also section 5 (a) of the same Act.

⁹⁶ See section 5 (d) of the Foreign Exchange Act, 1992

robbery or burglary, preventing injury and loss of life to staff and customers, preventing damage or loss of assets, which could result into major losses to individual institutions, the banking sector and the national income, and creating security awareness among management and staff in all banks and financial institutions thereby promoting a security conscious working environment

4.3.1.2 Banking and Financial Institutions (Licensing) Regulations 2008

It enumerates conditions governing entrance into or exit, of banks and Financial Institutions, from the banking industry in Tanzania, In short, it deals with all matters relating to licensing of new entrants in the banking system on the first hand and on the other it sets conditions necessary for their safe and sound operations.

4.3.1.3 The Banking and Financial Institutions (Management of Risk Assets) Regulations, 2008

These regulations replaced those of 2001 which had repealed "The Guidelines on Management of Risk Assets, Classification of Loans and Other Risk Assets, Provisioning for Losses and Accrual of Interest" issued on 18th October, 1991. The objectives of these Regulations are generally to provide a prudential (cautious) guidance on management of risk assets and bases for providing for losses on loans and other risk assets.

4.3.1.4 The Banking and Financial Institutions (Capital Adequacy) Regulations, 2008

These Regulations came into effect in 2008 and replaced the Capital Adequacy Regulations of 2001 which had repealed "Guidelines for Measuring Capital Adequacy" issued on 1st October, 1993 and the Addendum (addition) to Circular No. 3 on Capital Adequacy issued on 27th March, 1996. The principal objective of these Regulations is to provide the depositing public with reasonable protection by enhancing the capability of banks and financial institutions to absorb unexpected losses and thus minimize the incidence of bank failure.

4.3.1.5 The Banking and Financial Institutions (Liquidity Management) Regulations, 2008:

These Regulations replaced those 2000. The focal intent of the Regulations is to provide guidance on measuring and monitoring liquidity of banks and Financial Institutions and the maximum ratio of loans to deposits.

4.3.1.6 The Banking and Financial Institutions (Publication of Financial Statements) Regulations, 2008:

The Regulations replaced The Publication of Financial Statements Regulations, 2000. The main objective of the Regulations is to keep the general public informed on the condition and performance of banks and financial institutions. Under this duty the banks and Financial Institutions are required to publish Quarterly unaudited balance sheet, income statement and cash flow statement and the audited financial statements are to be published once annually.

4.3.1.7 The Banking and Financial Institutions (Independent Auditors) Regulations, 2008

These Regulations replaced those of 2000. The main objective of these Regulations is to give guidance to banks and financial institutions to appoint independent auditors that are recognized and registered by the National Board of Accountants and Auditors as well as by the Bank of Tanzania. Bank auditing requires more than commercial enterprise auditing and as such only audit firms that meet registration requirements by the Bank of Tanzania may be appointed to audit banks and financial institutions.

4.3.1.8 The Banking and Financial Institutions (Credit Concern Concentration and Other Exposure Limits) Regulations, 2008

These regulations replaced those of 2001 which had repealed "The Guidelines on Concentration of Credit and Other Exposure limits" issued on 22nd December, 1992. The objectives of these Regulations are to encourage risk diversification and curtail excessive concentration of risk exposure of any bank or financial institution to one customer or group of customers, industry economic sector or activity, thereby

stability of the financial system, to promote arm's length relationship in dealing between a bank or financial institution and its directors, officers, staff, shareholders and their related interest, to make credit available to a broader group of borrowers, to regulate equity investments of banks and financial institutions and to avoid undue concentration of economic power and to regulate the amount of investments in fixed assets and prevent the use of depositors' money in acquiring such assets.

4.4 Rationale of banking regulation

Banking has always been regarded as special and thus been given differentiated regulatory treatment.⁹⁷ The speciality of the banks are partly explained by the peculiarity of its function such as deposit taking, lending and therefore it must be well regulated.

Regulation and supervision is done for many reasons. Generally, to protect the economy due to the fact that the broad range of activities banks undertake directly extend to and affect various areas of the economy. Specifically, the justifications⁹⁸ why the law is important in regulation of the banking business are as follows;

Firstly, through customer deposits-taking, customers deposit-lending and other related activities banks, have a unique and central role in financial markets across the world. The power that the bank has in accepting deposits has made bankers to become the principle agents or middlemen in a number of financial transactions as well as in any countries payment system. Due to this, most payments in Tanzania, especially at this era when foreign capital is heavily encouraged, involve a bank at some point. This payments system plays a vital role in enabling goods and services to be exchanged throughout the economy.

Secondly, when the bank does the first function above it has to deal with a vast range and types of borrowers on the one hand, and with the flexibility with which banking

⁹⁷ Binamungu, C.S Regulation of banking business in Tanzania .p22

⁹⁸ Spong, K.. (2000). *Banking Regulation: Its Purposes, Implementation, and Effects* (5th ed), Division of Supervision and Risk Management: Federal Reserve Bank of Kansas City.

institutions can handle them. Banks are key lenders to business sector as well as to individuals; therefore, they determine how an available large portion of credit is to be allocated across the country. Regulation and supervision provides dos and don'ts that make it done fairly.

A combination of these activities makes it apparent how much the banking system can affect the comprehensive supply of money and credit in a country. Due to this, banks are made very decisive links in the monetary mechanism and in influencing the overall condition of the economy. Considering this importance of banks to the economy and the level of trust customers place in them, it is in no way a surprise to find that governmental regulation and oversight have to extend to many aspects of banking. Banking is an industry having strong public policy implications. Thus, the general public, bankers and the government have all played roles in developing the present system of banking laws and supervision. Owing to that regulatory system has been responsive to many different needs of the public.⁹⁹

4.5 Role of Supervision and Regulation

The primary objectives of the Supervision and Regulation function include protecting depositors' funds, maintaining stability of monetary and financial system, promoting an efficient and competitive banking system and protecting consumer rights related to banking relationships and transactions.¹⁰⁰ These are discussed hereunder in detail.

4.5.1. Protection of Depositors' Funds

Depositor protection is the most basic reason of the law/ regulation and supervision. This is true in three aspects: that the public makes a substantial amount of financial transactions through banks, that many business men, firms as well as individuals do hold a very significant portion of their funds in these banks and lastly that banking activities pose a good number of peculiar dangers to customers funds deposited with a bank. These dangers arise out of the following facts, one that, in most cases customers basically make use of banks when they draw and cash cheque and when

⁹⁹ Ibid.

¹⁰⁰ Ibid.

they carry out other financial transactions which necessarily require them to maintain a deposit account. As a result of maintenance of these deposit accounts, customers become banks creditors and become tied to the fate of their bank. Should the bank fail, the customer fails also. In other businesses a customer never becomes a creditor of the firm; he simply pays for goods and services there at. Two, that, individual bank depositors have a significant difficulty protecting their interests than customers of other types of businesses. When they decide to open an account with any bank, they usually make a more general judgment about the condition of the banks, which is sporadically prone to error. It is rather difficult to make a thorough and precise assessment of a bank's financial soundness from the view of these banks' expensive buildings or from the lengthy period of time the same has been in business. On this account banking laws contain many provisions which are calculated to protect the funds of the depositors.¹⁰¹

4.5.2 Maintaining Stability of Monetary and Financial System,

Banking systems are integral parts of stable frameworks for payment systems in which they operate. There are numerous and vast volumes of transactions conducted every day both by individuals, business men and even the governments. Significance of these transactions necessitate that certain rules should be used to make viable safer and acceptable means of payment which is vital to the state of a particular country's economy. Excessive problems of banking system may gravely interrupt the flow of the transactions across the economy and can threaten the general public confidence in the system.¹⁰²

4.5.3 Promoting an Efficient and Competitive Banking System.

A good banking system is the one whose focus is on making sure that its customers are well provided with quality service and at competitive costs. The role of the regulation and supervision in this aspect is to create a regulatory frame work that encourages efficiency and competition and to ensure an adequate level of banking services throughout the entire economy. Efficiency and competition are related

¹⁰¹ Read the following sections of the BFIA, 2006: ss.32(1), 11(1)(b), 11(3)(f), 22(1)(4)(5), 23(1)(2)(3)(4), 25(1)(2)(3)(4), 36(2), 39(2)(a)(b)(c), 43(1), 52(1), 53(1), 55(1), 59(1).

¹⁰² The following sections from the BFIA, 2006 directly and indirectly relate to maintaining stability of the monetary and financial system; ss. 6(1), 7(2), 17(3), 18(1), 56(1) & (2) of the Act.

terms, as far as banks are concerned, a competitive banking system must be made by banks which operate efficiently. Without competition some banks might attempt to gain higher prices by restricting supply of their services. This can work well in an economy like ours where some banks have a monopoly in some areas or even in those areas where many banks do operate, this restriction of services for higher prices may be done by a group of banks by way of collusion (common agreement).¹⁰³

4.5.4 Protecting Consumer and General Public Rights.

Banks deals with various people who includes not only their customers but also other people who are not the customers, it is also true that the banks existence also felt by general public under which they operate thus law or regulation is the matter of essence so that the banks effect an equal and non-discriminatory treatment of all the consumers of its services though he is not a depositor especially during this time when there are mounting complexities of financial instruments that come with the uniqueness of individual customers.¹⁰⁴ Many parties apart from consumers may also be concerned with a bank in its corporate social performance. A bank does not function only for the benefits of those who own it.

The public has a general interest in the returns the bank brings to the economy. Some people deal in business with the bank whether or not they are this bank's customers. A key factor in a party's decision to participate in or engage with a bank is his confidence that the corporation will deliver the party's expected outcomes. When categories of parties (stakeholders) do not have sufficient confidence that a corporation is being controlled and directed in a manner consistent with their desired outcomes, they are less likely to engage with the corporation. When this becomes a system feature, the loss of confidence and participation in markets may affect many other stakeholders, and increases the likelihood of political action.

¹⁰³ Relevant sections as regards this role are s.33(2), s.34(1)(2), s.12(1)(a)(b)(c), s.12(2), s.13(1), s.28(1)(a)(b)(c)(d) of the BFIA,2006

¹⁰⁴ Read sections, 26(1), 48(1) (3) (a) (b) (c), 48(4) (a) (b) (c), of the BFIA, 2006.

4.6 Conclusion

In this chapter, the researcher has examined the regulation and supervisory legal framework in relation to ATMs in Tanzania, in the process the researcher considered various principal and subsidiary legislations. The study also revealed the rationale and the role of regulating and supervising the ATMs transactions

CHAPTER FIVE

DATA ANALYSIS AND FINDINGS

5.0. Introduction

In this chapter, the researcher presents the finding and makes an analysis of the data in relation to the research questions and objectives behind the study that motivated the doing of this research as stated in chapter one. The findings in this study, therefore, reflect the three research questions that this study dealt with. The researcher presents data collected from bank officials for CRDB, NMB and NBC, lawyers, judicial officers and members of the public. Data are also presented from secondary data mainly from an analysis done on various pieces of legislations relating to banking and subsidiary legislations which include regulations and circulars that are used in banking regulation generally and that specifically dealing with ATMs.

5.1. Response from respondents as regards to the question, Do the existing laws relating to ATMs enough to protect the rights of the customers?

In respect of this question 20 lawyers were supplied with questionnaires, the copy of which is herein annexed. All the respondents responded to this question negatively. They mentioned various laws governing ATM such as the Bank of Tanzania Act, The Banking and Financial Institution Act, and Evidence Act. They also pointed out that all the laws mentioned have the general application not specific laws regulating the ATMs matters.

From the information collected the researcher found that the ATM technology is facing serious threat from cyber criminals. The ATM card holders are becoming restless about large scale fraud witnessed in application of ATM technology in financial matters. This has resulted in some of them calling ATM “Automated

Thieving Machine”.¹⁰⁵ The challenges that ATM faces can be categorized into three categories namely machine and human related challenges;

Legal challenges

Absence of specific law regulating ATM transactions, as foretasted in this report that all the respondents showed that all laws which are regulating ATMs transactions are of general application hence they leave some matters unguided for example the agreement for using inter banking ATMs services between the account holder and the bank is entirely left to the parties, taking into account that these agreements are standard form contracts. For the purpose of protection of the customers it should be closely regulated so that the customers being the weaker part should be protected.

Limitation of the withdrawal money

The money that a customer can withdraw from the ATMs of another bank is limited compared the money that one can be withdrawn from human teller, this somehow limit one’s right to deal with his or her money as he/she wishes.

Limitation of the services. While interbank networks provide capabilities for all ATM cards within the same network to use other banks' ATMs that belong to the same network, the services to be enjoyed by the customers vary. For instance, when a person uses their ATM card at an ATM that does not belong to their bank, the basic services, such as balance inquiries and withdrawals are usually available. However, special services, such as the purchase of mobile phone airtime, bank statement and transfer of money may not be accessible to ATM cardholders of banks other than the ATM cardholders of the acquirer (the bank that owns the ATM).¹⁰⁶

¹⁰⁵ An article by Odachi Gabriel Nwabouru titled; ATM technology and banking system in West Africa sub region; prospect and challenges found in Africa Research review: An international multi disciplinary Journal. Ethiopia accessed at www.ajol.com

¹⁰⁶ http://en.wikipedia.org/wiki/Interbank_network

5.1.1 Machine Related Challenges

Network Connectivity Problem: This is one of the problems facing ATM application in West African sub region, especially in Nigeria. It is very disappointing when one goes to ATM to withdraw some money and will be told that ATM is out of Service.

No Cash in the Vault Syndrome: This is a situation where ATM runs out of cash and not replaced immediately.

¹⁰⁷**Inability of the Machine to Print out Receipt:** At times ATM machine gives the user a screen message showing its inability to print receipt. This is very disappointing too.

Wrong Debiting: There are cases of ATM machine debiting the account of a customer without releasing the money to him. It takes time to rectify this problem.

5.1.2 Human Related Challenges

Robbery: Robbery at ATMs takes various shapes. The couriers who fill ATMs with cash are usually robbed, and the money in their possession being taken away. Another ATM crime is the issue of a robber waiting outside ATM for a valid user to complete his transaction and be attacked and robbed. This has happened to many ATM users in Nigeria and some other West African countries. Other robbery cases include theft of money from ATMs by bank/ATM service employees; theft of personal identification numbers (PINs) through shoulder surfing; robbery of ATM cards and forcing the owners to reveal the PINs etc.

Production of Counterfeit ATM: Valid ATM customer's card can be cloned and used to withdraw from the customer's account. This is done by copying information from valid card into the counterfeit card. The counterfeit card is now used to withdraw people's money. The fraudsters use a special machine to copy the magnetic strip.

Fraud through E-mail or Text Message: At times ATM card holders receive text messages or e-mail from the fraudsters alleging that certain amount of money was withdrawn from their accounts by unknown persons and would want them to reveal

¹⁰⁷ An article by Odachi Gabriel Nwabouru supra p.108

certain information including their account number and ATM PIN. They claim the information will help them to rectify the problem. The fraudsters, in most cases, claim the messages are from bank network (Interswitch).

Stealing of the Customers PIN by Sophisticated Means: There have been also a number of incidents of fraud where criminals have used fake machines or attached fake keypads or card reader to existing machines. These, then have been used to record customers' PINs and bank account details in order to gain unauthorized access to their account. Other sophisticated devices include spy cameras, phishing through the internet etc. They use these devices to get customers bank details including the PIN. The criminals are improving on a malicious software programme that can be installed on ATMs running Microsoft Windows XP operating system that records sensitive card details. The malware, which steals PINs and card data works on ATMs running windows XP (KirK, 2009).

Illiteracy/Lack of Skill: As everyone understands, in Tanzania some people cannot read and write. These people find it difficult to use ATM card. Others lack the basic skill on how to use ATM card. The result is that they seek for assistance. A dubious assistant can steal vital information from the card such as the cardholder's PIN and use it to defraud the person being assisted.

Shoulder surfing: this happens when the card holder uses an ATM, the shoulder surfer stands closer to him- close enough to look over the shoulder of the card holder and spy his PIN. A sophisticated version of shoulder surfing is the shoulder surfer uses a tiny spy cam to record the PIN. This spy cam is positioned where the camera can easily record the PIN. The unsuspecting card holder keys in his PIN while it is being recorded by the spy cam.¹⁰⁸ **ATM Skimming** Skimmers are devices added to ATM machines to capture ATM card's information, including account number, balance, and PIN number. These devices often mounted alongside a machine and labelled 'card cleaners,' are difficult to notice unless looking for them.

¹⁰⁸ Mehta, R and Mehta, R (2009), **Credit Cards: A Legal Guide**, Universal Law Publishing Co, New Delhi .second ed. p 152

ATM Card Trapping: Card Trapping method used by many thieves by using external devices to confiscate ATM card. In this scam, a blocking device (which can be as simple as some film glued to trap ATM cards), is inserted into the card slot of the ATM machine. Unwittingly, people place their card into the machine and enter PIN. All the while, someone nearby may be watching you enter your PIN number.

ATM Cash Trapping: Trapping is simple and ingenious. The thieves do not need the card or the data. Thieves fix devices that causes notes to get stuck inside the dispensing machines. There is no way that the card holder can know about the device from just looking at the machine from outside. The unsuspecting card holder keys in his details and punches the amount that he wants to withdraw. The transaction proceeds until dispensing of the notes; which when the notes get stuck the customer probably walks away to another ATM to withdraw or complain. The thieves keep a watch.

Conclusively, the researcher found that the ATM technology is very prone to cybercrimes and that there are no laws or regulations specifically dealing with the issue.

5.2 Response from respondents as regards to the question, how do the rights of interbank ATM user is protected

In respect of this question 20 lawyers and 12 bankers from three banks were supplied with questionnaires, the copy of which is herein annexed. All respondent lawyers responded to this question by showing that protection of the interbank ATM is rather questionable as there are no specific provisions of laws or regulation articulating those rights. The right and obligations of the banker and customer has been provided for in their contract which mainly these contracts are standard form contracts which afford no chance for the customer to bargain, even if the contract between banker and customer has been equally bargained, in inter banking ATM the customer of one bank is dealing with the machine belong to another bank with whom he has no contract.

On the other hand the 12 respondents from the banks which offers inter banking ATM responded that the right of the customer of the other banks who are using their ATMs

are being observed, however they revealed that in case this customer encounter any problem while using their machine must first contact his/her bank who will be contacting the bank whose ATM was used. This means that there is no direct communication between the customer of one bank let say bank Y and bank X. Therefore, it is the finding of this study that the right of the interbank ATM user is not protected. The rights of these customers have not been articulated in the laws.

5.3 Response from respondents to the question whether there is assured security against fraud and other related cybercrimes to ATM users

Seeking the response to this question 12 bankers were supplied with questionnaires and other respondents were interviewed both respondents answered the question positively and they all based on the fact that the ATM customers are gave PIN which is only known to himself/herself. On the other hand, the researcher supplied questionnaires to 20 members of general public on the question all of them answered in negative note substantiating their response with the number of problem that their colleagues or themselves has on one point or the other had uncouncted. They pointed out those problems include; wrong debiting in the accounts, theft.

From the secondary data the researcher has found that there is a growing trend of the ATM theft mainly by using fake ATMs for example.

It has been reported that the cash stolen incident through the use of ATM in Tukuyu where the police nabbed four allegedly thieves for making off with over Tsh20 million by using fake ATM card at the National Microfinance Bank (NMB) Tukuyu branch. The Tukuyu incident happened few days before the similar incident which had been committed in Mwanza where several suspects were arrested for stealing at NMB

The report further reveals that three people were arrested in Mwanza in the mid of February, 2013 for allegedly stealing Tsh 500million from various banks using fake ATM cards the suspect were found with194 NMB and Diamond Trust Bank ATM

cards, 36 KCB ATM cards and other 18 ATM cards with no logo they were also found with various equipment used to manufacture fake ATM cards.¹⁰⁹

Basing on that information gathered by the researcher there is no strong mechanisms taken by the banks to fight ATM fraud.

5.4 Conclusion

In this chapter the researcher had analysed the data collected in relation to the researcher questions raised, specifically response as regards to question do the existing law relating to ATMs enough to protect the right of inter banking ATM users

How do the rights of interbank ATM customers are protected and the question whether there is assured security against fraud and other related cybercrimes to ATMs users.

¹⁰⁹This has been said by Ms Tunu Kavishe, BBT's head of corporate affairs at launching of the BBT's internet banking. see <http://allafrica.com/stories/201303260410.html>

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This study was about: **Automatic Teller Machines (ATMs): Its Use and Legal Challenges in Tanzania**. The objective of the study was to examine the laws and regulations behind ATMs so as to see if they provide for legal protection of the Interbank ATM s user. In this chapter the researcher presents the conclusions and recommendation thereto.

6.1 Conclusion

From what the researcher observed with the aid of response from reliable lawyers, it is concluded that legal protection of the inter-banking ATM is questionable as there are no specific provisions of laws or regulation articulating those rights. The rights and obligations of the banker and customer have been provided for in their contract whereby these contracts are mainly standard form of contracts which afford no chance for the customer to bargain, even if the contract between banker and customer has been equally bargained. In inter-banking ATM the customer of one bank is dealing with the machine belonging to another bank with which he has no contract.

On the question as to what might be the problems facing the ATM users especially under inter banking system; it was observed the ATM customers are given PINS which are supposed to be only known to themselves to avoid theft in their accounts. However, a number of problems related to ATMs were reported to the researcher, including; wrong debiting in the accounts, theft. It is therefore concluded that although ATMs are made and utilized in advanced technology for the purposes of easing the transactions of the customers, they are not safe. They are associated with number of problems such as wrong debiting in the accounts, theft, ATM cash trapping, ATM card trapping, and ATM skimming. These are the problems facing Tanzanians. The problems are even worse when any of them face an illiterate Tanzanian. Nevertheless, the ATM technology is facing serious threat from cyber criminals. The ATM card holders are becoming restless about large scale fraud

witnessed in application of ATM technology in financial matters. This has resulted in some of them calling ATM “Automated Thieving Machine.

6.2 Recommendations

The researcher came up with the following recommendations;

6.2.1 Amendment of the regulatory and supervisory systems

The BoT as the body vested with regulation and supervision power over the banks and other financial institution has to put in place a regulatory mechanism which will keep an open eye to these ATM service providers and ensure that they provide services to the required standards.

In line with this the researcher recommends that, considering the importance of ATMs which has now become the way of life be placed under a separate directorate for easy monitoring, currently ATMs are guided under the NPS, however the ATMs matter are not treated to the extent of its importance.

6.2.2 Amendment or enactment of certain banking laws

Law makers must review the existing laws so that they accommodate these technological advancement in banking sector especially the law should enact the specific laws and regulations to regulate ATMs taking into the consideration the fact that the technology itself is very prone to cyber crimes so as to assure the user of ATMs against various risks. The enacted laws should address all the crimes that being committed in ATMs so that the criminals can seriously handled.

The new law should address the question of interbanking ATM services, and directly provide for the protection for those who are using the ATMs of the other banks because the innovation meant to help the customers thus they must be protected.

6.2.3 Improvement of the machines themselves

Just like it has been found in this research, that ATMs is very prone to cyber crimes therefore the all types of challenges should be dealt with as follows:

6.2.3.1 Human oriented challenges should be improved as follows;

- (i) ATM cardholders should stop asking people to assist them in using their ATM cards as these people might steal vital information from the cards
- (ii) The cardholders are equally advised to avoid replying to suspicious e-mails or text messages especially the ones requesting them to give their account details including their ATM card PIN.
- (iii) Customers ATM cards should be securely kept by them. It should not be found in other people's hands no matter the relationship.
- (iv) ATM users must ensure that they do not reveal their PIN to anybody. They should be careful and make sure that nobody is very close to them when entering their PIN number into ATM.

6.2.3.2 Machine Oriented challenges the following should be done

This is the solution of the problems created by ATM machine itself. These include:

- (i) Faulty ATM Machine: ATM machine, just like any other machine, at times breaks down. Trapping of cards and non-issuance of receipts are not palatable to customers. Financial institutions should ensure that there is alternative solution. Provision of more ATMs at location/prompt maintenance of the faulty machine is recommended.
- (ii) Network Problem: Network service providers should ensure that their service is regular. ATM is meant to give 24 hours service and needs steady network service.
- (iii) No Money in the Vault: Financial institutions should not allow this problem to crop up at all. The amount of money in the vault should be monitored and replaced as soon as it is finished. Correct bank note denomination should be loaded in the money cassettes meant for that denomination.

6.2.3.3. Administrative challenge

Administrative oriented solution to ATM fraud involves the government, the bank and the network providers. These three bodies should put their heads together to find lasting solution to problems arising from the use of ATM technology. The solutions include:

- (i) Robbery Cases: Legislative measures should be taken against cyber criminals by governments. Security operatives should mount serious search for these criminals.
- (ii) Security – the government should assist the banks in providing security in and around ATM sites.
- (iii) Banks have to ensure that ATMs are installed where there is a lot of natural surveillance. This will ensure that prompt action is taken against the robbers.
- (iv) Banks should also install surveillance cameras and mirrors in and around ATMs. This enhances the ability of the police to identify offenders and potentially deter intending offenders.
- (v) Banks are advised to embark on sensitization campaign to enlighten their customers on how to use ATM cards.
- (vi) The operators and regulators of ATM are advised to be up to date with the latest technology and methods employed by the criminal elements to be able to reduce their operation. Prompt deployment of latest technology is needed to chase away these cyber criminals. As these criminals are targeting windows xp operating system, antifraud network operating system should be sought for. Bankers should bankroll their bright tech-driven banking bliss to bar us from bank-bug.

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Questionnaires for bankers

The following questionnaires have been prepared by ASHA MWETINDWA as partial fulfilment of the requirements for the award of degree of master of laws (COMMERCIAL

LAW) AT MZUMBE UNIVERSITY. All the responses obtained will be strictly confidential and will be used only for specified purposes.

Your cooperation in completing this study by responding to the questions herein provided will be highly appreciated.

1. In which bank are you working

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2. Is your bank offers inter-banking ATM services

Yes

No

3. If your answer in question two is yes, name the ATM network(s) that your bank is a member

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4. If your answer in question two is no, why?

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5. What are the risks involved in using the ATM of another bank?

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6. How do your bank handle the problem encountered by a customer of another bank while using your

ATM.....

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7. How do you your bank handle the problem encountered by your customer while using the ATM of another bank?
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 8. How long usually take to solve problem of ATM user within the network.....
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 9. Do you think the customer using interbanking ATM services is strongly protected
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 10. What should be done to ensure total protection of ATM network users
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THANK YOU

Questionnaires for lawyers

The following questionnaires have been prepared by ASHA MWETINDWA as partial fulfilment of the requirements for the award of degree of master of laws (COMMERCIAL

LAW) AT MZUMBE UNIVERSITY. All the responses obtained will be strictly confidential and will be used only for specified purposes.

Your cooperation in completing this study by responding to the questions herein provided will be highly appreciated.

1. Are you aware of the interbank ATM services available to bank customers?

Yes

No

2. Under what law do these transactions are guided

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3. On your views ,do you think the law is strong enough to protect the rights of the customers who uses the ATMs of other banks

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4. If your answer in question three is in negative, what is your suggestion to remedy the situation

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Dodoso kwa wanajamii

Dodoso hili limeandaliwa na ASHA MWETINDWA ikiwa ni sehemu ya ukamilishaji wa mahitaji ya kupata shahada ya uzamili katika sheria za biashara kutoka chuo kikuu cha

MZUMBE.Majibu yote yatakayopatikana katika dodoso hili yatakuwa ni SIRI na yatatumika kwa lengo lilokusudiwa tu.

Nashukurukwa ushirikiano wako kwa kujibu dodosohili.

1. Je una akauti yoyote kwenye benki yoyote
Ndiyo
Hapana
2. Kama jibu lako kwenye swali la kwanza ni ndiyo ,ni benki gani
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3. Je umewahi kutumia ATM ya benki nyingine.
Ndiyo
Hapana
4. Kama jibu lako kwenye swali la tatu ni ndiyo umetumia kadi ya benki gani kweye ATM ya benki gani.....
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5. Kama jibu lako kwenye swali la tatu ni ndiyo, je umewahi kupata matatizo yoyote katika utumiaji huo wa ATM ya benki nyingine.
Ndiyo
Hapana
6. Kama ndiyo ni matatizo gani
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7. Je umewahi kusikia kutoka kwa mtu yeyote aliyepata matatizo katika utumiaji wa ATM ya benki nyingine.
Ndiyo
Hapana
8. Kama jibu lako ni ndiyo ni matatizo gani?

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9. Ni jinsi gani tatizo lako lilishughulikiwa/tatuliwa

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10. Ilichukua muda gani kwa tatizo lako kutatuliwa

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11. Je umeridhika na jinsi tatizo lako lilivyoshughulikiwa?

Ndiyo

Hapana

12. Unafikiri nini kifanyike ili kumlinda mteja wa benki anayetumia ATM ya benki nyingine

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