UNIVERSITY OF NAIROBI
SCHOOL OF LAW
PARKLANDS

MOBILE BANKING REGULATION IN KENYA: WHICH WAY, BANK BASED OR TELCO BASED?

BY

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DECLARATION

This thesis is my original work and has not been presented for an award of a degree in any university.

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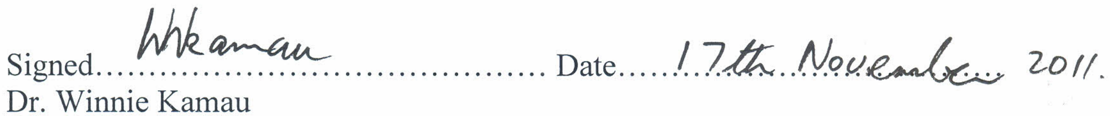
This proposal has been submitted with my approval as University of Nairobi School of Law supervisor.



Signed.. Date..
Dr. Winnie Kamau

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A research project of this magnitude cannot be said to be the work of the author alone. As a matter of fact, this research is a product of a well coordinated collaboration of many people in the spirit of harambee (pulling together). I feel greatly indebted to all of them even when I fully know that I cannot mention each one of them by name. Kindly, therefore, allow me to pay tribute to a few each of whom has made unique contribution in this endeavour.

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God bless you all abundantly.

Francis Kenyeru Orioki

DEDICATION

To my loving mother, Leah Bosibori. She was not lucky to access formal education during her time due to cultural impediments but nevertheless ensured and encouraged all her children to successfully pursue their studies.

ABBREVIATIONS

AML-Anti Money Laundering

CBK-Central Bank of Kenya

CCK-Communications Commission of Kenya

CDD-Customer Due Diligence

CUECIC-Convention on the Use of Electronic Communications in International Contracts

EU- European Union

FATF-Financial Action Task Force

ICT-Information and Communication Technology

ISP-information society providers

KYC- Knowing Your Customer

MLEC-Model Law on Electronic Commerce

OECD-organization for Economic Co-operation and Development

SMS-Short Message System

UK-United Kingdom

UNCITRAL- United Nations Commission on International Trade Law

USA-United States of America

USSD-Unstructured Supplementary Service Data

UTD- United Dominions Trust

TABLE OF STATUTES

1. Banking Act, Cap 488 Laws of Kenya
2. Central Bank of Kenya Act Cap 491 Laws of Kenya
3. Guidelines on Agency Banking- CBK/PG/15, 2010.
4. Kenya Information and Communications (Consumer Protection) Regulations, 2010.
5. Kenya Information and Communications (Electronic Certification and Domain Name Administration) Regulations, 2010.
6. Kenya Information and Communications Act Cap. 411A Laws of Kenya.
7. Penal Code Cap 63 Laws of Kenya
8. Proceeds of Crime and Anti-Money Laundering Act, No. 9 of 2009.
9. Microfinance Act, No 19 of 2006.

TABLE OF CONVENTIONS

1. Convention on the Use of Electronic Communications in International Contracts, 2005.
2. Rome Convention on the Law Applicable to Contractual Obligations, 1980.
3. UNCITRAL Model Law on Electronic Commerce with Guide to Enactment (MLEC), 1999.
4. EU E-commerce Directive

TABLE OF CASES

1. *First National Finance Ltd vs Kutus Auto Hardware Limited & 2 others [2006] eKLR*
2. *United Dominions Trust Ltd Vs. Kirkwood [1966] 1 All English Reports.*
3. *Woods Vs. Martins Bank Ltd [1932] 1 KB 371.*

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ABSTRACT

The advent of information technology has revolutionized the manner banking business is conducted in Kenya and the world in general. Initially, banking business was carried out within the bank premises but now one can enjoy bank services from any place courtesy of information and communications technology. By use of a mobile phone and the information technology, customers are able to enjoy a wide range of services including mobile accounting, mobile brokerage and mobile financial information. In Kenya, mobile phone companies in conjunction with the Central Bank of Kenya have launched various mobile banking services. These mobile services may be grouped into either bank-led or telco led depending on which sector establishes direct relationship with the customers. Telco-led services include M-Pesa by Safaricom, Airtel's Zap and YuCash by YU. Bank-led services include M-Kesho, Pesa Pap and Hello Money by Equity, Family and Barclays banks respectively.

Mobile banking has brought many benefits which include access to financial services and instant services. On the other hand, mobile banking has also posed serious legal and regulatory challenges because of its technological nature of anonymity, impersonality and being instant. Some of the challenges include identifying the appropriate regulator, issues of privacy, confidentiality, security, interoperability of systems, consumer protection and contract formation challenges. Further, the close relationship between telecommunications and mobile banking import some risks inherent in telecommunications like technological failure to mobile banking. Besides telecommunications risks, mobile banking is also susceptible to bank related risks such as credit risks, operational risks, systematic risks, fraud and identity risks.

To address these legal and regulatory challenges, there is need to put in place a sound legal and regulatory regime. In Kenya several laws exist that seek to address some of these challenges but do so in a peripheral manner. The Banking Act, Central Bank of Kenya Act, Proceeds of Crime and Anti-Money Laundering Act and the Kenya Information and Communications Act are some of the laws that have useful provisions in regulating mobile banking. There are also a number of bills and draft regulations like Electronic Transactions Bill, National Payment System Bill and Draft Regulation for the Provision of Electronic Retail Transfers. Once enacted, these bills shall

address some of these challenges. There is also a bit of technological regulations which depends on the manufacturer of the device and telephone company.

Mobile banking depends on technology and monetary values hence invoke the mandate of both the Communications Commission of Kenya (CCK) and Central Bank of Kenya (CBK) respectively. This poses confusion as to the most appropriate regulatory body for mobile banking. CBK does not have the technological capacity to regulate on its own and the CCK does not have the financial capability to regulate independent of CBK. Neither, CBK nor CCK can do it on their own hence there is need for collaboration in mobile banking regulation. To address all these legal and regulatory challenges there in need to amend the existing laws and enact the pending bills to ensure full regulation of mobile banking. The collaboration efforts between CBK and CCK must be strengthened to ensure adequate regulation of mobile banking in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Rapid advancement of information technology especially in the telephony industry and internet has greatly revolutionized the conduct of banking business worldwide. Traditionally, banking business was purely carried out by actual physical banks and a customer had to physically travel to bank premises to operate his or her account. With the advent of mobile phones and internet, a new tool of carrying out banking business has developed called mobile banking (M-banking).

Mobile banking refers to the provision of banking and financial services with the use of mobile telecommunication devices. Jupiter Research[1] defines mobile banking as the provision of banking services to customers on their mobile devices. In definition of 'mobile device', it makes the distinction that the primary functions must be a mobile telephone. This excludes other mobile and hand held devices with a different primary function such as entertainment.[2]

Tiwari and others have outlined a number of services that may fall within the definition of mobile banking. Some of these include deposits and withdrawal of money, transfer of money, access to loan statements, bill payments etc.[3] Mobile banking is one of the newest approaches to the provision of financial services through information and communication technology (ICT), made possible by the widespread adoption of mobile phones even in low income countries.[4] Mobile banking includes a wide range of services which may be categorized as mobile accounting, mobile brokerage and mobile financial information.[5]

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[1] Jupiter Research website. Juniper Research is a UK based telecoms analyst firm specializing in the mobile and wireless sector with particular emphasis on business models, applications, and content and device strategies.

[2] Tiwari, Rajnish Buse and Stephan (2007): The Mobile Commerce Prospects: A Strategic Analysis of Opportunities in the Banking Sector, Hamburg University Press.

[3] Id.

[4] Porteous, David with Neville Wishart. 2006. M-Banking: A Knowledge Map. Washington, DC: infoDev / World Bank. Available at: http://www.infodev.org/en/Publication.169.html. Accessed on the 21 August 2009.

[5] Georgi, F. and Pinkl, J. (2005): Mobile Banking in Deutschland – Der zweite Anlauf, in: Die Bank, Berlin, Issue 3/2005, pp. 57-61, online available: http://www.die-bank.de/media/032005/0503-thema.pdf, accessed on 18 May 2010.

Mobile accounting is a transaction-based banking service that revolves around a standard bank account and are conducted and/or availed by mobile devices. Mobile accounting services may be divided in two categories to differentiate between services that are essential to operate an account and services that are essential to administer an account. In operation of an account one may make money remittances, issue standing orders, transfer funds etc. In account administration, one may change operative accounts, request for cheque books etc.[6]

Mobile brokerage, in the context of banking and financial services, refers to intermediary services related to the stock exchange centre, e.g. sell and purchase of stocks, bonds, funds, derivatives and foreign exchange among others.[7]

Mobile financial information refers to non-transaction based banking and financial services of informational nature. A customer may use mobile banking to inquire balances, list of latest transactions etc.[8]

Mobile banking was first launched in Kenya by Safaricom,[9] one of the mobile phone providers in Kenya. It was started as a pilot project in 2005 to disburse loans from Faulu Kenya[10] to its clients and then to collect repayments via designated Safaricom airtime agents. Safaricom did this through its now widespread brand name, M-Pesa.[11] The initial concept of M-Pesa was to create a service which allowed microfinance borrowers to conveniently receive and repay loans using the network.[12] Now M-Pesa service has incorporated other services like bill payment, bank balance enquiries etc.

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[6]Anyasi F.I and Otubu P.A, 2009, Mobile Phone Technology in Banking System: Its Economic Effect, Research Journal of Information Technology 1(1): 1-5.
[7] Id.
[8] Id.
[9] Safaricon is a company incorporated in Kenya licensed by the Communications Commission of Kenya to provide mobile phone service.
[10] Faulu Kenya is a Deposit Taking Micro-Finance Company, registered in Kenya under the Micro-Finance Act No. 19 of 2006 which is regulated by the Central Bank of Kenya. Faulu was founded as a programme of Food for the Hungry International (FHI), a Christian relief and development organization based in Phoenix Arizona in USA and has grown to become an MFI that offers both savings and credit services to millions of Kenyans.
[11] M-Pesa stands for Mobile Money.
[12] Id.

In 2007, M-Pesa was launched as a commercial venture with the aim of providing a low cost money transfer service that will enable users to send and receive money through their mobile phones.[13] In 2006 the second mobile banking was launched by Zain (now Airtel) as ZAP (now Airtel Money) and in 2009, YU mobile operator in Kenya launched a third mobile banking service by the name YuCash.[14]

Recently Safaricom, Airtel and Orange have partnered with various local banks to provide bank related services. M-Kesho is such a recent innovation undertaken by Safaricom and the Bank of Equity. M-Kesho is a bank account introduced where customers can earn interest on their savings.[15] Customers can withdraw cash from their Equity Bank Account to their M-Pesa accounts and customers can also deposit through their M-Pesa accounts to their M-Kesho bank account. Other features of the account include micro credit facilities (emergency credit availed through M-Pesa), micro insurance facilities as well as a personal accident cover that translates into a full cover after one year. Similar services have mushroomed in Kenya and they include Pesa Pap by Family Bank, Hello Money by Barclays Bank.[16]

The Governor of the Central Bank of Kenya has noted the importance of mobile banking in Kenya and lauded mobile telecommunications companies for their effort. During the launch of another mobile banking brand named Tangaza, the governor stated as follows:

> 'Mobile phone technology has in a few years of its existence demonstrated how financial inclusion can be leapfrogged on a major scale and in a short time span using appropriate technological platforms. In only four years of the existence of mobile phone money transfer services; four mobile phone operators have launched the services and have enrolled over 15.4 million customers and recruited over 39,449 agents. Total transactions have now reached Ksh.2.45 billion a day

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[13] Michael Joseph, (2007), Safaricom Launches Money Transfer Service, Press Release. Available at: http://www.safaricom.co.ke/fileadmin/template/main/downloads/m-pesa_resource_centre/M-PESA_Press%20Briefs/07.03.06%20-%20M-PESA%20Launch.pdf. Accessed on 18th May 2010.

[14] YuCash: available at: http://www.yu.co.ke/index.php?option=com_content&task=view&id=185&Itemid=149&pid=85. Accessed on 18 May 2010.

[15] Id.

[16] Id.

and Ksh.76 billion a month. This reflects the fact that when cost of transactions decline, transactions increase in volume. Mobile money transfer services have been a phenomenal success and have put Kenya at the global centre stage of financial inclusion and innovation.'[17]

Mobile banking, being a new concept, has brought many benefits but at the same time posed a serious dilemma to policy makers, law makers, academia and other stakeholders when it comes to identifying the appropriate regulatory framework to be applied to it.[18] It is important to note that the debate has since shifted from whether or not mobile banking should be regulated to identifying the best regulatory framework.[19] The dilemma of identifying the best regulatory framework stems from the fact that mobile banking cuts across two independent sectors with different regulatory regimes namely, telecommunication and banking. The regulatory framework that applies to banking industry is different from that which applies to telecommunication industry in most countries. In Kenya for example, the banking industry, on one hand, is regulated by Central Bank of Kenya (CBK) by implementing three main legal instruments namely, the Banking Act, Central Bank Act and Microfinance Act.[20] The telecommunications industry, on the other hand, is regulated by the Communications Commission of Kenya (CCK) which implements the Kenya Information and Communications (Amendment) Act[21] and the Kenya Information and Communications Act of 1998.[22]

Despite the remarkable differences in the regulatory framework of the two sectors, there seem to be fusion between them in so far as mobile banking practice is concerned. There are mobile banking products that are being offered in partnership between banks and telecommunications sectors. A good example in Kenya is the M-Kesho product offered in partnerships between

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[17] Ndung'u N, January 24 2011, Launch of the Mobile Pay Tangaza E-Commerce and Money Transfer Service, Central Bank of Kenya.

[18] Tiwari, Rajnish Buse and Stephan, (2007), The Mobile Commerce Prospects: A Strategic Analysis of Opportunities in the Banking Sector, Hamburg University Press.

[19] Alampay E A, 2010, Mobile Banking, Mobile Money and Telecommunication Regulations, LIRNE*asia*.

[20] Cap 488 Laws of Kenya, Cap 491 Laws of Kenya and No 16 of 2006 respectively.

[21] No 1 of 2009.

[22] Refer to Central Bank of Kenya and Communications Commission of Kenya websites: http://www.centralbank.go.ke/ and http://www.cck.go.ke/.

Equity Bank and Safaricom.[23] This fusion of products further compounds the regulatory dilemma.

When mobile banking was first launched in the Kenyan market, the banking industry was up in arms accusing the mobile operators of enjoying similar privileges to those extended to banks despite not being subject to the same rigorous regulatory regime. [24] Their concerns included the following:

Firstly, banks complained that although there was no legal framework within which mobile phone entities provide their mobile services, they were behaving like current account institutions and as if they were banks regulated by Central Bank of Kenya although they were not properly licensed as banks.[25]

Secondly, although these entities did not meet the capitalization requirements stipulated in the Banking Act, the digital money has implications on the monetary policy monitored by Central Bank of Kenya. Central Bank of Kenya controls inflation by continuously monitoring the amount of money in circulation, mainly in the hands of people and commercial banks. It maintains a reserve money target and therefore intervenes to control inflation. Central Bank of Kenya is not able to monitor electronic money in circulation and that may be dangerous for the economy. [26]

Thirdly, mobile phony and telecommunications are regulated by the Communications Commission of Kenya while banking related services are regulated by the Central Bank of Kenya. It is therefore difficult to obtain an interface in the regulation of the two services by these two regulatory bodies.[27]

It is as a result of these concerns and others that the dilemma of identifying the best regulatory framework for mobile banking ensues. The position taken by Central Bank of Kenya is that it does not regulate mobile phone providers as they are licensed by Communication Commission of

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[23]Ignacio Mas, 2007, M-KESHO in Kenya: A new step for M-PESA and mobile banking, Bill & Melinda Gates Foundation. Available at: http://financialaccess.org/node/2968. accessed on 22 September 2010.

[24] IT News Africa.com "Kenyan banks demand fair play," Monday October 13, 2008 available at <http://www.itnewsafrica.com/?p=1429 >> accessed on 21st May 2010.

[25] Id.

[26] Id.

[27] Id.

Kenya. Central Bank, however, underscores its commitment to the development of Kenya's financial system to enhance its stability, efficiency and accessibility, recognizing the tremendous potential that the mobile phone offers in pushing forward Kenya's financial access frontier.[28]

Arvind Ashta argues that to be able to identify the appropriate regulatory framework to regulate mobile banking, one has to know the model under which mobile banking operates in a given country. She discusses two models namely, telco-led model and bank-led model.[29]

The telco-led model is where a bank has a limited role in the day-to-day account management. Typically the bank's role in this model is limited to safe-keeping of funds. Account management functions are conducted by a non-bank (e.g. telco) who has direct contact with individual customers.[30] This model offers a distinct alternative to conventional branch-based banking in that the customer conducts financial transactions through a whole range of retail agents or through mobile phone instead of at bank branches or through bank employees. This model promises the potential to substantially increase the financial services outreach by using a different delivery channel like retailers/ mobile phones, a different trade partner having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank-based alternatives.[31]

Ashta suggests that telco-led model mobile banking should be regulated by telecommunications regulations while bank-led mobile banking should be regulated by banking regulations.

This paper seeks to identify the most appropriate regulatory regime applicable to mobile banking in Kenya to address various regulatory challenges and issues.

1.2 STATEMENT OF THE PROBLEM

The fast growing mobile banking in Kenya has necessitated the need for a sound regulatory regime to ensure its sustainable growth. There is, however, a dilemma when it comes to identifying the best regulatory framework and regulatory authority since mobile banking cuts across two independent sectors, banking and telecommunications. This paper, therefore, seeks to

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[28] Central Bank of Kenya, Recent media Reports and queries on the Central Bank of Kenya (CBK) and mobile phone financial services, 26 January 2009.

[29] Arvind Ashta, 2001, Evolution of Mobile Banking Regulations, Burgundy School of Business (Groupe ESC Dijon-Bourgogne), CEREN, CERMi 29 rue Sambin, 21000 Dijon France.

[30] Id.

[31] Id.

address this dilemma and propose the best regulatory regime and authority for mobile banking in Kenya.

1.3 OBJECTIVE OF THE RESEARCH

The main objective of this paper is to analyze and recommend the most preferable regulatory framework to be applied to mobile banking in Kenya.

Specific objectives include;

a. To identify whether mobile banking practice in Kenya is bank-based or telco-based.
b. To identify the various regulatory issues and challenges that mobile banking poses to the existing regulatory framework.
c. To determine the best regulatory qualities that a mobile banking regulatory framework should posses.
d. To propose the most appropriate regulator in light of the regulatory issues and challenges.

1.4 RESEARCH QUESTIONS

a. What model of mobile banking is being practiced in Kenya? Is it bank-based or telco-based?
b. What are the regulatory issues and challenges that mobile banking in Kenya pose to the existing regulatory regime?
c. What qualities should the regulator and regulatory regime of mobile banking posses?
d. Who is the most appropriate regulator of mobile banking?

1.5 HYPOTHESES

a. Mobile banking practice in Kenya is both telco-based and bank-based depending on the type of mobile banking product being offered.
b. Mobile banking in Kenya poses various bank and telecommunication related regulatory issues and challenges which requires a regulator with both bank and telecommunication related qualities.

1.6 THEORETICAL FRAMEWORK

This paper is based on the economic regulation theory. Economic regulation is the imposition of rules by a government, backed with penalties that are intended specifically to modify the behavior of individuals and firms in the private sector. Governments use economic regulation to improve the efficiency with which society's resources are allocated, to alter the distribution of income and to achieve broad social or cultural goals. By regulation the government narrows choices in certain areas, including prices, supply, rate of return, disclosure of information, mode of production, standards for products or services and conditions of service.[32]

The central tasks of the theory of economic regulation are to explain who will enjoy the rights or bears the burdens of regulation, what form regulation will take, and the effects of regulation upon the allocation of resources.[33] Regulation is instituted primarily for the protection and benefit of the public at large or some large subclass of the public. In this view, the regulations which injure the public are costs of some social goal (like, national defence) or, occasionally, perversions of the regulatory philosophy.

Economic regulation theory seeks to address three main issues; namely market power, interest group and government opportunism.

Market power is the ability of a company to raise prices above the competitive level because of absence of close product substitutes, a low degree of competitive rivalry, or the presence of entry barriers.[34] A firm with market power can raise prices without losing its customers to competitors. Some of the behaviours that firms with market power are accused of engaging in include predatory pricing, product tying, and creation of overcapacity or other barriers to entry.

The regulator's main role in addressing market power should be to encourage competition, minimize the costs of information, provide for price structures that improve economic efficiency,

[32] Demsetz, H., Why Regulate Utilities? Journal of Law and Economics, April 1968.
[33] Stigler, G.J, n.d. The Theory of Economic Regulation, the University of Chicago.
[34] António Afonso & Luís Costa, 2010. Market Power and Fiscal Policy in OECD Countries, Working Papers 2010/11, Department of Economics at the School of Economics and Management (ISEG), Technical University of Lisbon.

and establish regulatory processes. The regulatory framework should ensure independence, transparency, predictability, legitimacy, and credibility.[35]

Interest group describes stakeholders' interests in regulation.[36] Government activities are viewed as a process in which wealth or utility is redistributed among individuals and groups. Some individuals and groups are effective at organizing and engaging in collective action such that they are able to influence policy and government actions.[37] The regulatory framework should moderate on interests of players in the sector whether individual or group. All stakeholders should be engaged to ensure transparency and participation.

Government opportunism means the arbitrary exercise of government discretion. If government opportunism is unchecked, government can exercise its discretion in a manner that negatively affects stakeholders. It is important that the regulatory framework should limit government involvement to being facilitative instead of being inhibitive.

Mobile banking raises critical issues that require regulation. There has been a debate on whether or not to regulate mobile banking.[38] That debate has since fizzled away and a new debate has since emerged on the best way of regulation.

Economists have criticized economic regulation theory based on several arguments. Some economists[39] argue that government should limit its involvement in economic activities to protecting individual rights like life, liberty and property rather than diminishing individual autonomy and responsibility for the sake of remedying any sort of putative market failure. Ludwig von Mises, an Australian economist, sees regulation as problematic not only because it disrupts market processes, but also because it tends to bring about more regulations. According to his theory every regulation has some consequences besides those originally intended when the regulation was implemented.[40]

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[35] Id.
[36] Tollison, R.D. 1991. Regulation and Interest Groups. In Regulation, ed. Jack High 59- 76. Ann Arbor: University of Michigan Press.
[37] Id.
[38] Supra note 19.
[39] Friedman, Milton (1990). Free to Choose: A Personal Statement, New York, Harcourt Brace Jovanovich, Inc.
[40] Ludwig, M. (1996), a Critique on Interventionism, New York, Foundation for Economic Education.

Three composite schools of thought have emerged with regard to mobile banking regulation, namely, traditional legal regulation, technological regulation and commercial self-regulation.

Traditional legal regulation: This school of thought holds that mobile banking should be publicly regulated by a 'top-down' approach of hierarchical laws, rules and arrangements. That the law makers need to regulate mobile banking by enacting legislations and regulations that targets all aspects of mobile banking.[41] The critics of economic regulation mainly targets their criticism on this school of thought.

Technological regulation (Digital Libertarianism): This school of thought holds that technological capabilities and systems are sufficient to impose rules on those taking part in mobile banking.[42] Proponents of this school argue that technology has inbuilt mechanisms that may be used to regulate mobile banking. These inbuilt mechanisms include passwords, encryption requirements, electronic signatures, codes etc and will mainly address security, confidentiality and privacy issues.

Commercial self-regulation (Private Ordering)-This school of thought favors market driven codes of conduct and enforcement mechanisms, with minimal government regulation. This bottom-up approach is similar to Lex Mercatoria. The proponents of this school of thought argue that the players in the market are the best people to know what requires to be addressed and that they will develop market friendly codes of ethics and regulations that guide their behaviour.

To have a more sustainable and progressive regulation in mobile banking these three must be seamlessly employed.[43] This paper is premised on the position that to achieve maximum benefits of regulation in mobile banking all these three schools of thought must be incorporated and recognized. The rationale for this position is as follows: Laws are not always a perfect mode of

[41] Steele J, n.d. Global TRECs: The Regulation of International Trade in Cyberspace, Canadian Journal of Law and Technology.
[42] Joel R. (1998). Lex Informatica: The Formulation of Information Policy Rules through Technology, Texas Law Review Volume 76, Number 3.
[43] Gerwig, R. W. (1962). Natural Gas Production: A Study of Costs of Regulation. Journal of Law and Economics, October 1962, pp. 69-92.

regulation, more especially in a fast changing sector like mobile banking, and therefore other means of regulation are necessary;[44] Technology is a fast moving phenomena and should have its own in-built rules that match up its advancement; The players in the market best understand where problems abound and they should have a hand in their own regulation.

Mobile banking is an economic activity and therefore its regulation falls within this economic theory of regulation. Besides achieving the economic objectives of economic regulation, mobile banking regulation is necessary to achieve various sector objectives like prudential regulation to reduce the level of risk to which mobile banking users are exposed, reduce systematic risk, avoid misuse of the service for criminal purposes, protect mobile banking confidentiality and ensure credit allocation in the economy.

1.7 LITERATURE REVIEW

A limited literature exists on various perspectives of the new phenomenon of mobile banking. Some of the literature has been analyzed and presented below to demonstrate that the available literature has not offered a critical analysis on the appropriate regulatory framework for mobile banking in Kenya.

Evolution of Mobile Banking Regulations: [45] the paper underscores the fact that legislation takes place slowly and incrementally, much like evolution. Ideas in one field get transferred to others. New mutations and new fusions take place with apparently dissimilar partners creating a need for other adaptations. Such a fusion is now occurring between the banking industry and the telecommunication industry, creating a concept called mobile banking, which would enable reduction of transaction cost and increase in outreach to enable poor unbanked people to access micro financial services. This fusion is necessitating a change in the regulatory environment to accommodate and adapt to this fusion. The paper discusses the evolution of the mobile banking regulations in five zones namely Kenya, South Africa, Philippines, India and European Union in

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[44] Trubeck, D, Marc G. (1974), Scholars in self-estrangement: Some reflections on the crisis in law and development studies in the United States, Wisconsin Law Review.

[45] Ashta, Arvind, (April1, 2010), Evolution of Mobile Banking Regulations (April 1, 2010). Available at SSRN: http://ssrn.com/abstract=1583080. Accessed on 8th July 2010.

different stages of economic development and offers possible reasons for such differing evolutions. Future research directions are also indicated.

The paper also outlines the risks in mobile banking and categorizes them into three types namely; risks related to banking, risks related to telecommunications and risks introduced by mobile banking *per se.* In addressing the risks the paper proposes that mobile banking regulations need to be researched piece-meal and put together since they come from many different laws, decrees and circulars which essentially modify the existing banking and telecom laws to permit the additional activity of mobile banking.

This article is relevant to the current discussion in that it discusses regulation of mobile banking and exhorts that the best regulatory framework should be incremental. Further, the paper discusses some of the challenges that mobile banking poses to its sustainable regulation. The article is, however, general and does not unravel the dilemma on the appropriate regulatory framework required for mobile banking. It does not focus on mobile banking in Kenya and the dilemma which is experienced when it comes to regulation.

Mobile Banking, Mobile Money and Telecommunication Regulations:[46] This paper investigates the interface between telecommunication and banking regulations and policies to provide safeguards without hindering the industry. However, much of what has been written regarding the regulatory issues with respect to e-money and m-money has been from the side of banking regulations. Banking regulations are based on the need to address problems of information asymmetry and controlling, for good or ill, the creation of money outside the government monopoly. It is about regulating risk to the system and risk to the economy. Moreover, bank regulators define their object of regulation for m-money not on whether the relevant entities call themselves banks but on the terms and conditions of how the money that they take from customers is treated and whether or not they extend credit to customers. Among the issues that have been commonly discussed with respect to mobile money pertain to authentication, such as knowing your customer (KYC), authorization and integrity of the transaction, monitoring the

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[46] Alampay, Erwin, Mobile Banking, Mobile Money and Telecommunication Regulations (2010). Available at SSRN: http://ssrn.com/abstract=1618166. Accessed 8th July 2010.

amounts kept by individuals and the amounts they send (anti-money laundering), security and redress mechanisms, among others.

This paper highlights some of the challenges that mobile banking is facing and tries to prescribe solutions. The paper, however, emphasizes on the regulation of banking more than the interface between banking and telecommunications. It does not shed any light on the best regulator for mobile banking in Kenya, which is the task for the current research.

Designing Mobile Money Services: Lessons from M-PESA:[47] This paper presents ten key service design features that have facilitated the rapid adoption and active use of M-PESA in Kenya. These relate to branding and messaging, ease of use, consistency of customer experience, agent monitoring, instantaneous customer registration, free deposits, ability to send money to non-registered customers, and agent channel growth. While this paper does not deal with regulatory challenges it is, nevertheless, relevant in informing the discussion on the main factors that have contributed to M-Pesa success.

Cooperation for Innovation in Payment Systems: The Case of Mobile Payments: [48] This paper studies the development of mobile payments as an innovation. In particular, it introduces five cooperation models that have emerged or could emerge between banks, mobile network operators, and payment systems, for the development of this new payment method. It also discusses the regulatory issues posed by the presence of mobile operators in the payments market.

Customer on the Move: Strategic Implications of Mobile Banking for Banks and Financial Enterprises: [49] The paper underscores that there is increased mobility amongst various sections of the society, particularly amongst professionally active groups. This has confronted financial

[47] Morawczynski, Olga and Mas, Ignacio, Designing Mobile Money Services: Lessons from M-PESA (April 24, 2009). Innovations, Vol. 4, No. 2, 2009.

[48] Bourreau, Marc and Verdier, Marianne, Cooperation for Innovation in Payment Systems: The Case of Mobile Payments (February 1, 2010). Telecom ParisTech Working Paper No. ESS-10-02.

[49] Tiwari, Rajnish, Buse, Stephan and Herstatt, Cornelius, Customer on the Move: Strategic Implications of Mobile Banking for Banks and Financial Enterprises (February 1, 2006). Accessed on 8th July 2010.

institutions, with challenges to adjust their service portfolio in a way to best suit the needs of their customers. On the other hand mobile banking also opens up a new arena of opportunities by making it possible to offer innovative, value-added services not only to cater for the needs arising out of the mobility but also by actively inducing demand for new, mobility-centric services.

This paper further examines strategic implications of these changes in customer behavior as perceived by the banks. It introduces the findings of a bank survey conducted by the authors in Germany. The survey discovered that banks expect mobile banking to gain greater relevance in the near future and are positioning themselves not to be left behind. The focus of this paper is on the changing behaviors of customers and not regulatory challenges which is a subject of the current research.

An Analysis of the Legal Challenges Posed by Electronic Banking: Kethi Kilonzo in this paper demonstrates the difficult of giving electronic banking a conventional definition. The Banking Act (Kenya) does not also define electronic banking and limits the definition of banking business to cash and cheque payment systems. She states that electronic banking is unregulated and poses serious challenges to any attempt to regulate it because of its nature. Electronic banking operates twenty four hours a day, can be instantly accessed, it is inexpensive and contains information that is downloadable for future reference. The article discusses electronic banking generally as opposed to mobile banking which is an element of electronic banking. The current focuses is on mobile banking as opposed to electronic banking.

Kethi underscores the role of digital signatures in electronic banking which include identifying the holder and warranting the integrity of documents. The use, validity and the evidential value of digital/electronic signatures and documents remain unregulated in Kenya. Since the article was written in 2007, several reforms have been undertaken for example the amendment to the Kenya Information and Communications Act which has introduced clauses that seek to regulate electronic signatures and documents.

On electronic transfers, the article draws lessons from the United States of America and United Kingdom. The United States Electronic Funds Transfer Act 1978 regulates electronic money transfers in the USA. This Act was enacted for the protection of individual consumer rights and to define the rights, liabilities and obligations of parties to an electronic transfer. In Kenya there is no legislation on this issue of electronic transfer but there is a pending Bill on money transfer in general. This article was published in 2007 when mobile banking had just been launched and the regulatory system was almost absent. Now some laws and regulations have been enacted to handle some aspects of mobile banking as will be discussed later in chapter three.

Emerging Issues in Banking Regulation: [50] Ralph Chami and others in their paper argue that deregulation, technology and financial innovation are transforming banking and have led to non-banks performing banking business. Due to evolutions in the banking sector international banking community and the Basel Committee are working hard to develop an appropriate regulatory framework. The paper suggests that the best response to the evolutions is to move away from command and control regulations and embrace assessment of internal risk management systems, the supervision of banks and more effective market discipline. It argues that, especially for developing countries, finding the right balance between regulation, supervision, and market discipline is likely to be difficult. Considerable technical expertise as well as political discipline - which can be viewed as a fourth pillar is required to implement Basel II on mobile banking.

The literature review above is relevant to the current study because it tackles some of the issues of mobile banking regulation. It is, however, apparent that there is quite limited literature on mobile banking regulatory framework in Kenya. None of the literature reviewed delved into addressing the dilemma of who is best placed to regulate mobile banking. This study aims to fill the gap by analyzing the qualities of a good mobile banking regulator and recommending the best qualities of mobile banking regulation.

1.8 RESEARCH JUSTIFICATION

Limited academic literature exists in the area of mobile banking especially mobile banking practice in Kenya. This has made it difficult for policy makers, lawmakers and other stakeholders

[50] Ralph Chami et al, 2003, Emerging Issues in Banking Regulation, IMF Institute.

to develop sound regulatory framework based on well researched findings. There is need for more research in this area to gather and inform decision making and taking of appropriate regulatory measures. Further, mobile banking raises several legal issues including security, privacy and customer protection which need to be addressed through proper research. This paper, therefore, seeks to analyze various legal and regulatory issues concerning mobile banking in Kenya.

1.9 RESEARCH METHODOLOGY

This research is mainly desk top research where library materials will be the main source of information. Relevant secondary literature shall be reviewed and internet sources shall also be used where appropriate.

Various primary sources shall be used including legislation, government Policy documents and reports.

1.10 LIMITATION OF THE STUDY

The main limitation of this research is lack of sufficient published materials and information on mobile banking in Kenya. Safaricom and Airtel may regard some of the information they possess concerning Airtel Money Pesa Mkononi and M-Pesa as business secrets hence they cannot divulge. Consequently, some of the information relied upon in this research is sourced from internet and not from scholarly publications.

Further this study is limited by the time and funds available to conduct the research. The area of mobile banking is evolving fast and each day comes with new innovations making it difficult to have up to date information on some aspects.

1.11 CHAPTER BREAKDOWN

Chapter One: Introduction:

The first chapter shall be the proposal of this research outlining the research problem, background of the research, literature review, research methodology, justification of the research and the theoretical framework.

Chapter Two: Regulatory Challenges to Mobile Banking Practise in Kenya:

This chapter seeks to identify the model of mobile banking in practice in Kenya and discusses the various regulatory issues. It will establish if the dominant model is bank-led, telco-led or mixed. This will be a critical chapter because the model of practice raises its unique regulatory issues that need to be addressed.

Chapter Three: A Review of the Legal and Regulatory Framework of Mobile Banking Practice in Kenya:

The existing legal and regulatory framework shall be analyzed. Bank laws and communication laws shall be analyzed to determine how best they address various legal issues that emerge as a result of the practice of mobile banking.

Chapter Four: Who Should Regulate Mobile Banking in Kenya?

This chapter discusses the qualities of the best placed regulator for mobile banking in Kenya in light of the model of mobile practice and the emerging issues and challenges. It shall suggest the most appropriate regulator.

Chapter Five: Conclusion and Recommendations:

This last chapter shall give a conclusion and recommendations on the way forward for Kenya in so far as creating an enabling legal environment for mobile banking practice. It shall also identify areas that may need further research.

CHAPTER TWO

REGULATORY CHALLENGES TO MOBILE BANKING PRACTICE IN KENYA

2.0 INTRODUCTION

This chapter starts by explaining the practice of mobile banking in Kenya and highlighting its distinctive features. It further outlines the legal and regulatory issues that emerge as a result of mobile banking practice in Kenya. Mobile banking may be operated through two main models, namely the bank-led model and the non-bank-led (telco-led) model. These models differ primarily on the question of who establishes the relationship to the end customer, the bank or the telecommunication company. This means that if the account opening, deposit taking and lending functions are being handled by the bank then it is bank-led but if these functions are being handled by the telecommunication company then it is telco-led.[51] In case of the hybrid model, both the bank and the telecommunications company are jointly involved in the delivery of mobile banking. The model of mobile banking being practised in a given country is important because it guides on the appropriate type of regulation.

2.1 MODELS OF MOBILE BANKING IN KENYA

2.1.1 The Bank-Led Model

The bank-led model is the oldest model introduced in Kenya as an extension or add-on to existing services. In the most basic version of the bank-led model of mobile banking, a licensed financial institution (typically a bank) delivers financial services through a retail agent, in this case a telecommunication company.[52] That is, the bank develops financial products and services, but distributes them through retail agents who handle all or most customer interaction. The agents in this case therefore are mobile phone companies.

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[51] Stone, Robert, et al, (January 1, 2090)Trade in Financial Services: Mobile Banking in Southern Africa. World Bank Policy Research Working Paper Series no. 50975.

[52] Lyman T. (2006) Use of Agents in Branchless Banking for the Poor: Rewards, Risks and Regulation, CGAP Focus Note 38 (October 2006).

In an agency relationship, the bank is the ultimate provider of financial services and is the institution in which customers maintain accounts.[53] However, sometimes retail agents (mobile phone companies) have face-to-face interaction with customers, open accounts for customers and perform cash-in/cash-out functions just like a bank teller would take deposits and process withdrawals.[54] Whatever the establishment, each retail agent is outfitted to communicate electronically with the bank for which it is working.[55]

Once an account is established or loan approved the retail agent checks the customer's identification documentation and processes the transaction, debiting the customer's and crediting the payee's bank account as the case may be. Unless the transaction is merely a transfer of funds, cash is either deposited to or withdrawn from the retail agent's cash drawer. An electronic record of the transaction is either routed directly from the retail agent to the bank or is handled by a payment processing agent that settles the transaction between the customer's account and the payee's account.[56]

In some versions of the bank-led model, such as in Brazil, banks may contract management companies to identify, contract, equip, and monitor retail agents on the banks' behalf. In many cases, management agents assume liability for cash handled by the retail agent (although the bank is also liable to the customer in case of fraud or negligence by the retail agent). In some cases, a payment processing agent may settle transactions among banks.[57]

In Kenya, three main services may fall under this model, namely M-Kesho, Pesa Pap and Hello Money. In the case of M-Kesho, Equity Bank and Safaricom have partnered to facilitate transfer of money to and from the customer's M-Pesa[58] account. A customer opens a bank account with Equity Bank which operates through the Safaricom network in which case the latter is the agent

[53] F.I. Anyasi and P.A. Otubu, 2009, Mobile Phone Technology in Banking System: Its Economic Effect, Research Journal of Information Technology 1(1): 1-5, 2009.
[54] Id.
[55] Id.
[56] Supra note 1.
[57] Hernandez, J. M. C. and J. A. Mazzon (2007). Adoption of internet banking: proposition and implementation of an integrated methodology approach. International Journal of Bank Marketing 25(2): 72-88.
[58] M-Pesa is a money transfer services offered by Safaricom.

of the bank.[59] M-Kesho accounts attract interests, do not have a limit on account balances, and are linked to limited emergency credit and insurance facilities. Unlike its regular Equity account holders who can only transact at the bank's branches, M-Kesho customers are able to transact at any of the many retail outlets that accept M-Pesa service.[60]

Pesa Pap is a product that allows Family Bank customers to make banking transactions from their mobile phones through Safaricom Unstructured Supplementary Service Data (USSD) platform. To use this service one should have an active account at Family Bank operated through a Safaricom network.[61]

Hello Money is a Barclays Bank (Kenya) Limited product which enables its customers to perform transactions in real time over their mobile phones. In this case technology combines security, accessibility and convenience to deliver financial services. Its main aim is to transform the way people in rural areas access and use financial services.[62]

2.1.2 The Nonbank-Led (Telco Led) Model

In the typical nonbank-led model of mobile banking, customers do not deal with a bank, nor do they maintain a bank account.[63] A bank may not be involved at all or may be used only as a custodian. Instead, customers deal with a nonbank firm, a mobile network operator and retail agents serve as the point of customer contact.[64] Rather than deposit money into and withdraw money from a bank account, customers exchange their cash for e-money stored in a virtual e-money account on the nonbank's server, which is not linked to a bank account in the individual's name. E-money, according to the Basel Committee's definition, is "a stored value or prepaid product in which a record of the funds or value available to the consumer for multipurpose use is

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[59] M-Kesho, Available at: http://www.equitybank.co.ke/. Accessed on 28th October 2010.

[60] Ignacio Mas, Bill & Melinda Gates Foundation, 2010, M-Kesho in Kenya: A new step for M-PESA and mobile banking, Financial Access Initiative. Available at: http://financialaccess.org/node/2968. Accessed on 27 October 2010.

[61] Pesa Pap Available at: http://www.familybank.co.ke/Info/Pesa%20PAP!. Accessed on 27th October 2010.

[62] India Rwire, n.d Barclays launches 'Hello Money' - your bank in your mobile, available at: http://www.indiaprwire.com/pressrelease/financial-services/200803077912.htm. Accessed on 28th February 2011.

[63] Akinci, S., S. Aksoy, *et al.* (2004). Adoption of Internet Banking among sophisticated consumer segments in an advanced developed countries. International Journal of Bank Marketing 22(3): 212-32.

[64] Ibid

stored on an electronic device in the consumer's possession."[65] In other words, customers exchange cash for value stored in a card- or mobile phone-based virtual account. Customers can send this e-money to others, use it to make purchases, or use the e-money account to store funds for future use. They can also convert it back to cash at any participating retail agent.

The nonbank performs a role similar to that of a bank in the bank-led model. It designs financial and payment products, contracts retail agents directly or through intermediaries, and maintain customer e-money accounts.

When the nonbank is a mobile operator, it generally has pre-existing relationships with retail agents and many customers. It provides retail agents and customers with their cell phones or their cell phone service. Unlike customers that use payment cards, mobile phone banking customers can conduct transactions wherever they have cell coverage; they need to visit a retail agent only for transactions that involve depositing or withdrawing cash.[66]

Retail agents in the nonbank-led model also perform the same basic functions as in the bank-led model. They take in and disburse cash using mobile phones to record transactions. When a customer hands over cash to increase e-money balance, the retail agent keeps the cash in exchange for some of his own e-money. Unlike in the bank-led model, the settlement takes place with e-money, not funds in bank accounts.[67] This poses technological risk for both customer and retail agent in case of system breakdown or malfunctioning or network failure.

Commercial banks are typically used in the nonbank- led model, but generally only as a place for the nonbank to hold the net proceeds of issuing e-money (and as a convenient means to earn a return for the nonbank on these funds while keeping them highly liquid). For example, Globe

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[65]Basel Committee on Banking Supervision, 2004. Survey of developments in electronic money and internet and mobile payments. Basel, Switzerland: Bank for International Settlements.

[66] Owens, John. 2006. RBAP Text-a-Payment and G-Cash Cash-in/Cash-out Services: Innovative Banking Services at Your Fingertips. Available at: http://www.bwtp.org/asiamicrofinance/documents/JohnOwensRBAP.pdf. Accessed on 28th October 2010.

[67] Pau, L. F. 2004, Mobile Operators as Banks or Vice-Versa? And: The Challenges of Mobile Channels for Banks. ERIM Report Series Reference No. ERS-2004-015-LIS.

Telecom in the Philippines pools the funds that back its e-money accounts in several wholesale deposit accounts at licensed commercial banks.[68]

In Kenya there are three main non-bank led mobile banking services namely, M-Pesa, Airtel Money Pesa Mkononi and YU Cash. These three services are briefly discussed below.

M-PESA is an innovative mobile payment system operated by Safaricom, a telecommunications company that enables customers to complete simple financial transactions including person to person money transfer.[69] It is aimed at mobile customers who do not have a bank account either by choice or not. In some cases mobile customers do not have access to a bank or they do not have sufficient income to justify opening and operating a bank account. Safaricom pools its e-money account proceeds in a wholesale deposit at the Commercial Bank of Africa. M-Pesa has been designed so that people without bank accounts can use it.[70]

YU Cash is a mobile money transfer services offered by a partnership between YU (mobile network in Kenya) and Obopay (a leading player in mobile banking and payments technology provisioning internationally).[71] It is used to transfer money amongst the network customers. Customers are charged a fee for the services for every transaction.

Airtel Money Pesa Mkononi is a mobile banking service offered by Airtel which allow users across Kenya, Tanzania and Uganda to use their mobile phone to pay bills for goods and services, make remittances to other mobile users or bank accounts, top up airtime, send airtime to other Airtel customers within the three countries, and to manage their bank accounts.[72]

The three money transfer service providers operate under the same principles with varying service qualities and tariffs.

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[68] Id.
[69] Eijkman, Frederik, Kendall, Jake and Mas, Ignacio, 2009, Bridging the Cash: The Retail End of M-PESA - The Challenge of Maintaining Liquidity for M-PESA Networks. GSMA, Mobile Money for the Unbanked, Annual Report 2010.
[70] Id.
[71] YuCash: available at: http://www.yu.co.ke/yucash. Accessed on 20th June 2011.
[72] Airtel Money Pesa Mkononi: Available at: http://africa.airtel.com/kenya/airtel-money-1547. Accessed on 20th June 2011.

2.2 LEGAL AND REGULATORY CHALLENGES

The model of mobile banking being practised in a given country raises its unique legal and regulatory issues. There are also various legal and regulatory issues that affect both models of mobile banking. Regulation seeks to achieve many ends, such as reduction of risks, improvement of efficiency, ensure fairness and transparency, restoration of public confidence and consumer protection.[73]

2.2.1 Regulation of risks

Mobile banking is a new phenomenon which is based on a technology platform that poses many unique risks. Further, mobile banking draws from two different industries that have their unique risks and therefore risks which are inherent in mobile banking may be a combination of those from banking and telecommunications.[74] Since mobile banking involves itself in functions that are classified as banking business, some of the risks inherent in traditional banking still abound to mobile banking.

Mobile banking use communications devices like the mobile phone and transactions that involves telecommunication technologies. Mobile banking therefore is closely related to the core activities of communications which include transfer of information from the sender to the recipient. This close relationship between telecommunications and mobile banking imports some risks inherent in telecommunications to mobile banking.

Some mobile banking risks drawing from both banking and telecommunications are discussed below and they include; credit risks, operational risks, systematic risks, fraud and identity risks.[75]

While mobile banking operators in Kenya do not grant loans themselves, they are used by banks in facilitating loan applications. A good example is M-Kesho which offers a platform for customers to access loan facilities from Equity bank. Credit risk is the possibility of non-

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[73] International Organization of Securities Commissions, (1998), Objectives and Principles of Securities Regulation, International Organization of Securities Commissions.

[74] Ashta A (ed) (In Press) Advanced technologies for microfinance: Solutions and challenges. IGI Global, Hershey, PA

[75] Godlewski CJ (2005) Bank capital and credit risk taking in emerging market economies. Journal of Banking Regulation 6: 128-145.

repayment of loans by a customer.[76] Normally, banks analyse financial statements, operating information, reputation, net worth, control and commitment as devices to reduce credit risks. Financial institution's credit risk is not increased by the mere fact that a loan is originated through a mobile banking channel. However, management should consider additional precautions when originating and approving loans electronically. Certain aspects of on-line loan origination and approval tend to make risk management of the lending process more challenging. These include verifying the customer's identity for on-line credit applications and executing an enforceable contract; monitoring and controlling the growth, pricing, underwriting standards and ongoing credit quality of loans originated through e-banking channels; monitoring and oversight of third-parties doing business as agents or on behalf of the financial institution; valuing collateral and perfecting liens and collecting loans over a potentially wider geographic area.[77]

The operational risk is the risk of losses from operations owing to drastic increases in costs or falls in revenues as a result of inadequate or failed internal processes, people and systems or from external events.[78] Transaction through mobile devices increases operational risks because mobile phone systems used may be hacked into, fraudsters may ride on the system easily, processing errors, system disruptions, or other unanticipated events may occur resulting in the institution's inability to deliver products or services. The level of transaction risk is affected by the structure of the institution's processing environment, including the types of services offered and the complexity of the processes and supporting technology. [79] Akin to operational risk is the distribution risk. Since money moves around on an electronic media which is instant and sometimes anonymous, the media may be used as a conduit for laundering money from illicit activities or it may be used to finance terrorist activities. The Financial Action Task Force (FATF) sets international standards for anti-money laundering and combating the financing of

[76] Irina C, Irina-Stefana C (2008) The Analysis of the Risks and of their Effects upon the Banking Activity. Annals of the University of Oradea, Economic Science Series 17: 701-704.
[77] Ibid.
[78] Sathye M (2005) The impact of internet banking on performance and risk profile: Evidence from Australian credit unions. Journal of Banking Regulation 6: 163-174.
[79] Wetmore JL, Brick JR (1994) Commercial Bank Risk: Market, Interest Rate, and Foreign Exchange. Journal of Financial Research 17: 585; Staikouras SK (2005) Multinational Banks, Credit Risk, and Financial Crises. Emerging Markets Finance & Trade 41: 82-106.

terrorism and oversees compliance monitoring. It calls for national-level regulatory regimes to require that adequate customer due diligence (CDD) be undertaken on all new accounts.[80]

Fraud and identity risks may be prevalent in mobile banking because of its impersonal, anonymous and instant nature. The practice of Know Your Customer (KYC) principle in mobile banking is challenged hence hampering the due diligence and bank regulation that financial institutions and other regulated companies must perform to identify their clients and ascertain relevant information pertinent to doing banking business. In traditional banking, unlike in mobile banking, parties get to meet and know each other, transactions take some time hence enable parties to confirm them.[81] In mobile banking the risk of fraud is based on elusiveness and rapidity. Elusive because one can use hundreds of small mobile transactions to cover up huge movements of funds for illegal or terrorism purposes. Their origins and destinations cannot be traced without some invasion of privacy. Rapidity adds to this scenario because the transactions are real time and may be completed and the account closed before the bank or the telecom operator can conform to any anti-money laundering or anti-terrorist guidelines. Thus, the float time which can be used by banks to address these issues *ex-ante* is lost to mobile bankers who can do this check only *ex-post*. One way to do this is to have an authentication check of identification with photo (and keeping a copy on record) at the time each new mobile telephone is put into use and each time a new stored value or deposit account is opened. Other ways of mitigating the risk is by limiting the transaction amount and the frequency of the transactions through mobile phones.[82]

A systematic risk is a risk that results from network problems but have a global effect. Since telecommunications networks and systems are globally interconnected, any defect in one localized area may escalate to the whole system causing a major breakdown in the whole network or system.[83]

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[80] Isern J, Koker LD (2009) AML/CFT: Strengthening Financial Inclusion and Integrity. In: Focus Note 56. Consultative Group to Assist the Poor (CGAP), Washington D.C.
[81] Ibid.
[82] Ibid.
[83] Staikouras SK (2005) Multinational Banks, Credit Risk, and Financial Crises. Emerging Markets Finance & Trade 41: 82-106

To overcome the mobile banking risks discussed above, governments have put in force regulations and measures such as agency regulations, licensing regulations, anti-money laundering laws, laws combating terrorism, and limitations on risk exposure and insider lending. The mobile banking operators are also required to have internal governance procedures for prudential operation. These are reinforced with reporting requirements, sanctions and corrective actions, deposit insurance schemes, and institutional overview and off-site surveillance.[84] The adequacy of these regulations and measures shall be discussed in the next chapter.

2.2.2 Privacy, Confidentiality and Security Issues

One of the main differences between mobile banking and traditional banking is that mobile banking transactions are largely impersonal, anonymous and instant. These mobile banking characteristics pose privacy, confidentiality and security concerns.[85]

Firstly, users are concerned that the information they provide for use in mobile banking may be used to send them targeted unsolicited advertisements and messages or sold to other companies that may advertise to them. The information sought during account opening and the transactions that are done online can enable marketers classify users in certain marketing clusters.[86]

Secondly, users are concerned that mobile phone technology might be used to make predictions about their habits and interests. They fear that people may know information about them that was not in the public domain. The frequency and amount transacted by a customer may tell a lot about an individual.[87]

Thirdly, users are concerned that companies will profile them in order to facilitate price discrimination, where some customers will be charged more and other less in the same transaction.[88]

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[84] Ibid.
[85] Stephen E. Fieberg, (2006) Privacy and Confidentiality in an e-Commerce World: Data Mining, Data Warehousing, Matching and Disclosure Limitation, Statistical Science, Vol. 21, No. 2, 143–154. Available at: http://projecteuclid.org/DPubS/Repository/1.0/Disseminate?view=body&id=pdfview_1&handle=euclid.ss/1154979817. Accessed on 5th September 2009.
[86] Ibid.
[87] Ibid.
[88] Ibid.

Fourthly, the users fear that they may inadvertently reveal personal information to other users of their computer. This information may be available to the people not intended and such may be used for litigation. Other types of profile information may reveal interests, habits, or personal preferences, which information may be used to challenge the character of a party in a case.[89]

Lastly, companies and businesses are concerned that their business secrets and confidential information may be accessed by hackers and used by competitors.[90]

The confidence of customers engaged in mobile banking depends on how well mobile banking channels and the existing regulatory framework have addressed these concerns.[91] Businesses and consumers require assurance that transactions that occur in an online environment are secure and private.

2.2.3 Interoperability

To ensure efficiency and maximize on economy in mobile banking, the various systems used by various players must be interoperable. Interoperability is a property of a product or system, whose interfaces are completely understood, to work with other products or systems, present or future, without any restricted access or implementation. The Institute of Electrical and Electronics Engineers has defined interoperability as the ability of two or more systems or components to exchange information and to use the information that has been exchanged.[92] James A. O'Brien and George M. Marakas further define interoperability as being able to accomplish end-user applications using different types of computer systems, operating systems, and application software, interconnected by different types of local and wide area networks.[93]

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[89] Ibid.
[90] Ibid.
[91] Lorrier Faith Cranor, (2003), I Didn't Buy for Myself, Privacy and E-commerce Personalization, Washington DC, AT &T Labs Research. Available at: http://lorrie.cranor.org/pubs/personalization-privacy.pdf. accessed on 01 September 2009.
[92] Institute of Electrical and Electronics Engineers. IEEE Standard Computer Dictionary: A Compilation of IEEE Standard Computer Glossaries. New York, NY: 1990.(iftikahr).

[93] Id.

Interoperability is critical in mobile banking because the users operate in different mobile phone networks. A Safaricom M-pesa customer should be able to send money or transact through the mobile phone to an Orange YuCash customer without restriction or extra costs. Operability may boost mobile banking but also pose new risks. [94] Each operator would be content to supervise its own users. However, when the system is based on interoperations of payments between operators new opportunities arise but risks also multiply, necessitating supervising authorities.

The largest player usually does not want interoperability because the others have more to gain from its system than it has to gain by using the smaller systems.[95] Interoperability has technological problems of telephoning but also problems of banking such as clearing and settlement challenges and consumer protection (including mechanisms to cater for disputes, warranties and claims), besides the special encrypting and decrypting which may be necessary for Short Message System (SMS) based mobile banking transfers. Interoperability is required for terminal equipment, transaction switching, interbank clearing and interbank settlement. The risk here is non-co-operation among the providers to build a broad basis of an interoperable network.[96]

2.2.4 Consumer Protection and Confidence

The mobile banking offers consumers unprecedented choice, accessibility and convenient benefits. With these benefits also comes the challenge of ensuring that mobile banking is safe and secure for a customer to purchase goods, services and access electronic information. Consumers must be confident that the goods and services offered online are fairly represented and that the merchants with whom they are dealing, will deliver their goods in a timely manner and are not engaged in illegal business practices such as fraud or deception.

Consumer confidence is a key element in mobile banking development. Consumption is the sole end and purpose of all production or trade and therefore the welfare of the consumer is

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[94] Morawczynski O, Miscione G (2008) Exploring Trust In Mobile Banking Transactions: The Case Of M-Pesa In Kenya. In: C. Avgerou M, Smith L, Besselaar Pvd (eds) Social Dimensions of Information and Communication Technology Policy. Springer, Boston, pp 287-298

[95] Lyman TR, Pickens M, Porteous D (2008) Regulating Transformational Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance. In: Focus Note 43. Consultative Group to Assist the Poor (CGAP), Washington, DC

[96] Kilonzo KD (2007) An Analysis of the Legal Challenges posed by Electronic Banking. Kenya Law Review 1: 323-341

paramount.[97] Consumer satisfaction is the ultimate economic goal and ideally the economy should be fundamentally ruled by consumer desires under the theory of consumer sovereignty. To enhance consumer confidence, requires that they have access to fair and effective redress if they are not satisfied with some aspects of the transaction. To ensure strong and effective consumer protection in an online environment and obviate the need for a long and arduous litigation process, alternative and easy-to-use mechanisms for consumer dispute resolution, redress and enforcement mechanisms are required.

2.2.5 Dispute Resolution

In dispute resolution, the main concern for mobile banking players revolves around jurisdiction of the court to try a matter and choice of law applicable to the dispute. Jurisdiction and choice of law is a crucial matter when mobile banking transactions are done across border.[98] Further, a trans-boundary transaction raises jurisdiction and choice of law issues when it comes to dispute resolution. Parties to a transaction may carry out a transaction and pay for it on the soil of another country without setting foot there. One may therefore break the law of another country without his physical presence. Such a situation is common in electronic gambling with a resident of a country which has outlawed gambling.[99]

Businesses and individuals engaged in mobile banking, especially in active sales, may surmount this problem by inclusion of choice of law and forum provisions in their online contracts and agreements. Clauses seeking alternative dispute resolution mechanisms like arbitration clauses in online contracts and agreements can also solve most of the forum and choice of law problems.

The 1980 Rome Convention on the Law Applicable to Contractual Obligations contains rules of determining the member state's laws applied to disputes arising from cross border e-commerce consumer transactions. The Rome Convention provides for a country of origin principle with respect to determining applicable law for agreements. Article 3 of the Convention provides for

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[97] Smith, A. Wealth of Nations, edited by C. J. Bullock. Vol. X. The Harvard Classics. New York: P.F. Collier & Son, 1909–14.

[98] Tim Brightbill and Sarah Dylag, n.d, Barriers to International Electronic Commerce: Recent Issues and Developments. Available at: http://www.wileyreinandfielding.com/docs/publications/11623.pdf. Accessed on the 4th September 2009.

[99] Mbasi Fredrick, (2007), Emerging Legal Issues Arising from Online Gambling; A Framework for Future Legislation in Kenya, LLB Dissertation submitted to the University of Nairobi, school of Law.

freedom of contract and states that a contract shall be governed by the law chosen by parties. Article 4 provides for the closest connection rule that states that if the parties have not chosen the applicable law, the contract shall be governed by the law of the country with which it is most closely connected.

The country of closest connection is to be determined with reference to the presumption that a contract is closely connected with the country where the party who is to effect the performance which is characteristic of the contract has, at the time of the contract, his habitual residence, or, in case of a body corporate, its central administration. In most cases, business-to-business in e-commerce contract is most closely connected with the country of the establishment of the provider of the product or service.

Article 5 provides that in consumer contracts, the parties may choose the applicable law but such a law chosen by parties shall not have the result of depriving the consumer of the protection afforded to him by the mandatory rules of the law of the country in which he has habitual residence.

These provisions though negotiated in the 1980 when mobile banking was not a reality in the world, contain general principles applicable in the choice of law and forum in mobile banking.

The most elaborate provision on e-dispute resolution is the EU E-commerce Directive which contains mandatory rules applicable to the choice of law for electronic commerce contracts. The Directive applies to information service providers (ISPs) and the providers of such services. As a general rule, the E-commerce Directive takes a country of origin approach where information society's services must comply with the laws in their home state. Recital 19 of the EU Directive provides that information society service providers (ISPs) are subject to the law of the Member State in which they are established. As long as ISPs comply with this law, they are free to pursue their activities throughout the community. This directive does not supersede other aspects of EU legislations that require the application of country of destination principle including consumer

contracts.[100] These two instruments offer a useful precedent to Kenya in the enactment of a good law on electronic dispute resolution especially relating to choice of law and forum.

2.2.6 Contract Formation on Mobile Banking Transactions

The mobile phone is fundamentally an electronic means of communication in mobile banking transactions. Legal and contractual issues that arise because of mobile banking are as a result of the differences between communication in the physical world and communication using mobile phone in concluding mobile banking transaction. Contractual negotiations are the result of a series of communications that create a legally binding agreement. For this reason, there is little difference between contracts made online (through a mobile banking communications) and those formed face to face. The general contract laws that apply to elements of a contract in physical banking contracts also apply to mobile banking.[101] The contractual elements of offer, acceptance and consideration coupled with intention of parties to create a legally binding relation define the necessary elements for creation of a contract in mobile banking just as in traditional banking. There are however, certain legal and contractual issues that arise because of electronic contracting which merit discussion.

2.2.6.1 Offer and acceptance

The law on offer and acceptance applies to mobile banking transactions in the same way that it applies to traditional banking contracts. For example, the offer must be definite and sufficient, the acceptance must be effectively communicated, and other rules like the postal acceptance rule apply. There are, however, unique issues that arise in mobile banking in so far as offer and acceptance is concerned.

One key issue relate to the time and place of dispatch and receipt of electronic communications of offer and acceptance. The times of dispatch and receipt of an electronic communication

[100] Norman Solovay and Cynthia K. Reed, (2003), The Internet and Dispute Resolution: Untangling the Web, New York, Law Journal Press.

[101] Craig S Wright, (2008) Electronic Contracting in an Insecure World, SANS Institute. Available at: http://www.sans.org/reading_room/whitepapers/legal/electronic_contracting_in_an_insecure_world_2088?show=2088.php&cat=legal. Accessed on the 3 September 2009.

become important to the determination of contract-related time deadlines.[102] The place of dispatch and receipt of electronic communications determine where the contract was formed hence the law governing the contract in case the parties did not chose the law applicable.

2.2.6.2 Execution of Electronic Contracts

Execution of contracts is not one of the elements of a valid contract. Execution is however, crucial in agreements to evidence the intention of parties to be contractually bound by the terms of the contract. In traditional contract formation, execution is done by parties signing the document containing the terms of the agreement. Since there are no physical documents in electronic agreements, the execution is not done by writing. To surmount the requirement of execution, especially in contracts that require writing, several ways have been employed to signify execution in electronic contracts. The common methods used include the use of electronic signatures or exchange of e-mails. Electronic signatures mean data in electronic form in, affixed to or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and to indicate the signatory's approval of the information contained in the data message.[103]

These electronic signatures are associated with a unique numerical code or value which when associated with the correct cryptographic algorithm allows one to verify the authenticity of an electronically signed document with extremely low probability of error. To be held valid the signature must provide the identity of the party who signed the document and demonstrate the intention to sign.

2.2.6.3 Paper Based Concepts

Various paper based concepts may hamper the development of mobile banking and there is need for legal certainty in the area. The paper based concepts include; originality of documents, writing requirement in contracts and signature.

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[102] *Wolfgang Hahnkamper*, (2005), Acceptance of an Offer in Light of Electronic Communications, Journal of Law and Commerce , Vol. 25.

[103] Refer to the definition provided by the UNCITRAL Model Law on Electronic Signatures with Guide to Enactment, 2001.

Certain admissible evidence carries more evidential weight or value than others. With regard to paper-based documentation, the "best evidence" rule requires that the content of writing should be proven by introducing the original document to court. In the electronic (mobile banking) environment, the distinction between original and copy becomes blurred. Documents created electronically have different attributes than paper-based documents. Even though admissible, the evidential weight of electronic documents may be adversely affected by their ease of alteration without leaving any trace.[104]

It is contentious whether electronic contracts meet the writing requirement. Associated with the writing requirement, is the requirement of signature. Are electronic signatures sufficient in executing contracts?

To address the above concerns, various international instruments have incorporated what is called electronic equivalency rules to recognize electronic documents as originals, electronic writing and signatures.[105]

Besides CUECIC which has a few provisions providing for the equivalency rules, UNCITRAL has enacted the UNCITRAL Model Law on Electronic Commerce with Guide to Enactment (MLEC) which was adopted by UNCITRAL on 12th day of June 1996. This model law was enacted with the intention of facilitating the use of modern means of communication and storage of information. It is based on the establishment of a functional equivalent in electronic media for paper-based concepts such as "writing", "signature" and "original". By providing standards by which the legal value of electronic messages can be assessed, the Model Law should play a significant role in enhancing the use of paperless communication. The Model Law also contains rules for electronic commerce in various areas.[106]

Articles 6, 7 and 8 of MLEC provides that where the law requires; information to be in writing, signature of a person and information to be presented or retained in its original form, then such

[104] A green Paper on Electronic Commerce for South Africa , Department of Communications Republic of South Africa, November 2000.
[105] Id.
[106] Summary on Model Law on UNCITRAL Model Law on Electronic Commerce with Guide to Enactment. Available at: http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html. accessed on 19 September 2009.

requirements are met by electronic forms of the same and there is reliability in the writing, signature or document.

Over one hundred countries have taken steps to enact laws that are styled along the provisions of MLEC.[107] In Kenya section 83 G of the Kenya Communications (Amendment) Act No. 1 of 2009 provides for legal recognition of electronic records, section 83 I provides for the originality of electronic documents and section 83 P recognizes the electronic signature. Kenya has also drafted the Electronic Commerce Bill, 2007 which is styled in the provisions of MLEC.

2.3 CONCLUSION

It is clear from the discussion in this chapter that mobile banking practice in Kenya is being undertaken under the two models; bank-led and telco-led. The main services under bank led include M-Kesho by Equity, Pesa Pap by Family Bank and Hello Money while services under telco-led include M-Pesa by Safaricon, Airtel Money Pesa Mkononi by Airtel and Yu Cash by Yu.

The existence of both bank-led and telco-led mobile banking services in Kenya poses a hybrid risks inherent in both banking and telecommunications. Mobile banking use communications devices like the mobile phone and transactions involves telecommunication technologies. Mobile banking therefore is closely related to telecommunications core activities of communications. This close relationship between telecommunications and mobile banking import some risks inherent in telecommunications like technological failure to mobile banking. Besides telecommunications risks, mobile banking is also susceptible to bank risks like credit risks, operational risks, systematic risks, fraud and identity risks.

Further, mobile banking raises legal issues relating to the confidentiality, privacy and security of the information and users. Since communication on mobile phone technology is anonymous, criminals can ride on the system and infringe on the user's confidentiality, privacy and security. Cross border money transfers through mobile banking raises serious jurisdiction issues on

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[107] Refer to the Status of the UNCITRAL Model Law on Electronic Commerce with Guide to Enactment.

dispute resolution and contract formation. It is sometimes not clear where the contract was formed and which laws apply to a dispute that arises in cross border disputes.

To address these legal issues, several measures have been implemented to address them. International legal instruments like MLEC and 1980 Rome Convention on the Law Applicable to Contractual Obligations are offering solution on how to address some of the legal issues. There is need to interrogate Kenya's legal system to identify how best to amend or review our laws to address these issues.

CHAPTER THREE

A REVIEW OF LEGAL AND REGULATORY FRAMEWORK OF MOBILE BANKING PRACTICE IN KENYA

3.1 INTRODUCTION

The necessity for government intervention in the economy has traditionally been justified by the need to correct market imperfections, address the regulatory challenges discussed under Chapter Two and address unfair distribution of resources. Regulation of mobile banking is a tricky affair since the field of mobile banking is not only new and fast evolving but also sits at the overlap of several regulatory domains which include banking, telecommunications and payment system, and anti-money laundering. The overlap substantially raises the risk of coordination failure, where legislation or regulatory approaches are inconsistent or contradictory. From this perspective, smooth financial regulatory mechanisms in general and regulation of the mobile banking industry in particular are extremely important.

A sound regulatory framework should concern itself with the control over the creation, operation, and liquidation of mobile banking institutions. It is a fact that, technology develops more quickly than laws. Therefore, one of the most logical requirements of technology regulation is that technology laws should be sustainable enough to cope with technological development over a sufficiently long period of time. In Kenya several legislations and regulations seek to regulate various aspects of mobile banking. Some legislation regulates banking and other telecommunication per se. Mobile banking is subject to technological regulation, market regulation and certain international regulatory framework. This chapter analyses all these legal and regulatory instruments to determine the extent to which they address the legal and regulatory issues discussed in chapter two above.

3.2 BANKING SECTOR REGULATIONS AFFECTING MOBILE BANKING

As noted earlier, some regulations of the traditional banking practice apply to mobile banking. It is noteworthy that mobile banking deals in the same medium, money, just like traditional banking. The only major difference is the mode of delivering banking services whereby mobile banking uses mobile telephony while traditional banking uses physical contact (personal)

engagements. Since the medium remains the same in both mobile banking and traditional banking, then certain provisions of the existing banking laws apply to mobile banking as well. However, mobile banking poses technological challenges that may require an enhanced mode of regulation over and above the existing banking regulation regime. This section reviews existing banking laws with a view to identifying the weaknesses that need to be addressed to enhance mobile banking.

3.2.1 The Central Bank of Kenya Act[108]

The Central Bank of Kenya Act establishes the Central Bank of Kenya which is an independent body responsible for the formulation and implementation of a monetary policy directed to achieving and maintaining stability in the general level of prices.[109] The Central Bank fosters the liquidity, solvency and proper functioning of a stable market-based financial system.[110] This role has been enhanced by article 231 of the Constitution, 2010 which establishes the CBK as a Constitutional office. Making the Bank a Constitutional office enhances its independence and shields it from all forms of manipulations. Under the Constitution, CBK is responsible for formulating monetary policy, promoting price stability, issuing currency and performing other functions conferred by Central Bank of Kenya Act.

The Bank is further charged with several other responsibilities including the licensing and supervision of authorized dealers, and formulating and implementing such policies as best to promote the establishment, regulation and supervision of efficient and effective payment, clearing and settlement systems.[111]

Central Banks throughout the world are charged with ensuring financial stability and implementing monetary policy for respective economies. The Central Bank of Kenya should regulate mobile banking because of its effects on the economy. It is not, however, statutorily

[108] Cap 491 Laws of Kenya
[109] Section 3 of the Central Bank Act.
[110] Section 4 of the Central Bank Act.
[111] Section 4A of the Central Bank Act.

clear how the Central Bank of Kenya should undertake the task of regulating the mobile banking sector.[112]

The functions of Central Bank may, in my view, be employed to bring the operations of mobile banking within the purview of banking regulation. Central Bank has indeed taken it upon itself to regulate mobile banking providers. During the inception of M-Pesa[113] service in 2005 several questions were raised regarding its safety and reliability. How does mobile banking really operate and is it safe and reliable? Does mobile banking compete with traditional banking? Should it be regulated? Does it fall within the existing regulatory regime? [114]

The Central Bank of Kenya required Safaricom to submit a proposal which comprised of a Trust Deed outlining the manner of delivering the mobile banking service.[115] The Trust Deed was declared on 23rd February 2007 by M-Pesa Holding Company Limited in favour of all M-Pesa account holders of Safaricom Limited referred to as Beneficiaries. The Trustees hold each Trust Fund upon trust for each beneficiary to the extent of their respective credit balances standing to the credit of their respective M-Pesa accounts. Trust Funds are held by the Trustee in a commercial bank accounts and such Government of Kenya securities as the trustee may determine.[116] The Trustee deals with such credit balances as the Trustee is from time to time deemed to have been directed by the Beneficiary as a result of the use by the Beneficiary of the M-Pesa service.[117] The beneficial entitlement of each Beneficiary to the Trust Fund at any time shall be to such amount of the Trust Fund in conventional money as is equal to the amount of e-Money in the M-Pesa Account of such a Beneficiary at such time. Safaricom is entitled to levy certain charges on Beneficiaries for the operation of the service. Where it does so, the mobile banking account of the relevant Beneficiary will be debited by the amount in e-money of the relevant charge and a mobile banking account of the phone company shall be credited with the

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[112] Alex Cukierman, 1998, Central Bank Strategy, Credibility and Independence: Theory and Evidence, MTI Press.
[113] M-Pesa is a Telco led mobile banking model.
[114] Mbiti Isaac and Weil David, 2011, Mobile Banking: The Impact of M-Pesa in Kenya, Cambridge, National Bureau of Economic Research. Available at: http://www.nber.org/papers/w17129, accessed on 29th July 2011.
[115] Joseph Kinyua, 2009, Ministry of Finance Audit Findings on M-Pesa Money Transfer Services, Ministry of Finance, available at: http://www.mairec org. accessed on 26th June 2011.
[116] Section 5 of the Trust Deed.
[117] Section 2 of the Trust Deed.

relevant amount.[118] The amounts constituting the Trust Fund are held by the Trustees in a reputable commercial bank. Safaricom undertakes to the Trustee and to the Beneficiary that it will not issue any new e-Money other than in return for an equal amount in conventional money being paid to and received by the Trustee. Safaricom cannot also effect any transfer of any e-Money from any mobile bank account of an amount which exceeds the credit balance of e-Money in the relevant mobile bank account.[119]

Central Bank evaluated the proposal on the basis of safety, reliability and efficiency of the service. In addition, it took precautionary measures to ensure that the services did not infringe upon the banking services regulatory framework as provided for under section 2(1) of the Banking Act. Central Bank of Kenya issued Safaricom a letter of no objection to the launch of M-Pesa in February 2007 which was launched in March the same year.[120] Hence the Trust Deed and the approval process brought mobile banking as operated by Safaricom under the oversight of Central Bank of Kenya. Similar arrangements are replicated with other mobile banking operators like YU and Airtel. The oversight role being undertaken by Central Bank of Kenya in coordination with Communications Commission of Kenya (CCK) has greatly minimized risks in the areas of liquidity management, settlement risks, the reliability of the system, the registration of users, system audit trail, anti-money laundering measures and consumer protection issues that could compromise the safety, efficiency, integrity and effectiveness of mobile banking. This oversight role is being undertaken on the basis of CBK's general oversight role over the monetary policy in Kenya as provided in the Central Bank Act and Banking Act. This oversight role is meant to regulate traditional banking but CBK has extended the same mandate to include mobile banking.

The Central Bank of Kenya focuses formulating monetary policy, promoting price stability, issuing currency which functions are intended to maintaining financial stability in the economy. This mandate does not address issues such as interoperability, privacy and confidentiality, dispute resolution and effective electronic contract formation on M-Pesa transactions which are

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[118] Ibid.

[119] Refer to the preamble to the Amendment Deed to the Declaration of Trust in favour of all M-Pesa Account Holders of Safaricom Limited.

[120] Alliance for Financial Inclusion, 2010, Case Study; Enabling Mobile banking Money Transfer. The Central Bank of Kenya's Treatment of M-Pesa, Alliance for Financial Inclusion.

issues posed by mobile banking. Therefore the regulator of mobile banking and the legal framework should be able to address all these issues to ensure sustainable mobile banking service in Kenya.

3.2.2 Banking Act[121]

The Banking Act is the main legislation that regulates the licensing, operation and management of institutions that carry out banking and financial services in Kenya. Institutions that fall in the realm of the Banking Act are institutions which perform banking and financial services. The critical question that begs an answer is; does mobile banking constitute banking business?

Section 2(1) of the Banking Act defines banking business to include;

a. the accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice;
b. the accepting from members of the public of money on current account and payment on and acceptance of cheques; and
c. the employing of money held on deposit or on current account, or any part of the money, by lending, investment or in any other manner for the account and at the risk of the person so employing the money.

Mobile banking services may by implication fall under the ambit of the Banking Act. A liberal interpretation of section 2 (1) on banking business, financial institution, financial business brings mobile banking within the fold of Act. Banking business and financial services include receiving money in deposits from the public repayable on demand. Once a customer tops up his mobile banking account the top up may be likened to depositing money in a bank account. The demand we make to the bank for withdrawal may also be likened to the withdrawal that is done by a message alert and receipt of the money through mobile banking agents. Whereas this interpretation cover the definition under section 2(1) a and b, mobile banking as practiced in Kenya does not cover aspects of lending and investment.

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[121] Cap 488 Laws of Kenya

This liberal interpretation can be evidenced in the case of *United Dominions Trust Ltd Vs. Kirkwood.*[122] In this case, the defendant was the managing director of a company which ran a garage business and the plaintiffs, U.D.T., were a large financial house which described itself as "bankers" and owned all the shares in a wholly-owned subsidiary which financed hire-purchase transactions. In 1961 the company borrowed £5,000 from U.D.T. to buy cars to put in their showrooms. As security for repayment, the company accepted five bills of exchange, each for £1,000, drawn on them by U.D.T. The defendant indorsed them. The bills were not met on presentation. U.D.T. gave notice of dishonour to the defendant. The company went into liquidation. U.D.T. sued the defendant as indorsee. The defendant alleged that U.D.T. carried on business as unregistered money-lenders and could not recover because of the provisions of the Moneylenders Acts. U.D.T. conceded that it had for many years made loans to customers and admitted at the trial that unless it carried on the business of banking within the meaning of section 6(*d*) of the Money-lenders Act, 1900, it must fail in the action. At the trial, evidence was given on behalf of U.D.T. as to its manner of conducting its business and the reputation which it enjoyed. The evidence showed, inter alia, that U.D.T. was generally regarded in the City of London as a bank and that the Inland Revenue treated it as such. Mocatta J. held that the defence based on the Money-lenders Acts failed and gave judgment for U.D.T. The plaintiff appealed.

Lord Denning considered UDT a bank by repute. He argued that the evidence adduced did not establish that U.D.T.'s conduct of its business had the usual characteristics of banking; but that the evidence of its reputation of carrying on the business of banking was sufficient to discharge the burden of proof and the appeal must be dismissed. The usual characteristics of banking at the present time are: (i) the acceptance of money from and collection of cheques for, customers and the placing of them to the customers' credit; (ii) the honouring of cheques on orders drawn on the bank by their customers when presented for payment and the debiting of the customers accordingly; (iii) the keeping of some form of current or running accounts for the entries of customers' credits and debits.

The judge further stated that a finance house cannot claim to be a banker simply because it conducts hire-purchase finance. There are other characteristics which go to make a banker, for example, stability, soundness and probity. Reputation may exclude a person from being a banker;

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[122] [1966] 1 All English Reports.

so also it may make him one. When merchants have established a course of business which is running smoothly and well with no injustice, it is not for the judges to bring it to a halt. U.D.T. has only succeeded because of its reputation and standing in the City of London as a banker. If any other concern should wish to be regarded by the courts as a banker, it ought to ask the Board of Trade for a certificate that it should be treated as a banker. This decision gives credence to the argument that mobile banking may be considered banking business depending on its reputation. Many Kenyans use their mobile phones to deposit, withdraw and send money. These services are ordinarily offered by the banks but the fact mobile phone companies offer them may by repute be said to be offering banking business.

The position in UDT had been taken in an earlier case, *Woods Vs. Martins Bank Ltd* and Another,[123] Salmon J. argued that the limits of a banker's business cannot be laid down as a matter of law; the nature of such a business must in each case be a matter of fact. In this case, the facts were that the plaintiff sought financial advice from the defendant and proceeded to act on the basis of that advice. It was within the scope of the bank's business to advice on all financial matters, and they owed a duty to the plaintiff to advise him with reasonable care and skill in the transactions.

In the contrary, mobile banking may also be argued as not to constitute banking business and therefore should not be regulated under the Banking Act. The Banking Act provides for the qualifications, regulation and operations of banking business which it would appear do not contemplate mobile banking. For example, the Treasury of Kenya Audit on Safaricom's M-Pesa service indicated that mobile banking does not fall within the definition of banking or financial business. The audit states that the mobile banking model in Kenya does not accept public money or deposits that are repayable on demand or at the expiry of a fixed period or after notice, operate current accounts nor employ money held or any part of the money for purposes of lending and investment.[124]

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[123] [1932] 1 KB 371.
[124] Supra note 115.

In *First National Finance Ltd vs Kutus Auto Hardware Limited & 2 others*[125] the plaintiff and the defendants had entered into a hire purchase agreement. The hire purchase agreement was titled a 'Hire Purchase Loan Agreement.' The defendants defaulted to pay hire purchase installments and the plaintiff sued. The issues for determination were the validity of the agreement under the Kenya law and whether the nature of relationship was that of hire purchase or loan agreement. After consideration of the arguments, Ochieng, J. concluded that the nature of the relationship was that of a loan and not hire purchase. In reaching this decision, the judge considered what constitutes banking business. He reasserted the definition in the Act and held that anything outside the clear definition of the Act is not banking business. This is a strict interpretation by the court on what constitutes banking business. If this interpretation is applied as a precedent in a case on mobile banking then mobile banking may not fit into banking business.

Further, the Central Bank of Kenya has issued a definite legal opinion that mobile banking is not banking business as per the words of Section 2(1) of Banking Act.[126] The Central Bank has given three reasons why mobile banking is not banking business and they include;

a. The cash exchanged with electronic monetary value are not repaid in terms but remains in the control of the Beneficiary. There is no credit risk involved.
b. The beneficiary's funds are not on-lent in pursuit of interest or business. Funds are pooled on a trust fund from which it is paid to the beneficiary as and when required.
c. No interest is payable on beneficiary deposits. E-money is not a deposit.

The scenario depicted in the above cases and the opinion adopted by CBK brings to the fore two schools of thought. On the one hand, banking business is interpreted as a matter of law by strictly adopting the provisions of the Act. On the other hand, banking business is interpreted as a matter of fact. In view of the fast changing model of transacting business world over, which has impacted on the manner in which customers conduct their business, its important that jurisprudence in the banking sector develops in a manner that expands the definition of banking business. In this regard mobile banking should be considered in light of the second school of thought that interprets banking business as a matter of fact.

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[125] [2006] eKLR
[126] Supra note 115.

In my view, it is important that the provisions of the Banking Act be interpreted widely to capture mobile banking in order to avoid a regulatory vacuum since there in no legislation of mobile banking per se. The provisions of the Banking Act relating to licensing, operation and management of institutions should apply to mobile banking service providers. For clarity there is an urgent need for the law to be amended to expressly bring mobile banking within the purview of banking business.

Pursuant to Section 33(4) of the Banking Act, the Central Bank Kenya has issued the Guidelines on Agency Banking.[127] Section 34 (4) empowers the Central Bank of Kenya to issue guidelines to be adhered to by institutions in order to maintain a stable and efficient banking and financial system. The Guidelines define an agent as an entity that has been contracted by a bank and approved by the Central Bank to provide the services on behalf of the institution.[128] This definition includes players in other sectors of the economy such as limited liability companies, sole proprietorships, partnerships, societies, cooperative societies, state corporations, trusts and public entities.

Guideline 1.5 provides the objectives of the Guidelines which are to provide a delivery channel for offering banking services in a cost effective manner, outline activities which can be carried out by an agent and to provide a framework for offering agent banking services. They also set out minimum standards of data and network security, customer protection and risk management to be adhered to in the conduct of agent banking business. The approval procedure in the guidelines ensures that the agent is stable to operate the agency functions assigned to it by the bank.

The Guidelines permit agents to carry out activities which previously were a preserve of the banks. These activities include: cash deposit and cash withdrawal, cash disbursement and cash repayment of loans, cash payment of bills, transfer of funds, mobile phone banking services and any other activity as the Central Bank may prescribe. These Guidelines bring mobile banking

[127] Guidelines on Agency Banking - CBK/PG/15, 2010.
[128] Guideline 1.4 of the Guidelines on Agency Banking - CBK/PG/15, 2010.

closer to the regulatory arm of the Banking Act if a mobile phone company network is used as a bank agent. Permissible activities of an agent include cash payment of bills, transfer of funds, balance enquiry and agent mobile phone banking services.[129] These activities are already being undertaken through M-Pesa, M-Kesho and YuCash on behalf of various banks.

As stated earlier the Guidelines are subsidiary legislations drawing their legal force from section 33(4) of the Banking Act. They prohibit agents from carrying out certain activities, regulates the agency agreement, management of agency relationships, risk management, consumer protection and reporting arrangements. If the bank or agent fails to comply with this Guideline, the Central Bank may pursue any or all corrective actions against the institution provided under the Banking Act. The measures are stipulated under the Banking (Penalties) Regulations, 1999 which apply to banks and other institutions licensed under the Banking Act to conduct business in Kenya.

These corrective measures are, however, against the Bank and institutions licensed under Banking Act. These measures do not apply to the agents since their actions are regarded as actions of the principal (Banks and financial institutions). These guidelines go a long way in entrenching good mobile practice in Kenya. There is need, however, for a deliberate endeavor to directly bring mobile banking within the regulation of the Banking Act.

3.2.3 Proceeds of Crime and Anti-Money Laundering Act[130]

As mobile banking grows in popularity and begins to offer more transactional services, such as complex fund transfers, the possibility of these services being exploited for criminal gains rises exponentially. For instance, the funds transfer services offered through mobile banking may be exploited and used to transfer or launder illegally obtained funds. To protect banks and telephone companies from being used as intermediaries to hide the origin and movement of criminal funds through mobile banking, there is need to put in place Anti Money Laundering (AML) policies and procedures.[131]

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[129] Ibid. Guideline 4.4.

[130] No. 9 of 2009.

[131] Rasheda Sultana, n.d. Mobile banking: Overview of Regulatory Framework in Emerging Markets, Grameenphone Ltd, Gulshan, Dhaka, Bangladesh.

In Kenya, the Proceeds of Crime and Anti-Money Laundering Act, 2009 provides for the offence of money laundering and to introduce measures for combating the offence, to provide for the identification, tracing, freezing, seizure and confiscation of the proceeds of crime, and for connected purposes.[132]

Section 44 requires a reporting institution to monitor on an ongoing basis all complex, unusual, suspicious, large or other transactions as may be specified in the regulations, whether completed or not, and to pay attention to all unusual patterns of transactions, to insignificant but periodic patterns of transactions that have no apparent economic or lawful purpose. The reporting institution should also under section 45 take reasonable measures to satisfy itself as to the true identity of any applicant seeking to enter into a business relationship with it or to carry out a transaction or series of transactions with it, by requiring the applicant to produce an official record reasonably capable of establishing the true identity of the applicant.

The Act defines a "reporting institution" as a financial institution and designated non-financial business and profession. It also defines a 'financial institution" as any person or entity which conducts as a business, *inter alia*, the following activities or operations: transfer, lending, and issuing and managing of money.

The definition of the reporting institution and financial institution includes both banks and non-bank institutions like telecommunication companies. Non-bank institutions like Safaricom are therefore under obligation to observe the provisions of this Act as they facilitate the transfer of funds through mobile banking.

The Act has established the Financial Reporting Centre which is tasked with the objective of assisting in the identification of proceeds of crime and the combating of money laundering. To achieve this, the Centre is supposed to receive and analyze reports of unusual or suspicious transactions made by reporting institutions. The Centre is required to report any incidences of money laundering to the relevant law enforcement agency. This arrangement is weak because, the Centre has no legal powers to directly prosecute the perpetrators of money laundering

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[132] Refer to the preamble of the Proceeds of Crime and Anti-Money Laundering Act No. 9 of 2009.

without depending on a third party. Further, the Centre has not been operationalised and this has negatively affected the fight against money laundering.

3.3 TELECOMMUNICATIONS SECTOR REGULATIONS ON MOBILE BANKING

Mobile banking is borne out of advancements in telecommunication technology. It is worth noting that in recent times technological advancement has been phenomenal in almost all sectors of the economy, calling for a review of the existing regulations to capture these advancements. The review of the existing regulatory framework in telecommunication industry will highlight the weaknesses that need to be addressed in so far as mobile banking regulations are concerned.

3.3.1 The Kenya Information and Communications Act[133]

The Kenya Information and Communications Act was enacted in 1998 with the aim of providing, among others, the establishment of the Communications Commission of Kenya (CCK). The CCK was established under section 3 of the Act as an independent organ to regulate the communications industry, which includes telecommunications. Section 5 (3) permits CCK to enter into association with such other bodies or organizations within or outside Kenya as it may consider desirable or appropriate and in furtherance of the purpose for which it is established. In this respect CCK may corporate with CBK in regulating mobile banking in Kenya. Mobile banking has a communication element by virtue of the fact that it uses communication system managed by CCK and therefore CCK's role is necessary.

In so far as telecommunications is concerned, the Commission is charged with the responsibility of licensing telecommunications service providers. Under section 24 it is an offence for any person to operate a telecommunication system or provide any telecommunications services without a licence. Section 27 empowers the Commission and the Minister for Communications to make regulations to provide for *inter alia* the privacy of telecommunication.

Since the enactment of the Kenya Information and Communications Act in 1998, there has been a massive advancement of technology in the telecommunications sector. Telecommunication channels have been employed for other purposes other than telecommunication, for example

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133 Cap. 411A Laws of Kenya.

mobile banking. People could use telecommunications industry for electronic commerce, mobile banking, internet revolutionized telecommunications etc. These advancements necessitated an amendment to the Kenya Information and Communications Act in the form of the Kenya Communications (Amendment) Act No 1 of 2009.

The amendment of 2009 expanded the responsibilities of the Communications Commission of Kenya. The Commission was further tasked with the function of facilitating the development of the information and communications sector (including broadcasting, multimedia, telecommunications and postal services) and electronic commerce.

Mobile banking uses electronic media for its transactions. The amendment defines the word electronic as relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.[134] The Act does not, however, define the term electronic commerce. Electronic Commerce (e-commerce) is a generic term which embraces several electronic transactions. Because of its generic nature, there has not been a universal consensus on the transactions which may be classified as e-commerce. E-commerce may include electronic data interchange, electronic mail and internet transactions, electronic money transfers etc. It may be defined as any form of business, administrative transaction or business information exchange which is executed using information or communication technology.[135] Zaveri defines e-commerce as anything that involves an online transaction. This ranges from ordering online, through online delivery of paid content, to financial transactions such as movement of money between bank accounts.[136]

From the definitions above it is clear that the use of the word electronic commerce in the Act contemplates mobile banking (electronic payments of money) mobile banking involves electronic transactions.

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[134] Section 4 of the Amendment Act which amends section 2 of the Kenya Information and Communications Act.

[135] Murray C, Holloway D, Timson-Hunt. (2007). Schmitthooff's Export Trade: the Law and Practice of international Trade, 11 ed, London, Sweet &Maxwell, P. 859-878.

[136] Zaveri, B. n.d. E-commerce: Challenges and Opportunities. Baroda, M.S. University Baroda Available at: http://www.indianmba.com/Faculty_Column/FC822/fc822.html (accessed 10 June 2009). Kenya has drafted an Electronic Transactions Bill, which is intended to regulate and facilitate e-commerce. The Bill defines e-commerce as the use of electronic networks to exchange or transfer business information, services, products and payments, through the internet.

Part VIA of the Act deals with electronic transactions. Section 83C enhances the functions of the Commission in relation to electronic transactions as follows:

a. facilitate electronic transactions by ensuring the use of reliable electronic records,
b. facilitate electronic commerce and eliminate barriers to electronic commerce such as those resulting from uncertainties over writing and signature requirements,
c. promote public confidence in the integrity and reliability of electronic records and electronic transactions,
d. foster the development of electronic commerce through the use of electronic signatures to lend authenticity and integrity to correspondence in any electronic medium,
e. promote and facilitate efficient delivery of public sector services by means of reliable electronic records,
f. Develop sound frameworks to minimize the incidence of forged electronic records and fraud in electronic commerce and other electronic transactions.

These sections require CCK to address issues of confidence, security, confidentiality, consumer protection and public confidence as posed by mobile banking. If the Commission properly implements these functions then mobile banking may be regulated to some extent.

The Act has provisions on protection of privacy, confidentiality and security issues in electronic transactions. Section 83E mandates the Communications Commission of Kenya to grant licenses authorizing a person to provide electronic certification services. The licence granted under this section may require a licensee to adhere to procedures that ensure that the secrecy and privacy of the electronic signatures are assured. However, the enforcement mechanisms in the Act are not adequate and the Commission has not taken serious measures against the perpetrators of the offences under the Act such as causing a computer system to perform any function for the purpose of securing access to any program or data held in any computer system, with intent to commit an offence under any law;[137] intercepting or causing to be intercepted or securing access to any computer system for the purpose of obtaining, directly or indirectly, any computer service

[137] Section 83V of the Amendment Act.

for unlawful purposes,[138] disclosing any password, access code, or any other means of gaining access to any program or data held in any computer system for wrongful gain or unlawful purpose or cause prejudice,[139]and securing access or attempts to secure access to a protected system in contravention of the law.[140] These offences if enforce would address issues of privacy, confidentiality and consumer protection.

In section 83R the Minister for Communication is required to prescribe regulations on, *inter alia,* the control of the processes and procedures to ensure adequate integrity, security and confidentiality of electronic records or payments in electronic commerce. The Minister has, however, not prescribed such regulations and this is a big blow to the protection of security, confidentiality and security in e-commerce. Section 83N further seeks to ensure security by providing that where any security procedure has been applied to an electronic record at a specific point of time, then such record shall be deemed to be a secure electronic record from that point of time of verification.

This Act amends section 4 of the Penal Code[141] by inserting the definition of an "electronic record." It defines electronic record as a record generated in digital form by an information system which can be transmitted within an information system or from one information system to another, and stored in an information system or other medium. It also amends sections 267 of the Penal Code by inserting a new subsection (9) which provides that information is capable of being stolen. The Act further amends section 347 of the Penal Code which outlaws making of false documents. The Penal Code now recognizes making and transmitting of false electronic record or affixing of digital signature or making any mark denoting the authenticity of a digital signature a criminal offence. It also recognizes electronic documents and seeks to protect the public from fraudulent activities over the internet. The Penal Code prescribes the same penalty for theft of electronic materials just like any other theft.[142]

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[138] Ibid. Section 83V.
[139] Ibid. Section 83Z.
[140] Ibid. section 84 F.
[141] Cap 63 Laws of Kenya.
[142] Section 275 of the Penal Code.

Pursuant to section 83R of the Kenya Information and Communications Act, the Minister has made the Kenya Information and Communications (Electronic Certification and Domain Name Administration) Regulations, 2010. The regulation provide for licensing of electronic certification services, recognition of foreign certification service providers, responsibility of certification service providers and liability of certification service providers. This regulation ensures confidentiality and security of electronic transactions making execution of electronic contracts easy.

On consumer protection, the Minister has made the Kenya Information and Communications (Consumer Protection) Regulations, 2010. This regulation defines the rights and obligations of the consumer. A service provider is tasked with the responsibility of ensuring that the consumer is safe by taking appropriate technical and organizational measures.[143]

The provisions of the Kenya Communications (Amendment) Act as outlined above are progressive in the sustainable development of mobile banking in Kenya. They address issues of confidentiality, consumer protection, aspects of contract formation, safety and privacy of the mobile banking network. The Act is, however, weak in addressing confidentiality, consumer protection, contract formation, safety and privacy, interoperability in relation to mobile banking.

3.4 MOBILE BANKING POLICY GUIDELINES

Kenya has not formulated any policy on mobile banking hence leaving a big gap in mobile banking regulation. There is need to have a mobile banking policy to address mobile banking as a new sector.

The only available policy formulated by CBK that is related to mobile banking is the Oversight Policy Framework for Payment Systems. This is a Policy document formulated pursuant to Section 4A (1) (D) of the Central Bank Act which empowers the Bank to formulate and implement such policies as best to promote the establishment, regulation and supervision of efficient and effective payment, clearing and settlement systems. The Central Bank of Kenya has continued to oversee the money transfer service in line with this Policy Framework.[144]

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[143] Section 4 of the Kenya Information and Communications (Consumer Protection) Regulations, 2010.
[144] Central Bank of Kenya, 2009, Oversight of Payment Systems in Kenya Central Bank of Kenya,– October 2009

Payment systems are arrangements that facilitate fund transfers between parties in settlement of financial obligations. It comprises the networks, participants and financial institutions. A payment system requires agreed technical standards and settling claims amongst members.[145]

The Central Bank works with other authorities like the CCK under the policy to ensure that Kenyan payment systems service providers and operators make adequate plans to support continuity of operations and to respond effectively to actual or potential disruption.[146] Payment systems can expose their members to financial, operational and legal systematic risks. Their interlinked nature implies that problems in one or more members are likely to have direct and knock-on effects on other members in a "domino-like" manner, extending perhaps beyond the system itself to users. This may also arise from operational failure or malfunction leading to unexpected financial exposures among members. The mitigation of systemic risk is an important element of the Central Bank of Kenya's undertaking oversight leading to the design and operation of an effective payment systems oversight framework. Under the power granted to CBK Oversight Policy Framework for Payment Systems, CBK has been overseeing and licensing mobile banking services like M-Pesa.[147]

Further, to CBK policies, the CCK has also developed Information and Communications Technology Sector Policy Guidelines.[148] The Guidelines were released following an extensive consultative process with stakeholders. They guide the operation and management of information technology in Kenya. The policy supports e-business by requiring the government to develop a favorable regulatory framework, promote e-business through public awareness and encourage cooperation.

3.5 PENDING BILLS

3.5.1 Electronic Transactions Bill, 2007

The government is spearheading further legal reform in the area of electronic commerce and has now drafted the Electronic Transactions Bill, 2007 which is still pending in Parliament. The main

[145] Ibid.
[146] Ibid.
[147] Supra note 120.
[148] Kenya Gazette Notice Vol. CVIII – No. 24.

aim of this Bill is to facilitate and promote the use of electronic transactions in Kenya by creating legal certainty and public trust around transactions which are conducted with various forms of information and communications technologies.[149]

The Electronic Transactions Bill is drafted in line with the UNCITRAL Model Law on Electronic Commerce. It seeks to promote the development of e-commerce by reducing uncertainty about the legal effect of electronic information and electronic communications by allowing certain paper based legal requirements to be satisfied by electronic means. Although the Kenya Information and Communications Act consolidate legislations for information and communication technology (ICT), telecommunications, broadcasting and postal industries, the Electronic Transactions Bill, 2007 seeks to address the section on ICT without repealing any section of the Kenya Information and Communications Act. This kind of legislative drafting poses the risk of conflict of legislation, duplication of regulation tasks between regulators. The Bill contains several provisions which seek to address pertinent issues, notably privacy and security, contract formation on offer and acceptance, identification of parties to contract and paper based concepts.

Part II of the Bill provides for regulatory framework on electronic transactions. Section 4 of the Bill proposes an integrated regulatory framework made up of the Central Bank (CBK), the Communications Commission of Kenya (CCK) and other bodies. This provision recognizes that mobile banking is a service that cuts across more than one sector of the economy and therefore this integrated approach is appropriate. The Central Bank of Kenya and the Communications Commission of Kenya are key institutions in mobile banking transactions. The involvement of the Central Bank of Kenya is important since in mobile banking, money remains a key medium of exchange and the Bank is responsible for monetary issues. The Communications Commission of Kenya is also important because mobile banking essentially relies on Information and Communication Technology (ICT) in which CCK has relevant expertise and experience.

While the integrated approach to regulation is laudable, the Bill's main weakness is that it does not explain how the regulatory body should be constituted. The question is whether there should

[149] See preamble to the Electronic Transactions Bill, 2007.

be an established independent body whose membership is drawn from officers in various relevant government bodies; or whether there should be different ministries and government bodies overseeing the implementation of sections of the Bill which are applicable in their respective areas of operation. This is an area which the Bill should provide clarity.

Section 30 of the Bill seeks to protect personal information from unauthorized access or destruction. It further amends the Penal Code by introducing several cybercrimes which if implemented would ensure security in e-commerce. The Bill therefore recognizes the need to protect privacy and ensure security in e-commerce as a way of bestowing confidence amongst the players.[150]

A more extensive provision on electronic signature is needed and should take the form provided by the UNCITRAL Model on Electronic Signatures. This will eliminate any uncertainty that surround electronic signatures in mobile banking and also establish the authenticity of transactions.

The Bill has, however, been pending deliberation in Parliament since 2007 and it does not therefore form part of Kenya's regulatory mechanism. The Bill fails to address issues like consumer protection, dispute resolution and interoperability.

3.5.2 National Payment System Bill

The National Payment System Bill, 2011provides for the regulation and supervision of payment systems and payment service providers in Kenya. It defines a payment system as an arrangement that enables payments to be effected between a payer and beneficiary, or facilitates the circulation of money, and includes any instruments and procedures that relate to the system. It also describe a payment service provider as a person, company or organization acting as provider to sending, receiving, storing or processing of payment or provision of other service in relation to payment service through any electronic system. Mobile banking service providers fall within the ambit of these definitions.

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[150] See also the commentary to the section on privacy and security contained in the Bill.

Section 3 of the Bill mandates CBK to designate a payment system if in its opinion the payment system poses systematic risk, the designation is in the interest of the integrity of the payment system and in the interest of the public. To this extent CBK extends its supervisory role to mobile banking.

To protect the public from exploitation, the Bill prohibits any advertisement, brochure, circular or any form of representation by people who are not licenced as payment service providers.[151]

3.5.3 Draft Regulation for the Provision of Electronic Retail Transfers

This regulation is issued in terms of section 57(1) read with section 4A of the Central Bank of Kenya Act which requires the Central Bank (the Bank) to formulate and implement policies to promote the establishment, regulation and supervision of efficient and effective payment, clearing and settlement systems. The Regulations facilitate the provision of electronic payment services without compromising the safety and efficiency of the national payment system and provide minimum standards for consumer protection and risk management to be adhered to by all providers of retail transfers.

Retail transfers are described as payment instruments consisting of instructions issued by a payer to a payment service provider to debt a payment account and credit the payment account of a payee or to make the funds available, directly or through another payment service provider. A service provider means a person engaged in the sending, receiving or storing or processing of retail transfers. Mobile banking service providers may be considered as payment service providers in this sense hence engaged in retail transfers.

The regulations provide for consumer protection by making it mandatory for payment service providers to make a clear and understandable description of the service which they offer. Such will include rates, terms, conditions and charges for such services and shall publish information to the same effect. The regulation intends to establish a customer care system to which clients can make enquiries and complaints concerning retail transfer services.

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[151] Section 29 of National Payment System Bill, 2011.

The CBK has an oversight role provided under section 14 of the regulation over every payment service provider. The aspect covered under this supervisory role include payment volumes, values, incidents of fraud, theft and robbery, material service interruptions and major security breaches including remedial measures.

These draft Regulations if adopted will ensure that regulation of mobile banking in Kenya is enhanced. It will ensure that mobile banking service providers operate within the supervisory role of CBK.

3.5.4 Conclusion

The existing legislations and pending Bills discussed above do not directly address mobile banking but do so by implication. Out of all the legislations, the Kenya Information and Communication Act moves closer to regulating the technological aspects of mobile banking electronic signatures and documents. The banking laws discussed and pending Bills relating to money transfers empowers Central Bank to play a supervisory and oversight role.

3.6 TECHNOLOGY BASED REGULATION

Laws are not always a perfect mode of regulation especially in a fast changing sector like mobile banking and therefore other means of regulation are necessary.[152] The laws analyzed above are not adequate and to a greater extent technological means need to be used. The argument is that legal rules are not technologically neutral and flexible enough to adapt to the fast changing sector. Technology has been held to contain its own inherent means of regulation; the *lex informatica*. Reidenberg in his article entailed, *Lex Informatica*, has defined *lex informatica* as a collection of technology based policies, rules and technology devices that regulate behavior in the information technology sector.[153]

Technological capabilities and system design have been held to be sufficient to impose rules on those taking part in mobile banking.[154] The set of rules for information flows imposed by

[152] Trubeck, D, Marc G. (1974), Scholars in self-estrangement: Some reflections on the crisis in law and development studies in the United States, Wisconsin Law Review.

[153] Joel R. Reidenberg, 1996, Governing Networks and Rule-Making in Cyberspace, 45 Emory L.J. 911, 917-18.

[154] Reidenberg J, 1998, *Lex Informatica*: The Formulation of Information Policy Rules through Technology, Texas Law Review, Volume 76, Number 3, February 1998.

technology and communication networks form a *lex informatica* that policymakers must understand, consciously recognize, and encourage.

In certain areas of information technology such as content restrictions, the treatment of personal information and security technological solutions may provide the sort of flexible and customizable systems needed to successfully regulate. Some of the technology solutions to regulation include passwords, encryption keys and configurations.

Lex Informatica is important and provides three main advantages as opposed to traditional rule regulation. Firstly, technological rules do not rely on national borders. Mobile banking activities may take place across national borders and this poses jurisdictional challenges to the traditional legal regimes. In contrast, the jurisdiction of *Lex Informatica* is the network itself. Technologically implemented rules apply throughout the relevant network. As such, *Lex Informatica* reaches across borders and does not face the same jurisdictional, choice of law problem that legal regimes encounter when networks cross territorial or state jurisdictional lines.

Secondly, *Lex Informatica* allows easy customization of rules with a variety of technical mechanisms. *Lex Informatica* allows customized rules to suit particular network situations and preserve choices for individual participants. *Lex Informatica* can provide for this flexibility and customization through the adoption of technological standards and configurations that may tailor rules to the precise circumstances or that may empower individual participants to make their own decisions.[155]

Lastly, technological rules may also benefit from built-in self-enforcement and compliance-monitoring capabilities.[156] *Lex Informatica* offers two particularly valuable enforcement advantages. First, technological devices can be readily developed to monitor compliance with both information policy rules and legal norms and to enforce specific policy choices. Secondly, *Lex Informatica* relies typically on *ex ante* measures of self-execution. Filters and translations, for example, apply to block information flows that violate the information policy rules.

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[155] Mark A. Lemley, 1996, Antitrust and the Internet Standardization Problem, 28 CONN. L. REV. 1041, 1043-54.
[156] David R. Johnson & David Post, (1996) Law and BordersCThe Rise of Law in Cyberspace, 48 STAN. L. REV. 1367.

It is noteworthy that *Lex Informatica* is a very important regulatory tool that should be employed by all players in mobile banking. In Kenya, banks and telecommunication companies have developed various technology devices like passwords to ensure that mobile banking systems are secure.

The Communications Commission of Kenya has in collaboration with stakeholders developed a code of practice for the deployment of communications infrastructure, and is in the process of developing mechanisms for enforcing it.[157] The Code of Ethics aims to create a framework that will guide the rollout of communications network infrastructure throughout the Republic of Kenya in such a way that commercial, environmental as well as consumer concerns are addressed in a sustainable way for the benefit of all.

Companies that offer mobile banking business are obliged to comply with both the policy and the code of ethics. Compliance with these codes of ethics instills discipline and ethical behavior hence beneficial to mobile banking.

In so far as mobile banking is concerned, there are no specific codes of ethics to guide the players in their operations in Kenya on matters of privacy, confidentiality and security issues brought about by mobile banking. The National Information and Communications Technology (ICT) Policy recognizes that there is need for such a comprehensive policy, legal and regulatory framework to address issues such as privacy, e-security, ICT legislation, cyber crimes, ethical and moral conduct, copyrights, intellectual property rights and piracy.[158] There is need to have a society of mobile banking providers which will set specific sector policies and code of ethics.

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[157] Industry Code of Ethics, available at: http://www.cck.go.ke/regulations/codes_of_practice.html. accessed on the 1st March 2011.
[158] Ministry of Information & Communications, (2006), National Information and Communications Technology (ICT) Policy, Ministry of Information & Communications., pg.4.

3.7 CONCLUSION

The existing legal framework has several provisions as highlighted above that can be applied in regulating mobile banking. The CBK can use its wide powers under its monetary supervisory role as it does currently to ensure that mobile banking services adhere to acceptable standards. CCK can also use the provisions of the Kenya Information and Communications Act and the amendments thereto to ensure that issues of privacy, confidentiality, interoperability, contract formation, consumer confidence, dispute resolution are addressed.

Despite the existence of these provisions of the law, the regulatory regime is still weak in its regulatory function of mobile banking. The provisions of the existing legal and regulatory framework do not directly refer to mobile banking and their application is basically a matter of interpretation. It is not clear which entity is squarely tasked with the responsibility of regulating mobile banking in Kenya. Some efforts have been undertaken to foresee sustainable regulation and development of mobile banking. The Electronic Transaction Bill, 2007 is a good Bill that needs to be enacted to help in mobile banking regulation. It, however, needs to be amended to remove any potential conflicts. If this is done, the same will provide legal certainty in mobile banking transactions. Much of the confusion and slow rate of reform in this area has been attributed to the lack of a focused regulatory body to spearhead the reform. With the right regulatory framework, mobile banking is bound to develop sustainably.

The next chapter will discuss the characteristics of the best regulator of mobile banking in view of the discussions in the preceding chapters.

CHAPTER FOUR

WHO SHOULD REGULATE MOBILE BANKING IN KENYA?

4.1 INTRODUCTION

The question on who should regulate mobile banking in Kenya has occupied policy makers for some time now. A sound regulatory framework should be accompanied by a strong and capable regulator. Currently mobile banking regulation in Kenya is being undertaken by both the Communications Commission of Kenya (CCK) and the Central Bank of Kenya (CBK). This chapter discusses the essential features of a suitable mobile banking regulator. It presents a comparative analysis of CCK and CBK to determine which of the two is to regulate mobile banking. It further presents arguments for and against a consolidated regulatory framework.

4.2 ESSENTIAL FEATURES OF A MOBILE BANKING REGULATOR

Mobile banking, is not only new and fast evolving but also sits at the overlap of several regulatory domains namely banking, telecommunications, payment system supervision and anti-money laundering. This overlap substantially raises the risk of coordination failure, where legislation or regulatory approaches are inconsistent or contradictory.

For example, on the one hand, the key objective of telecommunication regulation is the control of market power, whereby the conditions for competitive provision of services are created. Telecommunications regulators seem to generally take the position that mobile operators are licensed to transfer information over mobile networks including financial information, with the risk being minimal, and with no new or unusual telecommunications issues.[159]

On the other hand, banking regulations are based on the need for addressing problems of information asymmetry, financial stability and controlling the creation of money outside the government monopoly. It is about regulating risk to the system and risk to the economy.

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[159] Wishart, N. (2006) Micro-payment systems and their application to mobile networks: Examples of Mobile enabled services in the Philippines." Infodev.

Moreover, bank regulators define their object of regulation for m-money not on whether the relevant entities call themselves banks but on the terms and conditions of how the money that they take from or pay to customers is treated and whether or not they extend credit to customers. Some of the issues that have been commonly discussed with respect to mobile money pertain to authentication, such as knowing your customer (KYC), authorization and integrity of the transaction, monitoring the amounts kept by individuals and the amounts they send (anti-money laundering), security and redress mechanisms, among others.[160]

From the above it is clear that the objective of telecommunications regulations differs fundamentally from that of banking regulation and no one side of the sector can adequately regulate the other. It is therefore important that whatever features that the regulator of mobile banking has should include features combining capabilities in both industries. By its nature mobile banking deals with technology and finance and therefore the features of an ideal regulator should include technological and financial capabilities.

4.2.1 Technological capability

Mobile banking operates on the basis of complex technology that poses certain inherent and unique risks for the mobile banking regulator to handle. Mobile banking speeds up the velocity of money in the economy, involves electronic transactions that need to be monitored, and uses electronic signatures that need verification etc. In light of these unique challenges, the best regulator of mobile banking should have adequate knowledge on the technology used in mobile banking. Its personnel must constitute information technology experts.

On the issue of electronic signature, for example, mobile payments require the accepted use of electronic signatures, such as a Personal Identification Number (PIN) but also including biometric identifiers,[161] to authorize transactions.[162] If the e-signature is not legally valid or technically sound, the transaction could be subject to challenge, exposing payment agents and payees to the risk of repudiation. There is, therefore, a need to provide status to electronic

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[160] Bångens, Dr. L. and B. Söderberg (2008) "Mobile Banking –Financial Services for the Unbanked?" The Swedish Program for ICT in Developing Regions, SPIDER.

[161] Biometric identifier is an identity system which automatically recognizes an individual based on measurable biological characteristics.

[162] Sookman, 2006, 'Computer, Internet, and Electronic Commerce Law', Thomson and Carswell.

transactions equivalent to that achieved by physical signatures. PIN numbers are already in widespread use in Kenya—for example, as a security feature on mobile phones—but not yet as e-signatures. Kenya is yet to adopt legislation enabling e-signatures. It is unlikely that individuals will accept the risk of accepting or making larger e-payments, or build new business cases on the receipt of e-payments, if their validity may be challenged. Establishing the legal validity of e-signatures is therefore a need for the m-payment/mobile banking market to grow to scale. The regulator must therefore have the technical and operational knowledge on the secure use of electronic signatures.[163]

The regulator should be flexible and open to technological change in so far as regulation is concerned. The regulator should not only respond to the technological development alone but also respond in an efficient way to changing market structures by way of becoming part of the dynamism of the market conditions to fulfill consumer demands.[164]

4.2.2 Technological neutrality

The mobile banking regulator must be able to exercise neutrality in the regulation of mobile banking technology. The term technological neutrality has been ascribed many meanings some of which are discussed below.

First, the regulator should be able to distinguish between regulating the technology and the effects of technology. Technological neutrality demands that the regulator should actually regulate the effects of technology as opposed to the technology itself. The functions of technologies can also be regulated, since these functions generally define the uses to which the technology can be put and hence the effects that can be achieved.[165]

Second, the regulator should be able to appreciate functional equivalence between different modes of activity, in particular electronic and non-electronic. The equivalency rule demands that the regulator should treat functionalities of mobile banking the same way it treats functionalities

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[163] Xavier, P. (1997) 'Universal service and public access in the networked society', Telecommunications Policy 21 (9/10), pp. 829-843.
[164] Rajab A. (2009), Technological Neutrality, Lex Electronica, vol. 14 No 2, 2009).
[165] Krueger, M (2002) "Innovation and Regulation: The Case of E-money regulation in the EU", Background Paper no.5, EPSO,

in traditional banking.[166] For example, paper based notions such as "writing", "signature" and "original" must be appreciated in their electronic equivalency like, e-signatures, electronic writing and documents.

Third, the regulator should not act in a discriminatory manner in favor of one form of technology because this will reduce competition in the technology market.[167] Further, the regulator should be able to encourage interoperability. Interoperability as explained in chapter two entails having compatible systems between the mode of transmitting information from mobile phones to banks, and compatible systems across countries if it is to expand on a global scale. Given the novelty of the service, different models and forms of mobile money transfers are currently being implemented. Interoperability, both at the local and global scale, would offer significant value to customers, especially for developing countries with large populations working overseas by enabling trans-network transfers.[168] Without interoperability, the fixed costs of deploying financial infrastructure may be much harder to recover, since usage per item of proprietary infrastructure will fall. One solution to the problem of interoperability is to make it a mandatory requirement that players practice it.[169]

4.2.3 Financial Knowledge

A mobile banking regulator should have knowledge in formulation and implementation of monetary policy directed to achieving and maintaining stability, liquidity, solvency and proper functioning of a stable financial market.[170] The Central Bank of Kenya is indeed well equipped with the financial knowledge to handle any financial challenges. The Communications Commission of Kenya, on the other hand, does not have sufficient financial knowledge to be able to carry out the financial angle of mobile banking efficiently.

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[166] Heidegger, Martin (1977): The Question Concerning Technology and Other Essays (trans. William Lovitt). New York: Harper & Row

[167] Porteous, D. (2006) The enabling environment for mobile banking in Africa. Report commissioned for the Department for International Development (DFID).

[168] Ibid.

[169] Ibid.

[170] Lyman T. (2006) Use of Agents in Branchless Banking for the Poor: Rewards, Risks and Regulation, CGAP Focus Note 38 (October 2006).

4.3 WHICH IS THE APPROPRIATE REGULATOR: THE CENTRAL BANK OF KENYA OR THE COMMUNICATIONS COMMISSION OF KENYA?

Currently, mobile banking in Kenya is jointly regulated by the Central Bank of Kenya (CBK) and the Communications Commission of Kenya (CCK). However, the CBK has concentrated most on regulation of the financial aspect of mobile banking and the CCK is focused more on the technology side.

The mandate of the CBK is stipulated under Section 4 of the Central Bank of Kenya Act and it entails: formulation and implementation of monetary policy directed to achieving and maintaining stability in the general level of prices, foster liquidity, solvency and proper functioning of a stable market based financial system, and support the economic policy of the Government. None of its mandates directly deals with regulation of mobile banking in Kenya. The Central Bank has, however, regulated certain aspects of mobile banking, like payments systems and agency, which have an effect on its core mandate.

As discussed in chapter three, CBK vets the various mobile phone providers before they are allowed to engage in mobile banking. It is, however, noteworthy, that in the vetting process CBK requires the three qualities discussed above, i.e. technological capability, technological neutrality and financial knowledge. While CBK is well endowed with financial knowledge and experience, it lacks the equally important technological capability and neutrality.

On the other hand CCK is the regulatory authority for the communications sector in Kenya. CCK's initial mandate was regulation of the telecommunications and postal/courier sub-sectors, and the management of the country's radio frequency spectrum. In recognition of the rapid changes and developments in technology which have blurred the traditional distinctions between telecommunications, information technology (IT) and broadcasting, the Government in January 2009 enacted the Kenya Communications (Amendment) Act. This statute enhanced the regulatory scope and jurisdiction of CCK, and effectively transformed it to a converged regulator.[171]

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[171] Communications Commission of Kenya website: http://www.cck.go.ke/about/. Accessed on 3rd March 2011.

CCK is now responsible for facilitating the development of the information and communications sectors (including broadcasting, multimedia, telecommunications and postal services) and electronic commerce. Under electronic commerce, CCK is mandated to oversee development of mobile banking. CCK has a wide experience in regulation of the mobile banking technology but lacks financial knowledge.

From the discussion above, it is clear that neither the Central Bank of Kenya nor the Communications Commission of Kenya has all the qualities necessary to regulate mobile banking in Kenya. It is therefore necessary to pursue the most suitable model of regulation for mobile banking in Kenya.

4.4 A CASE FOR AND AGAINST A CONSLIDATED APPROACH TO MOBILE BANKING REGULATION IN KENYA

As discussed earlier, the Central Bank of Kenya and the Communications Commission of Kenya play leading roles in regulating mobile banking in Kenya. Mobile banking regulation may take any of the following four ways; namely, that Central Bank of Kenya be enhanced with technological capacities to undertake mobile banking fully, or that the Communications Commission of Kenya be enhanced with the banking knowledge to fully undertake mobile banking regulation, or that the two regulators should cooperate or even be amalgamated/consolidated in regulating mobile banking, or that there should be a total independent body charged with mobile banking in Kenya. Any of the four ways of mobile banking may be explored to come up with the best form of regulation.

Several arguments may be put forward for and against consolidating mobile banking regulation with any of the regulators or even amalgamating the two regulators. The first two ways of regulation are cases of separate regulatory framework and the last two are cases of amalgamation or consolidation. What follows are justifications for and against consolidation of regulation regimes.

4.4.1 Arguments for consolidation of mobile banking regulators

A consolidated regulation regime is able to uniformly monitor both banking and technological risks hence providing a more comprehensive and harmonious solutions. When the regulators are different they may end up prescribing conflicting solutions to risks. Further, if you have either of the regulators, CBK or CCK, regulating mobile banking it may be difficult to draw a view of the overall risks facing mobile banking because of its overlapping nature. Therefore, the need for the structure of regulation to mirror the structure of the industry is one of the most compelling arguments for consolidation.[172]

Another popular argument for consolidation in regulation arises from the cost efficiency gains that can be obtained by consolidating multiple regulators into a single body. Clearly a consolidated regulator will only have one set of service departments such as administration, finance and human resources hence reducing on staff and other overhead costs. Indeed, even core departments like legal, research, and public awareness can be unified into a single department in the new consolidated regulator leading to significant cost savings. Where there are overlaps in registration and licensing then consolidation will also bring cost reductions and efficiency gains by allowing regulated entities to have a one-stop shop licensing procedure as opposed to multiple registrations.[173] This justification can be used to justify consolidation of regulations for mobile banking.

A consolidated regulatory regime may strengthen accountability since only one regulator is responsible. In cases of different regulators, one regulator may pass the blame on the other in case of any failure. A consolidated financial regulator would be responsible for supervising all entities and products in the financial sector and would be duly held accountable.[174]

4.4.2 Arguments against consolidation of mobile banking regulators

It has been argued that consolidation of regulation reduces effectiveness because of the enormous task of regulation one regulator has to undertake. There may be increased bureaucracy

[172] Abrams Richard and Taylor Michael (2000). Issues in the Unification of Financial Sector Supervision, IMF Working Paper.
[173] Ibid
[174] Briault, Clive (2002). Revisiting the rationale for a single national financial services regulator, FSA Occasional Paper No. 16.

and the regulator may have diversity of objectives hence striking the appropriate balance between these may be difficult. Indeed, the different objectives may clash forcing the regulator to have to choose between policies some of which may favour one sub-sector over the others.[175]

Consolidation may undermine overall effectiveness of supervision if the unique characteristics of the sub sectors are not recognized. Operations may become so broad based that they deny managers a chance to understand specific sub-sectors. In developing countries where some sub-sectors are less developed than others there is a danger of regulation of the dominant sector - like banking - overriding the others resulting in the smaller sub-sectors, which may require more flexibility, not getting the attention they require to develop. Indeed where multiple regulators are merged but one pre-merger regulator dominates in terms of size and staffing it may subsume the other regulators at the expense of focus paid to those sub-sectors.[176]

A consolidated regulator is effectively a regulatory monopoly which may give rise to inefficiencies and sub-optimal resource allocation associated with monopolies. There may be merit in having a degree of competition between regulators as this enables learning from each other and striving to out-perform the others. In Kenya we have seen ideas from one financial sector regulator adopted by others in a modified form hence benefiting all the subsectors.

Consolidation of regulation is a complex matter since a number of issues arise that need to be addressed.[177] Firstly, consolidation requires a review of all the existing statutes pertaining to each sub-sector to provide for the new consolidated framework or replacing them with a new comprehensive framework.[178] Secondly, the uncertainty of the merger process inevitably results in the departure of key personnel from the regulatory agencies. Once information is made available that the existing regulators will be merged, talented staff may opt to move to the private sector or retire to avoid the uncertainty and difficulty of the change. Thirdly, each independent

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[175] Carmichael, Jeff (2002). Australia's Experience with Integrated Regulation. Paper presented to Regional Seminar on NBFis in East Asia, Bangkok.

[176] Martinez, Jose de Luna and Rose Thomas (2003). International Survey of Integrated Financial Sector Supervision, World Bank Research Working Paper No. 3096.

[177] Quintin, Marc and Taylor, Michael (2004). Should Financial Sector Regulators Be Independent, IMF Economic Issues No. 32.

[178] Ibid

regulator will have its own culture and means of doing business.[179] Any merger, therefore may not be complementary.

Regulators will have differing procedures and tools. Some may have international standards accreditation while others may not. Bringing these divergent cultures under a unified structure is a major challenge which requires a well conceived and effectively monitored change management program. Lastly, each regulator will have its own information technology and other infrastructure for doing its core business. Regulated entities may have invested heavily in having systems that can provide data in the format required by the regulator's system. Bringing the different platforms into a unified one may not be possible without major upheavals.

4.5 EXPERIENCES OF OTHER COUNTRIES

In Africa, the other country with reasonably developed mobile banking regulation is the Republic of South Africa where, just like in Kenya, mobile banking regulation is spearheaded by the South African Reserve Bank (equivalent to Central Bank of Kenya).[180] On 1st July 2009, South Africa amended the Regulation of Interception of Communications and Provision of Communication-related Information Act, to assist law enforcement agencies with the tracing of criminals where mobile phones are used to commit major crimes. The Act prohibits mobile network operators from activating a new SIM card unless they have captured the customer's identity. This enhances the banking principle of Know Your Customer. Further, the South African Reserve Bank provides guidelines on opening and administering mobile bank accounts which is done in conjunction with the Independent Communications Authority of South Africa. This clearly indicates that mobile banking regulation is in collaboration between the bank regulator and telecommunications regulator though the former plays a dominant role. This is no different from what happens in Kenya where both CBK and CCK work in collaboration.

In Pakistan, both bank-led and telco-led mobile banking services are available. In regulating mobile banking, risks in mobile banking are classified as agent-related and e-money related

[179] Ibid

[180] Supra 128.

risks.[181] Agent-related risks arise from substantial outsourcing of customer contact to retail agents. From a typical banking regulator's perspective, entrusting retail customer contact to the types of retail agents used in both the bank-led and nonbank-led models would seem riskier than these same functions in the hands of bank tellers in a conventional bank branch. E-Money risks relates to acceptance of repayable funds from retail customers by non-bank entities that are not subjected to prudential regulation and supervision. The risk is that an unlicensed, unsupervised non-bank will collect repayable funds from the public in exchange for e-money and will either steal these funds or will use them imprudently, resulting in insolvency and the inability to honor customers' claims.[182]

In addressing the legal and regulatory issues that emerge, Pakistan uses a number of legislation. Banking Companies Ordinance, 1962 and the State Bank of Pakistan Act, 1956 provide the main legal structure under which the banking system of Pakistan operates. Banking Companies are licensed under section 27 of Banking Companies Ordinance and in terms of the Licensing Criteria for Commercial Banks. Once licensed, banks are scheduled under section 37 (2) of State Bank of Pakistan Act after they meet strict requirements of capital adequacy, cash and liquid reserves maintenance, transactional record keeping, and upholding financial and managerial discipline. They are also required to establish internal control, internal audit and compliance systems. Banks are under vigilant supervision by State Bank of Pakistan and are required to follow the guidelines or regulations issued by it in letter and spirit or be ready to face severe penalties (which may include change of management or winding up of business).

Electronic Transaction Ordinance, 2001 permits an appropriate authority to provide for or accept payment in electronic form. Legislations have not been enacted in Pakistan to frame a relevant legal structure.[183] Pakistan is also faced with inadequate regulatory regime just like Kenya and it has not yet identified the right regulator.

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[181] Draft Policy Paper on Regulatory Framework for mobile Banking in Pakistan, Banking Policy & Regulations Department State Bank of Pakistan. Available at http://www.sbp.org.pk/bprd/2007/Policy_Paper_RF_Mobile_Banking_07-Jun-07.pdf. Accessed on 10 October 2011.

[182] Ibid

[183] Section 16(2)(c)(iii), Electronic Transaction Ordinance, 2001. The Electronic Fund Transfer and Payment System Bill is yet to be enactment.

4.6 CONCLUSION

A mobile banking regulator must contain the basic qualities necessary for efficient regulation. These qualities include technological neutrality and capability and financial knowledge. These qualities are important because mobile banking overlaps the banking and telecommunications industry. Any regulator who lacks any of the three qualities may not adequately regulate mobile banking.

Central Bank of Kenya and Communications Commission of Kenya have different mandates and objectives in the regulation of their industries. They have, however, cooperated in the regulation of mobile banking since its inception in Kenya in recognition of the fact that neither of them has all the qualities for regulating mobile banking. The experiences in other countries, particularly Pakistan and Republic of South Africa, shows that the cooperative approach between bank regulators and telecommunications regulators of mobile banking is preferred. The cooperation approach to mobile banking has had its merits and demerits but it has seen the growth of mobile banking this far. The arguments for and against consolidation are of equal strengths making it difficult to decide which way is best. Since the cooperation approach has worked favorably well this far, this research recommends that that approach be pursued and strengthened.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSIONS

It is clear that mobile banking practice in Kenya is being undertaken under two models; bank-led and telco-led. An example of telco-led mobile banking is M-Pesa and example of bank-led is M-Kesho. Since both models exist in Kenya, regulatory issues that are related to banking, telecommunications and unique issues relating to mobile banking per se arise. Some of these issues include privacy, confidentiality, security, interoperability etc. In order to have sustainable growth of mobile banking in Kenya these issues must be addressed by law and other mechanisms.

There are a number of laws in Kenya that regulate mobile banking but only address peripheral issues. The Kenya regulatory regime is still weak and requires serious reform to bring mobile banking within proper regulation. Much of the confusion and slow rate of reform in this area has been attributed to the lack of a focused regulatory body. With the right regulatory framework, mobile banking is bound to develop sustainably. It is also important to note that legislation may not necessarily be the only mode of regulation of mobile banking. Technology and market ethics may go a long way in ensuring a sustainable growth of mobile banking.

Besides enacting laws that are favourable to mobile banking, it is also necessary to have a stable and strong regulatory body to oversee mobile banking. A mobile banking regulator must contain certain basic qualities necessary for efficient regulation. These qualities include technological neutrality and capability and financial knowledge. These qualities are important because mobile banking overlaps the banking and telecommunications industry. Any regulator which lacks any of the three qualities may not adequately regulate mobile banking.

Central Bank of Kenya and Communications Commission of Kenya, have different mandates and objectives in the regulation of their industries. They have, however, cooperated in the regulation of mobile banking since its inception in Kenya in recognition of the fact that neither of

them has all the qualities for regulating mobile banking. It is important that the two regulatory bodies continue with their cooperation in regulating mobile banking since they complement each other. There is need however, need for them to find a more established cooperation platform to enable them regulate mobile banking effectively.

5.2 RECOMMENDATIONS

In light of the various legal and regulatory issues and challenges discussed in this paper it is important that the policy makers pursue a number of suggestions in enhancing regulation. Some of the suggestions are discussed below.

5.2.1 Regulatory Cooperation

It is the view of this study that mobile banking is a small sub-sector that may not justify forming a totally independent regulatory body for it. Its functions are not unique to banking and telecommunications. In any case the existing bank and telecommunication regulators are doing it though not to the desired levels. This study recommends that instead of forming a new regulatory body, the two existing regulators should find a platform for cooperation in regulating mobile banking. Both regulators combined have the desired qualities for regulating mobile banking and there is need to have a well coordinated regulatory platform.

To enhance corporation in mobile banking regulation, the scope of what constitute banking business should be expanded to include mobile banking services. This involves amending section 2 of the Banking Act as discussed in chapter three above. It also involves expanding the scope of the oversight role performed by CBK to give it legitimacy to regulate mobile banking.

5.2.2 E-Commerce Regulatory Authority

If regulatory cooperation is found not to be viable, then there is need for a sector regulator. As discussed earlier mobile banking belongs to a new sector called e-commerce. The growth of electronic commerce has created the need for a vibrant and effective regulatory mechanism, which would further strengthen the legal infrastructure that is crucial to the success of electronic

commerce. To be able to harmoniously address all the multi-sectoral issues, there should be an E-Commerce Regulatory Authority dedicated to e-commerce regulation. The authority should *inter alia* be charged with the following duties;

a. Facilitate and promote electronic commerce including mobile banking,
b. Promote public confidence in the integrity and reliability of electronic records and electronic commerce.
c. Foster the development of electronic commerce through the use of electronic signatures to lend authenticity and integrity to correspondence in any electronic medium.
d. To facilitate coordination between and among the various public agencies so as to ensure effective development of harmonized regulation of e-commerce.

5.2.3 Enactment of the Electronic Transactions Act and the Electronic Signatures Act

The Electronic Transactions Bill pending in Parliament needs to be enacted to have the force of law. If enacted, it shall comprehensively provide for various issues including privacy and security, contract formation issues like time and place of dispatch and receipt of offer and acceptance. However, the Bill needs to be redrafted to provide for electronic dispute resolution mechanisms and consumer protection.

Further, there is need for enactment of Electronic Signatures Act modeled alongside the UNCITRAL Model on Electronic Signatures to eliminate any uncertainty that surround electronic signatures. The Act should clearly define what amounts to an electronic signature. Such a definition should be technologically neutral and broad enough to include electronic sound, symbol, or process attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign a record.[184]

5.2.4 Formulation of E-commerce Policy

Kenya needs to formulate a comprehensive e-commerce policy that also clearly addresses mobile banking. The policy should clearly provide for the manner in which the issues raised in this study are to be handled. It should also clearly outline the regulatory and implementation mechanism of

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[184] Lauren Bright and Jerald Jacobs, 2001, Implications of Electronic Signatures Act, American Society of Association Executives. Available at: http://www.nrwa.org/2001/publications/articles/ElectronicSignatures.htm. Accessed on 5 October 2009.

mobile banking. Several areas of law crosscut mobile banking. Because of the multifaceted nature of mobile banking, any policy on e-commerce should harmonize all concerned areas.

5.2.5 Self regulation

The major players in mobile banking are private corporations and individuals. They possess the relevant technology necessary in mobile banking. Given the complexity of the technology in mobile banking regulation, there is an urgent need to involve the players themselves who may come up with technology based and technology neutral forms of regulation. However, such form of regulation should be applies alongside government regulation.

Self regulation favours market-driven codes of conduct and enforcement mechanisms with minimal government regulation is one of the most effective means for fostering the growth of electronic commerce.[185] The private sector should form an umbrella association to oversee the transactions carried out through electronic means.

[185] Steele, Supra foot note 37

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