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Regulating Mobile Banking: A Comparative Analysis Examining Kenyan and South African Mobile Banking Regulations

Kentse Radebe

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Regulating mobile banking: a comparative analysis examining Kenyan and
South African mobile banking regulations

By

Kentse Radebe

A Thesis
Submitted to the Faculty of
Mississippi State University
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for the Degree of Master of Science
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Regulating mobile banking: a comparative analysis examining Kenyan and
South African mobile banking regulations

By

Kentse Radebe

Approved:

Lindsey P. Peterson
(Major Professor)

Stacy H. Haynes
(Committee Member/Graduate Coordinator)

Leslie Hossfeld
(Committee Member)

Margaret L. Ralston
(Committee Member)

Rick Travis
Interim Dean
College of Arts & Sciences

Name: Kentse Radebe

Date of Degree: August 12, 2016

Institution: Mississippi State University

Major Field: Sociology

Major Professor: Dr. Lindsey Peterson

Title of Study: Regulating mobile banking: a comparative analysis examining Kenyan and South African mobile banking regulations

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Candidate for Degree of Master of Science

Kenya and South Africa both face unique challenges in attempting to bridge the gap between those who have access to formal financial institutions and those who do not. The development of mobile banking and its broad accessibility and affordability, in both countries, has led to it being heralded as a great tool for increasing access to banking institutions.

Kenya and South Africa have followed different regulatory paths. Kenya has taken an open regulatory approach, whilst South Africa has taken a closed regulatory approach. This thesis identifies the key regulatory differences between South Africa and Kenya by conducting secondary data analysis focusing on the periods when both countries liberalized their banking sectors and telecommunications sectors. This thesis also illustrates how these two paths have influenced the development of financial inclusion in both countries and explores whether any of these paths may be more advantageous for advancing mobile banking services.

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES	v
NOMENCLATURE	vi
CHAPTER	
I. INTRODUCTION	1
II. LITERATURE REVIEW	4
Financial Inclusion	4
Mobile Banking and Financial Inclusion	7
Mobile Phones and Mobile Banking in sub-Saharan Africa	9
What is Mobile Banking?	10
Regulations	11
Bank-led or Mobile Operator-led Regulation	11
Categories of Banking Regulation which Apply to Mobile Banking	16
III. CASE SELECTION	17
The South African Case: Lower Levels of Mobile Banking Penetration	20
The Kenyan Case: Higher Levels of Mobile Banking Penetration	26
Transformational Banking Services: M-PESA	28
The South African and Kenyan regulatory environments as strategic action fields	30
IV. METHODOLOGY	33
Research Questions	33
Analytical Strategy	34
Conceptualization	35
Open regulations	35
Closed regulations	36
Unit of Analysis	37
Operationalization	37
Hypotheses	37
Data	38

Academic sources	39
Industry Reports.....	40
Newspapers	40
Limitations of analysis.....	44
V. FINDINGS AND DISCUSSION.....	46
The Kenyan Context	56
The South African Context.....	60
VI. CONCLUSION.....	66
Future research considerations.....	69
Limitations	70
REFERENCES	72

LIST OF TABLES

1	Financial products available through mobile banking services	7
2	The Mobile Banking Arena: Kenya and South Africa Key Differences.....	17
3	List Of Regulations that Directly Impact Mobile Banking Services.....	47
4	Characteristics of open and closed banking regulations	51

NOMENCLATURE

AML	<i>Anti-Money Laundering</i>
ATM	<i>Automatic Teller Machine</i>
CBK	<i>Central Bank of Kenya</i>
CTF	<i>Counter Terrorism Financing</i>
e-money	<i>Electronic Money</i>
FNB	<i>First National Bank</i>
ICT	<i>Information And Communications Technology</i>
m-banking	<i>Mobile Banking</i>
m-money	<i>Mobile Money</i>
MNO	<i>Mobile Network Operator</i>
POS	<i>Point of Service</i>
SARB	<i>South African Reserve Bank</i>
SASSA	<i>South African Social Security Agency</i>
WAP	<i>Wireless Application Protocol</i>
WIG	<i>Wireless Internet Gateway</i>
USSD	<i>Unstructured Supplementary Service Data</i>

CHAPTER I

INTRODUCTION

Mobile banking, a form of electronic banking that allows individuals to access financial services through their mobile phones, has grown tremendously in sub-Saharan Africa over the last decade (Lawack-Davids 2012). Mobile banking has allowed millions of African's who were previously unable to access banking services due to barriers such as high costs and transportation are now be able to conduct basic banking transactions on their mobile phone.

Globally, more than 2 billion adults do not own a bank account, and a majority of those individuals are located in the global south (Demirguc-Kunt, Klapper Singer and Van Oudheusden, 2015). In sub-Saharan Africa specifically, only 34% of adults reported that they had a bank account in 2014, whilst in high income developed countries, over 94% of individuals reported having a bank account (Demirguc-Kunt, Klapper Singer and Van Oudheusden, 2015). Mobile bank accounts, which are virtual accounts and are not tied to any financial institution, have contributed to increasing the number of account holders in sub-Saharan Africa (Lyman, Pickens and Porteus 2008). According to the World Bank Findex 2014 data 12% of adults in sub-Saharan Africa indicated that they have mobile bank account, worldwide only 2% of adults indicated they have a mobile bank account (Demirguc-Kunt, Klapper Singer and Van Oudheusden, 2015).

Sub-Saharan Africa in 2014 accounted for the majority, 53%, of new mobile services launches globally (GMSA 2014). Another significant difference is that a majority of Sub-Saharan Africa regions, 81%, have some form of access to mobile money, whilst Europe is still growing at 14% (GSMA 2014). This highlights how different needs are for Africans compared to the rest of the world; in 2012 Africa had higher mobile phone growth rates, 41%, compared to Europe which had 30% growth rate (Yonazi, Kelly, Halewood and Blackmanand 2012). The enormous growth of mobile banking has also placed it at the center of conversations about increasing financial inclusion.

Government policies and commitment to making mobile banking broadly accessible can form a crucial component to increasing levels of mobile banking. However, Collins (2011), states that African governments, through central banks, have taken a conservative, closed regulatory, approach to regulating mobile banking and have consequently entrenched commercial banks as dominant players in the mobile money value chain. Numerous studies have identified how regulatory policies can either hinder the development mobile banking or allow it flourish (see Ashta 2010; Asongu 2013; Brown, Cajee, Davies and Stroebel 2003 and Porteus 2006).

Despite the recognition of the importance of regulations very few studies have begun investigating the impact of mobile banking regulations on mobile banking penetration. This is the central objective of this thesis. Through the utilization of historical comparative analysis, this paper will trace the development of banking regulations in Kenya and South Africa to try and contextualize why these countries have followed different paths in developing mobile banking regulations.

Currently, Kenya has higher levels of mobile banking penetration with over 52% of adults indicating that they own a mobile bank account, whilst in South Africa only 14% of adults indicate that they own a mobile bank account (Demirguc-Kunt, Klapper Singer and Van Oudheusden, 2015). This study will consider the significantly important field distinctions between Kenya and South Africa in an attempt to understand the different regulatory pathways that both countries have adopted. Applying Fligstein and McAdams (2012) theory of fields broadly helps explains how different actors may have influenced the development of regulations in South Africa and Kenya.

Previous studies have not directly examined whether there is an association between mobile banking regulations and levels of mobile banking, therefore there is no conclusive evidence to suggest that there an association between open mobile banking regulations and mobile banking penetration. However, the consensus is that more open mobile banking regulations do play an important role in encouraging private institutions to invest in developing innovative banking solutions, including mobile banking (Lyman, Pickens and Porteus 2008; Johnson and Arnold 2012). This research project, hopes to contribute to identifying and conceptualizing different forms of regulatory developments by examining the cases of Kenya and South Africa to better understand the significance of regulatory processes in developing greater levels of financial inclusion.

CHAPTER II

LITERATURE REVIEW

Financial Inclusion

Access to financial services and institutions, on a global scale is unequally distributed, however, the challenges that Africans face are unique (De Sousa 2010; Demirguc-Kunt and Klapper 2012). Financial inclusion broadly refers to having some form of access to a financial institution, such as having access to a basic bank account, regularly utilizing the account, having access to digital payments options, having access to affordable credit providers, being able to save and developing financial literacy (Collins 2008; Devlin 2005; Heyer and Mas 2009). A significant number of households in developing countries lack access to financial services and this can impede economic growth and development and access to basic financial services has been shown to reduce poverty levels (Aker and Mbiti 2010; Kimenyi and Ndungu'u 2009; Sultana 2009). A lack of access to formal financial services limits market exchanges, increases risk and limits the opportunities to save (Kimenyi and Ndungu'u 2009). Trends indicate that wealthier individuals who live urban areas and are male have greater access to financial services, tools and literacy (Chibba 2009; Mbiti and Weil 2011).

In the same way that banks in developed countries have ignored low income and uneducated individuals in poor neighborhoods in search for greater profits, banks in sub-Saharan Africa have ignored unemployed, poor and rural households and have instead

targeted wealthier and more affluent clients (McKay and Pickens 2010; Morse 2011). Formal financial institutions have failed to tailor their products or services to meet the needs to low-income households because the assumption is that these households do not rely on complex methods and instruments to manage their finances (Collins 2008; Kimenyi and Ndungu'u 2009). However, without access to formal financial services, low-income households are forced to rely on informal services that are associated with high costs (Kimenyi and Ndungu'u 2009).

Krippner (2005), Tomaskovic-Devey and Lin (2011), Lapavistas (2011) and Orhangazi (2007) all illustrate that households in developed countries are interacting with financial services and products at a higher rate than they used to in the past. At the individual level van der Zwan (2014) illustrates that in the U.S. financial institutions engage with consumers through a range of financial products and services such as mortgages, mutual funds, student loans, car loans and insurance, and credit products. In this environment it would be very difficult to function in a society where one does not have access to financial institutions; an individual would be unable to apply for credit, build up savings, pay for the health insurance, have easy access to their money, or even be able to safely transfer money for example.

De Sousa (2010) states that the expansion and focus of the financial inclusion policy agenda ignores individual factors such as considering whether unbanked individuals want to be banked at all. Demirguc-Kunt and Klapper (2012) add to this perspective by stating that there is a common assumption that those who do not use formal financial services are somehow constrained from participating in the formal financial

sector. Demirguc-Kunt and Klapper (2012) continue by emphasizing that there should be a distinction between the desire for use and access.

These are valid observations; however, the choice to utilize financial services may appear as though it has more to do with individual preference, such as choosing whether or not to have a bank account or choosing to apply for a credit card. However, for millions of people across the world, and specifically in Africa, being able to access money safely, saving for the future, making money transfers, and being able to access cash when it is necessary has more to do with the ability to access institutions that can meet their financial needs (Mbiti and Weil 2011). Access to transport, unemployment, and expensive bank fees are barriers to financial institution accessibility (Tchouassi 2012). Unbanked individuals essentially cannot afford to exist outside the dominant, bank-led, financial system. From this perspective financial inclusion, the ability to have access to financial institutions, should be viewed as a form of social justice

The consequences of being financially excluded are exacerbated when individuals and households are increasingly interacting with financial markets to such an extent that their ability to access resources is directly tied to their ability to interact and access financial institutions. Van der Zwan (2014) states that the exponential growth of the financial services sector is not only occurring in the U.S.; in Africa mobile phone operators and banks which are looking for new markets are exposing consumers to a wider array of financial instruments. This is where a critical perspective of the growth of mobile banking is crucial. Mobile banking service providers have responded to an existing need in developing countries with low access to formal financial institutions, however, companies such as Safaricom in East Africa and MTN in West Africa are

driven by the same profit motives that have influenced banks. The fact that low income consumers directly benefit from mobile banking, as will be illustrated later on, is coincidental. In Kenya, through mobile banking product M-PESA, consumers are gaining access to more financial products ranging from insurance to government bonds, as shown in Table 1 below.

Table 1 Financial products available through mobile banking services

Provider	Service/Product
Credit Direct Kenya Limited	Cash advance over mobile
Equity Bank	M-Kesho savings account
Equity Bank	Personal accident insurance
Equity Bank	Loan over mobile
Kilimo Salama	Weather insurance (for farmers)
National Jua Kali Association	Mbale pension plan
M-Akiba	Kenyan government bonds

Sources: Data derived from McKay and Pickens (2010); Guguyu and Kuria (2015) and The Financial Times (2015)

It is unclear what the long term effects of increased financialization in sub-Saharan Africa will be, but financialization forms part of the bigger financial inclusion puzzle. However, the development of mobile banking services in sub-Saharan Africa has proven that if there is an affordable, easily accessible financial service, individuals will pay to utilize the service and this can contribute to increased levels of financial inclusion.

Mobile Banking and Financial Inclusion

Over the last decade, the growth of mobile banking has illustrated that it does have the potential to allow millions of financially excluded Africans the opportunity to; (1) break down the barriers associated with owning a bank account, (2) access services at a much lower rate, (3) reduce their travel time to access a bank or an ATM, and (4) have

the ability to manage their finances from their mobile phone. However, where mobile banking has been effective, in countries such as Brazil and Kenya, its development has been supported by open regulations.

Supportive, open and accommodative banking regulations, such as those initiated in Kenya, can be a meaningful policy-instrument that can increase the levels of financial inclusion. By tracing the development of mobile banking in Kenya and South Africa, the paper will highlight how both countries, for several reasons, started off with low levels of mobile banking. However, within a space of ten years, Kenya's mobile banking sector growth has surpassed South Africa's. This has led to high levels of mobile banking penetration in Kenya, but very low levels in South Africa. The varying levels of mobile banking penetration may seem inconsequential at the surface; however the case that this research paper makes is that the development and implementation of distinctive banking policies, sits at the crux of the differences between South Africa and Kenya. This paper will make the case that South Africa has initiated banking regulations which favor the market dominance of commercial banks to the detriment of other alternative financial service providers, which ultimately disadvantages the position unbanked and underbanked of South Africans.

This paper has chosen to focus on mobile banking as the alternative financial service example because of the growth and impact that mobile phones have had in Africa over the last decade, which places developing economies are at the forefront of re-designing what banking may look like in the future.

Mobile Phones and Mobile Banking in sub-Saharan Africa

Africa was a late entrant in accessing mobile phone technology, only truly beginning to utilize mobile phones in the early 2000s (Porteus 2006). However, this was ultimately advantageous for Africans because consumers did not have to contend with the early high costs associated with infrastructure and developing the technology (Rouvinen 2004). The relatively low cost of mobile phones and the continuous drop in prices has led to mobile phones becoming relatively attainable for consumers from most income brackets, especially those from the rising middle-class. Over 60% of Africans have access to a mobile phone (Mbiti and Weil 2011). Fifteen years ago, there were only 15 million mobile phones in Africa and by the end of 2014 it was forecast that there would be over 635 million mobile phone subscriptions in sub-Saharan Africa (Ericsson 2014).

The growth of mobile phones has surpassed the growth of landlines, which are expensive to install in African countries with little or no infrastructure; such as a lack of roads, great distances between areas and low population densities (Aker and Mbiti 2010). Mobile phones have been a “great equalizer”; the affordability of mobile phones and the high levels of competition between mobile phone operators have contributed to reducing costs and increasing mobile phone penetration (Porteus 2006; Rouvinen 2004). The development, ease of access, and affordability of mobile phones has also allowed numerous secondary functions such as providing entertainment, accessing medical search engines through applications such as MedAfrica, and the development of mobile banking (Aker and Mbiti 2010).

The rapid development of mobile banking services over the last decade in Africa has highlighted how much traditional, brick and mortar; retail banks have ignored the

unbanked and low income consumers. It has also illustrated that there are alternative ways to service overlooked consumers. In some African countries the mobile banking revolution has displaced retail banks as the primary institutions responsible for executing financial transactions (Lyman, Pickens and Porteus 2008). This is significant because banks form an important part of the economic sector; banks usually drive important policy directives and typically play a significant role in collecting deposits and providing credit to individuals, businesses and governments.

What is Mobile Banking?

Broadly speaking mobile banking falls within the category of electronic banking which refers to the ability to access financial services through the internet on PCs and mobile phones, ATMs, and telephones (Lawack-Davids 2012). Mobile banking allows phones to be transformed into a virtual bank card, a service terminal and an internet banking terminal (Mas and Kumar 2008). Mobile banking in its simplest form allows individuals to access basic financial services utilizing an application available on their mobile phone. Mobile banking applications can either operate on WAP (requires internet access) or WIG (utilizes SMS based commands) enabled mobile handsets (Porteus 2006). Mobile banking can also operate utilizing Unstructured Supplementary Service Data (USSD) which facilitates real time messaging between a mobile phone and bank servers (Mas and Kumar 2008). Mobile phone operators can also develop applications that can be built into the SIM card of a phone; this allows a user to have a unique virtual account number (Tchouassi 2012). Debates have been raised about whether or not mobile banking is an instrument that can be launched in vastly different countries, with unique financial

inclusion contexts. However, its potential to increase levels of financial inclusion, where it has been successful, has been evident.

Regulations

Bank-led or Mobile Operator-led Regulation

Bank led regulations refers to mobile services which are primarily administrated by banks and mobile operator-led refers to mobile banking services which are administered by mobile network operators. Both banks and mobile network operators have to work together to deliver mobile banking services, but there are significant differences between bank-led and mobile-operator led services.

Regulators have not treated mobile banking as a wholly separate service that is different to traditional banking (Klein and Mayer 2011). Klein and Mayer (2011) state that the regulation of mobile banking, whether it is bank-led or mobile operator-led, should consider risk in four basic areas; 1) the exchange of different forms of money, (2) the storage of money for safe-keeping (3) the transfer of money from one owner to another and (4) the investment of money. Bank-led mobile banking requires consumers to have a contract with a prudentially regulated commercial bank, whilst mobile operator-led mobile banking consumers do not have a direct relationship with a bank (Lyman, Pickens and Porteus 2008).

Bank-led mobile banking solutions often tend to be more additive and not transformational; therefore, regulating the risk may not be as novel (Sultana 2009). However, Tarazi and Breloff (2010) argue that this rudimentary distinction is less binary and that ultimately both banks and mobile phone operators play a role in providing mobile banking services. Tarazi and Berloff (2010) imagine that depending on the

context of countries, mobile banking regulations exist on a continuous spectrum between bank-led and mobile operator-led hybrid models.

The most pressing regulatory issue of exchanging different forms of money is that the value of e-money needs to be in the same units and value of real (i.e. physical) cash, and different providers cannot issue different currencies (Aker and Mbiti 2010; Klein and Mayer 2011). Users of mobile banking deposit real cash through a physical mobile banking platform merchant; this is then converted into e-money and is measured in the same units as real money. E-money operates on the same principles in other regions across Asia and Latin America and Africa (Aker and Mbiti 2010; Demombynes and Thegeya 2012; Jack and Suri 2011). Withdrawals of e-money (sometimes called m-money for mobile money) are then also made in cash (Lawack-Davids 2012). Mobile banking providers also cannot issue their own currency (Klein and Mayer 2011). Secondly, unique account identifiers are required for storing account information and transaction data so that customers can track their own account activity (Klein and Mayer 2011).

Third, considerations need to be made about the effect of cross-border money transfers as well as the fact that in some instances banks are not involved in the money clearing process which makes instant transaction possible (Klein and Mayer 2011). Cross-border transfers have developed in Africa between East and Central Africa, in Brazil and India therefore exchange-risk issues do exist (Wexler 2015).

Some mobile phone operators store the transfer money in a “float”, which is not invested and does not accrue interest, which decreases the need for regulatory oversight (Dias and McKee 2010; Klein and Mayer 2011). The float operates as a cash

reserve of sorts (Tarazi and Breloff 2010). Commercial banks are required to provide to maintain some level of liquidity, non-banks; particularly MNO's do not have that requirement. This extra step of having a float is sometimes required to separate e-money funds from the actual profits in order to reduce cases of fraud (Dias and McKee 2010). These funds in the float are stored in prudentially regulated banks and doing this does not protect consumers from the risk association with bank failure, especially in countries where depositors insurance is not provided (Klein and Mayer 2011; Tarazi and Breloff 2010).

Fraud, money laundering and terrorist financing are significant global political issues as well (Dias and McKee 2010; Lyman, Pickens and Porteus 2008; Vleck 2011). Some countries with developed mobile banking services have developed fraud, anti-money laundering (AML) and counter-terrorism financing (CTF) regulations, however, the finances to supervise compliance with local and international standards may not exist (Vleck 2011). Dias and McKee (2010) also stress that consumer protections regulations that allow consumers to complain and access redress are crucial but underdeveloped.

Kenya and South Africa represent divergent mobile banking regulatory positions, even though both governments have committed to increasing financial inclusion. Both countries have passed regulations that allow mobile operators to function in the market; however Kenya's laws have created a loophole that has allowed mobile banking to develop from a mobile operator-led position, whilst South Africa has opted for a bank led-model.

Ashta (2010) states that countries that develop a mobile operator-led or bank-led approach to mobile banking are influenced by their aversion to risk. Countries with a

higher percentage of banked individuals will be prone to loss aversion, and legislation will be formulated to constrain the development of mobile banking, making it tightly regulated (Ashta 2010). South Africa, with its relatively advanced financial infrastructure levels, according to Ashta's (2010) theorizing, has taken a conservative approach because it has more to lose by developing a mobile operator-led model which effectively has lower levels of regulatory oversight. However, contending that institutions in Kenya have less to lose because of lower risk aversion disregards the very deliberate policy measures that Kenya took to ensure the development of transformational mobile banking services. By conducting a comparative policy analysis between South Africa and Kenya, my paper will investigate what the main policy differences are and how these affect the development of mobile banking.

The development of mobile banking brings to the forefront questions about how banking has been defined in the past and how traditional banking services can in fact be unbundled in order to respond to the needs of those who are financially excluded (Klein and Mayer 2011). When services become unbundled a clear distinction needs to be made as to what exactly payments and deposits are (Klein and Mayer 2011). Regulation needs to be proportional and effective and recognize the balance between innovation, consumer protection and fostering financial access (Dias and McKee 2010; Lyman, Pickens and Porteus 2008). Proportional regulation refers to implementing regulations that are proportionate to the benefits that result from the service being offered and this often results in focus being placed on regulating the risks associated with use (Lyman, Pickens and Porteus 2008). Regulation can also change as the market matures and more mobile banking competitors enter the market (Dias and McKee 2010).

Tarazi and Breloff (2010) state that mobile operator-led mobile banking services, may not be subject to the same stringent regulations that banks are required to adhere to, however, simultaneously mobile operators are actively prohibited, in some countries, from taking deposits directly, even if it is for payments and not savings, as regulators reason that public deposit taking should be reserved for banks which are prudentially regulated institutions. Another contentious subject is deciding which institution should oversee regulation when mobile banking services are provided by both banks and mobile operators is exactly (Klein and Mayer 2011).

Ashta (2010) states that the risks inherent in banking can be segmented into three parts; (1) the risk for the bank, (2) the risks for bank clients and (3) the risk for the economy. Risks for banks can vary from liquidity issues, over-extending credit, operational risks, foreign exchange risks, and interest rate risks (Ashta 2010). Client risks include fraud, bank solvency and risks associated with increased bank credit extension (Ashta 2010). Economic risks entail potential financial crises, money laundering, and bank inefficiencies (Ashta 2010). Risks associated with mobile network operators is that mobile phone operators take on significant costs in developing and maintaining infrastructure and for customers (Ashta 2010; Lyman, Pickens and Porteus 2008).

There are other complex issues that are brought to the surface when financial services and the telecommunications sector provide mobile banking services. The main issues that are raised with regard to the development of mobile banking are: (1) e-money issuance, (2) what qualifies as payments or transfers, and (3) which institutions are legally permitted to accept deposits from the public.

Categories of Banking Regulation which Apply to Mobile Banking

Two broad categories of regulation are considered in relation to mobile banking. Business conduct regulation refers to consumer protection, and anti-money laundering policies. Examples of this could include the South African National Credit Act (2002) as well as the Financial Action Task Force led by the United States through the G7 in 1989 (Klein and Mayer 2011; Vleck 2011). The second category refers to prudential regulation which concerns the implementation of rules governing to liquidity, risk behavior and capital requirements of financial institutions (Klein and Mayer 2011).

Prudential regulation is typically introduced in order to reduce risk from parties involved in providing mobile banking as well as protecting consumers from the possibility of future failure (Ashta 2010; Klein and Mayer 2011). As mobile operators do not grant credit, risk is reduced. However, regulations that protect banks and their clients from the risk of banks going bankrupt do not apply to telecoms institutions (Klein and Mayer 2011). The balancing act for regulators then is to ensure that is established proportional regulation that encourages the development of mobile banking whilst also supervising against the risks and those affected by the risk (Ashta 2010).

CHAPTER III
CASE SELECTION

Kenya and South Africa may not seem like obvious choices for a historical case comparison and when mobile banking services were launched in 2004 and 2007 for South Africa and Kenya respectively, both countries had significant differences. See table 2, below.

Table 2 The Mobile Banking Arena: Kenya and South Africa Key Differences

	Kenya	South Africa
2005		
Mobile phone subscriptions (per 100 people)	13	70
Adults with a bank accounts	10%	45%
Adults using mobile banking	-	~3%
ATMs (per 100 000)	1.58	24.94
GDP per capita (\$US Dollars)	523.6	5444.1
2014		
Mobile phone subscriptions (per 100 people)	74	150
Adults with bank accounts	75%	70%
ATMs (per 100 000)	9.99	61.88
GDP per capita (US Dollars)	1,333.9	6,477.9
Adults with a mobile account	58%	14%
Adults utilizing mobile banking	74.7%	17.5%

Sources: Data retrieved from World Bank 2014 Findex Report and the South Africa 2014 Finscope Report

It is important to point out that the table above indicates that South Africa had about ~3% of mobile banking penetration levels in 2005; these figures refer specifically to mobile banking as an additive solution. An additive banking solution is one that is tied to a bank account at a financial institution (Porteus 2006). The form of mobile banking that is of interest here is one where the mobile bank account is not tied to a financial institution and that is transformational mobile banking (Porteus 2006; Porteus 2007).

Mahoney (2000) states that comparing cases where an outcome is present and cases where it is not present is useful to strengthening the explanation for a particular outcome. The outcome examined here is mobile banking penetration, which is higher in Kenya than in South Africa. When mobile banking was launched in both countries, transformational mobile banking (henceforth referred to as just mobile banking) solutions were non-existent. In both countries the potential for launching mobile banking was not predetermined and banking policies in Kenya and South Africa at the time, did not have any specifications for addressing mobile banking. However, when mobile banking solutions were launched in both countries the regulatory response was vastly different and it is that process that this research project seeks to understand. Therefore, even though both Kenya and South Africa had varying levels of access to bank accounts for instance, the focus here will be placed on how regulations associated with mobile banking developed. However, in the section covering preliminary evidence, issues relating to these differences will be addressed as they cannot be ruled out the broader narrative of financial inclusion.

The open regulatory development process which has developed in Kenya is unique and recent indications point that no other country in sub-Saharan Africa has

developed a similar regulatory framework (Collins 2011). Therefore, using Kenya as a case to indicate what open mobile banking regulations look like is useful. Selecting South Africa is partly influenced by early research that had indicated that South Africa would be an early adopter of mobile banking solutions because of high levels of mobile phone penetration and unusually high levels of access to banking infrastructure such as bank branches and ATMs, compared to other African countries (Brown et al. 2003; Porteus 2006). However, this did not occur in South Africa. In fact, in 2010, a mobile banking service that was significantly successful in Kenya was replicated in South Africa; however it failed to attract a significant user base (Tarrant 2015).

Both Kenya and South Africa are economic leaders in their respective regions on the continent, the Southern African Development Community (SADC) for South Africa and East African Community (EAC) for Kenya and as result of that, both countries have played influential roles in shaping banking sectors and policies in these regions. In South Africa, this influence can be traced back to the colonial expansion period when Botswana, Namibia, Swaziland and Lesotho all formed part of the British High Commission Territories (Mogalakwe 2006; Spence 1964). These countries adopted a similar banking system to South Africa and currently, the largest banks in South Africa; also have a significant presence in these neighboring countries (Ndzabela 2012). In Kenya, this has occurred through the development of mobile banking, a few Kenyan mobile network operators (MNOs) have branched out to neighboring countries such as Uganda and Tanzania and Kenyan mobile operators have developed partnerships with their counterparts in neighboring countries in order to make cross-border mobile banking transactions possible (Wexler 2015). Therefore, the policy decisions that both Kenya and

South Africa follow may influence their regional counterparts, so including both countries as comparison cases can be useful in future comparative studies that include more cases.

This research project includes two comparison cases, however, the objective with case comparison with a small N is not to establish causation through comparison and extend those generalizations to other countries (Bennet and Elman 2006). The objective is to trace a particular set of processes that occurred in Kenya that did not occur in South Africa and to understand those unique circumstances. Ragin (2008) states that conducting comparative studies requires deep knowledge of specific cases and this is what this research paper is attempting to do by including these two cases. Other methodological issues relating to case selection will be addressed in the methods section.

The South African Case: Lower Levels of Mobile Banking Penetration

As of 2014, 25% of adults in South Africa indicated that they did not have access to any formal financial institution and only 14% of South Africans indicated that they utilized their mobile phone to access mobile banking services in 2014 (Finscope 2014; World Bank Findex 2014). The figures of mobile banking usage are surprising considering that South Africa has very high levels of mobile phone penetration (see Table 2), and was one of the earliest pioneers of mobile banking services (Porteus 2006; GMSA 2014). The low levels of mobile penetration are also further highlighted when compared to Tanzania, for instance where 32% of individuals have a mobile bank account but the country has a GDP per capita of just over US\$900, where South Africa's stands at just over US\$6,600 (World Bank 2014; World Bank Findex 2014). Other countries with higher levels of mobile banking such as Kenya, Brazil and India, had significantly lower

levels of financial infrastructure compared to South Africa when mobile banking services were launched but they have also surpassed South Africa's levels of mobile banking penetration.

Ten years ago, 45% of adults in South Africa indicated that they had a bank account and there were just fewer than 25 ATMs per 100,000 people (World Bank Findex 2014). South Africa also had more developed networks that provided consumers access to EFT Point of Service machines, electronic-transaction terminals commonly found at cash registers commonly used in retail stores that allow customers to swipe their debit or credit card to make a payment and various other kinds of financial services (Aker and Mbiti 2010; Porteus 2006). Due to this, an argument has been put forward that South Africa's low use of mobile banking is because that demand is being met by other types of financial services and products. Below is a list of the few alternative financial products and services which are available in South Africa;

1. **Additive Mobile banking platforms:** The big four banks Standard Bank, First National Bank (FNB), Absa and Nedbank (including the challenger Capitec) all have their own versions of WAP, WIG and USSD enabled mobile banking services. Some commercial banks have also individually partnered with various mobile operators to provide mobile banking.
2. **FNB e-Wallet:** FNB has taken a step further by offering e-Wallet services to its customers in 2009. The e-Wallet allows FNB customers to transfer funds from their mobile phone to virtual accounts; those funds are then cashed at an FNB ATM across the country (Phakathi 2013).

3. **Shoprite's MoneyMarket counter:** In 2008, the country's largest retailer launched its MoneyMarket counter which allows individuals to transfer funds and withdraw their cash from any other Shoprite store in the country. This service effectively provides individuals who do not have access to a bank account the ability to transfer and receive funds immediately.
4. **PiknPay GoBanking:** Following in the footsteps on Shoprite, PiknPay has attempted to replicate the success of Shoprite MoneyMarket services and has added supplementary services such as access to a credit card, a savings account and a debit card to its offering by partnering with Nedbank.
5. **SASSA social grant bank card:** In 2013 the South African Social Security Agency partnered with MasterCard to deliver social welfare payments utilizing a biometric debit card. This allowed millions of social welfare recipients who had previously never had a basic bank account to access one. Nearly 10 million South African's receive some form of social welfare; therefore even though the new system was primarily created to curtail fraud, after 2013 millions of previously unbanked individuals became banked.
6. **The Mzansi Account:** Through a provision included in the 2004 Financial Sector Charter South Africans banks were tasked with extending bank accounts to low income customers by establishing Mzansi Accounts (Kirsten 2006). Mzansi accounts offer basic services such as deposits,

withdrawals, local transfers, and debit card payments at a fraction of the cost than what a traditional checking account would offer (Ssewamala, Sperber, Zimmerman and Karimli 2010). By 2007 around 2 million South Africans had opened up an Mzansi account (Porteus 2006).

All of the services listed above do constitute some form of financial inclusion. But most of these services and products are struggling to reach unbanked South African. The services presented above revolve around commercial banks which reinforce their market dominance and centrality within the financial services market. It is also important to highlight that a significant portion of figures and data published about South Africa's unbanked ignore the fact that there is also still large portion of South Africans who are also underbanked. The underbanked do not fully utilize the financial products or services that they have access to for similar reasons that many South African are unbanked in the first place; the services are frequently inaccessible, expensive or there is a real lack of knowledge (financial literacy) about how to utilize different financial instruments. Therefore the alternative financial services listed above operate on the same or related limitations that banks operate under.

The products listed above cannot be described as transformational banking services. Porteus (2006) states that in order to have 'true' financial inclusion, banking services that are intended to increase financial inclusion need to be *transformative* and not *additive*. Porteus (2006: 3) defines transformative banking services as services that (1) utilize existing mobile communications infrastructure, (2) are driven by new players which have higher incentives to target non-traditional markets, (3) include services that build on the new distribution networks for cash transactions, and move beyond the

conventional merchant or ATM networks of banks and includes services that are considerably affordable compared to formal banks. Some of the alternative options listed above do have these characteristics but many of them do not.

Mobile banking services provided by the big four banks are usually an additional service offered to an existing customer base. The product itself is still inaccessible to consumers who otherwise would not be utilizing an actual bank account. The FNB e-Wallet is unique in its design and its attempt to encourage unbanked customers to interact with a banking institution. However, the e-Wallet service still relies on individuals being able to travel to access an ATM. The e-Wallet may be more accessible to individuals residing in urban areas but for individuals in isolated areas, the expense of traveling to withdraw cash may outweigh the benefits of having funds being immediately available. Banks are not developing a strategy with a strong cash-in/cash-out network that is easily accessible (Mas and Kumar 2008).

The Shoprite MoneyMarket service is exceptional because it does have a growing cash-in/cash-out network, cash can be deposited or withdrawn at any Shoprite retail store. The Shoprite MoneyMarket service relies on Shoprite's retail network and it has 1324¹ retail outlets across South Africa. Shoprite was one of the first retailers to expand into townships (historically black segregated neighborhoods) and rural areas after South Africa's first democratic election in 1994 and this has given the retailer a first-mover advantage. Since 2008 over fifty percent of Shoprite consumers (approximately 10 million customers) have utilized the MoneyMarket service (Shoprite 2014). However, Shoprite may have a wider footprint, but Shoprite's retail stores are located in densely

¹ 2014 figures

populated and relatively higher income areas. Therefore, Shoprite has the same limitation that ATMs and bank branches have and that is accessibility

SASSA is the government agency responsible for distributing welfare grants, utilizing bank accounts to distribute funds does allow more individuals to have access to a bank account. South Africa's percentage of banked individuals jumped up significantly after SASSA recipients were signed up, moving from 64% in 2009 to 75% in 2014, but these figures may have been superficially boosted, especially if those banks accounts are underused. Collins (2008), who monitored how low-income households in South Africa managed their finances, found that individuals would often withdraw their entire monthly salary or weekly wage and social grant from their bank account. The reasons for doing this include avoiding overdraft charges or debit orders (Collins 2008). The 2011 Findex report also found that in developing economies 10% of adults with an account maintain inactive accounts meaning that they did not make withdrawals or deposits within a month (Demirguc-Kunt and Klapper 2012). Mzansi accounts present similar inactivity challenges. In 2011 over four million Mzansi accounts had been opened, which is significant, however, many of the accounts actually had remained inactive because individuals would withdraw a single lump sum monthly and never used the account until the following month (Bångens & Söderberg, 2008; Tchouassi 2012).

Therefore, the position that the low levels of mobile banking are due to the lack of demand for low-cost services is questionable. That position can be further challenged by the success of Capitec. Capitec is a low cost commercial bank which has positioned itself as a challenger to the big four commercial banks in South Africa (Theobald 2013). Capitec, in South Africa, is currently the only bank that markets itself as a bank that is

actively reducing its transaction fees to attract low income consumers. Capitec has lower operational costs, has fewer branches nationally and focuses on transferring banking services (such as deposits) to self-service ATMs (Theobald 2013). This strategy has worked for Capitec, which in 2013 surpassed Nedbank to be the fourth largest retail bank (by market share) in South Africa (Business Tech 2013). However, it is significant to note that Capitec has hinged its success on the growth of its small, high interest loans (Theobald 2013). Capitec's growth in attracting transactional account clients does indicate that there is a demand for low cost banking services, which could include mobile banking.

The Kenyan Case: Higher Levels of Mobile Banking Penetration

Financial Services in Kenya range from formal commercial banking, savings and credit co-operatives (SACCOs), microfinance institutions and credit associations and informal services such as lending circles and local shops which provide grocery credit (Johnson and Arnold 2012). Before the advent of mobile banking millions of Kenyans relied on informal and expensive (Western Union/MoneyGram) methods to transfer money and informal methods of transferring money included this included relying on the post office, bus company terminals which offered transfer services and taxi drivers who operated as money delivery men (Aker and Mbiti 2010). A significant portion of the Kenyan population did not have access to a bank account or a savings account because formal banking is expensive and access to credit is skewed towards public and private enterprises in urban areas (Aker and Mbiti 2010; Beck, Cull, Fuchs, Getenga, Gatere, Randa, and Trandafir 2010; Mbiti and Weil 2011).

The low level of bank account penetration can be partly explained by historical bank failures, high market segmentation and the influence of politics, race and ethnicity within the banking system. The low levels of trust in Kenya's banking system have also been attributed to the numerous bank failures and the most recent bank failures in Kenya occurred in the periods between 1993 and 1995, 1998 and 2000 through to 2005 (Upadhyaya 2011).

Banks in Kenya currently can be separated into four categories; (1) foreign owned banks, (2) government owned banks, (3) large private owned banks and (4) small private owned banks (Upadhyaya 2011). Foreign banks, with historical and colonial ties to British trading companies have a reputation of being considered safe but expensive and currently have over 40% of market share (Mang'anyi 2011; Upadhyaya 2011).

Government banks were formed shortly after independence in Kenya, in 1963, to respond to the needs of Kenyan's who were excluded from the formal banking system during British colonial rule (Updhyaya 2011). Over half of the government banks are located in rural and semi-rural areas in Kenya, however, government banks have a reputation of being inefficient (Beck et al. 2010; Mang'anyi 2011). The poor perception of government banks in Kenya is also related to the political scandals that have identified that government banks grant loans to board members with political ties (Dafe 2012; Updhayaya 2011).

Elements that further complicate the Kenyan banking system are issues of race and ethnicity which are closely tied to issues of access. Asian-Africans (fourth and fifth generation Indian and Pakistan Kenyans) hold the majority of ownership of local private banks and private African owned banks are often made up of Kikuyu, Kalenjin, Kamba

and Kisii ethnic groups which do have political and capital ties to the state. All of this has led to increased levels of mistrust of commercial banks in Kenya and low levels of financial inclusion (Beck et al. 2010). Mbiti and Weil (2011) state that this lack of trust in commercial banks could possibly explain why during the 2008 post-election violence urban residents opted to access their money through mobile money transactions as opposed to commercial banks. The violence which erupted in urban areas resulted in violent frictions between various ethnic groups (Mbiti and Weil 2011).

Transformational Banking Services: M-PESA

Unlike South Africa, Kenya, through the development of mobile banking, took a different pathway to increasing levels financial inclusion. In 2005, M-PESA was launched as a pilot project to find ways to assist microloan lenders who needed to communicate with their customers. After the success of the pilot project and the evidence of demand for a formal product, M-PESA was relaunched in 2007 as a mobile banking application (Mbiti and Weil 2011). When M-PESA was officially relaunched it achieved a high rate of sign up numbers and currently M-PESA has over 20 million customers in Kenya and over 23% of Kenyans indicate that they utilize mobile banking services at least once a day (Demboynes and Thegeya 2012; Heyer and Mas 2009; Tshabalala 2015). Since its inception M-PESA has cumulatively transferred over US\$3.7 billion, which represents almost 10% of Kenya's annual GDP (Aker and Mbit 2010; Tshabalala 2015). Daily, US\$1.96 million is transferred through M-PESA, mostly in small amounts averaging about US\$20 per transaction (Heyer and Mas 2009).

M-PESA operates as an application that allows users to utilize their phone as a bank account. Users can transfer money and send payments from their phone and

withdraw cash from M-PESA agents that are located across Kenya (Heyer and Mas 2009; Mas and Morawczynski 2009). M-PESA operates through agents who can be thought of as cash merchants (Heyer and Mas 2009). M-PESA agents across Kenya can set up shop anywhere; at busy public transport intersections, informal settlement outlets, and corner stores and Safaricom has made special concessions for cash agents who are located in remote areas (Safaricom 2014). M-PESA agents are often in close proximity to people and in Kenya agents can be found every few hundred meters (Klein and Mayer 2011). This strategy of making M-PESA agents being easily accessible is similar to how mobile phone minutes are sold in Africa. MNOs have invested heavily in developing these networks; it is fairly easy to access mobile minutes from a local corner store, kiosks at public markets and individual mobile minute resellers (Ivantury and Mas 2008).

Unlike banks which are concentrated in urban areas, M-PESA agents are spread out to informal settlements and remote rural areas and operate as store fronts that make it possible for individuals to easily access their funds (Heyer and Mas 2009; Mbiti and Weil 2011). In Kenya M-PESA has evolved to include insurance payments, investment payments, regional-cross border and international remittances as well savings options (Wexler 2015). The success of M-PESA has prompted other mobile operators in Kenya to provide mobile banking services. These are not yet as prolific as Safaricom's M-PESA; however, as the Central Bank of Kenya is introducing new regulations to reduce the dominance of Safaricom, alternative service providers may begin to see their share of the market increasing.

The South African and Kenyan regulatory environments as strategic action fields

Applying Fligstein and McAdams (2012) theory of fields to the regulatory environments that Kenya and South Africa operate in can assist in illustrating which actors have the most influence on the development regulations. Fligstein and McAdam (2012) are interested in how social actors engage in action, utilize their resources and capabilities to influence social change within a given strategic action field. The actors within the regulatory environments in Kenya and South Africa include commercial banks, non-banks, and regulatory institutions as well external actors such as both national governments as well global institutions such as the IMF, World Bank and the United Nations which inform the development of the financial inclusion development agenda.

Fligstein and McAdams (2011) theory of fields is primarily concerned with explaining how social change occurs and how social actors engage in action, utilize their resources and capabilities to influence social change within a given strategic action field. According to Fligstein and McAdam (2012) a strategic action field is a meso-level social order where different actors set the norms, values, beliefs, rules, and power differentials within a particular space. Strategic action fields can be as large as an industry or as small as a department within an organization (Fligstein and McAdam 2011).

Within these fields different actors have varying levels of power. Incumbents have the most influence within a field because of their access to resources such as personnel and money. Incumbents are actors “who wield disproportionate influence within a field and whose interests and views tend to be heavily reflected” (Fligstein and McAdam 2012: 13). Incumbents also influence the development of institutional logics which the shared understandings that different actors within a field hold (Fligstein and

McAdam 2012). This includes the shared understandings of what is going on within a particular field, and who has power as well as the rules of a field.

Incumbents promote the status quo that favors their interests and highlights their privileged position. In South Africa, the incumbents are the commercial banks who have a significant share of the market, resources as well influencing government policy. In Kenya, the field is much more open and the position of commercial banks is not centralized and because of this power is more diffused. The non-banks who provide banking services in Kenya according to Fligstein and McAdam (2012) can be seen as the challengers. Challengers occupy less privileged positions within a field and that challengers are more invested in finding ways to increase their power.

Commercial banks in South Africa have their position centralized and this increases their legitimacy within the field whilst commercial banks in Kenya do not have the same legitimacy because so many consumers can also access banking services provided by non-banks. For example in Kenya, M-Pesa was launched in 2007 and now has over 20 million users across East and West Africa (Mas and Morawczynski 2009). Within eight months of its launch M-Pesa had over 8 million users and US\$87 million had been transferred utilizing M-Pesa (Mbiti and Weil 2011). Therefore, non-banks have as legitimacy as banks and even though banks are attempting to change this, this research hopes to illustrate that the Kenyan regulatory field is not as cemented as the South Africa field and is therefore much more susceptible to changes. In South Africa, new regulations that are introduced continue to centralize the position of banks, and this will be illustrated in the findings sections, whilst in Kenya, the Central Bank has allowed the rules within the field to be driven by consumer demands instead. This means that the Kenyan

environment is much more reflexive and any future changes within the financial inclusion space will most likely develop from new disruptive technologies that move away from traditional 'brick and mortar' types of banking (Heyer and Mas 2009).

The Kenyan and South African mobile banking environment represent significant changes occurring within banking sectors in the global south where mobile banking is most advanced. Therefore, part of this study hopes to add context to what are the significant factors which affect the development of mobile banking regulations as well some contextual differences. The theory of fields by Fligstein and McAdam (2012) can be applied to understand who the different actors are as well their role and position within the broader field. Fligstein and McAdam (2012) theory is applied to understand what drives social change and the inability to access financial services has held back significant part of the population within the global South. The development of mobile banking represents the opportunity to introduce a product that can act as a great equalizer in increasing access to financial services.

However, this hinges on whether the development of mobile banking regulations can positively influence those who have been excluded from accessing those services. This paper, through the conceptualization of an open and closed regulatory environment proposes to regulatory possibilities and illustrates how they impact the delivery of mobile banking services and considers how the role of incumbents in both contexts shapes the regulatory environment.

CHAPTER IV

METHODOLOGY

Research Questions

In this section, I focus on four main research questions:

1. What are the regulations that directly affect mobile banking in Kenya and South Africa?
2. Are there any significant regulatory differences between Kenya and South Africa and how do these differences impact the implementation of mobile banking services?
3. Are there any other contextual factors that could explain the different levels of mobile banking in Kenya and South Africa?

These questions are presented here to guide the research process and to provide some form of structure in how I choose to approach the analysis. This is particularly significant because the methodology is not typically straightforward. I have deliberately kept the questions as broad as possible to allow me the researcher some flexibility in how I choose to answer them. This research is unique because it is attempting to examine and understand the regulatory space of mobile banking holistically as opposed to studying only a single subset of regulations.

Analytical Strategy

This objective of this research project is to examine how South Africa and Kenya developed different forms of mobile banking regulations which have partly shaped the varying levels of the mobile banking penetration in both countries. When utilizing a historical comparative approach, it is suggested that utilizing multiple strategies will assist in achieving solid theory building and particular historical explanations (Armstrong and Cragg 2006; Mahoney 2004). Therefore, this research illustrates that by conducting a brief historical analysis of the development of mobile banking regulation in Kenya and South Africa, a more complex understanding of the regulatory environment can be understood.

The basic strategy of the case-oriented approach is to identify the similarities and differences between the cases, and link the variables of interest to the specific outcome (Ragin 1987). In order to establish whether there are similarities and differences between Kenya and South Africa, I utilized the method of direct and indirect differences (necessary and sufficient causes). Necessary causes refer to causes (in this case regulations) that allow the outcome to be possible in the first place, without their presence the outcome cannot occur, basically “Y *only* if X” (Mahoney 2004; Mahoney, Kimball, and Koivu 2009). However, at the same time the presence of X does not necessarily result in the observed outcome and this is significant because historical comparative analysis assumes that numerous outcomes are possible within a given context (Mahoney, Kimball, and Koivu 2009). Therefore, the observed outcome is not a guarantee, even though its occurrence is dependent on a necessary cause (Mahoney 2004). Sufficient causes, on the other hand, refer to causes that are sufficient but not

necessary for an outcome to occur, “if X *then* Y” (Mahoney 2004). Sufficient causes by themselves do not lead to a particular outcome but are sufficient for that outcome to occur. For example, the sun is sufficient for crops to grow, however, without water or nutrients in the soil, even with the presence of the sun, the crops will not grow.

Conceptualization

Based on the brief analysis in chapter 6 the concepts that are discussed here are brief outlines of what the final analysis will include.

As stated in the introduction, I am interested in examining how different kinds of regulations affect the development of mobile banking. Preliminary analysis indicates that Kenya has more open regulations which have made it simpler for consumers to access mobile banking services. In South Africa regulations reinforce the centrality of banks and this has affected how mobile banking services are implemented. Below I make a distinction between open and closed regulations.

Open regulations

Open regulations are regulations that do not impose the strict prudential regulation of mobile banking service providers. These regulations are introduced with the intention of making it simpler for mobile banking service providers to design products and services that will be accessible to those who are financially excluded. These regulations typically entail fewer bureaucratic processes, more lenient prudential oversight and sometimes oversight lies outside of central banks.

Open regulations can be driven by both public and private sector interests. Open regulations also typically develop in environments where banking services and

infrastructure has been previously limited and new technologies are entering the same market and competing for consumers. In this scenario, current banking regulations may not apply to novel services which fall outside of the prudential regulation of central banks for instance.

Closed regulations

These are regulations that follow a more conservative regulatory approach and they centralize the importance of commercial banks. This is done through introducing regulations that make it more challenging to set-up mobile banking services and ensures that key processes are administrated by banks as opposed as non-banks. These regulations are also characterized with more complex and comprehensive bureaucratic processes. As these regulations centralize the position of banks in the mobile banking payments and transfers space, regulations are stricter. The regulation of mobile banking services also falls only within the purview of the central bank.

Closed regulations can be driven by both public and private sector interests and sometimes closed regulations also often align with international standards, practices or guidelines. For instance, in relation to mobile banking regulations, there is a strong push to define banking best practices according to standards set out by the BASEL III regulations, which are prudential regulatory guidelines which apply at the country level but are set up by international interests. A significant majority of the BASEL Committee members are from western countries.

Unit of Analysis

Historical comparative methodologies do not typically reference units of analysis in the way that quantitative research do. However, for purposes of clarity, I specify in this section that the units of analysis here are regulations that influence mobile banking. This is because this research is concerned with how the different types of regulations result in varying outcomes of mobile banking penetration. This paper considers the kinds of regulations which impact mobile banking at the institutional (i.e. banks) as well as the individual level. Many of the regulations that are examined here are largely focused on institutions and not individuals.

Operationalization

The regulations that directly impact mobile banking fall into various government acts, provisions, stipulations and positions documents. For the purposes of this study I have identified six broad regulatory characteristics of mobile banking, as seen in the findings chapter. This approach is more deductive, however it is informed by the close reading of previous studies, research papers and industry reports that consistently highlight these characteristics within regulations as hampering or facilitating the development of mobile banking regulations. The regulations which will be identified fall into one or a number of these categories.

Hypotheses

Having addressed the individual questions listed above, these are broad hypotheses that I address in my findings.

1. Open regulations encourage the development of high mobile banking penetration.

This is based on the assumption that open regulations encourage mobile service providers, who are typically not banks, to develop services and that open regulations, such as looser KYC regulations make it simpler for consumers to open up a mobile banking account. All of these conditions would lead to higher levels of mobile banking use.

2. Bank-led mobile banking services are not conducive for developing high levels of mobile banking penetration.

This hypothesis is meant to address the assumption that certain kinds of institutions make it possible to develop mobile banking services that appeal to a wider consumer base, therefore increasing levels of financial inclusion. Banks, with defined profit motives, are not incentivized to develop products which encourage mobile banking for the masses. Therefore, regulations that centralize banking intuitions, as opposed to mobile network operators for example, develop regulations that are more closed because banks are typically more tightly regulated.

Data

I have relied solely on secondary data sources which revealed what factors were significant in shaping the development of regulatory policies. This is significant because the objective of this paper is theory building. South Africa and Kenya serve as two extreme case examples which I am utilizing to build an argument.

The period of analysis that I have focused on here are the years between 2004 and 2007. This is because these years are part of the formative period when mobile banking was developing and there were no clear guidelines or international cases that could be used as templates for comparison. Since then the mobile banking regulatory space,

though still rapidly developing, has managed to create regulator standards and as mobile technology improves, the regulations are slowly catching up to the new changes.

Academic sources

As I am interested in specific regulations so I have included academic papers that have studied the effects of particular regulations on mobile banking. This is a useful approach to studying regulations as these papers provide crucial information about why certain regulations are significant and they also provide more detail about how separate regulations actually influence the implementation of mobile banking. Even though a weakness of including these studies is that I am relying on a secondary interpretation of a primary source. These sources expand beyond the years of interest as certain regulations were passed before mobile banking services were launched in both countries.

For purposes of coherence, I have included banking laws that were introduced after the liberalization of banking sectors in Kenya and South Africa, in Kenya this was in 1990 and in South Africa; this occurred during the post 1994 period. This is significant because both countries adopted a neo-liberal outlook that promoted limiting the role of the government, opening up to global capital markets, attracting foreign direct investment and increasing competition with the banking sectors (Upadhyaya 2011). It is a point of departure that is logical in terms of tracing regulations that impact banking and mobile banking currently. This is one of the limitations of historical comparative analysis, deciding which junctures in history are significant and which are not because ultimately, the objective with this research is not to simply conclude that history matters but rather to identify specific points in that history.

Industry Reports

Industry reports that I have looked at in this study include those compiled for the banking sector as well as the telecommunications sectors in both Kenya and South Africa. Industry reports are mainly compiled by associations with close links to the sectors or are privately funded organizations that conduct research in the sector. These include the Consultative Group to Assist the Poor under the umbrella of the World Bank, the GSM Association which represents the interests of mobile operators globally, for example. These reports also included studies conducted by consultancies such as Deloitte and McKinsey & Co.

These reports are typically conducted on behalf of clients and are useful in assessing the changes and trends that occur over time in an industry. In this study, these reports have been utilized mainly to identify which policies or regulations have been significant to the mobile banking sectors in South Africa. The disadvantage of utilizing these reports is that often the methodology utilized to reach findings is not accessible; therefore, there is no direct way to check the validity of the findings.

Newspapers

I included newspapers in this analysis to give context about how mobile banking regulations have influenced the mobile banking industry and to indicate whether the closed and open regulatory categories that I have identified influenced the industries in South Africa and Kenya in the ways that I have anticipated. I hypothesized that an open regulatory environment encourages the development of mobile banking. I also hypothesized that bank-led mobile banking services, such as those found in South Africa, would not be conducive towards developing high levels of mobile banking development.

Initially I limited my analysis of newspapers from the years 2005 to 2010. This was informed by my assumption, based on previous research, indicating that the most significant regulatory changes occurred after 2010. However, I decided to extend the period of analysis to between 2008 and 2012. This is because in Kenya and South Africa, the impact of mobile banking on the banking industry was initially not realized. During this time, just after the 2008 financial crisis, topics such as consumer debt, unemployment, a decline in foreign direct investment, and the downgrading of credit ratings were topics that dominated the news headlines. I did not extend the time period further beyond 2012, because the intention was to capture the transformative early stages (the first wave) of mobile banking regulations and the industry responses to those regulations.

In Kenya, I utilized the Daily Nation and the Business Daily as my primary sources. Both newspapers are widely distributed in Kenya and have an audience of over 4 million daily readers. The Daily Nation does not specialize in reporting on financial or business news but it does include a business segment within the papers which only reports on business and financial news. In South Africa, I will utilize the Business Day as well as the Sunday Times as secondary newspaper sources. These are two of the widely circulated financial daily and weekly newspapers, respectively in South Africa.

The Sunday Times is a weekly, in-depth reporting, newspaper. Initially I had opted to include another daily; however, the Sunday Times offered more detailed and original content which is more valuable as greater insight and research go into the reporting. All of the newspapers listed above do have different target audiences, especially if business daily's which report exclusively on news events which affect the

economy and the financial markets, even though there are lifestyle features and sports sections too. The other newspapers which cover some financial news and reporting focus on topic areas of interest to the general public.

Utilizing various newspaper sources is useful because one of the disadvantages of utilizing secondary analysis include issues concerning credibility and representativeness, especially for newspaper sources, as their primary objective is not solely reporting on news but also to draw reader interest (Singleton and Strait 2010). It is also important to emphasize that the online editions of newspapers both in South Africa and Kenya do rely on wire news articles accessed from international sources such as Thomson Reuters and Bloomberg. These articles are purchased by local news sites to include as part of their news offering. Only articles produced by the daily newspaper titles listed above will be included in the analysis. This is because local newspaper articles may have a more nuanced perspective of local issues as well as the historical background which may not be emphasized in an international news article.

I searched for the relevant articles for all the newspaper titles on Lexis Nexis Academic with the key words “mobile” and “banking” and “cell phones” to identify the articles that would be relevant. Even though the terms, “mobile” and “banking” and “cellphone” are broad and generic, it was only these search terms that allowed me to get a reasonable amount of results to search through. Other search terms that I included were “cell phones”, “banking”, “regulations”, and “M-PESA”, for instance. However, these search terms turned up very few and often unrelated articles.

I switched the search terms around numerous times because each different order produced different search results. I then manually went through the articles to identify

duplicate articles that may have been selected more than once during the initial search. I also manually removed any articles that may have been reporting about mobile banking, but not addressing mobile banking regulations.

I had anticipated that the search would identify a greater number of articles, however, further analysis revealed a significant shortcoming. The term “mobile banking” is often used interchangeably with “internet banking”. Mobile banking utilizes applications that can either operate on WIG (utilize SMS based commands) or Unstructured Supplementary Service Data (USSD) which facilitates real time messaging between a mobile phone and bank servers (Mas and Kumar 2008). More advanced phones, such as smart phones can also utilize WAP which requires internet access (Porteus 2006). However, internet banking only relies on access to the internet to access one’s personal banking account to make transfers, payments and check balances. Due to this, a significant number of articles were not included. Other articles were not included simply because they were not relevant to the topic, but other off-topic articles were also included because the topic did have implications for the findings. Fifty seven articles were included in the final thematic analysis. Thirty one of those articles were obtained from the Sunday Times and the Business Day in South Africa and the remaining twenty six were obtained from the Kenyan newspapers.

Utilizing the categories of open and closed mobile banking regulations that I had conceptualized earlier, I used those categories as a broad coding strategy to conduct a thematic analysis of the newspaper articles. Braun and Clarke (2006) suggest utilizing a thematic approach to uncover themes from the data, however, I utilized a deductive strategy because I had already identified the kinds of regulations (open or closed) that I

was interested in observing and understanding the impact that they had on the mobile banking industries of both countries. Thematic analysis is a “method for identifying, analyzing and reporting patterns (themes) within data” (Braun and Clarke 2006: 79). Thematic analysis allows data to be organized and interpreted at a rich level of analysis and allows for a level of flexibility. The process was not linear, it was a more cyclical process and I constantly referred back to the industry reports and previous research to make sense of the findings. I tested how the two categories applied to the mobile banking contexts of Kenya and South Africa and whether they matched up identified regulations.

Limitations of analysis

Lastly, the analytic process that I followed was deterministic, based on the two categories I had intended to test. This could have led to a myopic analysis on the newspaper articles because I only searched for evidence that either validated or invalidated the open and closed regulatory approach. South Africa and Kenya are still in the early process of drawing up regulations that will shape mobile banking in the future. Therefore, it would be premature to state that the evidence found here provides a definitive indication that these are the paths that regulations will follow in the future. Therefore, one needs to guard against being overly deterministic and simplistic about the impact of mobile banking regulations on mobile banking (Mahoney 2000).

Another disadvantage with the approach is that by choosing to study a number of regulations, I am unable to highlight the significance of single regulations which in and of themselves are substantial. They are important because of the rationale behind introducing them as law and the political process involved in creating them, from drafting the regulations to having them passed. That entire process is not considered here,

however, this is why the inclusion of newspaper articles as a secondary form of analysis is valuable because it does provide some background about the development process of the regulations.

CHAPTER V

FINDINGS AND DISCUSSION

This section will be examined by answering each of the individual questions listed in the previous chapter as well as addressing the hypotheses.

Question 1: What are the regulations that directly affect mobile banking in Kenya and South Africa?

In both the cases of Kenya and South Africa; there is no specific prudential regulation that directly affects mobile banking. All of the regulations listed below are separate pieces of regulation that inform part of a broader regulatory system. It is significant, but not unique, that there is no single overarching piece of regulation in both countries. Other African countries such as Ghana, Tanzania, Uganda and Nigeria are also only recently creating regulations that directly affect mobile banking and one of the biggest challenges is that mobile banking affects two significant sectors; banking and telecommunications.

In both the cases of South Africa and Kenya; this this does create regulatory gaps and a lack of clarity about which industry should regulate mobile banking services. South Africa and Kenya represent hybrid forms of regulations that have been greatly influenced their own political landscape, the historical development of banking services and institutions as well as the availability of banking infrastructure. However, as the evidence below will illustrate, Kenya and South Africa, have followed two different regulatory

paths and this significant implications for whether mobile banking is a viable form of financial inclusion to meet the banking needs of those who are unable to access formal financial services.

The table below lists the regulations identified from secondary sources which make up the regulatory environment in South African and Kenya.

Table 3 List Of Regulations that Directly Impact Mobile Banking Services

	Kenya	South Africa
Regulations	The Central Bank of Kenya Act of 2003, section 4(A) (1) (d), was amended in January 2009 in order to promote innovations that improved service delivery and affordability for mobile banking consumers. Part of this included promoting interoperability between different service providers allowing customers to transfer money from different mobile banking services.	The South African Reserve Bank Act, 1989. This act allows the Reserve Bank to provide rules which impact the payment, clearing or settlement systems of banks.
	National Payment System Act, 2011; this regulates all e-money issuers, how much money can be transferred through mobile banking services as well as any potential risks to the broader payments system. The NPS also incorporates certain consumer protection sections affect basic customer service obligations by service providers, complaint resolutions, and holding up customers service agreements.	The Banks Act, 1990; section 11 of the act stipulates that only registered banks can provide banking services and mobile banking falls under that umbrella. Banking refers to accepting deposits and soliciting deposits from the public. It is due to this act that mobile banking service providers can only provide banking services if they partner up with a bank that has been granted license to operate and the partnership needs to be approved by the Registrar of Banks.

Table 3 (Continued)

	<p>Kenya Information and Communication (Amendment) Act, 2013; this provides for the legal recognition of electronic transactions specifically relating to (1) records keeping, (2) preventing cyber-crimes, and (3) broadly providing confidence for consumers and service providers in the reliability to electronic transactions.</p>	<p>National Payment System Act, 1998. This act allows the bank to have regulatory and supervisory powers to control and prevent any potential risks to the payment system. This is done through the management, administration, operation, regulation and supervision of payment, clearing and payments settlement systems.</p>
	<p>Proceeds of Crime Act and Anti-Money laundering Act, 2009. Under this regulation guidelines are introduced that are intended to implement and enforce sound anti-money laundering legislation that directly affects mobile banking. Mobile banking services providers are supposed to know the identity of account holders, report fraudulent account activity and it also informs mobile banking service providers about the penalties that they may face if they fail to meet any of the stipulated guidelines.</p>	<p>Financial Intelligence Centre Act, 2001. Financial institutions are required to adhere to the rules and reporting requirements set out in the act to prevent anti-money laundering and terrorist financing purposes</p>
	<p>The Data Protection Bill, 2013; this bill was tabled in order to cement the right to privacy recognized under the Kenyan constitution. This bill speaks to the rights of consumers in choosing when their personal information is shared and with whom. This bill has not been passed as official law, it is still under debate, however, it has been approved by the cabinet.</p>	<p>Exchange Control Regulations Act, 1961. Banks are permitted to extend e-money activities across borders if they meet all the requirements stipulated within the Act.</p>

Table 3 (Continued)

		The Regulation of Interception of Communication Act, 2010. RICA requires all cellphone numbers to be registered and this includes SIM cards and data SIM cards in phones and laptops for example. The rationale behind RICA is to create a nationwide database that assists in crime prevention or tracking down criminals through their cellphone number.
Extra-ordinary provision	The “Letter of No Objection” allows Kenyan mobile operators to provide mobile banking services to consumers and is directly overseen by the Central Bank of Kenya.	

The table above lists all the regulations in South Africa and Kenya that have had a significant impact on the development of mobile banking services. The table also highlights some of the amendments that have been introduced that directly affect mobile banking services.

Question 2: Are there any significant regulatory differences between Kenya and South Africa and how do these differences impact the implementation of mobile banking services?

Based on the analysis above, there are significant differences in how mobile banking is regulated in Kenya and South Africa. The regulations above, in Table 4, were categorized into six separate broad categories to give them meaning. The objective is to illustrate what kinds of regulations are present in Kenya and South Africa and identify whether they are open or closed regulations. This process is informed by the close reading of other research papers as well as industry reports. The inclusion of the newspaper articles is to identify how these regulations influence the development of

mobile banking and to identify other categories that may be missed based on this approach.

Table 4 Characteristics of open and closed banking regulations

	Only banks issues e-money	Deposits defined as payments	KYC (face-to-face contact with customer)	Central Bank issues licenses for deposit taking	Multiple regulatory oversight	Bank-led mobile banking services
Open regulation	NO	NO	YES (but partial)	NO	YES	NO
Closed regulation	YES	YES	YES (but partial)	YES	NO	YES

The six categories identified here have been compiled from a close reading of the academic sources and industry reports compiled by the World Bank, the IMF and the United Nations about which regulations impact mobile banking.

Mobile banking has been successful in Kenya due to a number of circumstances; firstly the deregulation of the telecommunications sector through the Kenya Communications Act of 1998 allowed mobile network operators to exist in a largely liberalized environment. The changes in the regulatory framework led up to the subsequent formation of the four dominant mobile phone operators in Kenya; Telkom Orange, Safaricom, Celtel, and Econet (Omwansa 2009). Mobile banking is listed, under law, as a service that telecommunications companies can provide; therefore it does fall outside of their jurisdiction to offer mobile banking services (Sultana 2009).

The Communications Act was not established to regulate mobile banking or mobile transactions. After 2006, Kenya enacted the Kenya ICT Policy which was followed by the 2007 Electronic Transactions Bill; these policies were enacted with the intention of promoting electronic commerce and not curtailing the telecommunications sector (Omwansa 2009).

There are currently four mobile payment service providers in Kenya and the Safaricom is the market leader. The other providers include Bharti Airtel, Orange, Mobile Pay, and yuMobile. However, the arrangement that M-PESA, has had with the Central Bank of Kenya is crucial. In 2007 the Central Bank decided to take on an “experiment first, then regulate” position which allowed M-PESA to operate in an enabling environment (Kimenyi and Ndungu’u 2009; Mas and Ng’weno 2010). In 2007, the Central Bank of Kenya issued a “Letter of No Objection” that allowed M-PESA to operate. The letter made basic requirements of M-PESA including (1) reporting to the Central Bank, (2) safeguarding the integrity of the system, (3) preventing money

laundering, (4) keeping records, and (5) observing Kenyan laws that affected customers (Mas and Ng'weno 2010).

Even though many banks state that this allowed mobile payments system to hold extraordinary advantage, the Central Bank has continued to promote the development of mobile banking. However, in 2015, under pressure from banks, the Central Bank conducted an audit of M-PESA, which the banks declared had an unfair advantage. However, the Central Bank found that M-PESA is a safe product and conducts itself in line with the country's objectives for financial inclusion (Mas and Ng'weno 2010). The Treasury department responded by introducing the National Payment System Bill in 2014 which expands the regulation that M-PESA and other mobile network operators face but is largely intended to protect the integrity of the payments system in Kenya.

In 2014, the Central Bank began authorizing mobile virtual network operator (MVNO) licenses to companies without their own telecommunications infrastructure (Parrin 2015). This has also been a result of immense pressure from commercial banks. This change allows for banks to not be left out of mobile payment services completely and it gives them the power to set up their own mobile payments services without needing to partner with mobile network operators. The potential impact of these changes in Kenya could lead to market saturation as there already a number of service providers but it could also lead to greater product innovations, and lower cost to the consumer (Mulwa and Mazer 2014).

In Kenya, one of the most significant differences is that under the Central Bank of Kenya Act and the National Payment System Act, deposit taking is an activity that can be performed by any entity or financial institution. Kenya has structured, whether

intentionally or not, it's mobile banking space in an open approach. South Africa, on the other hand has not.

Deposit taking, according to the Banks Act of 1990, can only be performed by financial institutions that have acquired a banking license. Therefore, mobile network operators in South Africa would not qualify, under this act, to provide mobile payment services. However, under certain provisions, mainly by partnering with banks, mobile network operators can provide these services. Any service that operates as a money transfer platform is required to apply for a banking license, which comes with a mass of regulatory restrictions to adhere to (Banking Association of South Africa 2015). This is why; mobile banking service providers in South Africa have opted to launch their platforms in association with traditional banks. This has also meant that mobile operators in South Africa are not legally permitted to issue e-money (Sultana 2009).

A position paper published by the Reserve Bank in 2009, stipulated clearly that “The fact of the matter is that the taking of deposits from the general public by an unregistered person (non-bank) is a criminal offence in terms of the provisions of the Banks Act” (SARB 2009: 6). The stringent regulation has created less of an open environment. This is further compounded by FICA regulations that were introduced after the 9/11 attacks in the U.S. to prevent the free, untraceable movement of money globally. FICA regulations require individuals who open up bank accounts in South Africa to present some proof of income, employment, address, and an identity document. However, in 2015, amendments were introduced to FICA regulations that could potentially result in Exemption 17 being removed.

Exemption 17 was introduced in 2004 in an attempt to reduce the barriers of opening a bank account in South Africa. Exemption 17 allowed South African citizens to open bank accounts without having face-to-face interaction with a financial institution and without providing a proof of address (Lawack-Davids 2012). This reduced the bureaucratic hurdles that consumers had to face when attempting to open up a bank account if they could do so utilizing their cellphone number as an identifier as opposed to the previously mentioned identifier documents. If the amendment to the FICA regulations passed in parliament, millions of customers may no longer be able to access their bank accounts (Saunder, Estey and Cooper 2016).

To further complicate the bureaucratic process, RICA regulations also require individuals to register their cellphone SIM card which means that individuals who are unable to provide a proof of address and identity document may have their lines closed, as the RICA penalties stipulate. Mobile network operators face the possibility of facing heavy fines if they fail to comply with the rules. This means that even if mobile banking services are available individuals who do not meet RICA regulations, mainly those who are already financially excluded, may find it impossible to access formal financial services (Notes 2010). This exposes these individuals to predatory service providers where their consumer rights are not recognized or protected.

These circumstances provide some insight into why South Africa's bank led approach has failed to successfully launch mobile banking services in South Africa. Vodacom partnered up with Safaricom's M-PESA to bring mobile banking to South Africa in 2010, however, by 2014, it relaunched the platform through a marketing campaign because it had failed to attract a significant number of users (Tarrant 2015).

MTN Mobile money was launched in 2011 in association with Standard Bank, however, by 2012; Standard Bank purchased the customer base from MTN Mobile Money in South Africa and incorporated it with its own additive mobile banking platform (IT News Africa 2014; Standard Bank 2015).

Question 4: Are there contextual factors that influence mobile banking in Kenya and South Africa?

The Kenyan Context

In Kenya, the subject concerning the lack of clear guidelines as to who should regulate mobile banking in its entirety featured prominently in newspaper articles. The agenda to have greater or specific regulations was consistently advocated for by the commercial banks who acknowledged that their market share in the mobile payments space was considerably challenged by non-banks such as mobile network operators. The regulations that are currently in place were not developed to account for the convergence of telecommunications and finance and this has led to a few regulatory gaps and ambiguities. Below is an example of the kinds of remarks made by commercial bank executives about the need for comprehensive regulation regarding mobile banking.

“Regulation is critical to ensure market confidence in long term investment. We are worried about lack of oversight of the activities of agents dealing in mobile money transfer services.” ~ The Nation, 2010.

It is significant to note that mobile banks are not pushing for greater regulation overall, however, they are highlighting the lack of regulation of non-banks, who are their direct consumers. What is noteworthy is the distinctive response of the Central Bank of Kenya

which insists on introducing minimal regulations and increasing access. The Central Bank recognizes that the lines separating mobile banking and banking are increasingly becoming blurred but still considers mobile banking as having the potential to reach a greater number of unbanked individuals. This is evidenced by a quote that the governor of the bank made in 2011.

“For CBK, better regulation, as opposed to more regulation, means creating space for innovation but also being ready, with adequate instruments, to deal with the system's vulnerabilities" ~ Business Daily, 2010

However, at the same time, the Central Bank also acknowledged that the guidelines that are put in place to monitor mobile banking do not provide some form of consumer protection and also makes it easier to commit fraud whilst utilizing mobile money. The National Payments Bill, introduced in 2011, was drafted in parts to address some the regulatory shortcomings. The bill allows consumers, for example, to send – money to consumers who operate on other networks, increasing interoperability and the bill also ensures that if any mobile network operator were to collapse, consumers would be able to have their funds reimbursed. The Central Bank also stressed that the National Payments Bill would also bring mobile banking regulations in Kenya closer to international reporting standards and focus on money laundering, system integrity, insolvency, liquidity and legal risks.

Mobile network operators in Kenya on the other hand oppose stringent or increased regulation for fears that it may increase their reporting compliance requirements. Often times, mobile network operators stress that they do not operate in the

same way that commercial banks do and that their services need not be regulated in the same way that banks are. This quote below was said by a director of regulatory projects company that works and lobbies for mobile network operators in East and West Africa.

“The mobile money transfer agents are critical in opening electronic (e)-money accounts and exchanging e-money for cash and vice versa, yet they are not the same as bank agents” ~ Business Daily, 2010

Mobile network operators are aware of the currently privileged position that they are in and that is largely driven by the support that they receive from the Central Bank. That support, in part, can be explained by the immense impact that mobile banking has on the Kenyan economy. There are well over 20 million mobile money users in Kenya and in 2011 alone for example the amount of deposits made using the mobile phones grew by 16.4 per cent (Mugwe and Mark 2011). However, some mobile network operators, typically smaller operators with limited market share, have opted to partner up with banks in an effort to offer more comprehensive banking services. This usually takes the form of having savings accounts (offered by banks) and making them an option for mobile banking customers who can then transfer their e-money directly into their savings account.

A considerable challenge for the Central Bank of Kenya is managing the increased pressure of international organizations such as the World Bank and the Basel Committee who have both pointed out the regulatory weaknesses that mobile banking presents. The World Bank has highlighted that the informal nature of the mobile banking space opens it up to considerable risks.

“The fact that the mobile agent owns the shop they work in, and are independent as they only have a contract with the mobile operator, also came up as an issue of concern.” ~ Business Daily, 2010

However, M-PESA, operated by Safaricom, has been able to be successful due to the large network of cash agents who operate across Kenya. Safaricom and other mobile operators has actively encouraged set up where they are able to access the most customers and regulations that require greater reporting and streamlining of those agents could see a decline in the growth of cash agents because mobile network operators may transfer the costs of reporting onto agents. The World Bank emphasizes that its greatest concerns lie with the lack of reporting and potential for fraud on a global scale. Anti-money laundering policies are a great concern for Kenya because of its proximity to Somalia which has been labelled by the US as “high risk” and because of this has received increased money transfer restrictions in over the last year because of concerns that those funds were being funneled to support terrorist activity (Barry and Ensign 2016). The World Bank has proposed that mobile money be regulated both by the Central Bank as well as the Communications Commission of Kenya. The quotes below capture some of the concerns by the World Bank.

“These perceptions merit urgent attention because mobile financial service providers may fall outside anti-money laundering and combating the financing of terrorism controls generally adhered to by traditional financial institutions”

~ The Nation, 2012

"Non-bank providers of financial services, such as telcos should be considered as 'Financial Institutions,' as defined by the Financial Action Task Force (FATF)." ~
~ The Nation, 2012

It is important to note how mobile service providers in Kenya define themselves as non-banks as this impacts their arguments for why they should not be treated as banks. If non-banks are non-banks then they do essentially do not take on the same risks that commercial banks take on in accepting customer deposits. However, this is a myopic view of what banking is. Non-banks present an equal if not inherently different risks through the products and services that it offers and the open regulatory environment in Kenya has certainly acknowledged that by attempting to introduce more prudential regulations to influence the mobile network operators to take less risks and be more precautionous. One of the advantages of the closed regulatory approach taken by South Africa is the amount of protection it does offer to consumers who do have legal recourse if their funds are mishandled or stolen as well as a banking sector that is less open to external environmental risks because of the limitations that the regulatory body has initiated.

The South African Context

The quote below captures some of the challenges present in the mobile banking space in South Africa. The government South Africa has emphasized keeping up with global financial reporting standards and this has led to a slower development of mobile banking in the country.

“With the additional bureaucracy banks will face in South Africa, it doesn't look likely to be a wild commercial success. But if government thinks outside of the box, and clears some regulatory hurdles, it might achieve the ultimate objective - real financial services for the masses.” ~ Business Day, 2011

In South Africa, due the Banks Act, commercial banks have a considerable advantage over mobile network operators within the mobile banking space because they can apply for a banking license. Any service that operates as a money transfer platform is required to apply for a banking license, which comes with a mass of regulatory restrictions to adhere to (Banking Association of South Africa 2015). This is why; mobile banking service providers in South Africa have opted to launch their platforms in association with traditional banks. This has also meant that mobile operators in South Africa are not legally permitted to issue e-money (Sultana 2009). Mobile network operators recognize the challenging position they are in.

However, because banks have become centralized in the development of mobile banking products and services, they have also utilized the services as a platform to extend accessibility to cheap and unsecured loans. This disadvantages consumers who are already disenfranchised by making it easier for them to access loans which they may be unlikely to pay back. Krippner (2005), Tomaskovic-Devey and Lin (2011), Lapavistas (2011) and Orhangazi (2007) illustrate that households in developing countries are increasingly interacting with financial services and products at a higher rate than they used to in the past. Due to the reach of mobile banking, more consumers have access to a wider array of financial products, and in South Africa that comes in the form of cheap

credit. In Kenya, there is also a proliferation of products such as loans, however, this is also accompanied by an environment that is more competitive and offers consumers cheaper access to those products. However, the increase in credit access overall could still be negative for both the Kenyan and South African banking sectors.

““Kenya has a far friendlier regulatory environment, which allows technology companies to compete against banks," Richardson said.”~ Sunday Times, 2011

This statement was uttered by Brian Richardson who was the CEO of WIZZIT in 2011. WIZZIT was launched in 2004, and WIZZIT had anticipated that there were 16 million unbanked individuals in South Africa who represented an untapped market, however, by 2010 WIZZIT had only signed up approximately 300 000 customers (Bångens and Söderberg 2008). Other mobile money service providers which launched after WIZZIT have also witnessed minimal success in South Africa. Mobile network operators, in collaboration with banks, have failed to successfully launch mobile banking in South Africa. Vodacom partnered up with Safaricom’s M-PESA to bring mobile banking to South Africa in 2010, however, by 2014, it relaunched the platform through a marketing campaign because it had failed to attract a significant number of users (Tarrant 2015). MTN Mobile money was launched in 2011 in association with Standard Bank, however, by 2012; Standard Bank purchased the customer base from MTN Mobile Money in South Africa and incorporated it with its own additive mobile banking platform (IT News Africa 2014; Standard Bank 2015).

“There is evidence of substantial ignorance about mobile banking, even among presently banked customers, and also considerable mistrust of banking using these devices.” ~ Sunday Times, 2010

Another significant challenge for banks and mobile network operators is the regulatory environment in South Africa. FICA regulations which are intended to align South African banking regulations with international standards have been pursued by the Department of Treasury as well as the Central Bank. However, this places limitation on banks by making it more difficult for them to offer services to individuals who are unable to present a proof of address or an identity document. FICA laws also make it difficult for a significant number of foreign migrant workers in South Africa to gain access to banking services. For example, the introduction of RICA, which requires all cellphone numbers to be tied to a registered identity as well as an address, would leave a considerable number of customers without access to mobile banking services. The impact of this regulation is well captured in the article below published in the Business Day.

“More than 18-million South Africans do not have an ID number. More than 15-million South Africans do not live in a street with a name and a number. The Post Office recognizes only 6,5-million delivery addresses in the country. Since most people who use prepaid cellphones are not formally employed, they, understandably, also do not have a "business address". This will disqualify millions of South Africans from using a cellphone.” ~ Business Day, 2009

““It's going to make it very difficult for those companies who are trying to increase access to financial services by using telecommunication services due to the barrier that is built into accessing these services” ~ Business Day, 2009

However, the banking environment in South Africa is significantly different compared to Kenya. South Africa has more banking infrastructure and to a degree banks are not encouraged to invest in mobile banking services because a significant amount of their revenue is generated through banking fees (Business Tech 2015). Flamini, McDonald and Schumacher (2009) found that banks in southern Africa, including South Africa, gained a significant amount of their profits from high income and upper middle income customers but compared to other African countries.

Therefore, the lower tier of the market is often ignored and even though mobile network operators can service this market more affordable, regulatory restrictions do not make this possible. The growth of consumer demand for credit and unsecured lenders offering easier access to credit has also presented a considerable challenge for mobile network operators who are viewed as a possible mechanism of making credit easier to access if they are not tightly monitored. Regulators fear the growth of credit could lead to a credit bubble in the future and because unsecured lending contributes just less than 10% of all lending preventing further growth of credit is the target.

The South African environment is significantly different from Kenya’s context. However, reporting about financial inclusion in the country is often reported on positively because of the increased access to financial infrastructure and services, such as ATMs and online banking. Interviews conducted with bank executives often included conceptualizing mobile banking purely as another revenue stream as opposed to a method

to advance financial inclusion. This could be part of the reason why commercial banks in South Africa have struggled to launch successful mobile banking services.

CHAPTER VI

CONCLUSION

Even though South Africa was one of the first African countries to provide mobile banking services, the bank-led approach that has been initiated by the South African Reserve Bank has limited the opportunity for the advancement of mobile banking services. The Reserve Bank often cites the risks associated with mobile banking services, but it is also invested in maintaining its international status as a country with safe and stable banking institutions. Evidence of this is provided by the implementation of FICA regulations and back-tracking the advancements made in 2004 through Exemption 17.

All of these changes and additional requirements make it more challenging for consumers to access financial services. Mobile banking service providers in South Africa are forced to launch their platforms in association with traditional banks because they cannot apply for banking licenses. This limits the affordability of services, but it also centralizes the importance of banks instead of challenging banks. Perhaps banks in dominant positions are less motivated to recognize the possible success of mobile banking because of how that success has destabilized the banking sector in Kenya. Closed regulatory environments take a more conservative approach to the development of mobile banking services and generally privilege and centralize the position of commercial banks.

The closed regulatory approach in South Africa has also developed because banks, which play a far more central role, have established themselves as having greater

institutional legitimacy. This is perhaps why mobile banking services that have been offered to consumers have not been as successful because consumers still associate 'brick and mortar' banking services as being providing 'real banking services'. This is unlike the context on Kenya, where banks largely ignored consumers that formed part of the bottom of the pyramid, therefore when alternative services were offered by non-banks there was no room for commercial banks to challenge their legitimacy.

The significance of financial inclusion on the global development agenda and attached to that the growth of mobile banking as a solution to deal with the high number of unbanked consumers in the global south developed the success and failures of the microfinance. Microfinance refers to the provision small, low interest loans for purposes such as farming or starting small business. Many of the projects focused on providing low interest loans to women and farmers in countries with high poverty and high unemployment rates (Ssendi and Anderson 2009).

The disadvantages of microfinance became apparent when microfinance organizations also became profitable investment opportunities which shifted the aims of microfinance from simply being about development to being about increasing investment opportunity. This move affected consumers who had accessed credit that they were unable to pay back to microfinance institutions but also led to the proliferation of the microfinance industry in the global south. The open regulatory policy stance that is being followed by Kenya has the potential to develop in a similar way. Open regulatory environments are those that encourage the development of mobile banking services, are fluid, and typically accommodate multiple players within the banking network.

Little government oversight means that the mobile banking industry is at risk of being overtaken to service providers who do not have the same objectives that the Central Bank of Kenya does and that is to encourage innovation to the benefit of consumers. External environmental changes could lead Kenya to develop a more hybrid approach that incorporates some of the advantages of a closed regulatory approach which includes more institutional oversight of financial service providers but also the potential of having a stable banking sector that can deal with external shocks. This would also limit consumers risk and expand consumers rights, which under the open regulations, are not protected.

Mobile banking has led to greater accessibility in Kenya due to a number of circumstances such as rigorous advertising by companies and mobile network operators that have extensively invested in creating easily accessible cash-in/cash-out options (Mas and Ng'weno 2010). However, the arrangement that M-PESA, the dominant mobile banking service provider, has had with the Central Bank of Kenya is crucial. The central bank decided to take on an "experiment first, then regulate" position which allowed M-PESA to operate in an enabling environment (Kimenyi and Ndungu'u 2009; Mas and Ng'weno 2010). A mobile payment systems relying on e-money fell outside the provisions of the banking law, but since the beginning M-PESA developed a model that provided sufficient oversight to comfort the central bank (Mas and Ng'weno 2010).

Regulations that have come after this period have also been favorable towards mobile banking service providers because the Central Bank of Kenya has advanced changes that have (1) made it easier for consumers to access mobile banking services, (2) encouraged interoperability making the services more useful for consumers and, (3)

ultimately increasing competition within the industry even though there are a few monopolies. Regulations in Kenya are more directed towards encouraging financial inclusion at all levels of government and actively challenging the dominance of banks.

Future research considerations

Future research should examine whether the open and closed regulatory approach applies to other countries with developing mobile banking sectors. Further insight into the nexus between politics and banking regulations would also be insightful because that was information that could not be accessed in this research. However, it could provide key contextual information about why certain regulatory decisions are made and others are not. This contextual information can be provided by conducting interviews with key players within these Kenyan and South African environments and this would also be fruitful because both environments are experiencing significant changes currently. The changes described in this study highlight some of the significant regulations that have shaped the regulatory environments in South Africa and Kenya; however, future directions could lead to very different policy directions. The hybrid regulatory environment described above could lead to Kenya, for example, adopting some of the closed regulatory environment characteristics in order to make up for some of the risks which do not protect consumers from risks. In the South Africa case, this could lead to a loss of power by commercial banks who may find themselves in less strategically powerful roles in their own fields. This could happen in the South African regulatory environment shifts to incorporate non-banks and allowing those players to apply for banking licenses for example or loosening FICA and RICA regulations.

Also including other countries to the analysis, within sub-Saharan Africa, this could possibly include Nigeria, Ghana, Tanzania, Rwanda, and Mozambique which have also developed fast growing mobile banking services. It would interesting to compare whether any of these countries follow a closed and open regulatory approach or whether they follow a completely different regulatory pathway.

Limitations

The case comparison method is advantageous because it allows one to study detailed and unique processes, however, this comes with trade-offs. Unlike, statistical methods, one cannot analyze whether the cases included in this analysis represent the norm or that they represent outliers. More formal case-analysis such as the set-analysis that Ragin (2008) proposes could account for this, however, method of analysis is more valuable if there are more than ten cases to compare (Bennet and Elman 2006). Case study methods in their nature, study past events, therefore, there is weak justification for predictability (Bennet and Elman 2006). The selection of cases is crucial because this method is susceptible to selecting cases on the dependent variable, especially where more than two cases are selected. In this paper the objective was to compare cases where an outcome was present and not present, further analyses that include more cases would need to take that into consideration.

The findings and the theory building that form part of the outcomes of this study are shaped by the two cases which are included in the analysis. Therefore, even the evidence indicates that the conceptualization of open and closed mobile banking regulations does have some merit in trying to understanding mobile banking regulations,

caution should be practiced when attempting to make generalizations about other contexts where mobile banking levels are low or high.

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