

**LEGAL AND REGULATORY FRAMEWORK FOR MOBILE BANKING IN  
KENYA: A CASE FOR A REGULATORY IMPACT ASSESSMENT**

**BY  
MUSYIMI PETER MUNEENO**

**A thesis submitted in partial fulfillment of the requirements for the Master of Laws  
degree**

**UNIVERSITY OF NAIROBI  
SCHOOL OF LAW**

**NAIROBI**

**AUGUST, 2018**

**DECLARATION**

I, **MUSYIMI PETER MUNEENO**, declare that this thesis is my original work and that it has not been submitted elsewhere or is not due for submission for a degree in any other university.

Signature -----

**MUSYIMI PETER MUNEENO**

This thesis has been submitted with my approval as the University Supervisor.

Signature-----

**PAMELA AGER**

## **Abstract**

This research paper identifies and investigates the risk of regulatory failure on mobile banking industry in Kenya. The term ‘mobile banking’ is used in a liberal sense to include all mobile money services since as is being operated, mobile money services do not qualify to be categorized as a banking business under Kenya’s Banking Act. The research recognizes that mobile banking services are leveraged on cell phones which are operated by telecommunication corporations, traditionally non-banking institutions. The fact that this service involves transfer of money automatically brings the service providers under the ambit of financial regulations including the Central Bank’s financial regulations, prudential guidelines, payment system supervisors, anti-money laundering and terrorist financing prevention agencies. This is in addition to the telecommunications regulations issued by the Communications Authority. These disparate and overlapping regulatory domains pose the risk of regulatory failure which is likely to result in suffocation for this highly innovative service with the capability of providing financial access and inclusion to all, including the unbanked, the unreachable rural folk and women.

The research focuses on M-Pesa service in Kenya but draws comparisons from other countries for purposes of showing the relationship between growth of mobile money services and the regulatory frameworks within which they operate. It concludes that unguarded regulatory measures may inhibit growth or encourage monopolistic tendencies. To save M-Pesa and other mobile money providers from the identified risks, this research recommends that Kenya should fully adopt and institutionalize Regulatory Impact Assessment (RIA) for all regulatory measures relating mobile money market. This is a tool for conducting a cost-benefit-analysis of the proposed regulation and assisting regulatory authorities to make the right regulatory decisions.

## ***Acknowledgments***

I wish to thank the University of Nairobi, School of Law for the opportunity to study in this world class facility.

I sincerely express my appreciation to my supervisor Ms. Pamela Ager, the panel Chair, Dr. Constance Gikonyo and reader Dr. Jackson Bett for their helpful and insightful suggestions and guidance. I thank them for their willingness and generosity to spare their time and efforts.

I also wish to thank my family: My wife Elizabeth Koki, for the cheerful encouragement and endless love, my son Alpha Munene and daughter Betty Mutanu, with whom I competed for space on the homework table.

I dedicate this paper to the millions of M-Pesa users and hope that the convenience of this ultimate and virtual money service shall never be negatively affected by ill thought out regulations.

# TABLE OF CONTENTS

DECLARATION .....	2
Abstract .....	3
Acknowledgments.....	4
<b>TABLE OF CONTENTS .....</b>	<b>5</b>
<b>GLOSSARY.....</b>	<b>7</b>
<b>1.0 CHAPTER ONE: INTRODUCTION AND SETTING THE AGENDA FOR THE STUDY.....</b>	<b>8</b>
1.1 Introduction.....	8
1.2 Statement of the Problem.....	10
1.3 Issues Arising from the Problem.....	11
1.4 Hypotheses .....	12
1.5 Research Questions.....	12
1.6 Objectives .....	12
1.6.1 Specific Objective.....	12
1.6.2 Sub-objectives.....	12
1.7 Assumptions.....	13
1.8 Purpose and Significance of the Study .....	13
1.9 Methodology.....	14
1.10 Delimitation of the Study.....	15
1.11 Conceptual Framework.....	15
1.12 Organization and Chapter Outline .....	17
1.12.1 Chapter 1. Introduction and Setting the Agenda for the Study.....	17
1.12.3 Chapter 3: Relationship between Regulatory Frameworks and Growth in Mobile Banking .....	18
1.12.4 Chapter 4: The Case for a Regulatory Impact Assessment.....	19
1.12.5 Chapter 6: Conclusion and Recommendation.....	19
<b>2.0 CHAPTER TWO: CONCEPTION, GROWTH AND EMERGING MODELS OF MOBILE BANKING .....</b>	<b>20</b>
2.1 Mobile Phones: The Mustard Seed in Mobile Banking.....	20
2.2 Conception, Design and Implementation of the M-Pesa Service .....	22
2.3 Growth and uptake of M-Pesa .....	29
2.4 Emerging Models of Mobile Banking: Categorization of mobile banking models	32
2.6 Transformational Branchless Banking (TBB) .....	34
2.6.1 How Transformational is mobile banking in Kenya? .....	35
2.7 Mobile Banking Industry Stages.....	36
2.8 Mobile Banking and Access to Financial Services.....	39
<b>3.0 CHAPTER THREE: RELATIONSHIP BETWEEN REGULATORY FRAMEWORKS AND GROWTH IN MOBILE BANKING .....</b>	<b>44</b>
3.1 Regulatory considerations.....	48
3.2 Framework for an enabling legislative framework.....	53
3.5 Transformational Potential and Challenges of African m-banking models.....	54
3.4 The Effect of Regulation on emerging experiences of m-payments.....	54
3.5 Challenges facing M-Pesa.....	60
3.6 An Assessment of Kenya’s Mobile Regulatory Framework .....	63

3.6.1 The National Payment System Act, 2011 .....	63
3.6.2 Banking Act (Cap 488) .....	65
3.6.3 The Central Bank of Kenya Act, (Cap 491) .....	66
3.6.4 The Competition Act.....	66
3.6.5 Consumer Protection Act No. 46 of 2012.....	67
<b>4.0 CHAPTER FOUR: THE CASE FOR INSTITUTIONALIZING THE REGULATORY IMPACT ANALYSIS (RIA) TOOL .....</b>	<b>70</b>
4.1 What is “Regulatory Impact Assessment”? .....	71
4.2 Key Elements of RIA.....	72
4.3 The Benefits of Regulatory Impact Assessment.....	72
4.4 How have different Jurisdictions implemented the RIA?.....	73
4.4.1 The US Model.....	73
4.4.2 The Australian Model .....	74
4.4.3 The Canadian Model.....	74
4.4.4 The UK Model .....	74
4.4.5 The New Zealand Model .....	75
4.4.6 The OECD Model.....	75
4.4.7 The South African Model .....	77
4.4.8 The Case for Kenya .....	77
4.5 What is the ideal time to undertake RIA.....	79
4.6 Kenya’s Legal requirements on RIA .....	79
<b>5.0 CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS .....</b>	<b>81</b>
5.1 Subject of research.....	81
5.2 Summary of findings.....	82
5.3 Conclusion .....	84
5.4 Recommendations:.....	85
5.4.1 RIA as remedy .....	85
5.4.2 RIA as a legal requirement .....	85
5.4.3 Institutional framework for RIA .....	86
5.5 Relevance of this research .....	86
<b>BIBLIOGRAPHY .....</b>	<b>87</b>

## **GLOSSARY**

ATM: Automated Seller Machines

BB: Branchless Banking

CCK: Communications Commissions of Kenya

CBK: Central Bank of Kenya

CGAP: Consultative Group to Assist the Poor

DFID: (UK based) Department for International Development

DFIs: Development Finance Institutions

GoK: Government of Kenya

GSM: Global System for Mobile Communications

GSMA: Global System Mobile Association

ICT: Information Communications Technology

KPOSB: Kenya Post Office Savings Bank

KYC: Know Your Customer

MFIs: Micro Finance Institutions

MNO: Mobile Network Operators

MoF: Ministry of Finance

OECD: Organization for Economic Co-operation and Development

POS: Point of Sale

ROSCAS: Rotating Savings and Credit Associations

RPCB Program: Regulatory Performance and Capacity Building Program

RRS: Regulatory Reform Strategy

RIA: Regulatory Impact Assessment

SACCOs: Savings and Credit Cooperative Societies

SIM: Subscriber Identity Model

TBB: Transformational Branchless Banking

TELCO: Telecommunications Company

ULCH: Ultra Low Cost Handsets

USSD: Unstructured Supplementary Service Data

# 1.0 CHAPTER ONE: INTRODUCTION AND SETTING THE AGENDA FOR THE STUDY

## 1.1 Introduction

This research will build upon and add to the previous literature which has explored the growth trajectory of mobile banking<sup>1</sup> in Kenya and the regulatory environment within which this growth is taking place. It will explore the emerging models of mobile banking and analyse the innovative developments in the industry to show how they are highly dependent on the legal frameworks and regulatory regime within which they operate. It will show that mobile money industry in Kenya transcends across several regulatory regimes and argue that this unique nature of the mobile banking industry makes it susceptible to suffering unintended regulatory effects. The research will then suggest a tool, namely the Regulatory Impact Assessment (RIA)<sup>2</sup>, as a suitable tool to address and avoid possible unintended regulatory costs and spin-offs.

Mobile banking encompasses the usage of a smartphone or another cellular device to conduct online banking. This type of banking which is leveraged on Information Communication Technology (ICT) is among the latest methods of innovatively providing financial services. This is supported by the extensive adoption and usage of mobile phones. The rollout of mobile telephony and subsequent mobile banking has been rapid and has extended access to the hitherto poor and unbanked people and communities.<sup>3</sup>

The mobile banking services in Kenya are offered by both non-banking and banking institutions. This creates an overlap within numerous disparate regulatory spheres, especially the regulatory frameworks relating to banking, telecommunications, payment system supervisors, anti-money laundering and even terrorist financing prevention

---

<sup>1</sup> The term “banking” is used here to include the full range of financial services that customers get from a banking relationship, even though, in some cases, the financial services in question do not directly involve a bank or constitute “banking activity or business” under the Banking Act.

<sup>2</sup> RIA is an internationally recognized tool employed to determine the impact of intended regulatory reforms in many developed and developing countries; it assesses various options and give a cost-benefit analysis of the intended measure.

<sup>3</sup> Vaughan, P. 2008, *Providing the Unbanked with Access to Financial Services: The Case of M-PESA in Kenya*, Mobile Banking and Financial Services Conference. Johannesburg.



agencies.<sup>4</sup> The following legal and regulatory frameworks create different and separate sector-specific laws and regulators whose policies impact on mobile banking in one way or other:

- (a) the Banking Act<sup>5</sup> and the Central Bank of Kenya Act<sup>6</sup> grant the Central Bank of Kenya the power to regulate and supervise banks;
- (b) the Kenya Information and Communications Act<sup>7</sup> grants the Communication Authority of Kenya the power to license and supervise telecommunications companies;
- (c) the Proceeds of Crime and Anti-Money Laundering Act, 2009<sup>8</sup> establishes a Financial Reporting Centre whose principal objective is to “assist in the identification of the proceeds of crime and the combating of money laundering and the financing of terrorism”<sup>9</sup>;
- (d) the National Payment Systems Act, 2011<sup>10</sup> grants the Central Bank of Kenya the power to “designate regulate and supervise payment systems and payment service providers<sup>11</sup>” and
- (e) the Competition Act, 2010 establishes the Competition Authority to promote and safeguard competition in the national economy and to protect consumers from unfair and misleading market conduct.

Even without the additional complexity introduced by mobile banking, the multiplicity of regulators in the banking and telecommunication sectors calls for a coordinated attention to achieve the regulatory objectives without compromising investments and market growth. However, the Kenyan mobile banking industry, owing to its prospect of leapfrogging has acted as a catalyst and helped galvanize the energy required among policymakers to initiate measures necessary for coordination to happen. When the M-Pesa service was launched, the Central Bank of Kenya established an inter-departmental

---

<sup>4</sup> Lonie, N. H. (2007). M-PESA: Mobile Money for the “Unbanked” Turning Cellphones into 24-Hour Tellers in Kenya.

<sup>5</sup> Banking Act, Chapter 488, s 3 (1) (b).

<sup>6</sup> Central Bank of Kenya Act Chapter 491, s 3 and 4.

<sup>7</sup> Kenya Information and Communications Act, No 2 of 1998, s 5.

<sup>8</sup> Proceeds of Crime and Anti-Money Laundering Act, 2009, s 21-22.

<sup>9</sup> Section 23 (1) *ibid*.

<sup>10</sup> National Payment System Act, 2011 s 3 (1).

<sup>11</sup> Section 3 (1) (a).

team comprised of representatives of all the affected sectors to advise it before giving M-Pesa approval<sup>12</sup>.

Given the role of mobile banking and telecommunication industries and their dependence on the same technological platform, there is a need for an enabling legal and regulatory environment to ensure that more firms can enter this industry and employ their innovativeness without undue and overlapping regulatory requirements. To realize this state of affairs, legal frameworks and other regulatory requirements should create an enabling environment that is not only clear and free from overlaps but also certain. For Kenya policymakers and legislators to gain the knowledge and capacity required to create such an environment, the need to be guided by an empirical tool to access the cost-benefit effects of both the existing and proposed pieces of legislation.

It is a fact that a number of legal frameworks have already been put in place since the advent of the M-Pesa service, and that more laws and regulations are being developed. The concerns of policymakers and regulators are bound to clash with those of industry players resulting in conflict, coordination failure and the possibility of stifling innovation at the expense of customer satisfaction. This is bound to happen unless a Regulatory Impact Assessment for any intended regulation is carried out.

The purpose of this study is to introduce a new dimension to the discourse of regulating mobile banking services which altogether is still in its formative stages. Although other writers have called for regulation of this sector, it is through the conduct of RIA that Kenya would avert coordination failure and irrelevant or retrogressive legislation. RIA as a tool for assessing the impact of any intended legislation will also address itself to the effect of legislation on the unique cultural values which underlie the use of this new technology in Kenya. It is the argument in this research that the existing RIA requirements in Kenya, as contained in the law<sup>13</sup> lack both in detail and breadth.

## ***1.2 Statement of the Problem***

There is the risk of regulatory failure in the mobile money industry in Kenya occasioned by the fact that the service is offered by a telecommunications company which, though

---

<sup>12</sup> Ibid, 4.

<sup>13</sup> Statutory Instruments Act, 2013, Part III,

not a bank, has had endure overlapping regulatory frameworks including prudential banking rules, telecommunications regulations, payment system supervisors, anti-money laundering and even terrorist financing prevention agencies.

The use of mobile phones to conduct financial transactions in Kenya has progressed tremendously over the first few year of its introduction. This novel banking concept is being undertaken by a telecommunications company (Safaricom) which is a non-banking institution. The definition of “banking business”<sup>14</sup> does not appear to have contemplated mobile banking although the Central Bank of Kenya has broad powers including development of new regulations where none exist. Of necessity, this means that mobile banking institutions in Kenya will have to bear the burden of being regulated by more than one regulatory authority namely, the Cental Bank, the Communications Authority, payment system supervisors, anti-money laundering and even terrorist financing prevention agencies<sup>15</sup>. At the moment, the government of Kenya is in the process of putting in place regulatory measures for this sector without the benefit of an assessment of the effect of the regulations. Unless a Regulatory Impact Assessment for any intended regulation measure is carried out, the concerns of policymakers and regulators are bound to clash with those of industry players resulting in coordination failure and stifling innovation at the expense of the customer.<sup>16</sup>

### ***1.3 Issues Arising from the Problem***

1. How can mobile banking be harnessed to promote access to financial services?
2. What is the danger of the current disparate legal and regulatory regimes?
3. What are the emerging models of mobile banking?

---

<sup>14</sup> Banking Act Chapter 488, s 2 “banking business” means—

- (a) the accepting from members of the public money on deposit repayable on demand or at the expiry of a fixed period after notice;
- (b) the accepting from members of the public money on current account and payment on acceptance of cheques;
- (c) the employing of money held on deposit or on current account, or any part of the money, by lending, investment or in any other manner for the account and at the risk of the person so employing the money; and
- (d) such other business activity as the Central Bank may prescribe.

<sup>15</sup> Lonie, N. H. (2007). M-PESA: Mobile Money for the “Unbanked” Turning Cellphones into 24-Hour Tellers in Kenya.

<sup>16</sup> See Business Daily of Friday 8<sup>th</sup> April, 2011 “Kenya’s mobile banking success suffers high level regulatory risk.”

4. Is the government regulatory framework likely to be restrictive rather than enabling to the industry?
5. Which is the most viable form of regulation for this sector?
6. Is it necessary to conduct a Regulatory Impact Assessment for mobile banking laws in Kenya?

## **1.4 Hypotheses**

1. The nature of legal and regulatory framework directly influences the growth of mobile banking.
2. The disparate regulatory regimes within which the mobile banking industry is operating demand careful and tailor-made regulatory frameworks for each type of regulation.

## **1.5 Research Questions**

This research answers the following main questions:

1. What form of the regulatory environment is the M-Pesa service operating?
2. What form of the regulatory framework is necessary for M-Pesa?
3. Is there a risk of regulatory coordination failure which is likely to compromise innovativeness, interoperability or ensuring a competitive landscape among the mobile operators?
4. How can Regulatory Impact Assessment on legal and regulatory frameworks help reduce the risk of coordination failure?

## **1.6 Objectives**

### 1.6.1 Specific Objective

To contribute to the knowledge on Regulatory Impact Assessment for legal and regulatory measures relating to the mobile banking sector in Kenya and make a case for the institutionalization of the Regulatory Impact Assessment as a tool for addressing and avoiding unintended costs and spin-offs to regulatory reforms in the sector.

### 1.6.2 Sub-objectives

1. To establish the regulatory environment within which M-Pesa is operating.

2. To establish the pathway of growth and the emerging models of mobile banking as a unique means of access to financial services.
3. To study the legal and regulatory environment within which the mobile banking service is offered.
4. To propose an appropriate tool for assessing the impact of any intended legal and regulatory measures in the sector to achieve the desired impact.

### **1.7 Assumptions**

This research project is based on the following assumptions:

1. That the M-Pesa mobile banking service is representative of the emerging mobile banking services in Kenya.
2. That mobile banking in Kenya will continue to be offered by non-banking as well as banking institutions.

### **1.8 Purpose and Significance of the Study**

As Lonie, 2007 observes, the incredible acceptance of mobile phones across the world suggests that they have become the computing platform for the masses,<sup>17</sup> when the telecommunication companies were first established, communication and particularly voice data was their major line of business. The emergence of smart phones coupled by internet access has now transformed this ordinary venture into lucrative and widespread infrastructure upon which other players can leverage to offer a wide range of services. Financial access through mobile banking is one of the first product lines that has shown commercial promise.<sup>18</sup>

In Kenya, the positive developments in mobile banking have already been able to provide financial access to millions of citizen including those who, for a long time, have remained unbanked. This development which started in a legal vacuum is taking place in the face of the broader government's stated agenda to curb terrorism financing, prevent of money laundering and protect customers of financial services. Indeed, the government has been putting in place a regulatory framework, including enactment of laws whose

---

<sup>17</sup> Ibid, 16.

<sup>18</sup> Ibid, 16.

implementation will impact on not just the future of M-Pesa as a service but indeed all other players in the mobile banking industry.

The actual significance of this study is clearly brought out by the fact that while the M-Pesa service is doing incredibly well, it has shown little success in the many other jurisdictions where the service has been replicated. This study argues that the legislative framework both at the inception stage and the operational level largely influences the uptake, innovativeness and ultimate success of the service. In Kenya, the service started in a legal vacuum, and the Central Bank of Kenya employed a lot of caution which ensured the industry prospered. However, in recent years, the government has adopted multiple pieces of legislation which are likely to pose a danger not only to the service but also prohibit the entry of new players.

As is the case elsewhere in the world, Kenya's regulatory policy is largely determined at the national level, even when guided by international standards. There is, therefore, no substitute for deep country-level diagnostic analysis to bring out the impact of any intended regulatory measure.<sup>19</sup>

This study seeks to introduce a new dimension to the discourse of regulating mobile banking services which altogether is still in its formative stages by proposing a Regulatory Impact Assessment tool to avert the risk of coordination failure and other unintended effects in the sector.

## **1.9 Methodology**

This research project is exclusively based on qualitative and descriptive analysis. It draws on secondary material from current discourse on mobile banking and respective regulatory regimes. Due to limited financial resources, primary sources have not been included.

This study is grounded on library research drawing from:

- (a) secondary sources such as books, articles from journals, relevant laws and newspapers; and

---

<sup>19</sup> Robert Baldwin, M. C. (2013). *Understanding Regulation: Theory, Strategy and Practice*. London: Oxford University Press; 2<sup>nd</sup> Edition.

(b) the internet.

### ***1.10 Delimitation of the Study***

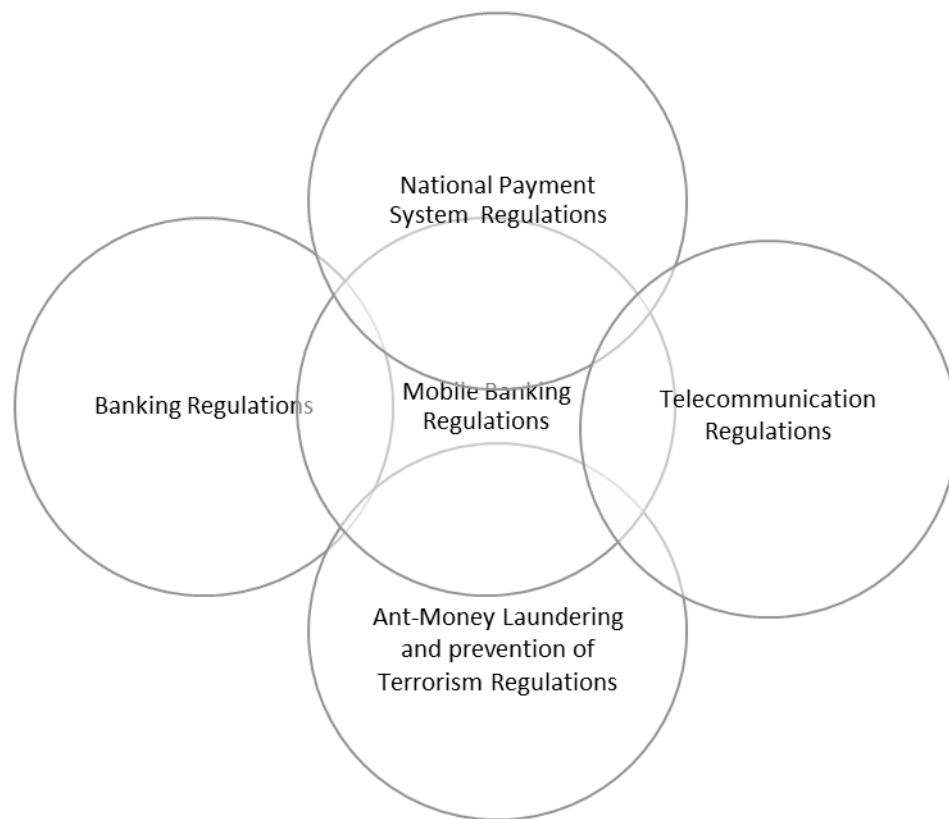
The scope of this study is mainly limited to the Safaricom's M-Pesa service although other mobile phone operators introduced similar products like Orange money and Airtel money. However where circumstances demand, references have been drawn from other mobile money providers both within and outside Kenya. The limitation of scope is due to the inadequate resources and time within which the study is conducted. Thus to the extent that these other mobile banking services may adopt varying models, divergent operational strategies, and dissimilar scope, this study is be limited.

### ***1.11 Conceptual Framework***

The mobile banking service in Kenya is a new phenomenon that is being undertaken by both banking and non-banking institutions. The service is therefore subjected to several overlapping and unrelated regulatory frameworks. These frameworks include the banking regulatory regimes, the telecommunications industry, the payment system overseers, and anti-money laundering and prevention of terrorist regimes.

These overlaps in the regulatory frameworks to a large extent pose the risk of conflicts and coordination failure, especially with the possibility that legislation or regulatory approaches could turn out to be unpredictable, contradictory and even irrelevant. At the moment, the government is in the process of putting in place regulatory measures for this sector.

Unless a Regulatory Impact Assessment for intended legislation is carried out, the concerns of policymakers and regulators are bound to clash with those of industry players resulting in unintended effects and spin-offs at the expense of the customer and occasioning coordination failure and stifling innovation.



**Figure 1: An illustration of the overlapping nature of the disparate regulatory frameworks in Kenya. Each of these substantively impacts on mobile banking**

The following are definitions of conceptual terms related this research:

**“Banking”** this term is used to refer to all types of mobile money services, “even though, in some cases, the financial services in question do not directly involve a bank or constitute “banking activity or business” under the Kenyan Banking Act”.

**GSM** -Global System for Mobile Communications is a global digital mobile standards developed by European Telecommunications Standards Institute to describe protocols for digital cellular networks.<sup>20</sup>

**GSMA** – Global System for Mobile Communications is a trade body that represents the interests of approximately 800 mobile network operators worldwide.<sup>21</sup>

**Mobile banking** (m-banking) refers to services offered by a bank or other financial institution to conduct financial transactions using a mobile device.

**M-Pesa** is an idiomatic word “standing for mobile money”. “*Pesa*” in Kiswahili translates to “cash”, while the “M” stands for mobile.

<sup>20</sup> Anton A. Huudeman, *The Worldwide History of Telecommunications*, John Wiley & Sons, 2003, page 529.

<sup>21</sup> <https://www.gsma.com> accessed on 10<sup>th</sup> August 2018.



**USSD Gateway** is a protocol used by GSM cellular telephones to communicate with service provider's computers. A gateway is the collection of hardware and software required to interconnect two or more disparate networks and performs protocol conversion.<sup>22</sup> based on the ability of the delivery agent or the source to send and receive USSD messages. USSD messages travel over GSM signaling channels and are used to query information and trigger services. Unlike similar services (SMS and MMS), which are store and forward based, USSD establishes a real-time session between mobile handset and application handling the service.<sup>23</sup>

**RIA** is a tool, prepared prior to some proposed regulatory measure. It is a critical analysis of a proposed approach assessing the pros and cons and providing alternatives to the proposed regulatory measure. RIA advocates that new regulatory measures should only be promulgated after all other alternatives are well-thought-out and eliminated in addition to the costs being justified by the benefits. Therefore RIA is tool intended to assist policymakers to come up with an informed decision concerning a stated problem in a transparent and open manner. It can ensure effective legislation and avoid unintended consequences.

## **1.12 Organization and Chapter Outline**

### **1.12.1 Chapter 1. Introduction and Setting the Agenda for the Study**

This chapter will provide an introduction and background of the study, identify and state the problem which this study seeks investigate including issues arising from the study. This chapter also states the hypothesis, research questions objectives of the study and assumptions. Finally, this chapter explains the purpose, methodology, significance and the limitations of the study as well as offers a conceptual framework.

### **1.12.2 Chapter 2: Conception, Growth and Emerging Models of Mobile Banking**

By analyzing existing literature and works of other authors, this chapter examines the nature, characteristics and growth trajectories of the mobile banking industry, specifically M-Pesa in Kenya. It explores how the service, like the proverbial mustard seed, has

---

<sup>22</sup> Webster's New World Telecom Dictionary (2010), Wiley Publishing, Inc., Indianapolis, Indiana (accessed on 10<sup>th</sup> August 2018) Available at <http://computer.yourdictionary.com/gateway>.

<sup>23</sup> [https://en.wikipedia/wiki/USSD\\_Gateway](https://en.wikipedia/wiki/USSD_Gateway) (accessed on 10<sup>th</sup> August 2018).

grown from insignificance to system that is now being relied upon by the banked and unbaked people alike, the business community, banks and utility service providers and even government agencies as a reliable means of payment. This Chapter also examines the emerging models and attempt to categorize M-Pesa as a truly transformative model. This Chapter demonstrates that given the complexity of the environment under which the M-Pesa service is operating, there is a need to enact laws and regulatory frameworks that properly govern the business interest of the players, protect consumers, and regulate competitors while at the same time meeting the broad aspirations of the policymakers. The Chapter concludes that there is a need for a tool to assist policymakers and regulators in regulating the industry without occasioning unintended market effects effectively. A Regulatory Impact Assessment tool would guide policymakers to not only understand which regulations to bring on board but also to anticipate their impact.

### **1.12.3 Chapter 3: Relationship between Regulatory Frameworks and Growth in Mobile Banking**

This chapter examines the regulatory and policy issues that require legislation and argues that laws governing the market place of delicate products like M-Pesa should only be enacted if they are absolutely necessary otherwise they may occasion unforeseen consequences. It cautions the governments not to be too ready to embark on regulating mobile banking without conducting a Regulatory Impact Assessment to ascertain the need for any legislation. The chapter analyses Kenya's existing legal frameworks in the banking and financial services sector to the extent that they relate to mobile banking. This Chapter assesses Kenya's mobile money financial services regulatory regime and points out that the mobile money industry grew exponentially in the absence solid legal framework. However, experience over the last few years shows that the Government of Kenya has been imposing a reactionary legal framework to regulate the industry without the benefit of a proper regulatory impact assessment. This new legal framework purporting to regulate hitherto unregulated sector is posing the danger of uncoordinated approach which is likely to bring unintended effects on the industry including the risk of clawing back on the already realized benefits of this uniquely transformative financial access service.

This Chapter concludes that regulatory policy should be proportionate and aim to foster, rather than inhibit, innovation in connection with regulated activity and that the only way

to ensure that regulatory measures do not occasion un-intended effects is by undertaking a Regulatory Impact Assessment.

#### **1.12.4 Chapter 4: The Case for a Regulatory Impact Assessment**

This Chapter will make a case for a Regulatory Impact Assessment (RIA) for Kenya, at least concerning the mobile banking industry. This Chapter will define Regulatory Impact Assessment, point out its benefits, its key elements and propose the ideal time when it may be undertaken. The Chapter will also analyze the relevant legal provisions relating to RIA in Kenya and assess their adequacy, effectiveness, and impact. Finally, this chapter will contextualize RIA as it is taking shape in other jurisdictions and the emerging trends.

#### **1.12.5 Chapter 6: Conclusion and Recommendation**

Based on the findings in the above chapters, this final Chapter offers a summary of the findings, draws the conclusion that the growth of mobile banking is influenced by the legal and regulatory framework within which it is operating and offers the recommendation that Regulatory Impact Assessment should be undertaken as a tool of arriving at the most suitable regulatory framework for mobile banking in Kenya.

## 2.0 CHAPTER TWO: CONCEPTION, GROWTH AND EMERGING MODELS OF MOBILE BANKING

### 2.1 Mobile Phones: The Mustard Seed in Mobile Banking

*“The Kingdom of heaven is like a mustard seed, which a man took and sowed in his field, which indeed is the least of all seeds; but when it is grown, it is greater than the herbs and becomes a tree, so that the birds of the air come and nest in its branches<sup>24</sup>”*

According to an ITU 2007 Report, the African continent added almost 15 million new mobile cellular subscribers to its subscriber base in 2004. This was an equivalent to the total number of both the fixed and mobile telephone subscribers on the continent in 1996, just eight years earlier<sup>25</sup>. Between 2004 and 2007, mobile telephony in Africa grew at a rate three times the world's average,<sup>26</sup> albeit from a lower base. Today the spread of mobile telephony in Africa is comparable to the rest of the world including matured markets in Europe and America where penetration has exceeded 90% overall. According to the GSMA report,<sup>27</sup> there are already 4.8 billion mobile subscribers in the world projected to reach the 5.6 billion mark by 2020 and 90% of the growth is expected from the developing world. This extraordinarily swift uptake of mobile phones across the world coupled with the ever-improving sophistication of the gadgets and the ability to access the internet has practically transformed mobile phones to be the computing platform of the masses.<sup>28</sup>

While communication is the major driver for mobile phones, their ever-improving computing ability has enabled players in the industry to recognize the potential to

---

<sup>24</sup> New International Version, Mathew 13. 31-32.

<sup>25</sup> International Telecommunication Union. (2007). *TELECOMMUNICATION/ICT MARKETS AND TRENDS IN AFRICA*. Geneva Switzerland: page 10 (Accessed on 10/10/2017 available at [https://www.itu.int/D/ict/statistics/material/af\\_report07](https://www.itu.int/D/ict/statistics/material/af_report07) .

<sup>26</sup> Mbiti, J. C. (2010). Mobile Phones and Economic Development in Africa. *Journal of Economic Perspectives Volume 24, Number 3* , 207–232 also available at <https://www.cgdev.org> accessed on 2/08/16.

<sup>27</sup> GSMA Report. (2017). *The Mobile Economy*. London: GSMA Intelligence available at [www.gsmintelligence.com](http://www.gsmintelligence.com) accessed on 29/6/2016.

<sup>28</sup> Lonie, *ibid*, 16.

leverage upon this reliable and widespread infrastructure to deliver other services. Mobile phones have been used to send text messages, browse the internet, send and access visual images and to accommodate various applications or programs designed to do coordinated functions, tasks, and activities. Some of the applications are designed for the benefit of the user or industry in fields like health, farming, marketing, and advertisement, connecting people and performing electronic financial transactions. Financial access through mobile banking as is among the successful ventures that have shown the potential for commercial success.

Today developing countries do not need to build expensive landline infrastructure hitherto associated with providing telephone services in the rural areas. The uptake of mobile phones by the masses essentially means that developing countries have not only forgone the cost and time of building of expensive infrastructure but also have an opportunity to use mobile phones to provide banking services to their unbanked citizens. What this means is that developing countries can provide telephone, postal, banking and other services away from banking halls and without the requirement of constructing expensive countrywide branch networks.

This prospect of leapfrogging traditional banking styles to provide cheap financial services through mobile phones portends a number of positive developmental consequences, namely:

- (a) the possibility of enhancing efficiency and effectiveness of payment systems;
- (b) reducing the cost of giving financial services to customers;
- (c) affording an alternative transactional medium through reduction of reliance on cash; and
- (d) prospect of growing access to financial services through promoting accessibility

This possibility of accessing the unbanked sections of the population without requirement to build expensive infrastructure like installing automated teller machines (ATMs), other Electronic Point of Sale (EFT-POS) devices, building countrywide network of branches and the attendant resources greatly enhances financial inclusion and access to financial services to low-income sections of the population.

Once mobile banking services are introduced in a largely unbanked but mobile-using population, the question that remains is “what is required for the number of mobile banking users to increase exponentially to match the mobile phone adoption. In particular, will the mobile banking follow the explosive trajectory of mobile phone usage?”<sup>29</sup> As the unbanked people start to use mobile phones, they become reachable at lower cost, and therefore more bankable, in the sense that a basic transactional service becomes viable to offer via the phone.<sup>30</sup>

It is important to analyze how, at the conception stage, the Kenyan retail banks responded to the introduction of the M-Pesa service, and subsequently, how the same banks ironically turned around to tap into the benefits offered by the mobile money services. During this conception stage, a cartel of Kenyan banks successfully lobbied the Central Bank of Kenya to investigate Safaricom and M-Pesa, labeling it “nothing more than a *Ponzi* scheme.”<sup>31</sup> The established retail banks in Kenya viewed the upstart mobile operator-led service that acted as a bank, as a threat<sup>32</sup>. They aimed to teach the upstart a lesson, and shut it down or at least bring it to heel by forcing it to play by the rules and act as a bank<sup>33</sup>. These schemes, however, did not materialize, thanks to the meticulous manner in which the Central Bank of Kenya handled the issue.

## **2.2 Conception, Design and Implementation of the M-Pesa Service**

The story about the conception, design, implementation, and uptake of the M-Pesa service in Kenya is comparable to the biblical parable of the grain of Mustard Seed<sup>34</sup> which is “among the smallest of seeds but grows to become a big tree onto which birds of the air come to lodge in its branches.”<sup>35</sup>

---

<sup>29</sup> Porteous, D. (2006), *The Enabling Environment for Mobile Banking in Africa*. Winthrop Square Boston, USA: Bankable Frontier Associates accessed on 26/8.205 available at [www.bankablefrontier.com](http://www.bankablefrontier.com).

<sup>30</sup> Ibid, page 19.

<sup>31</sup> Kimenyi Mwangi S. “Mobile Wars and Political Barriers to Entry: Safaricom vs. Equity Bank” (Africa in Focus October 29, 2014) Available at [www.brbookings.edu/blog/africa-in-focus](http://www.brbookings.edu/blog/africa-in-focus) accessed on 19/11/2017.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> New International Version, ibid 26.

<sup>35</sup> Ibid.

What as to grow into the largest mobile phone network in East and Central Africa was launched by the Safaricom group in March 2007., Safaricom, (then part of the Vodafone Group), launched M-Pesa as an innovative payment service that was initially intended for the unbanked<sup>36</sup>. Immediately after the launch, questions relating to its safety were raised in Parliament. Similarly, retail banks and politicians pressured the Central Bank of Kenya to conduct an audit of the service. Eventually, a team comprising of Central Bank of Kenya officials, government lawyers, telecom regulators, National Payment System officials and research departments was formed to ascertain the reliability of the service.

Government officials and retail banks raised concerns as to “why and how a telecom company like Vodafone”<sup>37</sup> opted to start a ‘banking project’ like M-Pesa. These concerns were prompted by the fact that mobile banking was not part of the core business of Vodafone and that concept was not offered in the more developed markets (this is because Kenya is a comparatively an insignificant market in Vodafone’s mutinational standards). Besides mobile banking had little to do with the voice and data products which were driving Vodafone’s revenue streams in other economies. But as Lonie, 2007 observe, this could only be explained by the fact that telecom companies were new and relentlessly growing, operating in ‘under-regulated’ environment as opposed to banks which were old-timers, outmoded, conventional, and sluggish, operating in an ‘over-regulated’ environment.

M-Pesa founders had to go an extra mile to convince the officials that the M-Pesa venture was worthwhile. First, they had to answer questions about the legal status of the venture and show that it was a lawful business. Second, they had to convince the authorities that the system could not be used illicitly for money laundering, and third, they had to assure the regulators that M-Pesa did not pose any operational risks, particularly about the use of new technology. Even after providing all the required assurances, Central Bank of Kenya (CBK) in 2008 announced that the CBK was going to review the relevant regulations and guidelines. Immediately after that, the then Minister for Finance ordered an audit of M-Pesa money transfer service. Coincidentally, this survey returned positive findings in

---

<sup>36</sup> Neville, D. P. (2006). *M-Banking a Knowledge Map and Possible donor support strategies*. Washington D.C: World Bank available at [www.bankablefrontier.com](http://www.bankablefrontier.com) accessed on 22/6/2014.

<sup>37</sup> Ibid, Lonie, 16.

both the usage and product confidence and the CBK went issued Safaricom with a letter of no objection thus paving the way for the service to be commercially implemented. M-Pesa, therefore, operated under a "special" license and in a legal vacuum since, by that time, the no law had been enacted by the Kenyan government to regulate any form of banking services by a non-banking institution.

From its inception up until a few years ago, the M-Pesa service, which is being acclaimed the world over as uniquely innovative, has been largely taking place in a legal vacuum. The founders of M-Pesa exploited a loophole in the banking regulations and managed to establish a financial service that operated in the absence of a formal bank licence. By default, the definition of banking business in Kenya did not recognize these services as banking business,<sup>38</sup> and hence they remained unregulated for nearly five years. The Kenyan Banking Act had not anticipated banking products being offered by non-financial institutions. This scenario was further complicated when in 2010, Kenya promulgated its new Constitution which vested the legislative authority in Parliament and imposed restrictions to the issuance of delegated legislation.<sup>39</sup>

The Central Bank of Kenya wisely allowed M-Pesa to operate and only issued guidelines and regulations whenever it was necessary to do so. The first of these were the Agent Banking Regulations issued in April 2010 which allowed commercial banks to use their retail outlets for transaction handling and product promotion. It is then that Kenyan banks started using the M-Pesa platform to channel their products across their nationwide branch networks<sup>40</sup>.

---

<sup>38</sup> the Banking Act Chapter 488 s 2(1) defines "banking business" to mean—

(a) the accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice;

(b) the accepting from members of the public of money on current account and payment on and acceptance of cheques; and

(c) the employing of money held on deposit or on current account, or any part of the money, by lending, investment or in any other manner for the account and at the risk of the person so employing the money; (Indeed the use of “and” gave Safaricom the leeway to offer financial services outside of the banking regulations).

<sup>39</sup> Article 96 (5) and (6) restricts the promulgation of delegated legislation to only what is specifically authorized by law.

<sup>40</sup> Peter Ondiege, 2010. Mobile Banking in Africa: Taking the Bank to the People. AfDB, Africa Economic Brief, Volume 1, Issue 8, December, 200.



Comparing the regulatory environment within which M-Pesa was launched with experiences in other countries, it will be seen that the existing regulatory requirements influence not only the nature of the business but also the degree of innovativeness by the entrepreneurs and investors. The relationship between regulatory framework and growth of mobile banking is illustrated by two experts who have written a case study, each taking up one part of the story<sup>41</sup>. Nick Hughes<sup>42</sup>, describes in detail how M-Pesa service was conceived as an idea and through sheer determination and working around the existing obstacles was transformed into a pilot project and later implemented as a business concept<sup>43</sup>. He argues that M-Pesa facility has great potential of contributing to the realization of the Millennium Development Goals<sup>44</sup> of reducing poverty by half by the year 2015 and eliminating it in 2030 through increased economic activity and trade.

Susie Lonie<sup>45</sup> explains how existing computer software in the market was tailored to meet the needs of the western market and therefore could not work in the case of M-Pesa. At the time M-pesa was being conceptualized, the mobile telephony operators were new in the scene and were enjoying high profits premised bulk sales of low-value transaction. They were therefore fast growing entrepreneurial entities. On the other hand, banks established institutions with entrenched businesses and a comfortably cautious approach to any new innovations. Traditionally, banks rely on fewer transactions with high profit margins.

For a telcom company such as Vodafone to invest in a financial service such as M-Pesa, Lonie observes that this amounted to collision of philosophies<sup>46</sup>. This reasoning forced Vodafone to abandon plans for buying existing software and embarked on designing suitable computer software.

---

<sup>41</sup> Ibid, Lonie, 26.

<sup>42</sup> a Vodafone executive who started this project in Nairobi in 2003.

<sup>43</sup> Ibid.

<sup>44</sup> The Millennium Development Goals were a set of eight goals established by the U.N. Millennium Summit in 2000 with the aim of halving global poverty by the year 2015. From 2016 onwards, the Sustainable Development Goals (SDGs) have replaced the MDGs but the poverty eradication agenda still remains.

<sup>45</sup> An e-commerce expert who was brought in Kenya to work through the detailed design phase and project management from the pilot stage into commercial operation.

<sup>46</sup> Ibid, Lonie, 26.

The software had to take into account the fundamental differences between the way financial institutions on the one hand and telecommunication companies on the other do their business. In addition to making this unique service work, the new software had to take into account the following considerations:

- (a) precaution had to be taken to carefully appreciate the capabilities of the Safaricom system;
- (b) The software had to be designed to function without reliance on a bank account since the target population involved mainly the unbanked;
- (c) The e-money always had to exactly match the real money to avoid the unfortunate situation of creating currency. Therefore, a partner in Kenya, (in this case the CBA) was required to provide any required commercial bank services;
- (d) Since smart phones in Kenya were just few, there had to be an interface to act as the primary mobile phone;
- (e) In order to involve the people and test its effectiveness, there had to be potential buyers in the market (in this case Faulu Kenya, a local microfinance institution together with its borrowers, who were spread all over the country came in very handy);
- (f) There were required marketing channels to be M-Pesa agents. These were the ground outlets where customers could withdraw and deposit their money using e-money accounts;
- (g) Given the slow internet speeds in Kenya at the time, the servers had to be placed strategically otherwise transacting would have been excruciatingly slow; and
- (h) Finally, the CBK had to be involved given its role in financial service regulation even though there was no law to guide the implementation of M-Pesa service.

Susie commends the CBK for its facilitative role and innovativeness to roll out the service, even in the absence of the regulatory framework but concludes thus:

*“It is clear that regulation of services such as M-Pesa will happen sooner rather than later. This is no bad thing for either consumers or service providers as long as the regulation protects the consumer against the risks involved. The better the*

*regulator understands the capabilities and limitations of services like M-PESA, the better and more appropriate the regulation will be.”<sup>47</sup>*

This conclusion proved prophetic when in January 2008 Kenya’s Finance Minister ordered that M-Pesa and the legal environment within which it was operating be reviewed. In a subsequent government report published in the media,<sup>48</sup> the government clarified that:

- (a) It was committed to assessing the risk factors relating M-Pesa in order to guarantee its safety and efficacy. It was also clarified that all the concerns were answered in the affirmative and the government was satisfied that the risk factors were mitigated. However, the government almost immediately started rolling out measures including the enactment of the Communications Commission of Kenya (Amendment) Act, 2008 which expanded CCK’s mandate to electronic services and the review of the CBK Act in 2003 which mandated the CBK to oversee payment and settlement systems in the country.
- (b) Only 19% of Kenyans had bank accounts, yet the majority of the unbanked ones had access to mobile phones which opened a huge potential for M-Pesa to avail access to financial services to many Kenyans.
- (c) The CBK had the full backing of the government to ensure that the innovations were safe and sound.

In seeking to regulate mobile banking in Kenya, the authorities were playing a catch-up part, since the purported regulations were being proposed long after the market had widely accepted the product and the service.

As already noted, the demand for regulation was to be driven further by the commercial banks that saw M-Pesa as a competitor. When the M-Pesa service got linked with some selected banks through ATMs, the banking fraternity started questioning why a non-bank was getting allowed to provide banking and quasi-banking services. This argument flew in the face since it was clear that M-Pesa was innovatively exploiting a business opportunity. Banks could not understand how their traditional time tested business line of

---

<sup>47</sup> Page 79.

<sup>48</sup> Daily Nation, December 9<sup>th</sup> 2008.

attracting deposits using interest rate as the bait was faced with the threat of being rendered obsolete. This together with the government's intention to legislatively regulate interest rates sent a cold shiver down the banking fraternity.

Banks were also worried that they could be reduced to irrelevance because if the concept of M-Pesa was to be adopted by all, there would be no point of a customer going to withdraw money from the bank to purchase stuff only for the money to go back to the bank. M-Pesa was offering a platform for a cashless society where buyers and sellers could exchange merchandise without actual exchange of money! This was a logical evolution of know-how since traditionally traders were doing barter trade, this moved to money, then progressed card. Now M-Pesa was moving it to the virtual card. This is a real prospect of a cashless society backed by sheer creativity and innovativeness. Every technological advancement is initially viewed with some degree of skepticism until the users begin realizing the paybacks, and the protectors of ancient tools surrender the contest or get converted.

Indeed as one looks at the success factors for the M-Pesa service, the Central Bank of Kenya's methodology of adopting dialogue guided by the technical expertise and employing lean regulatory approach cannot be lost. The CBK managed to balance the industry and public interest on the one hand and political skepticism and agitation and competition wars from the existing financial institutions on the other. By adopting a "layering regulatory approach"- (introducing rules based on observed market behavior and doing so after consultations), the CBK was able to reinforce initial policy requirements and encourage an emerging sector, without sacrificing the potential of the innovators to meet the consumer needs.

However, this situation has been gradually changing over the past few years, as the conclusion by Susie Lonie turned prophetic. Parliament has been promulgating different sets of regulatory frameworks albeit without a regulatory impact assessment tool to assess their need or impact. It is therefore clear that the "regulatory holiday" that the mobile banking industry has been enjoying will soon end.

Even though the industry remained virtually unregulated for nearly five years since it was launched, the situation started to change in 2010 when the government appeared keen to regulate the industry to respond to global concerns relating to customer protection, curbing terrorist financing and money laundering.

The important unique aspects of the mobile banking industry in Kenya including the vital question of regulating the industry have clearly been analysed<sup>49</sup>. But the analysts have failed to address themselves to the most important question about nature of such regulation. Indeed, as the key stakeholders in the M-Pesa service, they argue that Safaricom and other operators would rather it remains unregulated. They do not balance the interests of the industry with the greater public interest which requires some form of legal and regulatory frameworks to prevent systemic financial risks, protect customers, check money laundering and terrorist financing and generally to provide an enabling business environment for all players. While it is the duty the sovereign duty every government to promulgate laws, it is the method of instituting legal and regulatory framework which matters.

### **2.3 Growth and uptake of M-Pesa**

Ever since its inception, the M-Pesa “project faced formidable financial, social, cultural, political, technological and regulatory hurdles.”<sup>50</sup> Even at the initial implementation stage, Vodafone had to combine “incredibly divergent cultures of global telecommunications companies, banks, and microfinance institutions to cope with the massive, contradictory and in some cases non-existent regulatory requirements.”<sup>51</sup>

Initially, M-Pesa was conceived as an m-payment platform intended to be a vehicle “to disburse loans from a microfinance institution to its clients, and then to collect repayments via designated Safaricom airtime agents.”<sup>52</sup> It was simply intended to be an interface between microfinance institutions (particularly Faulu-Kenya) and their borrowers where loans would be disbursed and repaid conveniently using the Safaricom

---

<sup>49</sup> Ibid, Lonie, 26.

<sup>50</sup> Nick Hughes and Susie Lonie, 2007, M-Pesa: Mobile Money for the “Unbanked” Turning Cellphones into 24-Hour Tellers in Kenya available at [www.mitpressjournals.org](http://www.mitpressjournals.org), accessed on 23/10/2016.

<sup>51</sup> Ibid, page 63.

<sup>52</sup> Ibid, page 63.

network. A Kenyan bank was to be used to hold the pooled balances. It was intended to reduce the cost of transactions and to enable borrowers to track their finances more effectively. It was on this basis that a pilot phase of M-Pesa was rolled out. However, it was during this piloting stage that “customers adopted the service for alternative uses and complications arose.”<sup>53</sup>

Based on this feedback the service had to be changed and re-oriented to suit the market requirements of sending money mainly from urban to rural centres and making payments for a number of other transactions.

Upon its launch, Safaricom’s M-Pesa service registered nearly 20,000 M-Pesa customers, well ahead of the targeted business plan.<sup>54</sup> Just over one year after its inception, M-Pesa subscribers were nearly four million, equivalent to the number of bank account holders in Kenya at that time<sup>55</sup>. Three and a half years after the launch, “over 70% of households in Kenya, and more importantly, over 50% of the poor, unbanked and rural populations were using the service.”<sup>56</sup> By 31st December 2015, M-Pesa subscribers had surpassed the 20 million mark transacting Kshs. 125 billion per year representing 12% of Kenya’s annual budget. According to the Central Bank of Kenya, mobile money contributes a staggering 66.56% of the total National Payment System.<sup>57</sup>

The amazing appetite for the M-Pesa service and the abrupt take-up is a clear indication that mobile banking is filling a financial service gap in the market.

As it turned out, the service has been employed to some innovative uses partly informed by Kenya’s cultural and social needs. M-Pesa is now used to:

- (a) Pay bills like electricity, water, TV subscriptions;
- (b) Pay for goods in shops and services in restaurants;
- (c) Pay for e-government services;
- (d) Receive money and send money;

---

<sup>53</sup> Ibid, page 70.

<sup>54</sup> Ibid, page 72.

<sup>55</sup> Ibid, Porteous et al., 2006.

<sup>56</sup> Alexandre, C. (2010, November 2010). *10 Things You Thought You Knew about M-PESA*. Retrieved August 24, 2016, from CGAP Advancing financial inclusion to improve lives of the poor: <http://www.cgap.org/blog/10-things-you-thought-you-knew-about-m-pesa>.

<sup>57</sup> Central Bank Statistics on Payment Systems in Kenya, 2015.

- (e) Withdraw and transfer cash in bank accounts;
- (f) Top up own, or someone else's airtime account;
- (g) Buy and send airtime to other customers;
- (h) Save money and apply for loans from lending institutions; and
- (i) Manage their bank accounts including depositing, withdrawing and making a variety of other requests.

Banks have also embraced the service as well, and customers in virtually all the banks in Kenya can conveniently access their accounts at any time day and night. Among the services available to customers include:

- (a) transfer funds from one account to the other;
- (b) transfer of funds via RTGS to other banks;
- (c) transfer funds from bank account to M-Pesa account and *vice versa*;
- (d) pay bills from the account;
- (e) payment of credit card;
- (f) setting up of standing orders;
- (g) check balances and view your mini statements;
- (h) receive short messages and alerts from the bank;
- (i) buy airtime from bank account;
- (j) forex rates request;
- (k) order debit cards;
- (l) stop a debit /credit card;
- (m) order cheques book;
- (n) stop cheque payment;
- (o) order bank statements;
- (p) open an account;
- (q) set up a term deposit; or
- (r) access to the branch locator that will show the nearest branch.

Likewise, the national government is now capable of delivering the following services through e-citizen services which use M-Pesa payment system:

- (a) application for passport modification;

- (b) police clearance certificate;
- (c) car registration and driving license;
- (d) the application fee for business name registration;
- (e) notice of marriage;
- (f) certificate of marriage;
- (g) official searches including to immovable property;
- (h) payment for business registration;
- (i) replacement of lost car log-book, registration number plates; and
- (j) immigration visa fees, among others.

There are also other players who have built their business on the M-Pesa service. *SportPesa* is a betting company based in Kenya whose business is largely pegged on M-Pesa and other mobile money services. It is owned and operated by the Pevans East Africa Limited and licensed by the Kenya Betting and Licensing Board under the Betting, Lotteries and Gaming Act. Other betting companies which rely on M-Pesa as their main payment system include *Betin*, *Bet Pawa*, *M-Cheza* and *Bet Yetu*. These companies are the first ever multi-million real-time sports gaming experience in East Africa that uses mobile money and online platforms to engage in competitions.

The digital transformation being witnessed across the mobile ecosystem both in Kenya and elsewhere in the world presents a clear set of business opportunities for all players including governments. The challenge is to seize the opportunity against the backdrop of a flexible regulatory regime which is responsive to the innovativeness, consumer needs, and social welfare. It is the thesis of this research that such regulatory environment cannot be realized in the absence of a Regulatory Impact Assessment.

## **2.4 Emerging Models of Mobile Banking: Categorization of mobile banking models**

*“...M-Pesa is an electronic money transfer product that enables users to store value on their mobile phone or mobile account in the form of electronic currency that can be used for multiple purposes including transfers to other users and conversion to and from cash...it offers the prospect of providing money transfer services to people who are not in a position to open a bank account....the M-Pesa*



*has been able to reach the unbanked Kenyans including those in the marginalized areas where formal banking services are non-existent*<sup>58</sup>

In a Report Commissioned by Department for International Development,<sup>59</sup> David Porteous analyses the emerging models of m-banking and places them into four categories. These four categories are centered on the diverse roles played by the parties involved. These parties include telecommunication companies, banks and even third party product providers. These emerging models include the following:

- (a) models where the bank simply adds the mobile telecommunications channel to its product range;
- (b) hybrid models in which the telecommunications company brings various brands to bank-based products;
- (c) purely bank-dominated models where the bank bases it on an bank product; to
- (d) purely telecommunication company-based model in which the telecommunications company is in charge of the deposits.

Whatever the model however, all forms of mobile banking have the potential to enhance access to financial services especially for the unbanked sections of the population. . It can also make financial transactions to become more convenient and cheaper.

For convenience purposes, the various emerging models can be clustered into two broad categories namely:

- (a) *Additive models*<sup>60</sup>- mobile banking models where the cell phone is taken as just an alternative conduit to a bank account.
- (b) *Transformational models*<sup>61</sup>- According to David Porteous, a mobile banking model is transformational if the financial product is connected to a cell phone and is aimed at reaching the low-income and unbanked people.

To qualify to be transformational, such a model must possess the following characteristics:<sup>62</sup>

---

<sup>58</sup> *The PS Treasury in a Government statement on M-Pesa published on January 25, 2009*

<sup>59</sup> Ibid, Porteous, page 17-26

<sup>60</sup> Ibid, Porteous, page 26

<sup>61</sup> Ibid, Porteous, page 26

<sup>62</sup> Ibid , Porteous, page 3

- (i) It employs the use of a telecommunications network which already covers the low-income and unbanked people;
- (ii) it is not driven by the traditional banks but by new players like telecommunication companies;
- (iii) it uses the telecommunication's distribution network to undertake financial transactions; and
- (iv) it is cheaper than the conventional banking system.

Thus, to determine whether a given type of mobile banking is transformational or not, depends on whether it conforms to the above conditions which in-turn are determined by the regulatory environment within which the mobile banking is taking place. For the environment to be enabling it has to support a sustainable growth trajectory. The laws and policies must be enabling for a transformational mobile banking model to succeed.

According to the report, mobile banking providers in Africa faced “major barriers to their growth”<sup>63</sup> due to regulatory issues.

This conclusion supports the argument of this study that success and growth of mobile banking is directly related to the nature of legal framework in place. This will be discussed in the following Chapter.

## ***2.6 Transformational Branchless Banking (TBB)***

The term “Transformational branchless banking”<sup>64</sup> refers to the deployment of electronic channels supported by new technologies such as mobile telephony to provide banking and payment services to previously unbanked people.

The term 'TBB' derives from two sources:

- (i) transformational, meaning likely to bank the unbanked, as used in Vodafone SIM Public Policy Paper; and
- (ii) branchless banking, meaning banking without physical banking halls.

---

<sup>63</sup> Ibid, Porteous, page 4.

<sup>64</sup> Ibid, Porteous, page 17.

Proponents of the transformational model have however questioned the use of the word ‘transformational’ and argued that at very least, greater clarification is required.<sup>65</sup>

However it is clear that M-Pesa is quickly transforming the economy from “cash-based to electronic-value-stored-and-mobile-phone-conveyed”<sup>66</sup>

### 2.6.1 How Transformational is mobile banking in Kenya?

Kenya’s M-Pesa has all the features of a transformational model:

1. First, it is a branchless banking; M-Pesa does not need its customers to maintain bank accounts.
2. A transformational model’s main value proposition is a reduction of transaction costs for person-to-person money transfers. M-Pesa charges a transfer fee of Kshs. 27 (US 27 cents), and a similar amount to withdraw. The total adds up to of Kshs. 54 for the service compared to the following tariffs for alternative money transfers service providers (Weil, 2011):
  - (a) G4S Securicor Kshs. 240;
  - (b) Bus Company Kshs. 140;
  - (c) Banks Kshs. 1,500;
  - (d) Western Union Kshs. 2,500.
3. Another critical component of the transaction cost is time; M-Pesa allows transfers on a real-time basis.
4. M-Pesa is driven by Safaricom, a non-bank with a different target market from that of the traditional banks.
5. Business-to-Business transaction volumes have been substantial with a positive effect on the provider.
6. A substantial number of transactions previously conducted in cash now happen electronically.
7. M-Pesa has leveraged on Safaricom’s distribution networks to undertake cash transactions. The Service uses over 20,000 M-Pesa agents outlets

---

<sup>65</sup> Olga, M. (2008). Surviving in the "Dual System": How M-Pesa is Fostering Urban-to-Rural Remittances in a Kenyan Slum. *HCC Conference*. Pretoria: HCC.

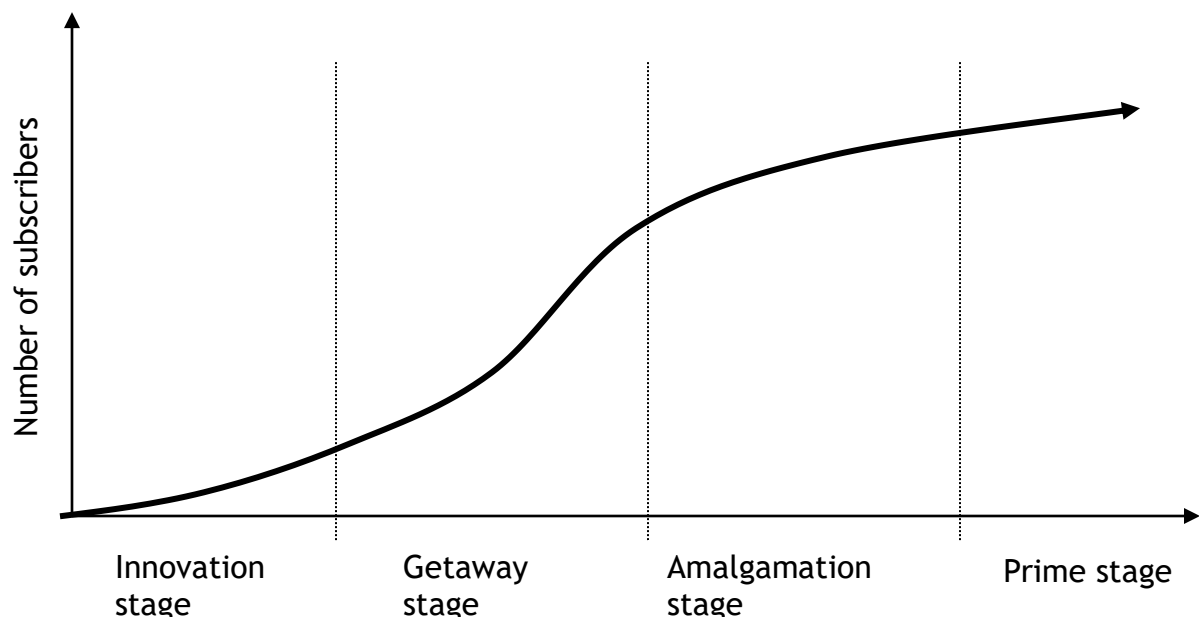
<sup>66</sup> Timothy Layman, Mark Pickens and David Porteous, (2008) Regulating Transformational Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance, page 1 CGAP available at [www.cgap.org](http://www.cgap.org) accessed on 17/8/2018.

located in all corners of the country. The network is beyond the conventional merchant POS or ATM networks of banks which as at 2016 stands at just about 3000.<sup>67</sup>

A transformational industry stands the chance to ride on innovativeness and can escape the adverse effects of a regulation. Regulations can become obsolete, immaterial or injurious. Haphazard regulation can easily distort the market by deterring entry of new players or skewing the path of technological innovativeness; it can harm competition and ultimately deprive the consumers of the benefits of technological progress. Although the transformational nature of the M-Pesa service implies that it is constantly innovating to meet customer requirements, there is no guarantee that the industry will negatively be affected by the adverse effects of regulation. It is the argument of this research that unless a Regulatory Impact Assessment is carried out to determine the effect and relevance of any intended legislation, M-Pesa may find itself of victim of “friendly fire.”

## 2.7 Mobile Banking Industry Stages

Porteous<sup>68</sup> has argued that the mobile banking industry passes through some stages before reaching maturity:



**Figure 2: Stages of Market Development: moving up the S-curve<sup>69</sup>- (Source David Porteous)**

<sup>67</sup> Central Bank of Kenya statistics.

<sup>68</sup> Ibid, Porteous, page 7.

In the above illustration, Porteous demonstrates that after studying mobile banking in Asia, Africa, and Europe, a typical growth trajectory assumes four phases namely:

- (a) The innovation stage this is marked by entry of a limited number of players who introduce their product and experiment in the market before they begin realizing some level of success.
- (b) The getaway stage is the period when the success of the innovators is discerned by other players who in turn enter the market leading to a rapid expansion of the industry. At this stage, the growth of subscribers is exponential;
- (c) The amalgamation stage is when the market players re-organize themselves as a response to increased competition or other external influence. At this stage the number of subscribers continues to grow albeit at a diminishing rate. and
- (d) The Prime stage is when the number of market players, the rules and customs of the market have been settled. The number of subscribers grows at a steady and natural rate.

Porteous argues that throughout the above growth stages, the market players encounter different barriers to growth<sup>70</sup>. The barriers faced by policymakers and regulators are different from those faced by the service providers.

---

<sup>69</sup> Ibid, Porteous, page 13.

<sup>70</sup> Ibid, Porteous, page 13.

These barriers are highlighted in the table below:

	1. Innovation	2. Getaway	3. Amalgamation	4. Prime
Barriers faced by players	<ul style="list-style-type: none"> <li>• Technological instabilities</li> <li>• Low customer understanding</li> <li>• Low customer trust</li> <li>• Untested business models</li> </ul>	<ul style="list-style-type: none"> <li>• Interoperability challenges and inconvenience to customers</li> <li>• Low customer trust</li> <li>• Low customer education &amp; adoption</li> </ul>	<ul style="list-style-type: none"> <li>• Failures and shakeout</li> </ul>	<ul style="list-style-type: none"> <li>• Entry challenges</li> <li>• Low innovation</li> <li>• Unfair competition</li> </ul>
Public policy issues	<ul style="list-style-type: none"> <li>• Inadequate legal frameworks</li> <li>• Conflicts between the law and innovativeness</li> <li>• Classification concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Fly-by-night entrants</li> <li>• Fraud</li> <li>• Interface to other schemes and systems</li> <li>• Interoperability</li> </ul>	<ul style="list-style-type: none"> <li>• Safety of deposits in case failure</li> <li>• Systemic stability</li> <li>• Nature of the evolving market structure</li> </ul>	<ul style="list-style-type: none"> <li>• Enhancing financial access</li> </ul>
Regulatory strategies	<ul style="list-style-type: none"> <li>• Monitoring and evaluation</li> <li>• Setting of clear roadmap</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitation and coordination</li> <li>• Enabling environment</li> </ul>	<ul style="list-style-type: none"> <li>• Market supervision</li> <li>• Possibility of abuse</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring sound competition</li> </ul>

**Table 3: Barriers and Regulatory concerns in each Market Development Phase<sup>71</sup>**

Based on the analysis by Porteous, there is a need for a segmented and staggered approach for every policy and legal intervention. Laws and policies must be based on a clear understanding of the issues affecting each stage of development. This understanding itself requires not just a clear dialogue between regulators and service providers but more importantly a Regulatory Impact Assessment to predict all effects of any intended regulatory measure.

The strategies employed in regulation of e-money industries are diverse and varied<sup>72</sup>. In the Philippines for instance, they adopt they adopt a “waiver or neglect as long as the

<sup>71</sup> Ibid, Porteous, page 4.

maximum payment or balance size is low<sup>73</sup>” while in South Africa the approach has been to restrict the issuance of e-money to banks only. In the European Union entities issuing e-money are registred in a supervisory framework which provides the enabling framewok.<sup>74</sup> In the African context David Porteous argues that South Africa and Kenya are good case studies mobile banking in the two countries is fairly at an early stage. He argues that by the time mobile banking was introduced in South Arica, the regulatory framework was more open and less certain, as opposed to Kenya where the regulatory framework was less certain (non-existent) and more open.<sup>75</sup>

It is interesting to note that the legal uncertainty, indeed the legal vacuum obtaining in Kenya on mobile banking in 2007 did not stop M-Pesa from starting up. Vodafone exploited a legal vacuum to grow its business idea. The understanding nature of Kenya’s Central Bank in issuing special licence and gradually layering its regulations based on market responses proved a master stroke that gave the industry a lifeline.

One may conclude that the absence of a regulatory regime at the inception stage of M-Pesa was the disguised blessing which ultimately allowed the industry players to innovate their product to suit the unique needs of the market.

## ***2.8 Mobile Banking and Access to Financial Services***

In Kenya, like in many other economies, payments and money transfers form a substantial portion of all financial transactions. The fact that M-Pesa has expanded from transferring remittances to include virtually all types of financial transactions means that it has afforded its users the opportunity to use all these services. The fact that the service can operate without physical branches means that it’s accessible whenever there is safaricom network.

---

<sup>72</sup> Robert Kirkby, *The Regulation of Electronic Money: Options for the future regulation of issuers of electronic money*, Consultation Paper No 12 of 2009, Jersey Financial Services Commission, page 16.

<sup>73</sup> *Ibid*, Porteous, page 15.

<sup>74</sup> *Ibid*, Robert Kirkby, page 17.

<sup>75</sup> *Ibid*, Porteous, page 20.

There are however a number of initiatives that need to be put in place to attain full access. These next-generation principles will gain prominence as the idea of branchless banking matures have been identified:<sup>76</sup>

- (a) Ensuring that there is sufficient regulatory environment to supervise issuance of e-money especially where it involves non-banking institutions which may not be completely prudentially oversighted by the CBK;
- (b) Protecting consumers from all manner of risks;
- (c) Mechanisms for overseeing branchless banking;
- (d) Developing an inclusive, interfaced and interoperable payment system;
- (e) Developing competition laws to create an acceptable balance “customer-unfriendly monopolies and incentives for pioneers to get into the industry.”<sup>77</sup>

The above principles require that a regulatory policy should be proportionate and aim to foster, rather than inhibit “innovation in connection with regulated activities, such as by allowing scope for different means of compliance so that market participants are not unduly restricted from launching new financial products and services.”<sup>78</sup> Such a policy should frequently be reviewed to keep up with the rapid developments.

Again this is an excellent study, but it fails to appreciate that before any regulatory policy is put in place, it should be subjected to a comprehensive Regulatory Impact Assessment to determine its impact on the financial service industry which is already over-regulated.

According to Grace Ng-Kruelle,<sup>79</sup> the convenience of using wireless mobile phones must be seen in the light of increased responsibility on the part of both the industry players and the regulators. They must bring into line their short term, medium term and longterm plans to ensure that it is the end-user consumer who benefits from technology. It is clear that many writers have analyzed the legal implications of the new mobile innovations and cautioned of possible dangers and possibility of obscuring consumer rights and freedoms.

---

<sup>76</sup> Ibid, Timothy et al, page 3.

<sup>77</sup> Ibid, Timothy et al, page 3.

<sup>78</sup> Cull Robert. (2012). Financial development and inclusion in Kenya. Pretoria: University of Pretoria.

<sup>79</sup> Grace Ng-Kruelle, Paul A. Swatman: (2003) The Prince of Convenience: Developing a Framework for Analyzing Privacy Sensitivity in Adoption of Wireless Applications, available at <https://domino.fov.uni-mb.si> / accessed on 23/08/2018.



They however, fall short of pointing out that the obscurity can be cured through a proper Regulatory Impact Assessment.

Considering the fact that M-Pesa appears to suit the population in more ways than it was intended, there is need to take every precaution before slapping this promising industry with all manner of restrictive regulations. It is in particular important for the regulators to understand the following characteristics which are unique to its successful evolution.<sup>80</sup>

- (a) Money is deposited in several prudentially regulated commercial banks. This money is held in a Trust account which means that it is out of reach even by Safaricom itself. This means that should Safaricom go insolvent, M-Pesa depositors would still be able to access their money. This was a requirement by the CBK which insisted that the money should at all times be the property of the M-Pesa users.
- (b) Stored mobile money is regarded as part of the funds in circulation. Safaricom does not generate or create extra money outside Kenya's banking system. Indeed every penny which is transacted over the system is supported by a similar deposit held in the pooled accounts.
- (c) Every cash-in and cash-out is electronically recorded and captured in the system. M-Pesa, like any other payment system in the country makes regular transaction reports to the CBK. All transactions are monitored and Safaricom is further required to run a bank-grade anti-money laundering system. CBK regularly monitors the transactions and is capable of regulating the amount of money in circulation.
- (d) The total amount of money held by M-Pesa represents about 0.2% of the total bank deposits by value. The service also has put limitation of the amounts of money transactable by an individual at any single day (Kshs 70,000). This therefore means that the service does not pose a huge systemic risk. It is designed to serve as medium for smaller electronic transactions and value storage.
- (e) The agents who act as cash merchants have to pre-purchase mobile money in order to be able to sell it out against hard cash to the M-Pesa customers using their

---

<sup>80</sup> Alexandre, C. (2010, November 2010). 10 Things You Thought You Knew about M-PESA. Retrieved August 24, 2016, from CGAP Advancing financial inclusion improve lives of the poor.; available at <http://www.cgap.org/blog/10-things-you-thought-you-knew-about-m-pesa>, accessed on 2/3/2016.

- retail network of stores. This therefore translates to investment of working capital and does not amount to intermediation of someone else's money. With regard to cash-out transactions, they sell their cash and buy mobile money in its place. It therefore follows that cash and M-pesa balances that the agents manage and store is their own money. The agents are simply another level of M-pesa users who resell their working capital without additional access to the M-pesa platform than other customers. They are only allowed a higher transaction limit.
- (f) Safaricom recruits the M-Pesa agents after training and due diligence. This allows them to conduct their business uniformly and enables the firm to supervise and monitor their activities. Safaricom makes regular visits to agents and cash merchants often with a view to creating uniform standards across board.
  - (g) Safaricom has also put in place mechanisms to ensure that all M-pesa customers are identifiable. For one to open an M-pesa account they have to produce the original national identity card. The customer is then give a PIN number thereby creating a three tier identification system namely the SIM card upon which the system is based, the national identity card and the PIN. This threshold indeed exceeds the identification system required by any bank in Kenya.
  - (h) Although the objective of M-Pesa is access rather than inclusion, the service is contributing to financial inclusion as it provides the means, not the end.

Based on the above, it is clear that M-Pesa system is a transactional and store of value platform, whose role is not intermediation, but financial access. Nevertheless, there is a need for the operator to be licensed and supervised as such.

However, like Wilde and Schwartz argue<sup>81</sup>, market information cannot be a perfect tool to determine the ideal regulatory framework. They argue that in most cases regulatory decisions are based on impressions because the regulators do not have rigorous tools for evaluating or clearly understanding how to respond to market situations. Whereas economist in recent years have developed market models to explain the behaviour of

---

<sup>81</sup> Wilde, A. S. (1979). *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*. Yale Law School Faculty Scholarship Series. Paper 1117 (pp. 630-682). Yale: Yale Law School.

markets characterized by flawed information, such models have had little impression to the regulators “because of their mathematical complexity.”<sup>82</sup>

At the very least, decision makers should attempt understand the impact of any regulatory measure on the market before intervening. It is the argument of this research that Kenya should make it a requirement to conduct Regulatory Impact Assessment before slapping the mobile banking industry with any regulations.

Based on the above analysis it can clearly be determined that:

1. That there is need for cooperation and inter-agency involvement among the respective telecommunications corporation, banking fraternity and regulatory supervisors.
2. That where the regulatory framework within which a mobile money service is being offered is enabling enough, the service grows exponentially.
3. That exponential growth potential after launch depends on the regulatory approach by the regulators especially the Central Banks.

---

<sup>82</sup> Ibid, page 670.

### 3.0 CHAPTER THREE: RELATIONSHIP BETWEEN REGULATORY FRAMEWORKS AND GROWTH IN MOBILE BANKING

*“Regulation should only exist where the unregulated market will fail to reach the desired outcomes. But historically, governments have perhaps been too ready to embark on regulation without first ascertaining whether the intervention is really necessary. In consequence, it is often difficult to identify the exact reasoning which motivated the intervention”*<sup>83</sup>

By its innovativeness and disruptive nature, M-Pesa has been compared to the “US Silicon Valley disrupters, namely Uber (transport), Airbnb (accommodation) and Facebook (social interaction) in this decade”.<sup>84</sup> Assessing the impact of Regulations on mobile money market, Kerry Dolan<sup>85</sup> argues that “lean Regulation” is the methodology widely used by high-tech corporations in the US Silicon Valley. This methodology of innovations to gain customer response so that investors “can innovate on observed, rather than on pre-supposed, customer needs.”<sup>86</sup> Peal Chan<sup>87</sup> argues that this approach which has proved extremely successful is now taking firm root in financial regulation. “Lean Regulation” as used in this sense refers to a situation “where regulation is iteratively layered in as the market develops.”<sup>88</sup> This layering style has been often used in emerging markets, and the two writers argue that it can be applied even in more mature and sophisticated markets.

Further, the two writers argue that even though the success of M-pesa and similar success services like the G-cash may be attributed to the people behind them, there is clear evidence in the emerging markets that suggests that for regulation to succeed in its objectives there has to be two factors, namely:

---

<sup>83</sup> Ogus, A. (2003). Regulatory Institutions and Structures: *Annals of Public and Cooperative Economics*, page 22.

<sup>84</sup> The Standard, Monday September 5, 2016.

<sup>85</sup> Kerry A. Dolan-Pesa and GCash: Can 'Lean Regulation' be a game changer for Financial Innovation? (2013). Forbes staff [www.forbes.com](http://www.forbes.com) accessed on 01/4/2016.

<sup>86</sup> Ibid, Kerry A. Dolan page 2.

<sup>87</sup> Ibid, page 3.

<sup>88</sup> Ibid, page 4.

- (i) Negotiations. Consultations between the regulator, the private investor and the public helps create confidence and understanding which is critical factor for the success of regulation relating to financial markets. This conclusion was more specifically noticeable in both Kenya and the Philippines.<sup>89</sup>
  
- (ii) Incremental regulation. This refers to introducing regulations in layers. Studies show that new markets evolve very fast after they have gained a critical number of customers<sup>90</sup>. As the regulators understand more about the nature of a disruptive market solution, they develop carefully considered rules. Once a service gains critical mass, new markets move and evolve rapidly. As more is learned from disruptive solution providers, it may be appropriate for regulators to develop rules based on observed market behavior and to introduce regulation iteratively (again, taking a “lean” approach). This “layering in” approach can reinforce and encourage an emerging sector, while at the same time helping to catalyze increased competition.

It is surprising that financial service, an inherently digital sector that touches peoples’ lives, has not been more dramatically reshaped by new technologies.

When the authorities allowed M-Pesa service to experiment in Kenya, it was a demonstration of great insight. The service on its part did not disappoint. Indeed it proved that the traditional banking systems can be unbundled into components comprising transfers, storage, investments and exchanges. This was a move from the traditional banking and payment system which was premised only on deposits pegged on the rates of interest. It is now left to the regulators to determine what type of regulation would suit the market. Such regulations must of necessity be structured in a way that ratifies this

---

<sup>89</sup> According to GSMS Mobile Money for the Un-banked report-Philippines case study, the success of mobile money in Philippines can be attributed to the decisions taken collectively by SMART, Globe and Bangko Sentral ng Pilipinas. They ensured the creations of regulations conducive to mobile money, effective service design, and alignment of interests within the ecosystem. Accessed at [gsma.com/mobilefordevelopment/wp2012/Philippines-Case\\_study-v-X21](http://gsma.com/mobilefordevelopment/wp2012/Philippines-Case_study-v-X21) on 26/82016.

<sup>90</sup> Ibid, Chan, page 5.

new concept of banking whose main focus is the service as opposed to traditional institutional frameworks like banking halls.<sup>91</sup>

Mayer<sup>92</sup> argues that even where the banking fraternity has not adopted mobile banking, technology platforms could be used to store customers' information relating to accounts and financial transactions. Interoperability and interconnection rules would then be promulgated to facilitate simpler and cheaper financial transactions without necessarily bundling account and transmission services. It cannot however be lost that M-Pesa has demonstrated that the best method of setting payment system prices for different is through supply and demand market rules. This freedom of market forces supplemented by lean layered regulation approach would enable the authorities to gradually create market certainty and at the same time meet the expectations of the market players.<sup>93</sup>

Even when the financial services are unbundled and no longer the exclusive domain of traditional banks, there would still be questions of which is the best suited institution to regulate the services. The fact that mobile banking is premised on a SIM card which is exclusively issued by telecommunication companies for telecommunication services has to be given some consideration. On the other hand competition and pricing of mobile telephone services is the domain of the telecommunications regulator. The telecommunications regulator has little to do with prudential regulations which is the domain of the CBK and other specialist institutions. This therefore means that the regulatory framework may call for an inter-agency approach with representations from the communications regulator, banking regulator, and the players themselves.<sup>94</sup>

Apart from providing a model for financial inclusion, the successful experimentation by M-Pesa may as well have provided crucial insights on how to regulate financial services in both developing and developed economies. Even before the launch of M-Pesa, there were serious considerations in the developed economies particularly the United Kingdom

---

<sup>91</sup>Mayer, M. K. (2011). *Mobile banking and financial inclusion: The regulatory lessons, No 166, Frankfurt School - Working Paper Series, Frankfurt School of Finance and Management*. Frankfurt: Frankfurt School - Working Paper Series, Frankfurt School of Finance and Management.

<sup>92</sup> Ibid, page 123.

<sup>93</sup> Ibid, page 130.

<sup>94</sup> Lumpkin, S. (2002). *Supervision of Financial Services in the OECD Area*. Paris: OECD.

and the United States regarding separation of commercial and investment banking and the whole question as to whether commercial banking should be a regulated utility.<sup>95</sup> It is argued that commercial banking is a direct beneficiary of publicly provided deposit insurance and as such should not be used to subsidize investment banking. The other argument is that in case of failure by banks as often happens, governments are called to bail them out at the expense of the tax payers. This is a risk that ought to be minimized while at the same time strengthening the salient aspects of the banking industry.<sup>96</sup>

One of the unseen success stories of M-Pesa is the fact that it demonstrated that a payment system can operate completely independent of the banking framework. Given the efficiency with which M-Pesa has operated, there is no reason why similar technologies should not be expected to replace bank-based clearing systems that today dot capital cities of the world including developed and sophisticated economies.

For instance, payment systems can not only be undertaken independent of the banking system but can also be undertaken autonomously from the storage, lending and borrowing functions. This therefore means that customers can access payment and custodial services without being bogged down by the prudential regulations that apply to banking services. It follows that if mobile banking can operate a payment system that is without any foreseeable risk, the security and liquidity functions of the banking system assume a less significance in financial system.

If the payment and safe custody functions of banks can be offered conveniently, more cheaply, speedier and in a more transparent way, then banks need to rethink their business concept all over again. The only banking business component unaffected by mobile banking is the interest charging through lending. In Kenya this was succinctly depicted in late August 2016 when, a day after the President assented to Banking (Amendment) Bill, 2016 which sought to cap interest rates at not more than 4.5 of the CBK's rate, there was a sustained uncertainty in the market as borrowers and lenders took time to assess its implications.

---

<sup>95</sup> Ibid, Mayer, page 71.

<sup>96</sup> Ibid, Mayer, page 72.

The disruptive nature of mobile banking calls for a well thought out regulation of the financial sector. A well thought out regulation would be possible through conducting a Regulatory Impact Assessment which would help shed light on the regulatory requirements and avoid market failures.

### **3.1 Regulatory considerations**

It has been shown that mobile banking through M-Pesa is new, disruptive and fast changing market solution whose sphere of operation overlaps across prudential, banking, telecommunications, information, payment system and even anti-money laundering regulators.

Across the world, financial aspects are more regulated than any other industry because failure of financial markets portends grave consequences even in other spheres. Kenya's policy makers will have, to address the following regulatory and policy issues in relation to M-Pesa:

- (i) **Financial Integrity** – Every institution dealing with finances has to adhere to certain standards and take specific measures to maintain the integrity and contain risk. These standards are based on substantive law, subsidiary legislation or industry guidelines and codes. Prudential regulators have to weigh the extent and purpose of every proposed regulation and at the same time aim to achieve the following key governance-related outcomes:
  - (a) *Monetary stability*: There is need to guarantee the payment system is safe and sound and that it cannot be compromised;
  - (b) *Financial efficiency*: achieving financial efficiency involves a sustainable effort of eliminating market distortions, encouraging competitive markets and ensuring access to market information. Efficiency is maximized when highest quality financial services are provided at the lowest possible cost and contributes to economic growth.<sup>97</sup>

---

<sup>97</sup> Olgu O. et al, (2014) Handbook on Research on Strategic Developments and Regulatory Practice in Global Finance, Istanbul Medipol University, Turkey available at <http://www.igi-global.com> accessed on 24/8/2018.



- (c) *Access finance and financial services*: refers to the ability by individual persons to get affordable financial services including payments, deposits and even credit; and
  - (d) *Financial integrity*: involves guaranteeing a financial system against getting compromised through abuse for criminal, fraudulent or terrorist-related purposes.
- (ii) **‘Systemic risk’** –There is need for the regulators to put in place measures to ensure that the collapse of M-Pesa does not trigger the collapse of the entire financial system of the country or the entire mobile money market as opposed to M-Pesa’s market share. The regulator has to ensure that legislative and institutional measures to ensure that no incident by Safaricom could trigger severe instability or collapse an entire financial service industry or substantially affect the economy are in place.
- (iii) **Is M-Pesa becoming a monopoly?** - M-Pesa has a monopoly of the delivery channel, and as a result, it is handling more than 80% of electronic money transactions in Kenya. The situation is peculiar and more aggravated given that Safaricom controls more than 80% of the mobile market which incidentally is a delivery channel for M-Pesa. There is, therefore, the possibility and the ability to block access, or by imposing an interchange fee. The new electronic financial solutions may not be able to find competitive linkages, particularly on whether and how they will integrate with Safaricom customers. On the supply side, M-Pesa is potentially impacting on some of the alternative service providers including G4 Securicor, Debit Cards, Property management companies, and even banks.
- (iv) **Consumer protection** – Consumers, especially the vulnerable ones, must be adequately protected against abuse and loss. Consumer protection issue in Kenya is a Constitutional requirement and has increasingly become important. The major areas of concern relate to the protection of customers’ e-balances and incomplete transactions. Accordingly, the provider has put in place mechanisms which allow for incomplete transactions to revert within two days and to enhance customer complaint management by outsourcing the call centers.

The dynamic nature of Kenya's M-Pesa market requires that the regulating authority should undertake a market survey to ascertain the necessity of an intended measure. It is only after conducting the survey that the regulator would determine the form of regulation to employ. Such a study would reveal areas requiring self-regulation or other flexible regulatory approach in order to safeguard certain interests of the industry. A key area in this regard could be the interconnection and interoperability rules where different mobile money companies are required to allow interoperability for the sake of their customers. Any such regulation would require taking into account many other business concerns and it would be prudent for a regulator to encourage the industry to self-regulate itself.

However, regardless of the regulatory approach, the regulator should be firm enough to ensure that the broader policy objectives are fully met for the benefit of the customer and the economy at large.

- (v) **Electronic Transaction Issues:** Despite the success story of M-Pesa, Kenya does not yet have an Electronic Transactions law in place. The Sale of Goods Act<sup>98</sup> and the Law of Contract Act<sup>99</sup> are obsolete and should be reviewed to reflect modern day realities. As M-banking and M-payment systems take root across the globe, there is need to ensure that other forms of electronic transaction-enablers such as the use of electronic signatures, (electronic PIN number or other biometric identifier) to authorize transactions is legally provided for.
- (vi) **'Operational Risks'** – Like it is the case with any other financial product, M-Pesa faces the risk of losses occasioned by insufficient or disastrous internal process. The implication created by the fast growth of service is the exertion of incredible stress in their system. Although measures to upgrade the system have considerably reduced outages, the risk of system failure is an important one. Whereas M-Pesa was comprehended as a mere money-transfer system, it has grown to become an avenue to store value and purchase goods and services.

---

<sup>98</sup> Sale of Goods Act (Cap 31) s. 2.

<sup>99</sup> The Law of Contract Act (Cap 23) s 2.

As at the end of the first quarter of 2018, M-Pesa was transacting in excess of 300 billion shillings through its 196,000 agents spread across the country.<sup>100</sup> This is a colossal amount of money for a country whose annual budget is just over one trillion shillings.

Given the complexity, size, scope, magnitude and business activities at play, there is need for careful legislation to provide for a number measures to address any possible operational risks including:

- (a) Structural factors. The law should allow multiplicity of portfolios while safeguarding against human errors, software errors, timeliness, security breaches from hacking, phishing and data leakage,
- (b) Strategic factors to address actual possibilities like acquisitions, new ventures, mergers, divestitures or product innovation. If for instance, M-Pesa was to acquire other services in order to expand product portfolios and markets, the attendant risks would need to be addressed in a predictable legal regime. If, on the other hand, the expansion were to be driven by geographical expansion, risks associated with new infrastructure and facility locations would need to be again addressed in a predictable and enabling legal framework.
- (c) External factors relating to externally originating fraud and information theft and risks introduced by reliance on service providers and regulatory compliance obligations. If M-Pesa was to expand its business across national borders, it might face new national, regional and local requirements. A good legal regime would anticipate all these factors including the possibility of outsourcing services and interacting with other financial institutions.

(vii) **Know Your Customer (KYC) requirements-** These relate to the process of a business verifying the identity of its clients. About financial services, the objective of KYC guidelines is to prevent financial institutions from being used, intentionally or unintentionally, by criminal elements for money laundering

---

<sup>100</sup> Peter Omondi, “Sh. 960 Billion Transacted through Mobile Money in the First Quarter of 2018” available at [techtrendske.co.ke](http://techtrendske.co.ke) accessed on 24/8/2018.

activities. A good legal regime would have sufficient requirements on how payment systems would ensure proper particulars for both individuals and corporate entities retained for purposes of customer identification, monitoring of transactions and risk management (Basel Committee on Banking Supervision, 2001).

It is notable that even before any legislation was promulgated, Safaricom had taken the initiative to collect the following particulars before issuing SIM cards or registering customers for the M-Pesa service:

- (a) Name and as appearing on the national identity card;
- (b) Date of Birth;
- (c) National ID or Passport number;
- (d) Nationality;
- (e) Occupation;
- (f) Safaricom mobile number.

It was partly because of this foresight that the CBK was convinced to allow M-Pesa to operate under a special licence. Safaricom was also assisted by the fact that the Kenyan government issues national identification cards to all citizen over the age of eighteen. National identity card contains a photo and biometric details of the holder. It is therefore an important document in terms of meeting the prudential Know Your Customer (KYC) requirements

Based on the above analysis, it is clear that there is need for a regulatory framework for M-Pesa to operate in confidence. The question that comes to mind is what kind of regulation is best suited for a service like M-pes. It has been shown that policymakers, regulators and industry players should be involved even at the point proposing the regulations. The next step would be to identify the costs and benefits of such regulatory framework. It is the argument in this research that to arrive at an appropriate and proportionate regulatory response, a proper Regulatory Impact Assessment out to be undertaken.

### **3.2 Framework for an enabling legislative framework**

According to Porteous,<sup>101</sup> there is a need for a framework of enabling principles for m-payments and m-banking. Porteous argues that there are different principles applicable at different stages of mobile money market development. For mobile banking to take root in stage one the following factors need to be present:

- (a) Legislation authorizing electronic transactions need to be place to create some level of certainty;
- (b) Protection of customers should be sufficient to guard against criminality, fraud and abuse; and
- (c) There should be efforts to promote nd encourage interoperability by ensuring that the telecommunication corporations have access to other payment platforms and that customers of one network can switch financial providers with ease.

The stage is when transformational models of mobile banking to begin to get well established. The following set of factors will be present:

- (a) The know-your-customer due diligence processes should be aimed at preventing foreseeable risks and not necessarily jeopardize small-scale customers seeking to open accounts.
- (b) Transactions such as cash withdrawals and deposits should be able to take place in all places including remote areas through use of non-bank channels.
- (c) There should be some form of insurance of e-money by moneyed, well recognized and monitored institutions.

Save for the regulatory framework, all the other factors were present at both the inception and peak up stage for the M-Pesa service. Thankfully for M-Pesa, the CBK allowed it to operate even in a legal vacuum and introduced layered regulations based on market experiences.

---

<sup>101</sup> Ibid, Porteous, page 16.

### ***3.5 Transformational Potential and Challenges of African m-banking models***

Although most of the mobile network operators in Africa are still young and not fully established the fact that different models have been launched in different parts of the continent is enough proof that mobile money business is taking root in a continent with the majority of the unbanked people. When the mobile money service was started by most of the providers, it was viewed by many as an aspect of creating customer loyalty. However, with the industry hitting revenues of USD 2.4 billion in 2017,<sup>102</sup> it is clear that this is now a mainstream business activity. Indeed the Fintech<sup>103</sup> group has started its “new wave of disruption” through internet banking. As expected, banks are investing heavily to respond to this new wave.<sup>104</sup>

Among the different models launched in Africa, M-Pesa is perhaps the most established of all. The model has been replicated in Tanzania, Mozambique, Lesotho, DRC, Ghana, Egypt, India, Albania and Romania<sup>105</sup> where it has over 30 million active users in 10 countries. Today 66% “of the combined adult population of Kenya, Rwanda, Tanzania and Uganda use mobile money on an active basis.”<sup>106</sup>

### ***3.4 The Effect of Regulation on emerging experiences of m-payments***

By the time M-Pesa service was launched less than twenty percent of the population in in Africa had a bank account. Given the success story of M-Pesa in broadening access to financial services, it is surprising why similar success stories are not being replicated across Africa.

---

<sup>102</sup> Ibid GSMA 2017, page10.

<sup>103</sup> Fintech is an acronym for financial technology which is a modern financial industry concept which seeks to replace the traditional financial services methods, it involves the new technological applications, processes, products and business models mainly using the internet.

<sup>104</sup> Ibid GSMA 2017, page 3.

<sup>105</sup> Kieron Monks, CNN ‘M-Pesa: Kenya’s mobile money success story turns 10’ (CNN, February 2, 2017) <https://edition.cnn.com> accessed on 27/8/2017.

<sup>106</sup> Ibid, GSMA 2017, page 8.

Even though the distinctiveness of Kenya's culture and the distribution of the telecommunications networks have been cited as some of the reasons M-Pesa was able to attain such illustrious success,<sup>107</sup> it has been shown in this research that the nature and methodology of introducing the regulatory frameworks were by far, the greatest determinants of the swift uptake and growth of the M-pesa industry. The M-Pesa service was started largely in the absence of legal and regulatory frameworks. There is evidence that the CBK was cautious enough in the manner it introduced regulations. This watch-before-regulate approach undoubtedly played a major role in affording the service room to innovate creative solutions to the existing barriers and to meet the needs of its users. This in essence, is the argument in this research that the growth and success of mobile banking as an aspect of financial inclusion is dependent on the nature of the regulatory regime within which it is operating.

Owing to its success, the concept of M-Pesa has been exported to other jurisdictions, but the nature overzealous nature of the regulatory environments within such regimes has denied the service comparable responsiveness and success. This has been the case even largely comparable societies like Tanzania or even more potential environments in terms of numbers and levels of income like South Africa.

Central Banks in Africa have put in place regulatory frameworks to stem any alternative product like M-Pesa entering the market with their "potential to disrupt and undermine". In many jurisdictions Central Banks are the central players in the mobile banking business. Indeed since the advent of M-Pesa, some Central Banks have commissioned policies and laws to firmly put mobile money services in their dockets.<sup>108</sup>

A case in point is the South African Reserve Bank which in 2009 issued regulations whose effect was to give the bank the power to control the functioning of money within the framework of commercial banks. In 2010 both Vodacom and Nedbank launched an equivalent of M-Pesa service in South Africa. This was considered a high potential market since there were thirteen million income earning people without bank accounts. However, against everyone's expectations, the services was slow to gain any foothold in

---

<sup>107</sup> Ibid.

<sup>108</sup> Ibid.

the South African financial services marketplace. Where Vodacom had projected to sign about 10 million customers in the first three years, they had only managed roughly 100,000.

This huge gap between the prospects for the service and what was really achieved is attributable to variance of the mobile money regulatory frameworks between Kenya and South Africa. Kenya's regulatory regime was initially non-existent, then it was introduced sparingly based on lessons from the market. South Africa's regulatory regime on the other hand was mature and 'protective' to traditional banking system 'restrictive' to market disrupters. According to Money Web,<sup>109</sup> a South African investment website,

*“A tough regulatory environment with regards to customer registration and the acquisition of outlets also compounded the company's troubles, as the local regulations are more stringent in comparison to our African counterparts. Lack of education and product understanding also hindered efforts in the initial rollout of the product.”*

M-Pesa service in South Africa continued underperforming forcing Vodacom and Nedbank in 2011 to re-launch and re-position the service to target customers in a higher income bracket. Despite these efforts the service failed to attain the critical mass of customers. Indeed South Africa's service sustained downward trend compared to counterparts Kenya and Tanzania. On 30<sup>th</sup> June 2016, Vodacom formally closed its South African division of M-Pesa “owing to insufficient traction” six years after a very colorful launch.<sup>110</sup>

The service collapsed despite the fact that South Africa is globally recognized to have mature financial institutions and excellent technological modernism. Statistics<sup>111</sup> indicate that up to seventy percent of the South African population have as a minimum one account in a prudentially regulated financial institution.

---

<sup>109</sup> <http://e.n.wikipedia.org/wiki/m-pesa>.

<sup>110</sup> [Vodacom.co.za/Vodacom/services/financial-solutions/m-pesa](http://Vodacom.co.za/Vodacom/services/financial-solutions/m-pesa) accessed on September 5, 2016.

<sup>111</sup> G: Genesis, The Emergence of Entry-Level Bank Branches in South Africa-Report presented to Finmark Trust, September 2013 [www.genesis-analytics.com](http://www.genesis-analytics.com).



Similarly in 2001, Nigeria developed a “Regulatory Framework for Mobile Services in Nigeria”,<sup>112</sup> a regulatory framework that categorizes mobile money providers into the three classes namely: “bank-led”, “bank-owned” and “non-bank owned”. In all these categories, banks play a central role in mobile money. Following this development, a mobile banking service namely Easy-wallet was launched after meeting the licensing requirements of mobile money providers. The uptake of the service has been slow owing to not only limited mobile network in rural areas but also the fact that the regulatory regime appears to entrench the mobile money industry within the traditional banking system.

Already most banks in both developed and developing economies have set up strategies to benefit from mobile money industry. Through their statutory mandate, banks can use their position in the financial system to influence the turn of events in the evolving mobile money market. Gary Collins<sup>113</sup> argues that involvement of banks in mobile banking has made it too complex and expensive for the unbanked. Gary rightfully concludes that over-regulation has stifled the spread of successful mobile banking solutions like M-Pesa.

In 2008 Vodacom a subsidiary of Vodafone launched M-Pesa Tanzania.<sup>114</sup> This venture was also unable to fascinate subscribers as it was expected. Tanzania whose user interface technology is slightly different from Kenya’s M-Pesa was based USSD unlike Safaricom, which employs SIM toolkit for purposes of accessing menus. A report released by the International Finance Corporation in 2010<sup>115</sup> analyzed the strategic variations that the company had employed to advance their market share. However by 2013, the Tanzanian M-Pesa service had only managed to attract 5 million customers. The report also pointed out the the legal framework under which the service was operating was a great contributor to its slow uptake.

---

<sup>112</sup> Available at [www.bu.edu/bucflp-fig/files](http://www.bu.edu/bucflp-fig/files) accessed on 23/8/2018.

<sup>113</sup> Collins, G. (2012). *Mobile money in emerging markets: is the operator-led model broken?* Cape Town: Burn Media, available at <https://memeburn.com> accessed 22/7/2016.

<sup>114</sup> Ibid.

<sup>115</sup> World Bank. 2010. *International Finance Corporation (IFC) annual report 2010: Where innovation meets impact: Corporacion Financiera Internacional (IFI) informe anual 2010: donde la innovacion produce un impacto (Spanish)*. Washington DC; World Bank. <http://documents.worldbank.org/curated/en/269001468336569254/Corporacion-Financiera-Internacional-IFI-informe-anual-2010-donde-la-innovacion-produce-un-impacto> accessed on 23/6/2016.

The Philippines, a middle income developing country is a good example of an emerging jurisdiction where mobile money services have already passed the first stage to the start of the getaway stage of growth. The two main telecommunication providers in the country-SMART and Globe, have already initiated comprehensive mobile money ventures. SMART started offering mobile money in 2000. It is supported by Banco D'Oro bank through which it also issues a debit card to allow its customers to access ATM services and other POS devices.

On the other hand, the competitor telecommunications company Globe came into the market in 2004 and introduced G-Cash service. This is a mobile wallet which is used to remit, transfer, and make payments through a network of over 4000 agents countrywide. The two networks have been reporting significant growth rates which has been attributed to the enabling regulatory framework in the country.

In Afghanistan, Vodafone in association with MNO Roshan, the main telecommunications company, launched *M-Paisa* in 2008. The main intention of the providers during the launch was to a convenient provide system sending salaries to its huge workforce of police officers. Upon using the product for the first time, the Afghan National Police discovered that ten percent of its officers were actually “ghost police officers who did not exist”. The system assisted the National Police to fight corruption within its ranks. Over the years the service, which was initially modelled along Kenya’s M-Pesa has been used in microfinance institutions to issue loans and make repayments.

Mobile money products modelled along the M-Pesa lines are now a common feature in many parts of Asia especially in Japan and Korea who are reported to have reached the break out stage.<sup>116</sup> The two countries have high levels of cell phone and internet penetration and the majority of their populations are in the high income bracket, yet they have demonstrated that mobile money industry has the potential to flourish even where other financial services exist.

---

<sup>116</sup> --“How Mobile money is spreading” The Economist (London, 3/5/2018).

Interestingly mobile money market in the United States and Europe was slower than expected for the better part of the last decade. This scenario caused great concerns prompting *The Banker* magazine in 2015 to quip: “*When will mobile get moving?*”<sup>117</sup> At that time it was thought that the slow uptake of the service was informed by the fact that there was no sufficient motivation to convince banked people to move from their already accessible and trusted banking system which was internet and card based. Mobile money was still unstable and was largely only used in the transport sector. However, with the entry of America’s worldwide operating PayPal Holdings and a host of other players, mobile money usage in Europe and America has now taken off at unprecedented level.<sup>118</sup>

As mobile phone users gain more confidence and sense of security in using mobile money, the concept is fast becoming a worldwide second nature. According to the GSMA 2017 report<sup>119</sup>, the mobile banking industry worldwide is now transacting one billion US dollars in a day, making revenues of 2.4 USD and operating 690 million registered accounts. Each active account transacts an average of USD 188 per month. By close of 2017, there were some 276 mobile money enterprises in over 90 countries.<sup>120</sup> The report further notes as follows:

*“As the Sustainable Development Goals (SGD’s) enter their third year, mobile technology is also proving to be an essential tool for delivering on this highly ambitious agenda. Better connectivity and new services are enabling healthier, more inclusive communities and mobile money remains a central part of this story. It is contributing to 13 of the 17 SGDs, from enabling access to essential services like health and education, to empowering women with employment opportunities, to reducing poverty by offering life-enhancing financial services, often for the first time.”*

Based on these studies, the following deductions can be made:

---

<sup>117</sup> The American Banker Magazine, July 2015 [www.americanbanker.com/magazine/2015](http://www.americanbanker.com/magazine/2015).

<sup>118</sup> Visa International Service Association, ‘Mobile Money Takes off as 77% of Europeans use their Phones to Bank and Make every day Payments’ (London, 21 September 2017) available at <https://www.visaeurope.com> accessed on 27/8/2018.

<sup>119</sup> GSMA 2017, ‘State of the Industry Report on Mobile Money’ available at <https://www.gsma.com> accessed on 27/8/2018.

<sup>120</sup> Ibid, GSMA 2017, page 7.

1. That mobile banking can be harnessed to promote financial inclusion to both developed and developing economies;
2. That a mobile money service model needs the support of an established telecommunications company with sufficient network working in partnership with a prudentially regulation financial institution and supported by a nationwide network of non-bank agents;
3. That where the regulatory framework within which a mobile money service is being offered is enabling enough, the service grows exponentially;
4. That exponential growth potential after launch depends on the regulatory approach by the regulators especially the Central Banks’
5. That unguarded overlapping regulatory regimes poses the risk of regulatory failure and threatens the growth and establishment of mobile banking industry.
6. That there is need for cooperation and inter-agency involvement among the respective telecommunications corporation, banking fraternity and regulatory supervisors;
7. That the most suitable form of regulation is one informed by lessons learnt in the marketplace and introduced incrementally; and
8. That conducting Regulatory Impact Assessment before imposing regulations on mobile banking industry can alleviate the risks associated with overprotective and restrictive regulations.

### ***3.5 Challenges facing M-Pesa***

Despite this impressive growth, M-pesa still faces certain challenges. It has been criticized for being clumsy because of the requirement to physically visit the agent with identification documents and the absence of an equivalent of the debit card which can enable customers to simply tap to pay.

It is also not clear whether the service will sustain the ever growing agent network. By 2018 M-Pesa agent base had reached over 150,000 and growing. Each agent is paid a

commission of nearly one percent of the transaction value<sup>121</sup>. This translates into huge operational cost which unless mitigated, poses future operational threats as competition shifts from increasing subscriber numbers to cutting operational costs. The 2017 GSMA report notes:

*“Many successful providers are decreasing the net cost of the agent network. Agents remain a crucial and distinguishing asset of mobile money providers, in recent years, we have seen growth in the number of active agents and average values processed by agents. The same time, the inflow of digital funds is reducing provider costs, by alleviating the need for subsidized cash-in agent commissions. The cost of managing an agent network can account for more than half of total revenues, so this trend can significantly affect investment incentives.”*<sup>122</sup>

M-Pesa is also faced by the challenge of the nearly 50 banks in Kenya whose umbrella association-the Kenya Bankers Association has announced plans to introduce ‘its own mobile payment platform<sup>123</sup>’ to enable bank customers transfer money between their accounts for amounts that exceed the Kshs 70,000 which is the M-Pesa maximum.

As already noted however, the biggest challenge facing M-Pesa is the ability to navigate regulatory frameworks as issued from time to time by the telecommunication regulators, banking regulators, anti-money laundering agencies and security agencies among others.

It should not be lost that immediately after the launch of M-Pesa, there were indepth negotiations between Safaricom and the CBK which resulted in a common understanding that the service could be allowed to operate. Even after the launch CBK exercised a lot of caution as commercial banks were pressuring it to nip the M-Pesa service in the bud. The banks were in particular amazed at how a new service could register nearly two million customers in its first year of business in a country where only four million people had bank accounts. Kenya’s CBK then acted with a lot of insight. In other jurisdictions, the CBK would be concerned would not allow a new player taking deposits from the public and risking the efficiency of the national payment system. Bearing this in

---

<sup>121</sup> Julie Kwach, ‘How to calculate M-Pesa Commission in Kenya’ <https://www.tuko.co.ke> accessed on 26/5/2018.

<sup>122</sup> Ibid, GSMA Report 2017, page 6.

<sup>123</sup> Ibid, Kieron, CNN.

mind, it is not clear what Parliament and other regulation-making bodies might in future promulgate.

Many regulation-making bodies are closing up what they consider to be legal and policy gaps yet it has been shown that in many cases, it is actually the regulations which inhibit the growth of innovative services like M-Pesa. In particular, the regulation-making bodies in Kenya must ensure that any regulation touching on M-Pesa must be enabling rather than restrictive. If the service is to overcome the challenges facing it, the fact that it was launched in a legal vacuum and managed to attract growth should never be lost.

One lesson that can be learnt from the Philippines mobile money success story is the fact that in order to avoid banking laws from weighing heavily on mobile money providers, different models can be commissioned to offer various services. In the Philippines, Globe was licensed to offer mobile wallet to customers directly, while another model, Smart was required to outsource most of its functions from the Globe. This flexibility was necessary otherwise banking laws in the country could have proved unsurmountable. This separation saw the two firms reach millions of subscribers in the country.

The effect of Regulation on businesses is one topic that law schools and business training institutions should give more attention. The success of unregulated businesses is possible since competition and the law of natural selection will keep the most unsuitable industry out of the marketplace. The internet is one such industry which remains largely unregulated and unowned. However, while this may be the case, financial services are too sensitive to the economy for any government to leave them unregulated. The reasons why financial services and mobile money services require to be regulated have been dealt with elsewhere in this research<sup>124</sup>. According to GSMA Report 2016,<sup>125</sup> there are two main weaknesses in the way that digital markets are regulated:

- (a) *“Discriminatory regulation: There are major disparities in the way different sectors of the digital economy are regulated. For instance, services provided by Internet companies, such as Amazon, Facebook, Google, and Microsoft are directly competing with services provided by telecoms and*

---

<sup>124</sup> See Chapter 3, part 3.1.

<sup>125</sup> GSMA: The Mobile economy 2016, available at <https://www.gsma.com>.

*media groups, such as AT&T, Comcast, Bharti Airtel, Fox, NTT, Sky, Telstra, and Vodafone. Whereas Internet companies are typically subject to general antitrust and consumer protection regimes, telecoms and media companies have to comply with industry-specific rules and institutions. In particular, regulation of communications services and service providers is far more intrusive and prescriptive than regulation of other elements of the digital ecosystem. Both substantive and procedural regulatory discrimination can harm competition and reduce consumer welfare<sup>126</sup>;* and

(b) *“Static regulation of dynamic markets: The rapid pace of innovation means prescriptive, ex-ante regulatory regimes (based on forecasts, rather than effects) tend to be less effective. This kind of regulation has traditionally been used to govern communications markets. With today’s increased competition, the need for such regulation is diminishing fast. The persistence of such outdated rules cannot only harm competition and slow innovation but can also fail to achieve regulatory objectives.”<sup>127</sup>*

The argument in this research is that regulation for mobile banking industry, like food spice, should neither be too minute nor too plentiful. Mobile industry markets are dynamic, getting more multifaceted by the day and so should the regulation. For instance it is expected that 4G<sup>128</sup> will be the principal network in 2019 while 5G will launch its commercial operations in a few years’ time<sup>129</sup>. Though there is a lot of art in regulation, the actual impact of any regulation can only be determined after a careful Regulatory Impact Assessment exercise.

### **3.6 An Assessment of Kenya’s Mobile Regulatory Framework**

#### **3.6.1 The National Payment System<sup>130</sup> Act, 2011**

This is the law intended to govern institutions which regulate and supervise payment systems and related matters.

---

<sup>126</sup> www.gsmaintelligence.com.

<sup>127</sup> Ibid.

<sup>128</sup> 4G refers to the 4th generation cellular network with the required capabilities set by the ITU

<sup>129</sup> GSMA, The Mobile Economy 2018, available at <https://www.gsma.com> accessed on 28/8/2018

<sup>130</sup> National Payment System Act, 2011, s. 2 and 4.

The Act defines “payment instrument” to mean “any instrument, whether tangible or intangible, that enables a person to obtain money, goods or services, or to make payment”. It further defines a “payment service provider” to include:

- (a) persons and companies whose business is to provide, send, receive, store or process payments using an electronic media;
- (b) persons and companies who own, possess, operate, manage or control an open “switched network for the provision of payment services”; or
- (c) persons and companies whose business is to process, store information on behalf of a payment amenity provider or user.

This definition was intended to include mobile network providers who are in the business of providing mobile money. The law further defines a “payment system” to mean “a system or arrangement that enables payments to be effected....<sup>131</sup>” It is notable that these definitions properly brings M-Pesa under the ambit of the Act.

Furthermore the law mandates the CBK to designate a payment system if:

- (a) the payment system poses systemic risk;
- (b) the designation is necessary to protect the interest of the public, or
- (c) such designation is in the interest of the integrity of the payment system.

The Act gives regulatory and supervision powers to the Central Bank for purposes of promoting proficient payment and clearing systems. These include the power to:

- (a) prohibit issuance of payment instruments if it is disadvantageous the safety and running of the system;
- (b) participate and enforce a failure to settle any payment;
- (c) take custody of assess;
- (d) control or oversee any system; and
- (e) monitor compliance with the law.

An analysis of this law reveals that as the country’s national payment system law, it lacks in a number respects. While the law incorporates mobile money as payment systems, it

---

<sup>131</sup>Ibid, National Payment System Act, s 2.



does not provide or the certain important principles which every payment system should have. The Act, for instance does not require that:

- (a) every payment system must have terse procedures dealing with risks;
- (b) an undertaking for swift settlement on real time basis;
- (c) requirement for the system’s governance to be tangible, transparent and accountable;
- (d) have a publicly defined criteria for public participation and engagement; and
- (e) requirement for high standards for safety, security and operational dependability.

It is the responsibility of the Central Bank to ensure that the county’s national law on payment systems meets international requirements to avoid a scenario where mediocre system can become recognized thereby jeopardizing the whole system.

### **3.6.2 Banking Act (Cap 488)**

The Banking Act,<sup>132</sup> Cap 488 is the law that regulates banking business in Kenya. It defines a “bank” to mean “a company which carries on, or proposes to carry on, the banking business in Kenya but does not include the Central Bank.”<sup>133</sup>

The Act defines “Banking business” to mean:

- (a) *“the accepting from members of the public of money on deposit repayable on demand or at the expiry of a fixed period or after notice”;*
- (b) *“the accepting from members of the public of money on current account and payment on and acceptance of cheques”;*
- (c) *“the employing of money held on deposit or current account, or any part of the money, by lending, investment or in any other manner for the account and at the risk of the person so employing the money; and”*
- (d) *“such other business activity prescribed by the Central Bank”;*<sup>134</sup>

---

<sup>132</sup> Cap 488, s 2.

<sup>133</sup> Ibid, Cap 488, s 2.

<sup>134</sup> Ibid, Cap 488, s 2.

The import of this definition is that “banking business” can only be undertaken by an institution holding a lawful license from the CBK.

The Banking Act does not contemplate the regulation of products offered by non-banks. As earlier noted, the fact that M-Pesa service was offered by a non-traditional banking institution, meant that Safaricom exploited a legal loophole in the banking law in Kenya and managed to establish a financial service that did not, at that time, require a banking license to operate. This is because, by default, the definition of banking business in Kenya did not recognize these services as banking business and hence they remained unregulated for nearly five years.

### **3.6.3 The Central Bank of Kenya Act, (Cap 491)**

This is the law intended to operationalize Article 231 of the Constitution which establishes the CBK. It provides for its functions including licensing of banks, formulation, and implementation of foreign exchange policy. The CBK also has the sole mandate to formulate and enforce prudential regulations applicable to all financial institutions in the country.

The Constitution, the CBK Act and the Regulations under it also provides that the Central Bank has other functions including formulating Kenya’s monetary policy, issuance of currency, acting as the government’s banker, supervising banks, controlling supply of money and credit, controlling exchange, acting as lender of last resort, keeping custody of foreign exchange, acting as clearing house and collecting and publishing monetary information.

### **3.6.4 The Competition Act<sup>135</sup>**

The objective of this law is to protect and encourage by prohibiting anti-competition practices and to establish the Competition Authority of Kenya.”<sup>136</sup>

The purposes for which the Competition Authority is established include:

- (a) advancement and enforcement of the law;

---

<sup>135</sup> Competition Act No. 12 of 2010.

<sup>136</sup> Ibid No. 12 of 2010 at the preamble.

- (b) inquiry into grievances;
- (c) supervision of mergers;
- (d) public awareness, setting standards and creation of consumer bodies;
- (e) undertaking research on competition and consumer interests; and
- (f) analyzing relevant government policies.

The Act provides that any business whose production, supply of goods or services exceeds half of the market supply amounts to 40% of the market share with the market power is a “dominant undertaking” and is taken to have abused that position if:

- (a) it imposes unfair prices or other trading conditionality;
- (b) it limits or restricts production or industrial growth unfairly;
- (c) it applies divergent conditions to comparable dealings in relation to other traders;
- (d) it concludes contracts containing additional conditions which are restrictive to trading; or
- (e) it abuses IP rights.

This law contemplates regulating services like mobile banking. Its scope is however limited to the extent that it does not prohibit collusion and formation of cartels by rival companies to set prices illegally. This is a possibility that the few mobile money providers may exploit to the detriment of the consumers.

### **3.6.5 Consumer Protection Act No. 46 of 2012**

All countries engaged in free market economies require consumer protection legislation to uphold the rights of consumers and ensure fairness in trade. Consumer protection legislation is intended to regulate the relationship between consumers and sellers of goods and services.

Kenya’s consumer protection law is premised on Article 46 of the Constitution which provides that “consumers have the right goods and services of reasonable quality.”<sup>137</sup> This Article is given effect through the Consumer Protection Act<sup>138</sup> whose objective is to

---

<sup>137</sup> Constitution of Kenya, Article 46 (1) (a).

<sup>138</sup> No 46 of 2012.

protect consumers by preventing prejudicial commercial practices through the following measures:

- (a) establishing of legislative context for ensuring a fair and well-organized market;
- (b) mitigating the difficulties of reaching goods and services by consumers;
- (c) enhancing consumer education and ethical practices in business;
- (d) protecting consumers from abuse;
- (e) empowering consumers;
- (f) dispute resolution and redress.

The Consumer Protection Act establishes the Kenya Consumers Protection Advisory Committee whose functions include:

- (a) policy formulation and advisory services to the government;
- (b) organizational linkages within and out of the country;
- (c) consumer education and advisory services;
- (d) dispute resolution mechanisms;
- (e) monitoring and evaluation;
- (f) setting standards for consumer protection;
- (g) accreditation of consumer organizations.

It has been shown in this research that although there should be caution in slapping the market with all manner of regulations, there are certain aspects that relate to consumer protection that every regulatory body should consider. With regard mobile money industry there must be measures to ensure safe, transparent and accountable digital financial transactions.

Although this law applies to Kenya's mobile money industry, it fails to specifically provide for the following principles which every mobile Regulatory authority should be take responsibility to protect the consumers:

- (a) protection of customer funds against loss;
- (b) anti-money laundering and anti-terrorism financing measures;
- (c) reliability of equipment;
- (d) adequate network including system safety and capacity;

- (e) adequate customer information on the channel to enable making of informed decisions;
- (f) existence of complaint resolution mechanisms;
- (g) fair collection, transmission and storage of customer personal information.

Based on the above analysis it can clearly be inferred that:

1. That unguarded overlapping regulatory regimes poses the risk of regulatory failure and threatens the growth and establishment of mobile banking industry.
2. That there is need for cooperation and inter-agency involvement among the respective telecommunications corporation, banking fraternity and regulatory supervisors;
3. That the most suitable form of regulation is one informed by lessons learnt in the marketplace and introduced incrementally;
4. That mobile banking can be harnessed to promote financial inclusion to both developed and developing economies; and
5. That a mobile money service model needs the support of an established telecommunications company with sufficient network working in partnership with a prudentially regulated financial institution and supported by a nationwide network of non-bank agents.

## **4.0 CHAPTER FOUR: THE CASE FOR INSTITUTIONALIZING THE REGULATORY IMPACT ANALYSIS (RIA) TOOL**

*“..... There is a risk that during a period of re-organization and renewal catches are dropped. ...a time of change can create opportunities for those who wish to escape from regulation to do so and, perhaps more dangerous in the long run, for the boundaries of regulation to be pushed forward into areas hitherto unblest by the attention of the authorities.”<sup>139</sup>*

Experience has shown that financial markets are generally more regulated because of the losses that may be inflicted on national economies in case of their failure. The fact that they accept and keep in custody funds from their customers also means that they stand in a fiduciary relationship with their customers.

Regulatory approaches for mobile banking industries may take various forms including “command and control regulations” issued by the state, “market-based incentives” controlled by market forces of supply and demand, “voluntary incentives” including self-regulation or even a hybrid version of all these approaches. Whatever the approach, the contention in this research is that before a regulation is introduced in any market, it should be preceded by a careful study and analysis to understand the costs and benefits of the proposed regulatory measure.

Regulations governing markets can be either economic or social<sup>140</sup>. Economic Regulations spell out entry requirements and determine the prices while social regulations are aimed at adjusting market catastrophes and protecting consumers.

Regardless of the approach and form of regulations, there is every likelihood that every market rule will attract unintentional and unforeseen consequences, some of which can be

---

<sup>139</sup> Henry Thornton Lecture, City University Business School, 4 November 1998.

<sup>140</sup> Stephen, B. a. (1995). *Breaking the Vicious Cycle: Towards Effective Risk Regulation*. Cambridge: Massachusetts: Harvard University Press, page 3.

business killers. It has been shown that mobile money markets are extremely dynamic and sensitive to regulations.

Policymakers concerns are usually the administrative first-hand results that address the concerns of the regulator at a particular moment. Regulators hardly ever concern themselves with second hand consequences which are usually not physically discernible. The cost of implementing regulations does not apply equitably but hurts the smaller players most. This may lead to putting them out of business and end up with a monopoly which was obviously not the intention of the regulator in the first place.

Regulatory Impact Assessment (RIA) on new policy proposals is justified and recommended tool because regulations can add to firms' costs, distort competition, erect barriers to entry and greatly harm small firms.

RIA occupies the second stage in the regulatory reform ladder. The first consideration should be doing nothing if no regulation is in place or deregulation, simplification, and elimination if some regulations are already in place.

In summary, RIA process foresees policy implementation problems, ensures better quality policy and regulation making, institutionalizes evidence-based policy-making process and ensures better achievement of policy objectives. It can identify risks and provide a cost-benefit analysis which will help regulators and policymakers make more informed decisions.

#### ***4.1 What is “Regulatory Impact Assessment”?***

RIA is a tool, prepared prior to some proposed regulatory measure. It is an equivalent of an environmental impact assessment in the construction industry which is designed to provide a comprehensive analysis and evaluation of all the probable consequences of a proposed law. These include a cost-benefit analysis and identification of risks of proposed regulation.

It takes the form of a critical analysis of a proposed approach assessing the pros and cons and providing alternatives including doing nothing and other non-regulatory measures. RIA advocates that new regulatory measures should only be promulgated after all other alternatives are well-thought-out and eliminated in addition to the costs being justified by the benefits.

Therefore RIA is tool intended to assist policymakers to come up with an informed decision concerning a stated problem in a transparent and open manner. It can ensure effective legislation and avoid unintended consequences.

#### ***4.2 Key Elements of RIA***

RIA statement should ideally have:

- (a) a concise statement of policy problem intended to be resolved;
- (b) clear policy objectives;
- (c) non-regulatory policy options;
- (d) associated risks;
- (e) associated costs and benefits or cost-benefit analysis;
- (f) impact small business;
- (g) consultation process; and
- (h) Enforcement mechanisms.

#### ***4.3 The Benefits of Regulatory Impact Assessment***

Undertaking RIA is a unique opportunity which affords policymakers a wide range of managerial and governance benefits:

- (a) RIA requires a clear statement of the regulatory problem. The coherent analysis and articulation of the problem gives a clear understanding and helps sieve out irrelevance and thereby avoid double-guessing.
- (b) It requires one to explore all the possible options and alternatives before choosing the most suitable. These options usually include—doing nothing, reviewing the law, use of economic instruments, promoting self-regulation, the introduction of an industry code of practice and co-regulation. This consideration of all possible alternatives helps the regulator to pick the most feasible option.



- (c) RIA also requires the regulator to rationalize option on the basis of “ascertained impacts” namely costs and benefits for those affected by the regulatory measure.
- (d) RIA also provides a consultative forum for persons affected by the proposed measure. This provides an opportunity for participatory governance.
- (e) The fact that RIA requires policy makers to explain and give reasons for the preferred option promotes transparency and accountability on the part of the policy maker.
- (f) It is an opportunity for regulator circumvent and unintentional effects of a proposed regulatory measure.
- (g) The fact that RIA requires participation of the persons being regulated means that there is a buy-in which promotes voluntary compliance with the proposed measure.

In a nutshell, RIA assists a policymaker to assess the impacts of a proposed regulatory measure, explore alternatives and engage in a meaningful consultative process with the persons affected by the regulation.

#### ***4.4 How have different Jurisdictions implemented the RIA?***

##### **4.4.1 The US Model**

Regulatory impact assessment is believed to have originated in the United States in 1978 when the Carter Administration required the “Inflation Impact Assessment. The US enacted the “Regulatory Flexibility Act” in 1980. This was the law providing for mandatory evaluation of effects of any proposed regulation, especially in relation to the small enterprises. During the Reagan Administration, the concept was broadened with Cost-Benefit-Analysis becoming the required methodological approach for all government policy initiatives. Under the Regulatory Right-to-Know Act,<sup>141</sup> there are requirements for the budget office to prepare annual cost-benefit analysis for all federal regulations.

---

<sup>141</sup> Section 624 of the Treasury and General Government Appropriations Act, 2001.

#### 4.4.2 The Australian Model

In 1985 Australia mainstreamed the concept of RIA by establishing the “Office of Regulation Review (ORR)” which the relevant arm of government mandated to prepare advisory opinion on all matters relation to regulatory reforms. It is this body which is responsible for review of Regulatory Impact Statement (RIS) from all regulatory agencies. The Australian law requires that RIS should be administered for all regulatory measures impacting on businesses and competition The RIS is then placed before Parliament for review and approval. Every regulatory department is required to consult the ORR in the early stages of its regulation making process.<sup>142</sup>

#### 4.4.3 The Canadian Model

It is the requirement of the law in Canada the at all federal regulations should be preceded by a Regulatory Impact Analysis Statement (RIAS). The RIAS must consist of the following parts namely:

- (i) Descriptive part containing the nature of the problem to be resolved.
- (ii) Options part analyzing the alternatives considered.
- (iii) Cost-Benefit analysis.
- (iv) Consultation part indicating the nature and type of consultation undertaken.
- (v) Enforcement measures.
- (vi) Contact person responsible for any required explanations.

In the EU, RIA was started 2002 under a process which required identification and assessment of the problem, objectives to be pursued, economic and environmental impacts, possible synergies and trade-offs and alternatives. The EU system was reevaluated in 2009<sup>143</sup> in a study which discrepancies in the system.

#### 4.4.4 The UK Model

In the UK, RIA was introduced in the mid-1990s. This model emphasizes top level political compliance by requiring ministries to make written declarations confirming that they have evaluated a given regulatory measure and that they are satisfied the benefits

---

<sup>142</sup> Australian Office of Regulation Review, 1998: A Guide to Regulation.

<sup>143</sup> Jacopo Torrif, Ragnar E L: The first five years of the EU Impact Assessment System: A risk economics perspective on gaps between rationale and practice. In Journal of Risk Research Vol 15 No. 2, (2012), pp169-186.

justify the costs. The managing offices are the “Regulatory Impact Unit (RIU)” and the independent Better Regulation Task Force (BRTF)<sup>144</sup> whose work is to advise the government on the best practices in regard to regulatory impact.

#### 4.4.5 The New Zealand Model

New Zealand established an inter-ministerial committee in October, 2000 to advise the government on measures of reducing “compliance costs” or businesses. This panel is responsible for clearing and approving all “Regulatory Impact Statements and Business Compliance Cost Statements (BCCS” which are mandatory according to law.

#### 4.4.6 The OECD Model

By late 1990s approximately 12 Organization for Economic Co-Operation and Development (OECD)” countries had implemented RIA requirements in some form or other. Currently, all the 26 OECD countries have implemented the RIA requirements. The OECD developed the following checklist for determining a good and workable RIA:<sup>145</sup>

1. *“Is the problem correctly defined? The problem to be solved should be precisely stated, giving evidence of its nature and magnitude, and explaining why it has arisen (identifying the incentives of affected entities).*
2. *Is government action justified? Government intervention should be based on explicit evidence that government action is justified, given the nature of the problem, the likely benefits and costs of action (based on a realistic assessment of government effectiveness), and alternative mechanisms for addressing the problem.*
3. *Is regulation the best form of government action? Regulators should carry out, early in the regulatory process, an informed comparison of a variety of regulatory and non-regulatory policy instruments, considering relevant issues such as costs, benefits, distributional effects and administrative requirements.*
4. *Is there a legal basis for regulation? Regulatory processes should be structured so that all regulatory decisions rigorously respect the “rule of law”; that is, responsibility should be explicit for ensuring that higher-level regulations*

---

<sup>144</sup> Supra at p 6.

<sup>145</sup> Source OECD (1995).

- authorize all regulations and consistent with treaty obligations, and comply with relevant legal principles such as certainty, proportionality, and applicable procedural requirements.*
5. *What is the appropriate level (or levels) of government for this action? Regulators should choose the most appropriate level of government to take action, or if multiple levels are involved, should design effective systems of coordination between levels of government.*
  6. *Do the benefits of regulation justify the costs? Regulators should estimate the total expected costs and benefits of each regulatory proposal and feasible alternatives and should make the estimates available in an accessible format to decision-makers. The costs of government action should be justified by its benefits before action is taken.*
  7. *Is the distribution of effects across society transparent? To the extent that distributive and equity values are affected by government intervention, regulators should make transparent the distribution of regulatory costs and benefits across social groups.*
  8. *Is the regulation clear, consistent, comprehensible and accessible to users? Regulators should assess whether likely users will understand rules, and to that end should take steps to ensure that the text and structure of rules are as clear as possible.*
  9. *Have all interested parties had the opportunity to present their views? Regulations should be developed openly and transparently, with appropriate procedures for effective and timely input from interested parties such as affected businesses and trade unions, other interest groups, or other levels of government.*
  10. *How will compliance be achieved? Regulators should assess the incentives and institutions through which the regulation will take effect, and should design responsive implementation strategies that make the best use of them.”*

The following lessons can be drawn from the OECD countries:

1. For RIA to succeed, there is need to maximize political commitment at the top level.

2. The responsibility of implementing RIA should be vested on an independent and authoritative body.
3. There is need to train an impart RIA skills among the regulators.
4. There's need to employ a consistent tool of undertaking the cost-benefit analysis among wide range of regulators.
5. Resources should be targeted at those projects whose regulatory impacts is most significant and is a possibility of alternative measure.
6. There is need to integrate RIA in the policy making from early stages.
7. It is necessary to publicise RIA results and analysis clearly.
8. The consultative process should involve the public as much as possible.
9. RIA should be applied to both existing as well as proposed regulations.

#### 4.4.7 The South African Model

In 2007, South African Cabinet approved the adoption of a two-tier RIA system with a central office, known as the Central RIA Unit (CRIU) and RIA units within government departments. The central unit is located at the Deputy President's office.

#### 4.4.8 The Case for Kenya

Just about the time M-Pesa service was being launched in Kenya on March 5, 2007, an inter-ministerial "Committee on Regulatory Reforms for Business Activity in Kenya"<sup>146</sup> submitted its report to the Government of Kenya. The report included a review of 1325 licenses with recommendations for their elimination, simplification or retention. The report also included proposals for the design and focus of a regulatory reform strategy to guide regulatory reform efforts over the next 3-5 years.

In his 2009 budget statement, the Cabinet Secretary for Finance reiterated the government's determination to consolidate regulatory reforms, under a long-term strategy, to ensure that Kenya remains a top reformer globally:

*"We are determined ... to further improve Kenya's business regulatory environment and remain among the top reformers. In line with Vision 2030 and the private sector*

---

<sup>146</sup> Working Committee on Regulatory reforms for business activity in Kenya established through Gazette Notice N0. 7521 of 23<sup>rd</sup> September to review and harmonize business regulatory regime (licenses).

*Development Strategy, a new Regulatory Reform Strategy will set a stage for more transparent, fair and less burdensome business regulatory regime...*<sup>147</sup>

The Ministry of Finance then developed a regulatory Reform Strategy in 2008.

Among the features in this important government policy included the following six components which were intended to be implemented over the next five years:

- (a) implementation of the licensing reforms;
- (b) targeting “doing business” indicators;
- (c) implementation of regulatory impact assessment;
- (d) ensuring good regulatory governance at the local authorities through improving the sub-national doing business indicators;
- (e) inspections and enforcement; and
- (f) Targeting specific areas for regulatory streamlining (tax administration, tourism, trading across borders, etc.)

Based on this report, some 315 licenses were eliminated, 379 simplified and about 294 were retained, an initiative which saw Kenya get recognized as a “global top-ten reformer” by Doing Business, the World Bank’s international benchmark of regulatory burdens.<sup>148</sup>

In Kenya despite the limitation of resources, there is virtually no framework to prevent overregulation. There is no coordinating or advisory office to enable the government to ensure that legislation, whether at county or national level accords to “the principles of good regulation.”

Article 156 of Kenya’s Constitution provides that “the Attorney-General is the principal legal adviser to the Government<sup>149</sup>”. The law constituting the office of the AG provides that the Attorney General’s functions include, among others, “advising Government Ministries, Departments, Constitutional Commissions and State Corporations on

---

<sup>147</sup> 2008/9, Budget Speech, National Treasury, Kenya.

<sup>148</sup> Jacobs, S. a. (2006). *World Bank, Jacobs and Associates* [www.regulatoryreform.com](http://www.regulatoryreform.com) accessed on 2/3/2016.

<sup>149</sup> Constitution of Kenya, 2010, Article 156 (4) (a).

legislative and other legal matters.”<sup>150</sup> Despite being a Constitutional requirement, the Attorney-General of the Republic of Kenya has abdicated this duty thereby throwing the country into a confused state of the legislative process. At the moment, there is no requirement to conduct RIA on legislation developed by Parliament of Kenya.

#### **4.5 What is the ideal time to undertake RIA**

For RIA tool to be most effective, it should be conducted:

- (a) early enough and be an integral part of policy development;
- (b) before preparing and introducing new regulations;
- (c) as part of the consultation process; and
- (d) By the regulatory body proposing the policy but be counter checked for quality by a central body.

#### **4.6 Kenya’s Legal requirements on RIA**

The Statutory Instruments Act No. 23 of 2013<sup>151</sup> is the only law in Kenya that attempts to institutionalize regulatory impact assessment (RIA), but given its scope of application, it amounts to a skimpy effort on the part of the Kenyan Parliament. The object of the Act is lay down procedures for scrutiny of regulations by Parliament to ensure that consultations are undertaken before promulgating subsidiary legislation.

The Act requires that where the subsidiary legislation is likely affect any business or restrict competition, the person or body making such regulation must consult the persons who will be affected by the law.

The law further requires the regulating authority to prepare a regulatory impact statement *containing the following information:*

- (a) *“a statement of the objectives of the proposed legislation and the reasons for them;*

---

<sup>150</sup> Office of the Attorney General Act, 2012, s 5.

<sup>151</sup> Statutory Instruments Act, 2013, s 6.

- (b) a statement explaining the effect of the proposed legislation, including in the case of proposed legislation which is to amend an existing statutory instrument the effect on the operation of the existing statutory instrument;*
- (c) a statement of other practicable means of achieving those objectives, including other regulatory as well as non-regulatory options;*
- (d) an assessment of the costs and benefits of the proposed statutory rule and of any other practicable means of achieving the same objectives;*
- (e) the reasons why the other means are not appropriate;*
- (f) any other matters specified by the guidelines; and*
- (g) Draft copy of the proposed statutory rule.”<sup>152</sup>*

This Act requires that in analyzing the costs and benefits of a given regulation, the regulating authority take into account the not just the economic impact but also, the environmental effects and social impacts. The statement should also factor the administrative and compliance costs as well as “resource allocation costs”.

The law requires that the Cabinet Secretary must upon being satisfied that the benefits justify the cost, issue a certificate certifying that the requirements of the Act have been complied with.

The Act further provides that regulatory impact statements may not be necessary if the proposed legislation only provides for certain matters whose impact may not be grave. It is not clear why Parliament of Kenya opted to subject the subsidiary legislation to RIA and but exempted the rest of the regulations including laws passed by the two Houses of Parliament. The application of RIA to subsidiary legislation only makes little sense since most of the regulations emanate from Parliament anyway.

---

<sup>152</sup> Ibid, Section 15.



## **5.0 CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS**

### ***5.1 Subject of research***

The problem that this research has attempted to investigate is the risk of regulatory failure in the mobile money industry. Mobile money service is being offered by a telecommunications company which, though not a bank, has had endure overlapping regulatory frameworks including those of banking, telecommunications, payment system supervisors, anti-money laundering and even terrorist financing prevention agencies.

The research focuses on M-Pesa as a case study although references have been made to other mobile money providers where necessary. The M-Pesa mobile money service in Kenya is offered by Safaricom, a telcom company which is a non-banking institution. The service is leveraged on mobile phones whose convenience, widespread usage and ever-changing technology across the world has made them into the computing platform of the masses. The convenience of cell phones has enabled the developing economies like Kenya to forgo building expensive landline infrastructure in order to provide financial access in rural areas. The wide usage of mobile phones and their ability to connect to internet services has enabled the mobile banking providers leverage on their networks to forgo building expensive ATM and branch infrastructure in order to reach the unbaked people.

An interesting aspect about M-Pesa is that this transformational financial service was launched in a legal vacuum. At the time of its launch, financial regulations in Kenya were based on the Banking Act which did not contemplate financial services being offered by a non-banking institution. The fact that M-Pesa service was offered by a non-traditional banking institution, meant that the founders exploited a loophole in the banking regulations and managed to establish a financial service that did not, at that time, require a banking license to operate. By default therefore, the definition of “banking business” in did not recognize mobile money services as banking business and hence they remained unregulated for nearly five years. The Banking Act did not provide the basis to regulate products offered by non-banks.

The M-Pesa service in Kenya has shown tremendous growth in terms of the number of registered users, amount of money being transacted and the range of services for which the system is applied. This level of uptake, the degree of innovativeness and the potential of the industry has catapulted M-Pesa into international recognition. Indeed M-Pesa may well be the most humble lesson that big economies may learn from unsophisticated economies like Kenya, it may be the humble lesson that big, old, traditional, conservative and slow-moving banks operating in an over-regulated environment may need to learn from this new, non-traditional innovative, blue-eyed financial service provider operating in an under-regulated environment.

The hypotheses of this study were that:

- (a) The nature of legal and regulatory framework within which mobile banking service is offered directly influences its growth; and
- (b) The disparate regulatory regimes within which the mobile banking industry is operating demand careful and tailor-made regulatory frameworks for each type of regulation.

## ***5.2 Summary of findings***

The findings in chapter two have shown that different mobile banking models can be harnessed to promote access and financial inclusion to the banked, the unbanked and even the hard to reach people in rural areas including women and the poor. An analysis of the emerging models of mobile banking also shows that mobile money service requires the support of an established telecommunications company with sufficient network working in partnership with a prudentially regulation financial institution and supported by a nationwide network of non-bank agents.

Chapter three explores the relationship between the level of regulation and growth of mobile banking service. This chapter explains why regulations are necessary for the mobile money industry and attempts to explain what would amount to be the most viable form of regulation. It also explores the danger disparate legal and regulatory regimes existing in Kenya and assesses whether the Kenya's regulatory framework is likely to be restrictive rather than enabling to the industry. This chapter notes the role of Kenya's

Central Bank in allowing M-Pesa to operate under a special license and its decision to issue regulations in phases based on lessons learnt may as well be the master stroke that enabled M-Pesa to entrench itself and grow as it has done. This is because comparative studies have shown that even in the 10 countries where M-Pesa has been replicated, its uptake and growth appears to have been hindered by the overprotective and restrictive regulations. A case in point is South Africa's M-Pesa service which had to close down in 2011 due to the over protective and restrictive regulatory environment.

The Chapter concludes that:

- (a) Unguarded overlapping regulatory regimes pose the risk of regulatory failure and threaten the growth and establishment of mobile banking industry.
- (b) That the most suitable form of regulation is one informed by lessons learnt in the marketplace and introduced incrementally.

Chapter four explains the concept of Regulatory Impact Assessment, its salient elements and benefits. This chapter also explores how different countries have domesticated RIA and recommends the same for Kenya's mobile banking regulations.

- (a) That mobile banking can be harnessed to promote financial inclusion to both developed and developing economies;
- (b) That a mobile money service model needs the support of an established telecommunications company with sufficient network working in partnership with a prudentially regulation financial institution and supported by a nationwide network of non-bank agents;
- (c) That where the regulatory framework within which a mobile money service is being offered is enabling enough, the service grows exponentially;
- (d) That exponential growth potential after launch depends on the regulatory approach by the regulators especially the Central Banks'
- (e) That there is need for cooperation and inter-agency involvement among the respective telecommunications corporation, banking fraternity and regulatory supervisors;
- (f) That the most suitable form of regulation is one informed by lessons learnt in the marketplace and introduced incrementally; and

- (g) That conducting Regulatory Impact Assessment before imposing regulations on mobile banking industry can alleviate the risks associated with overprotective and restrictive regulations.

It has been shown in this research that despite being launched in a legal vacuum, M-Pesa mobile money service has grown in leaps and bounds. Most of this success could be explained by the cordial understanding between Safaricom and the CBK. Negotiations between these two enabled the former to offer a business solution in the face of legal uncertainty. However, this honeymoon now stands threatened by the regulatory regime that the government of Kenya has been putting in place for the last couple of years. Since the year 2000, the government has enacted multiple pieces of legislation which are likely to pose a danger not only to the service but also prohibit the entry of new players. Within a span of the last five years alone, the government of Kenya has already slapped the industry with no fewer than five regulatory regimes spanning from information and communications, proceeds of crime and anti-money laundering, competition, national payment systems to consumer protection<sup>153</sup>. All these regulatory regimes will, in one way or other, have far reaching implications on the future of mobile banking industry in Kenya. An analysis of these laws shows that enormous powers have been given to regulators which if exercised without care, may well mark the sunset of this “world first”. Further, it has been shown that for the benefit of both the customer and the investor to have a clearly regulated industry, any regulatory measures to be employed must be enabling rather than disabling. A sound regulatory regime must provide protection to the customer and afford the investor ample space for innovativeness to meet the customer’s special needs while at the same time guaranteeing fair competition.

### **5.3 Conclusion**

On the basis of the above findings, it is the conclusion of this research that the growth and uptake of mobile banking is influenced by the legal and regulatory framework within which it is operating. Indeed an unguarded overlapping regulatory framework poses the risk of regulatory failure and not only threatens the growth of the established mobile

---

<sup>153</sup> Muthiora, B. (2015, January 23). *CGAP.*, from Enabling Mobile Money Policies in Kenya: fostering a Digital Revolution: [https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/2015\\_MMU\\_Enabling-Mobile-Money-Policies-in-Kenya.pdf](https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/2015_MMU_Enabling-Mobile-Money-Policies-in-Kenya.pdf) accessed on September 7, 2017

money providers but also restricts new entrants in the mobile banking industry thereby promoting monopolistic tendencies.

## **5.4 Recommendations:**

### **5.4.1 RIA as remedy**

Based on the above conclusion, it is the recommendation of this research that in order to determine the right level of regulation, Kenya should adopt a holistic Regulatory Impact Assessment for both existing and proposed regulations relating to the mobile money industry.

### **5.4.2 RIA as a legal requirement**

The fact that the technology through which mobile banking is offered is changing fast calls for a dynamic legal framework otherwise it would become obsolete and unnecessarily restrictive.

Regulatory Impact Assessment (RIA) is not a requirement for laws enacted by the Parliament of Kenya. The Statutory Instruments Act only requires RIA in relation to some subsidiary legislation yet most of the laws are passed in Parliament.

It is on this basis that this research recommends legal reforms for the adoption of Regulatory Impact Assessment for all laws and regulations relating to markets, and in particular the mobile money market in Kenya. There should be a legal requirement that any law that is likely to affect the operation of (mobile money) markets or likely to promote monopolistic tendencies in relation to existing industry players should be subjected to a mandatory assessment of its effects on the market through the conduct of RIA. The proposed law should make it mandatory for every regulatory authority proposing to impose regulations on the industry to conduct a RIA and submit a report to the relevant authority for approval. Such a report should contain, as minimum the following parts:

- (i) Descriptive part explaining and concisely stating the nature of the problem to be resolved.
- (ii) Options part analyzing the regulatory and non-regulatory alternatives considered, including doing nothing.
- (iii) Cost-Benefit analysis part analyzing both economic and non-economic costs and benefits.
- (iv) Consultation part indicating the nature and extent of consultation undertaken and explain how stakeholder views have been addressed.
- (v) Enforcement measures.
- (vi) Contact person responsible for any required explanations.

### **5.4.3 Institutional framework for RIA**

Kenya should establish a permanent inter-ministerial office comprised of all relevant arms of government which is specifically mandated to prepare advisory opinion on all matters relating to market regulatory reforms. This body will be responsible for review and approval of Regulatory Impact Assessments reports from all regulatory authorities before they are enacted into law. Every regulatory authority should be required to conduct RIA before preparing its regulations and seek approval of the proposed office before tabling the regulations for debate and passage.

### **5.5 Relevance of this research**

The objective of this study is to introduce a new dimension to the discourse of regulating mobile banking services by proposing a suitable tool to avert the risk of regulatory failure and other un-intended effects in the sector. If regulation is to be enabling rather than restrictive, it should neither be “too little nor too much”. Regardless of the level of innovation or type of market structure, regulation should be designed specifically to meet the intended objectives and should not occasion unforeseen or unintended effects. In order to achieve this, regulatory authorities should adopt holistic approaches that take into account all options.<sup>154</sup>

---

<sup>154</sup> Robert. (1995). *Regulation in Question: The Growing Agenda*. Hertfordshire: Merck Sharp & Dohme Limited.

## BIBLIOGRAPHY

### Books

Baldwin, R.. *Regulation in Question: The Growing Agenda*. (Hertfordshire, United Kingdom: Merck Sharp & Dohme Limited 1995) 23

Baldwin, R. *Rules and Government* (London: Clarendon Press 1997) 36

Braithwaite, I. A.. *Responsive Regulation: Transcending the Deregistration Debate*. (New York Oxford: Oxford University Press 1992) 61

Cull, R. Financial development and inclusion in Kenya. (Pretoria: University of Pretoria 2012) 5

Robert Baldwin, M. C.. *Understanding Regulation: Theory, Strategy and Practice*. (London: Oxford University Press; 2<sup>nd</sup> Edition 2013) 31

Robert. *Regulation in Question: The Growing Agenda*. (Hertfordshire: Merck Sharp & Dohme Limited 1995) 71

Stephen, B. a. *Breaking the Vicious Cycle: Towards Effective Risk Regulation*. (Cambridge: Massachusetts: Harvard University Press 1995) 19

### Journal and online Articles

Basel Committee on Banking Supervision. *Customer Due Diligence for Banks*. Basel: (Bank for International Settlements 2001)

Klein, Michael; Mayer, Colin 2011, *Mobile Banking and Financial Inclusion: The Regulatory World Bank Policy Research Working Paper No. 5664* Available at <http://documents.worldbank.org>

Mayer, M. K. (2011). *Mobile banking and financial inclusion: The regulatory lessons, No 166, Frankfurt School - Working Paper Series, Frankfurt School of Finance and Management*. Frankfurt: Frankfurt School - Working Paper Series, Frankfurt School of Finance and Management

Mayer, M. U. *Mobile Banking and Financial Inclusion: The Regulatory Lessons*, (Research Working Paper No. WPS 5664, Washington DC 2011)

Mbiti, J. C. (2010). Mobile Phones and Economic Development in Africa. *Journal of Economic Perspectives Volume 24, Number 3* , 207–232.

Ogus, A. (*Regulatory Institutions and Structures. Annals of Public and Cooperative Economics*, University of Manchester: Centre on Regulation and Competition 2003), pages 627-648

Wilde, A. S. (1979). Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis. *Yale Law School Faculty Scholarship Series. Paper 1117* (pp. 630-682). Yale: Yale Law School.

Weil, I. M. (2011, June). Mobile Banking: The Impact of M-Pesa in Kenya. *NBER Working Paper Series*.

### **Reports**

Grace Ng-Kruelle, D. S. (2002). Interfaces in adoption of an evolving innovation: An Activity-theoretical Perspective and the Price of Governance. Pretoria: Schloss Dagstuhl.

GSMA. (2017). *The Mobile Economy*. London: GSMA Intelligence.

Jacobs, S. a. (2006). *World Bank, Jacobs and Associates* [www.regulatoryreform.com](http://www.regulatoryreform.com).

Lumpkin, S. (2002). *Supervision of Financial Services in the OECD Area*. (Paris: OECD Secretariat 2002) accessed on 20/3/2017 available at [www.oecd.org](http://www.oecd.org)

Neville, D. P. (2006). *M-Banking: Knowledge Map and possible donor support strategies, Report Commissioned by Department for International Development (DFID)*. (Washington D.C: World Bank. 2006) available at <http://www.dfid.gov.uk>

Olga, M. (2008). Surviving in the "Dual System": How M-Pesa is Fostering Urban-to-Rural Remittances in a Kenyan Slum. *HCC Conference*. Pretoria: HCC.



Porteous, D. (2006). *The Enabling Environment for Mobile Banking in Africa*. Boston, USA: Bankable Frontier Associates.

Porteous, T. L. (2008). *Regulating Transformational Branchless Banking*. CGAP .

Robert Cull, A. D.-K. (2012). *Financial Inclusion and Stability: What does Research Show?* Washington DC: CGAP.

Sarah Truen. Richard Ketley, H. B.-D. (2005). *Supporting remittances in Southern Africa*. Johannesburg: CGAP and FinMark Trust.

South African Foundation. (2003). *Designing a Regulatory Impact Assessment for South Africa*. Johannesburg: South African Foundation.

Timothy Lyman, M. P. (2008). *Regulating Transformational Branchless Banking: Mobile Phones and other Technology to Increase Access to Finance*. CGAP.

Union, International Telecommunication. (2007). *TELECOMMUNICATION/ICT MARKETS AND TRENDS IN AFRICA*. Geneva Switzerland: ITU.

Vaughan, P. Providing the Unbanked with Access to Financial Services: The Case of M-PESA in Kenya. *Mobile Banking & Financial Services Africa Conference*. Johannesburg.

Vaughan, P. (2008). Providing the Unbanked with Access to Financial Services: The Case of M-PESA in Kenya. *Mobile Banking and Financial Services Conference*. Johannesburg.

World Bank. (2007). *Migration and Remittances Factbook*. Washington D.C: World Bank.

### **Websites and blogs**

Alexandre, C. (2010, November 2010). *10 Things You Thought You Knew about M-PESA*. Retrieved August 24, 2016, from CGAP Advancing financial inclusion to improve lives of the poor: <http://www.cgap.org/blog/10-things-you-thought-you-knew-about-m-pesa>

Alexandre, C. (2010, November 22). *CGAP*. Retrieved August 24, 2016, from Advancing financial inclusion to improve the lives of the poor: <http://www.cgap.org/blog/10-things-you-thought-you-knew-about-m-pesa>

Alexandre, C. (2014). *Ten things you thought you knew about M-Pesa*. Accessed on 26/7/2017 available at <http://paymentsafrica.com>.

Chan, C. B. (2013). M-Pesa And GCash: Can 'Lean Regulation' Be A Gamechanger for Financial Innovation? *Forbes*.

Collins, G. *Mobile money in emerging markets: is the operator-led model broken?* (Cape town: Burm Media 2012) 4

\_\_\_(2001). *Customer Due Dilligence for Banks*. Basel: Basel Committee on Banking Supervision accessed on 12/12/2017 available at <https://www.fsa.go.jp>

Muthiora, B. (2015, January 23). *CGAP*. Retrieved September 7, 2017, from Enabling Mobile Money Policies in Kenya: fostering a Digital Revolution: [https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/2015\\_MMU\\_Enabling-Mobile-Money-Policies-in-Kenya.pdf](https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/2015_MMU_Enabling-Mobile-Money-Policies-in-Kenya.pdf)

Lonie, N. H. (2007). M-PESA: Mobile Money for the “Unbanked” Turning Cellphones into 24-Hour Tellers in Kenya.

### **Policy Documents**

Central Bank of Kenya Prudential Guidelines

Republic of Kenya, Ministry of Planning and National Development, National Economic Council, Kenya Vision 2030, (National Government Publication, 2007)

Republic of Kenya, Ministry of Planning and National Development, National Economic Council, *First Medium Term Plan (2008-2012) Kenya Vision 2030*, (2008) *A Globally Competitive and Prosperous Kenya*, (National Government Publication, 2008)

Republic of Kenya, Ministry of Planning and National Development, National Economic Council, *First Medium Term Plan (2018-2022) Kenya Vision 2030*, (2008) *A Globally Competitive and Prosperous Kenya*, (National Government Publication, 2008)

Republic of Kenya, Draft Regulatory Reform Strategy 2008-2012 (2009), Ministry of Finance

**Legislation**

Banking Act (Chapter 488) s 2

Central Bank of Kenya Act (Chapter 491) s 4, 5

Competition Act (No. 12 of 2010) s 13

Constitution of Kenya (2010) Article 46, 94

Consumer Protection Act (No.46 of 202) s 6,10, 22

Statutory Instruments Act (No. 23 of 201) s 6, 15