How to cite this thesis

MOBILE MONEY IN GHANA: A LEGAL ANALYSIS

by

ISSABELLA ANANE-FOSUHENE

MINOR DISSERTATION

Submitted in partial fulfilment of the requirements for the degree of

MASTER OF LAWS (LLM)

in

BANKING LAW

SUPERVISOR: PROFESSOR SAREL DU TOIT

2019
Acknowledgement

I am very pleased to finally write my acknowledgement, considering all the many nights I stayed up writing this research paper.

I am very thankful to God for seeing me through my studies and making this day possible.

I greatly appreciate my supervisor, Prof Sarel Du Toit for his support, guidance and massive interest in my research.

I would like to thank Prof Charl Hugo for his motivation and constant advice which helped me to successfully adjust to the South African educational system.

My family (Anane-Fosuhene, Amo Ameyaw and Buah), I cannot thank you enough. Through thick and thin, you have always stood by me and supported me financially and emotionally.

To my friend and sister, Racheal Amoako-Antwi, I am highly grateful for your love, care and support.

To Mr Prince Obiri-Korang, I am most grateful for your time and patience in proof-reading my work and constantly motivating me. I genuinely appreciate your unflinching support and concern in my academic pursuit.

Finally, I would like to render my sincere gratitude to Miss Matilda Foli for making my stay in Johannesburg one which will always linger on, I owe you one whenever you visit home – Ghana.
Abstract

Payments are crucial in the economic system of every country. Mobile money as a method of payment is gradually taking waves in Sub-Saharan African. In Ghana, it is one of the most patronised modes of payment. This method of payment is gradually replacing the traditional cash and cheque payments in Ghana. Its success in the country has greatly contributed to financial inclusion among the large unbanked population. However, regulations on mobile money were basically mobile telecommunications network based, this was due to the unfriendly nature of the Branchless Banking Guidelines which made the mobile money operation bank-led. The introduction of the recent Electronic Money Issuers Guidelines, which govern all electronic money operations including mobile money has brought significant regulatory changes. Notwithstanding, with respect to yearly transactions of mobile money compared to the traditional payment methods and risks involved, it is recommended that separate regulations on mobile money be implemented to enhance its operation.
Table of content

ACKNOWLEDGEMENT .................................................................................................................................................. I
ABSTRACT ..................................................................................................................................................................... II
TABLE OF CONTENT ....................................................................................................................................................... III

CHAPTER I .................................................................................................................................................................. 1
INTRODUCTION ........................................................................................................................................................... 1
  1.0 Overview of mobile money in Ghana .................................................................................................................. 1
  1.1 Problem Statement .............................................................................................................................................. 3
  1.2 Research Questions ............................................................................................................................................. 5
  1.3 Objectives and significance of the study ............................................................................................................. 5
  1.4 Scope of study and limitations ............................................................................................................................ 6
  1.5 Organisation of the study ..................................................................................................................................... 6

CHAPTER II ............................................................................................................................................................. 7
THE NATURE OF MOBILE MONEY IN GHANA ....................................................................................................... 7
  2.0 Introduction .......................................................................................................................................................... 7
  2.1 Payment systems in Ghana ................................................................................................................................. 7
  2.1.1 Cash Payment .............................................................................................................................................. 10
  2.1.2 Cheque payment .......................................................................................................................................... 10
  2.2 The nature and history of the financial system in Ghana ......................................................................................... 11
  2.3 Structure of the financial system in Ghana .......................................................................................................... 13
  2.4 Brief history of mobile money ............................................................................................................................ 14
  2.5 Operation of mobile money business in Ghana .................................................................................................... 15
  2.5.1 Mobile Money Registration ......................................................................................................................... 15
  2.5.2 Mobile Money Cash Transfer ...................................................................................................................... 16
  2.5.3 Cash Deposit and Savings account ................................................................................................................ 18
  2.5.4 Purchase of recharge cards/airtime and other payments .............................................................................. 18
  2.5.5 Mobile Money micro loans .......................................................................................................................... 19
  2.6 Interoperability and cross border transfer (world remit) of mobile money ......................................................... 20
  2.7 Conclusion .......................................................................................................................................................... 21

CHAPTER III ............................................................................................................................................................ 24
MOBILE MONEY AND FINANCIAL INCLUSION IN GHANA .................................................................................. 24
3.0 Overview of financial inclusion........................................................................................................... 24
3.2 Assessment of financial inclusion in Ghana (a comparison between the banking system and mobile money).......................................................................................................................... 26
3.3 Contribution of mobile money to financial inclusion ............................................................................ 27
  3.3.1 Ghana .............................................................................................................................................. 27
  3.3.2 Kenya .............................................................................................................................................. 30
3.4 Conclusion............................................................................................................................................ 32

CHAPTER IV .................................................................................................................................................. 33
THE REGULATION OF MOBILE MONEY IN GHANA ............................................................................. 33
4.0 Overview .............................................................................................................................................. 33
  4.1 History of financial services regulation in Ghana ................................................................................ 33
  4.2 Ghanaian context of banks and the Banking Act.............................................................................. 34
  4.3 The legal status of mobile money in Ghana ....................................................................................... 36
  4.4 Current regulations on mobile money in Ghana ............................................................................... 37
  4.4.1 Regulatory model under the Guidelines for E-money Issuers .................................................... 39
    4.4.1.1 Market-led model.................................................................................................................. 39
    4.4.1.1.1 Know-your-client (KYC) and customer due diligence................................................... 40
    4.4.1.1.2 Agent guidelines ............................................................................................................. 42
    4.4.1.1.3 Interest on mobile money .............................................................................................. 43
    4.4.1.1.4 Security, compliance and consumer protection ................................................................ 43
  4.5 Assessment of mobile money regulatory index .................................................................................. 44
  4.6 Conclusion........................................................................................................................................... 45

CHAPTER V .................................................................................................................................................. 46
RECOMMENDATIONS AND CONCLUSIONS .................................................................................. 46
  5.0 Recommendations .......................................................................................................................... 46
  Conclusion.............................................................................................................................................. 48

BIBLIOGRAPHY .............................................................................................................................................. 50
CHAPTER I

INTRODUCTION

1.0 Overview of mobile money in Ghana

The emergence of mobile devices has not only made communication easier but also helped in making payment transactions easier and more convenient.\(^1\) The use of mobile phones for payment has become a popular payment system in most developing countries particularly in Africa. This is an addition to the traditional systems making up the payment system of the relevant country. Mobile payment may be regarded as a major part of the payment systems of countries and has led to an overall improvement in their payment systems.\(^2\) A country’s payment system determines the stability and soundness of its financial system.\(^3\) An efficient payment system facilitates timely completion of financial transactions to enhance job creation, economic growth and an improved standard of living.

Generally, payment systems consist of an array of institutional arrangements and processes that facilitate the movement of monetary claims between two or more economic entities.\(^4\) One of the payment systems largely used in Ghana is the mobile money (MM) system. The mobile money system is a sub-set of electronic payment (e-payment).\(^5\) Mobile money has been simply defined by

---

1 Huang "How mobile payment is changing the world" 2017 *Computer Science* 5 19.
2 Pelletier, Khavul, and Estrin “Mobile payment services in developing countries” 2014 *International Growth Centre (IGC)* 1 2.
4 Suzuki “Mobile money, individuals’ payments, remittances, and investments: evidence from the Ashanti region, Ghana” 2018 *Sustainability* 1409 1412.
5 Details on this will be discussed in the next chapter II.
the International Finance Corporation (IFC) as “banking and financial transactions using mobile phones and devices.”

The mobile money system started with a negligible number of transactions on a daily basis but today, it records daily transactions of $1.3 billion. The data on the global number of registered accounts show that close to half of the global usage of the mobile money system is in Sub-Saharan Africa, and Ghana is no exception. The extent of the use of mobile money as a means of payment is helping in achieving financial inclusion for the unbanked and the underserved in Sub-Saharan Africa and Ghana specifically. This is done through the mobilisation and encouragement of savings in the mobile money wallets of registered subscribers. In fact, the introduction of mobile money service in some parts of Africa has made a tremendous impact by accelerating development. It is significantly bridging the technological and digital gap between the developed and the developing countries. It has therefore enhanced the transfer of money, payment of goods and services and given the unbanked access to financial services.

The mobile money system was introduced in Ghana by Mobile Telecommunications Network (MTN) in 2009 with registered subscribers totaling 350,000 out of the total population of 23.9 million. It started gaining popularity in 2012 as other telecommunication networks such as AirtelTigo and Vodafone joined in. Despite all the three major telecommunication companies operating mobile money, it recounted a paltry 971,460 registered subscribers though the

---

7 IFC (n 6) 3.
8 Donovan “Mobile money for financial inclusion” 2012 Information and communication for development 61 73.
9 See generally, Mattern “How Ghana became one of Africa’s top mobile money markets” 2018 Consultative Group to Assist the Poor 1 3.
population had increased to 25.7 million. In 2018, the number of registered subscriber rose tremendously to 29.99 million out of the total Ghanaian population of 29.61 million. This suggests that the number of registered subscribers outstripped the population of Ghana as projected by the Ghana Statistical Service (GSS). This is as a result of one person subscribing to mobile money on two or more networks.

Today, money mobile as an e-payment system is gradually making Ghana realise its dream of having a cashless economy. The Bank of Ghana in 2016 reported that there was a continuous decline in the use of physical cash as a medium of exchange. It further added that this was as a result of the use of other sources of payment which included mobile money, credit cards and the Ghana Interbank Payment and Settlement Systems (GhIPSS) Instant Pay.

1.1 Problem Statement

The lack of access to formal banking in some countries has opened the door for mobile operators to build successful mobile payment services. In some African countries, the use of mobile phones has advanced to become an important device in rendering financial services. Ghana has been one of the countries which utilises mobile phones in this regard and it has saved many Ghanaians the stress of the formal bank systems. This is because, there were frequent breakdown of automated

---

10 Pasti “State of the industry report on mobile money” 2018 Global System for Mobile communications Association 10.
11 Pasti (n 10) 10.
13 BoG Annual Report (n 12) 22.
teller machines (ATMs) and people had to queue at the banks to access banking services such as deposits and withdrawals. The introduction of mobile money which renders most of these banking services has become a convenient way of savings, payments and transfer of money. In recent times, it has become one of the major means of making monetary contributions and donations for example, to churches since most churches have registered with the mobile money network operators.

Despite all this, it is relevant to assess whether the mobile money system is being regulated with appropriate laws. Also, the nature and status of its providers and subscribers will be worth delving into. Mobile money operations involve savings on one’s mobile money wallet, making and receiving payments on mobile money accounts as well as instructing payment to banks. These operations are similar to operations of banks, however, in terms of its regulations, mobile money providers have not been specifically classified as operating as banks. Notwithstanding this, it is widely believed that the mobile money system falls under regulatory provisions in the Banking Act, 2004 (Act 673), the Bank of Ghana Act, 2002 (Act 612), the Payment Systems Act, 2019 (Act 987) and the Bank of Ghana’s Guidelines for Electronic Money Issuers. However, these are specific regulatory laws basically for banks and deposit-taking institutions save a few such as the Payment Systems Act which regulates almost all payment systems. It suffices to say that there are no specific consolidated legal regulations on the mobile money system but, however, a disjointed set of rules and regulations set by each mobile money operator in regulating its operations.

Generally, the government and mobile money operators have to rely on the Acts mentioned above coupled with the operational regulations by the mobile money service providers to regulate the

---

15 An account that is primarily accessed using a mobile phone for monetary transactions.
operations of the mobile money payment system, a payment system whose transactional value in 2018 alone reached GH ¢233 billion.\textsuperscript{16} It is in view of this that this research seeks to conduct a legal analysis of the mobile money system and assess the sufficiency and effectiveness of the regulations in place to monitor the mobile money system in Ghana.

1.2 Research Questions

The research seeks to find out whether there are sufficient and effective regulations put in place to regulate the mobile money system in Ghana. In trying to efficiently answer this, other subsidiary questions are needful. These are, what the nature of the mobile money system in Ghana is, how mobile money has contributed to financial inclusion in Ghana and what the legal regulations on mobile money in Ghana are.

1.3 Objectives and significance of the study

The study seeks to assess the sufficiency and the effectiveness of the regulations on the mobile money system in Ghana. It also focuses on the contribution of mobile money to achieving financial inclusion in Ghana. The findings of the research will help to ascertain the sufficiency and effectiveness of the mobile money system and recommendations made for consideration by policy makers in Ghana.

1.4 Scope of study and limitations

The research focuses on the legal analysis of the mobile money system in Ghana. It further assesses the legal nature of the mobile money system, the sufficiency of regulations put in place to regulate the operations of mobile money and contribution of mobile money to financial inclusion. The research is limited to all telecommunications which operate the mobile money system in Ghana.

1.5 Organisation of the study

The research is in six chapters. Chapter one covers the introductory aspect of the research which contains the general overview of mobile money in Ghana, the problem statement, the research objectives, research questions, significance of the study, scope of the study and limitations and organisation of the study. Chapter two discusses mobile money as payment system in Ghana. Chapter three deals with the contribution of mobile money to financial inclusion in Ghana. Chapter four addresses the regulations on mobile money, this focuses on all relevant laws on the mobile money system in Ghana. Chapter five concludes and makes recommendation on the research.
CHAPTER II

THE NATURE OF MOBILE MONEY IN GHANA

2.0 Introduction

The definition of money is often based on its functions as a means of exchange, a store of value and a unit of account.\textsuperscript{17} Mobile money which is an electronic form of money, also performs these functions. This is manifested through its ability to store value (money) on a digitised mobile wallet which is used for payment. This chapter discusses the nature of mobile money operations in Ghana. It focuses on the payment systems, the nature and structure of the financial system, a brief history of mobile money and the operation of mobile money in Ghana.

2.1 Payment systems in Ghana

Payment in the legal sense has been defined by Goode as a gift or loan of money or any act offered and accepted in performance of a money obligation. He adds that an act cannot constitute payment unless money is involved.\textsuperscript{18} The case of \textit{Libyan Arab Foreign Bank v Bankers Trust Co}\textsuperscript{19} reiterated Goode’s definition with respect to the payment of money (cash). This definition has however been

\textsuperscript{17} Proctor Mann on \textit{the Legal Aspect of Money} (2006) 9.

\textsuperscript{18} Goode \textit{Payment Obligations in Commercial and Financial Transactions} (1983) 11.

\textsuperscript{19} 1989 QB 728 764.
criticised by some academics since payment may not always be monetary but the parties can agree to treat any other act as payment.\textsuperscript{20}

In Ghana, a payment system is the entire matrix of institutional infrastructure arrangements and processes in a country set up to enable economic agents (individuals, businesses, organisations and Governments) to initiate and transfer monetary claims in the form of commercial and central bank liabilities.\textsuperscript{21}

During payment, the payee’s acceptance of the payer’s tender of payment evidences that payment has been made. Where money is used for payment, it can be cash in hand, funds held in a bank or credit facility with a bank and electronic money. The mode of payment can be by cheque, debit card, credit card or an electronic funds transfer (EFT) which includes electronic-money and mobile money.

In recent times, the electronic funds transfer (EFT) is becoming a popular method of payment. Its services include transfers through automated teller machines, a point-of-sale facility (EFTPOS), internet banking services on personal computers, mobile cellular phones (banking apps and mobile money transfers), to mention but a few. Most developed countries are more inclined to the use of the EFTPOS and other internet related banking as compared to developing countries.\textsuperscript{22} This has encouraged prompt commercial transactions while creating a gap in financial services

\textsuperscript{20} Brindle and Cox \textit{Law of Bank Payments} (2004) 1: “Whilst payment often involves the performance of a money obligation, it does not necessarily involve the delivery of money. Money may not be delivered where another sum is set off, or an account settled. Money may not be involved where for instance goods are delivered in part exchange for new goods”.


\textsuperscript{22} Demirguc-Kunt, Klapper, Singer and Van Oudheusden “Measuring Financial Inclusion around the world” 2014 \textit{The Global Fintex Database} 1 21.
development in developing countries. On the other hand, developing countries, including Ghana, depend on the use of mobile money transfers through mobile cellular phones as the mode of electronic funds transfer.

In Ghana, the major payment systems in place are cash payments, cheques, banker’s drafts and electronic funds transfers which include mobile money.\(^{23}\) Over a decade ago, cash payment and cheques were the traditional forms of payment. However, due to the increased use of technology, most payment intermediaries such as banks have resorted to the use of e-monies in recent times, although that system is at a rudimentary stage. The current trend in Ghana's payment systems development is being driven by economic, financial and public policy factors as well as a growing local information and computer technology (ICT) industry and global trends in payment systems development.\(^{24}\) This has led to servicing clients of payment intermediaries in a manner which is more cost-effective.

The stakeholders of Ghana’s payment system are the central bank, the commercial banks, service providers and users of the system. The central bank is the overseer, operator and a participant in the payment system. It is the regulator of the financial system. The commercial banks make and receive payments on their own behalf or on behalf of their customers. The service providers are the telecommunication companies who provide the infrastructural arrangements for the payment system.\(^{25}\)


\(^{24}\) Lamikanra and Young “Payment developments in Africa-the payments journey 2016 *KPMG* 2 5.

2.1.1 Cash Payment

Ghanaians predominantly transact more with cash in hand. In a domestic setting, it is mostly in the currency of the country where the transaction is taking place. The reason for the wide acceptance of cash payment in Ghana is because of the nature of the economic market. Until recently, with the exception of the export of agricultural produce and other raw materials such as minerals, the country was not vibrantly involved in other international trades. This meant that, trade was basically among citizens and cash payment was more convenient. Fear of fraud through online transactions also necessitated the use of cash payment as compared to other means of payment.

2.1.2 Cheque payment

Cheque is another major form of payment in Ghana. Some employers pay their employees by issuing cheques to them. Cheques were first introduced in Ghana during the colonial era for the settlement of government accounts. For the banked population, cheques are their major mode of payment. A cheque is a bill of exchange that constitutes an unconditional order to a drawee bank.

---

26 Dr Bawumia (the vice-president of Ghana) on Joynews has pointed out that the Ghanaian economy is basically cash led and it is gradually moving to a cash lite economy especially with onset of mobile money operations. (https://www.myjoyonline.com/business/2019/May-30th/bawumia-confident-of-a-cash-lite-economy-by-2020.php (20-10-2019)).

27 Committee on Payments and Market Infrastructures “Fast payments-enhancing the speed and availability of retail payments” 2016 Bank for International Settlements 1 47.

28 It is an unconditional order in writing, addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time a sum certain in money to or to the order of a specified person or to bearer (section 3 of Bill of Exchange Act, 1882).
to pay a certain sum mentioned in the instrument, from a drawer’s account, to a payee, or to the order of the payee or the bearer. Cheques are paid over the counter to the payee or bearer unless it is crossed which requires that the cheque be deposited into a bank account. A cheque contains a mandate to effect payment. This mandate can however be withdrawn by either stopping or countermanding the payment. Unlike cash payment, cheque payment is a conditional payment, thus payment is only made when the cheque is honoured by the drawee bank.

2.2 The nature and history of the financial system in Ghana

The financial system serves the purpose of payment, savings, and credit and risk management services to its clients. In Ghana, the financial sector is dominated by the banking industry which among other things acts as an intermediary for payment. The efficiency and effectiveness with which the financial sector in Ghana has played these roles in the country has until recently been limited. The system in Ghana embraces a range of organisations which deal with the management of financial activities. This system is classified into three major sectors: banking and finance (including non-bank financial services and forex bureau), insurance and financial markets/capital markets. The banking and finance sector is given priority in this work since the discussion of

---

29 Chalmers and Guest *Bills of Exchange and Cheques* (2016) 626.
30 *Coltrane v Day* 2003 EWCA Civ 342.
33 n 13 above.
mobile money falls directly in this category. Thus, the mobile money system operates under non-bank financial services which is a sub-set of the banking and finance sector.

The history of the financial system in Ghana can be traced to the colonial era. It started with the establishment of the Bank of British West Africa (BBWA) at the erstwhile Gold Coast (now Ghana) in 1896. Before the establishment of the bank, the crown in England had to import silver coins to Gold Coast to pay the salaries of government officials. The onset of BBWA helped in maintaining the government accounts. Cheques were also introduced in the settlement of government accounts. With time, the public accepted the usefulness of the bank and began to patronise it. The growth of BBWA attracted another foreign bank (the Colonial Bank) to penetrate the financial market in the Gold Coast. The Colonial Bank merged with Barclays Bank, the Anglo-Egyptian Bank and the National Bank of South Africa. The resulting banks operated under the name “Barclays Bank”.

Barclays Bank and BBWA were the only banks operating in the Gold Coast from 1920 to early 1950 when the government established the Bank of Gold Coast. This bank was split into two after the country’s independence in 1957. These were the Bank of Ghana, as the issuer of the country’s currency, which subsequently became the central bank of Ghana and the Ghana Commercial Bank, operating the accounts of public operations. Other private banks were not given the licence to operate in the country by the post-independence socialist government.

---

34 Buckle “History of Banking in Ghana” 1999 Monoq 1 2.
35 Buckle (n 34) 3.
36 Buckle (n 34) 5.
37 Buckle (n 34) 7.
At the time, the socialist policies of the government created economic hardships which led to exchange control being extended to all forms of payment, including the imports and exports of goods and services as well as the issues and transfer of all securities.  

This continued under successive governments until 1983 when the government sought the assistance of the International Monetary Fund (IMF), which introduced the Economic Recovery Programme (ERP). This programme led to the liberalisation of trade and financial restrictions in the country. Legislation on banking, non-banking financial institutions and securities were enacted to evidence the liberalisation of all the earlier restrictions. The Financial Institutions (Non-Banking) Law of 1993 provided licence to non-banking financial institutions. This was followed by the enactment of the Ghana Stock Exchange Listing Regulations and the Securities Industry Law. These laws together encouraged the free trade in shares and the licensing of dealers. The restructuring and liberalisation of the financial system largely led to the relatively stable state of the financial sector. This helped in attracting more investors and financial institutions to operate in Ghana.

2.3 Structure of the financial system in Ghana

With the history of the financial system in view, it is worth noting that the Ghanaian financial system has gone through a series of changes and restructuring. The system now consists of the

---

38 Buckle (n 34) 12.
39 Buckle (n 34) 13.
40 Buckle (n 34) 15.
41 Buckle (n 34) 19.
Central Bank and the deposit taking institutions.\textsuperscript{42} The Central Bank is autonomous but works with the Ministry of finance which helps in formulating economic policies in the country. The deposit taking institutions include commercial banks, insurance companies and the mobile money transfer system. Currently, there are twenty-three commercial banks, nineteen insurance companies and three mobile money transfer operators with more than one thousand branches throughout in the country.\textsuperscript{43}

\textbf{2.4 Brief history of mobile money}

The first mobile money service was developed and launched in Kenya in 2007 by Safaricom, and today there are 15 million mobile money customers making it the most popular and successful form of mobile money in the world.\textsuperscript{44} Safaricom, an associate of Vodafone in Kenya in the mid-2000s thought of creating an inventive product for its customer. Vodafone used this opportunity to get a grant from the Department for International Development in the United Kingdom which was seeking companies in developing devices to assist the unbanked.\textsuperscript{45} The goal was to create a simple financial service through the use of a simple mobile phone feature.

The success of the project in Kenya imbibed the confidence in other network providers to initiate this mobile money transfer to other countries with similar financial services gaps as existed in Kenya. Other countries in Asia and Africa soon became partakers in the mobile money transfer


\textsuperscript{43} Ghana Banking Survey Having Secured the New Capital; What Next for Banks? (2018) 37.

\textsuperscript{44} USAID Better than Cash: Kenya Mobile Money Market Assessment (2011) 4.

\textsuperscript{45} USAID (n 44) 4.
operation. Ghana was not left out in this initiative, today, Ghana boast about 29 million subscribers of mobile money.\textsuperscript{46}

2.5 Operation of mobile money business in Ghana

The mobile money business has become one of the most lucrative jobs for Ghanaians. Until recently, becoming a merchant or an agent of mobile money did not require any rigorous processes and training.\textsuperscript{47} Any person with a minimum education who can read and write can be a merchant. The system provides convenient financial services to its subscribers irrespective of time and place. To become a subscriber, one needs to first register one’s phone number with the help of an agent of the relevant telecommunication company. Below is a discussion on the registration process through to its operations and services rendered.

2.5.1 Mobile Money Registration

The mobile money registration process is very simple and easy. A person can register as a subscriber or agent/merchant. Mobile money registration is done across the three major telecommunication networks. MTN mobile money, Airtel money/Tigo cash and Vodafone cash are the names used to describe the particular mobile money operation by a particular network

\textsuperscript{46}See generally, MobileMoneyAfrica \textit{Ghana: Mobile Money Accounts Outstrip Population} (2018) 3 (https://www.mobilemoneyafrica.com\textsuperscript{} (11-08-2019)).

\textsuperscript{47} A prospective agent or merchant only needed to register with the telecommunication network and get a suitable address for his mobile money operations.
provider. An intended subscriber visits the merchant of a network operator’s office and registers with a valid photo identification card. This could be a voter’s ID, driver’s licence or passport. The merchant documents the personal details of the intended subscriber and registers her mobile phone number to the service, creating a mobile money wallet. Subsequently, the new subscriber generates a personal identification number (PIN) with her own phone using the registered phone number which will be used for all her mobile money transactions.48

For the registration of an agent/merchant, the same process of registering a subscriber is followed except that the agent is given a new SIM card for the commercial transactions. The agent goes through a recruitment training and she is supposed to meet the capital requirement as an agent of GH¢4,000 which is equivalent to US $800.49 As part of E-money issuer guidelines, an agent is required to have a permanent structure for the mobile money business.50 When all these requirements are met, the person starts operating as a mobile money agent.

### 2.5.2 Mobile Money Cash Transfer

Mobile money transfer is the maiden innovation of the mobile money operation in Ghana. It is limited to the transfer of money from one mobile device to another mobile device.51 It makes it possible to transfer money to both mobile phone users and non-mobile phone users. This is done

---

49 Di Castri (n 48) 3.
50 Di Castri (n 48) 3.
51 See generally, Preston “Mobile Money and Mobile Content” 2019 ScreenAfrica 1.
in two main ways. The first is where the recipient of the mobile money transfer is a mobile phone user and subscriber of mobile money on the same mobile network as the sender. In this case, both the sender and receiver are subscribers of the same service provider (for example, MTN mobile money). The sender inputs on his phone the MTN mobile money code which gives her instructions to follow and eventually sends the money to the recipient’s MTN mobile number. The transaction is concluded by inputting the sender’s PIN for approval. The recipient can therefore withdraw the money at any mobile money outlet of her network operator or use it for further transactions. Where a subscriber wants to withdraw cash, she can do this by allowing cash out\textsuperscript{52} on her mobile phone and following instructions to withdraw the money.

The other way of sending the money is to a non-mobile phone user who is also a non-subscriber. This is also done in two main ways. First, the recipient goes to a mobile money merchant/agent and requests the agent’s transacting mobile money code. The recipient then gives the code to the sender who in turn goes through the process of sending the money on her phone and choses merchant/agent and adds the merchant’s code as well as recipient’s name to it. The merchant receives the money instantly and gives it to the recipient. The second is that, the sender sends the money using the recipient’s name and generates a code for the collection of the money. The recipient therefore goes to the merchant with her identification card and the generated code given to her by the sender and collects the money.

\textsuperscript{52} Cash-out is where a customer deducts cash from his mobile money account. This is usually via an agent who gives the customer cash in exchange for a transfer from the customer’s mobile money account and enables the customer to initiate and authorize cash out before an agent can process the transaction. It as well enhances customer security for withdrawal transactions. (GSMA Mobile Money Definitions, (2010)).
2.5.3 Cash Deposit and Savings account

Cash deposit is one of the mobile money services. This service is exclusive to mobile money subscribers. This service is akin to one of the bank’s traditional roles which is deposit taking. It encourages savings as well as save most subscribers the time and documentary requirements in opening bank accounts. Mobile money cash deposit requires that a subscriber goes to a merchant/agent and gives the amount she wants to deposit to the merchant. The subscriber inputs her mobile money code on her phone and follows instructions to “allow cash in”\textsuperscript{53} to effect the deposit on the mobile money wallet.\textsuperscript{54} Afterwards, she gives the money to the agent who subsequently uploads it on the subscriber’s phone. This can also be done in banks with the inception of mobile money operations in banks. The banks have partnered with the mobile money operators in recent times to both accept deposits and authorise withdrawals of mobile money. A customer is also given the opportunity to open a savings account on her mobile money wallet which attracts interest per annum on the deposits.

2.5.4 Purchase of recharge cards/airtime and other payments

Mobile money is gradually replacing the traditional purchase of telecom recharge cards from vendors.\textsuperscript{55} It has provided a system where subscribers can easily buy airtime from their mobile

\textsuperscript{53} Allow cash-in enables a customer to authorize a deposit on her mobile money wallet. (The process by which a customer credits his account with cash. This is usually via an agent who takes the cash and credits the customer’s mobile money account (GSMA Mobile Money Definitions (2010)).

\textsuperscript{54} Mobile money wallet is an account that is primarily accessed using a mobile phone (GSMA Mobile Money Definitions (2010)).

money wallet without extra cost. It also allows subscribers to purchase airtime for other people who are either on the same network with them or on other networks. Airtime can also be redeemed from the mobile money account without necessarily buying it. The number of transactions per month entitles a subscriber to redeem airtime or alternatively internet data bundles. It has also become a very popular form of payment for school fees, funeral donations, electricity and cable television such as DSTV bills.56

2.5.5 Mobile Money micro loans

Apart from cash deposit, one of the mobile money services akin to a banking business is the granting of loans. Mobile money operators provide a quick, convenient and paperless loan for its customers without any previous savings with them. It is a short-term unsecured loan which is paid into the customer’s mobile money wallet upon application.57 One can apply for a loan through the particular operator’s mobile money short code. Since the application and granting of the loan is a contract between the operator and the customer, it is required that the customer must be 18 years or above.58 She must also be a subscriber/customer for more than 90 days to also qualify for the loan application. A customer can apply for up to GH¢1000 which is equivalent to $200.59 Payment is made as soon as the payment duration expires. The amount lent is deducted from customer’s wallet with a 5% interest rate per month. However, when the repayment date expires without money in the customer’s wallet for payment, it attracts a 12% penalty on the loan amount. Any

56 Omwansa “M-PESA: Progress and prospects, innovations case discussion” 2019 Mobile World Congress 107 123.
57 See generally, MacCarthy “Mobile money loans in Ghana” 2019 PCB 2.
58 MacCarthy (n 57) 3.
59 MacCarthy (n 57) 3.
amount of money deposited in the customer’s wallet is automatically deducted to pay the loan. Notwithstanding this, the service does not have a limit on the number of times a customer can apply for the loan, however, eligibility for subsequent loans depends on the loyalty of the customer in paying the previous loan on time.

2.6 Interoperability and cross border transfer (world remit) of mobile money

Although, mobile money recorded a massive success in Ghana, there was one major gap hindering its functionality across networks. This was due to the fact that a subscriber on one network could not transfer money to another subscriber on a different network using her mobile phone. The only remedy was for the transferor to send the money through a merchant and pay a fee. In 2018, mobile money interoperability was introduced in Ghana.60 This innovation is the interconnection of mobile money services with external parties, with the aim to create value for both customers and commercial players.61

The interoperability rolled out in phases, the first phase was an interconnection of mobile money services across networks. This made it possible for money to be transferred from one mobile money network to another. The second phase involved an interconnection between mobile money accounts and bank accounts. It made it possible for a subscriber to transfer funds between her mobile money wallet and bank account for payments, savings and deposits. The Central bank of


61 Davidson and Leishman “The case for interoperability: Assessing the value that the interconnection of mobile money services would create for customers and operators” 2012 GSMA 1.
Ghana recorded a doubled amount of the value of deposits and withdrawals with the onset of mobile money interoperability – from GH¢78.5 billion to GH¢155.8 billion.\(^{62}\)

Currently, the interoperability service could either be for a domestic money transfer or an international money transfer. The domestic money transfer has been explained above. It involves the transfer of money across networks in the same country. For instance, the transfer of money from MTN mobile money subscriber to Vodafone cash subscriber in Ghana.

Conventionally, remittances from family and friends living abroad were sent through bank money transfer organisations such as Western Union and MoneyGram through banks in Ghana. However, the international money transfer aspect of interoperability has made it possible to transfer money using WorldRemit\(^{63}\) through the receiver’s mobile money account. The transfer is instantaneous and it saves recipient time of withdrawing the money from the bank.

### 2.7 Conclusion

This chapter broadly looked at the nature of the mobile money operation in Ghana with specific considerations on the Ghanaian payment system, the structure of the financial system and how

---

\(^{62}\) See generally, Global System for Mobile communications Association (GSMA) “State of the industry report on mobile money” 2018 (www.gsma.com.mobilemoney (10-08-2019)).

\(^{63}\) Worldremit is an online money transfer service that provides international remittance services to migrant communities around the world. It is one of the most sophisticated, yet easy to use online money transfer service providers which enables one to send money from their mobile phones, tablets, and computers in a matter of minutes. (https://www.worldremit.com.en (11-08-2019)).
mobile money is operated in Ghana. It gave insight on the various services rendered as ancillary to the main service of money transfers.
CHAPTER III

MOBILE MONEY AND FINANCIAL INCLUSION IN GHANA

3.0 Overview of financial inclusion

The history of financial inclusion around the world shows that progress has been a long and ever-evolving journey to connect every individual to basic financial services. In most indigenous African societies, there is an informal system of money savings and the granting of loans for individuals or groups. For example, in Ghana the “susu” system which is similar to “stokvel” practiced in South Africa operated and to a limited extent still operates. However, since this was not formalized, data could not be generated to account for the number of people utilising that service and a further data could not be derived regarding the financial standing of such individuals or groups. This could have contributed to assessing access to financial services, but financial inclusion goes beyond that. In an effort to fill the gap in the financial inclusion data, the World Bank established the Global Financial Inclusion Database (Global Findex) in 2011, to measure the extent of financial inclusion in different countries.

Between the late 1990’s and early part of 2000, financial inclusion started with the provision of microcredit and microfinance among the impoverished, persons involved in small scale businesses and groups of peasant farmers and traders. It aimed at expanding their businesses and trade.

---

64 This is an informal system where the community members deposit money with a person well vested in bookkeeping and accounts on a daily basis which accrues interest every month. This money can be requested at the end of every month or when there is an emergency.


Today, financial inclusion has become of a global interest and as such it is advocated for by all governments as well as the United Nations (UN). The United Nations through the Millennium Development Goals included the eradication of extreme poverty and hunger. By the year 2015, extreme poverty was halved from 1.9 billion in 1990, to 836 million and a set of goals which aim to continue to achieve the goals set in 1990 were reinforced starting from 2015 to 2030. First on the list is “no poverty”. In the quest to achieve this, it is relevant that attention is paid to financial inclusion which can go a long way to help achieve economic freedom and most of the Sustainable Development Goals.

Financial inclusion aims at drawing the “unbanked” population into the formal financial system so that they have the opportunity to access financial services ranging from savings, payments, and transfers to credit and insurance. Generally, financial inclusion is seen as the accessibility of formal financial services to people who are “unbanked”. It has become a policy objective for most governments especially in developing countries. The 2015 Brookings Financial and Digital Inclusion Project (FDIP) report and the World Bank (2016) estimate that there are approximately two billion adults excluded from the financial sector worldwide.

---

69 See generally, Alliance for Financial Inclusion 2009-2019 (https://www.afi-global.org/policy-areas/general-fi (1-9-2019)).
3.2 Assessment of financial inclusion in Ghana (a comparison between the banking system and mobile money)

Financial inclusion has been measured by three dimensions: outreach, usage and quality of financial services. The indicators of outreach are geographic or demographic penetration such as the number of branches of a financial institution per 1,000 square kilometers or 1,000 adults. Usage measures the percentage of adults with at least one type of regulated deposit account, loan account, or insurance policy, and the percentage of enterprises with bank loans. Quality indicators comprise of financial literacy, disclosure requirements, dispute resolution, and the costs of usage.73

Measuring financial inclusion in Ghana through banks with these dimensions had some gaps. This is because, bank branches were only sited in cities and towns and not villages. Also, due to the failure of some major banks and the constant revocation of the licences of micro-finance and savings and loans institutions, Ghanaians lost trust in the formal banking system which resulted in a low percentage of adults with bank accounts. Although, the formal banking system contributed to financial inclusion, the gaps enumerated above heightened the popularity of mobile money in terms of its contribution to financial inclusion.

---

3.3 Contribution of mobile money to financial inclusion

Financial inclusion provides solutions in addressing issues of poverty which brings about an overall inclusive development.\textsuperscript{74} This is achieved through easy access to loans for business expansion. It is further strengthened through lower account costs, stronger legal guarantees, and stable political environment which are aimed at achieving the Sustainable Development Goals by 2030. For example, in Ghana, remittances through mobile money have had a positive impact on financial inclusion by promoting the use of deposit accounts.\textsuperscript{75}

3.3.1 Ghana

Technology has paved way for increased access to financial inclusion in most developing countries.\textsuperscript{76} In Ghana, there has been a remarkable improvement in widening the scope of financial inclusion. This has been the result of the introduction of mobile money. The number of registered financial accounts among Ghanaian adults has been on the increase. In 2014, the financial accounts were at 41\% which increased to 58\% in 2017.\textsuperscript{77} This was due to the increase in mobile money operations and transactions. Data from the Bank of Ghana reveals that mobile money accounts have recorded a tremendous increase between 2012 and 2017, from 3.8 million subscribers to 23.9

\textsuperscript{74} Chibba “Financial inclusion, poverty reduction and the millennium development goals” 2009 \textit{The European Journal of Development Research} 213 230.
\textsuperscript{75} Aker, and Wilson “Can mobile money be used to promote savings? Evidence from northern Ghana” 2013 SSRN Electronic Journal 1 3.
\textsuperscript{76} Wolbers “Financial technologies paving a bright new path for the world’s unbanked population” 2017 \textit{University of Groningen} 1 2.
\textsuperscript{77} See generally, Ozyurt “Ghana is now the fastest-growing mobile market in Africa” 2019 \textit{Agence francaise de development (AFD)} 1 3.
million subscribers with a transactional value of GH¢594 million ($109.8 million) to GH¢155 billion ($28.7 billion).\textsuperscript{78}

The Bank of Ghana has reported that mobile money services have the highest number of transactions out of all digital payment systems in Ghana. It has a greater share of 94.1% of all digital payments. This is due to the expansion of mobile telecommunications network coverage across the country and thus increasing mobile money subscriptions.\textsuperscript{79} One of the greatest initiatives in promoting financial inclusion in Ghana has been the opening up of the electronic money space to nonbanks as well as FinTech partnering banks through the operation of mobile money. This has contributed to enhancing financial inclusion in almost every part of Ghana.

Ghana’s agenda to increase financial inclusion to 85% by the year 2023 which is a move towards a “cash-lite economy”\textsuperscript{80} is focused on expanding financial inclusion mechanisms with mobile money at the forefront. An estimated 83.1% of Ghanaians have a mobile money account, which has taken savings and other forms of financial services to the doorstep of the ordinary citizen.\textsuperscript{81} It has also resulted in a rise in the level of making/receiving payment digitally from 22% in 2014 to 44% in 2017 among rural dwellers.\textsuperscript{82}

\textsuperscript{78} n 10 above.

\textsuperscript{79} Typically, there are no financial institutions in remote villages in Ghana. Dwellers of such villages have to either result to the “susu” system or go to a nearby town with a financial institution (such as a bank or savings and loans) to open an account.

\textsuperscript{80} “Cash-lite” economy is one in which the use of cash volumes in circulation is reduced through the use of electronic transactions such as debit, visa, credit cards, electronic fund transfer (EFT), etc.

\textsuperscript{81} Boateng “Ghana’s progress on reaching out to the unbanked through financial inclusion” 2018 International Journal of Management Studies 19.

\textsuperscript{82} Boateng (n 81) 11.
Monetary and security cost associated with money transfer is reduced through mobile money.\(^{83}\) This is because it provides a cost-effective way of money transfer since its charges are relatively less. The system ensures a double verification of name and mobile phone number of a receiver of mobile money to enhance security of money transferred. Previously, transfer of money to rural dwellers was cumbersome since it usually had to be through persons or motor vehicles travelling to such places. This form of money transfer was precarious since the money rarely gets to the receiver.

Now, remittances to family and friends are predominantly sent by way of mobile money encouraging more people to subscribe to it to receive money in a convenient way without going through the formal banking system where there is bureaucracy and documentation.

In the same vein, interoperability, as it currently operates in Ghana, with partnerships with banks is also increasing financial inclusion. This is because people who formerly would not open a bank account not because of unavailability of financial institutions in her community but rather on other considerations such as distance, documentation and inconvenience such as queuing at banks, will have the willingness to open a bank account knowing that with interoperability she can access her bank account through mobile money in making transactions.

The interoperability also allows subscribers of mobile money who have linked their bank accounts to their mobile money accounts, to be granted micro loans from their banks through an application on the mobile money platform. The loans can be applied for, directly, through the specific mobile money operation short code without necessarily applying through the bank. These micro loans

have helped many small enterprises and petty traders in expanding their businesses and it is as well encouraging savings in the long term.

Today, mobile money operation has allowed subscribers to earn interest on their money in their mobile money wallets.\textsuperscript{84} The operators give interest on the number of transactions every three months. This in a way is encouraging more mobile money transactions, savings and deposits which are attracting more people to subscribe to it and hence increasing financial inclusion.

3.3.2 Kenya

In trying to achieve financial inclusion, Kenya has not only limited itself to institutions such as banks, but nonbank financial groups which are not necessarily banks but have the support of the government in helping people in saving and lending of money, have been immensely involved in mobile money transactions.\textsuperscript{85}

Kenya is one of the leading countries in the development of mobile money in order to achieve financial inclusion. It has a widespread number of users in the country. In 2017, more than 7 in 10 Kenyan adults were deemed financially included, amounting to 73\% of the population.\textsuperscript{86}

\textsuperscript{84} Kubuga and Konjaang “Mobile money-a potential threat to banks?” 2016 \textit{International Journal of Computer Applications} 1 32.


\textsuperscript{86} See generally, \textit{Financial Inclusion Insights 2019, Kenya} (http://finclusion.org/country/africa/kenya.html (3-9-2019)).
Mobile money account holders number 98% of all financially included persons in Kenya.\textsuperscript{87} Data from the Communications Authority of Kenya shows that as of December 2018, Kenya had 31.6 million active users of mobile money transfer services out of a total national population of 49.7 million.\textsuperscript{88} This therefore shows mobile money is highly patronised as a mode of payment.

In Kenya, nearly two-thirds of the country is rural, and financial inclusion through mobile money is helping improve lives by enabling consumers to transfer money to relatives in small villages, pay school fees and buy health insurance. \textsuperscript{89}

Kenya just like Ghana is also engaged in mobile money interoperability with banks. It grants loans to subscribers and encourages savings.\textsuperscript{90} Today, Kenya is ranked third in Africa in terms of access to financial services and this is mainly contributed by mobile money.\textsuperscript{91} Thus, considering the fact that about 65% of the population do not have bank accounts, cash-free mobile money has become the means of financial inclusion for much of the population.

It is evident that mobile money in Kenya has been an all-inclusive initiative, and as part of its expansion programme, it has introduced “Agrikore” a digital payment, contracting and marketplace system that connects small farmers in Kenya with large commercial customers.\textsuperscript{92} The stakeholders in this block chain are farmers, financial institutions, agro-dealers, government and

\textsuperscript{87} Evans and Pirchio “An empirical examination of why mobile money schemes ignite in some developing countries but flounder in most” 2015 \textit{Review of Network Economics} 397 451.

\textsuperscript{88} Mukoya “M-Pesa helps drive up Kenyans' access to financial services-study” 2019 \textit{AfricaTech} 1 4.

\textsuperscript{89} Mukoya (n 88) 4.

\textsuperscript{90} Muthiora “Enabling mobile money policies in Kenya: Fostering a digital financial revolution” 2015 \textit{Global System for Mobile Communications Association} 1 17.

\textsuperscript{91} Mukoya (n 88) 4.

\textsuperscript{92} Wilson “Pioneering Kenya eyes next stage of mobile money” 2019 \textit{Financial Times} 1 2.
insurers. The aim is to make finances, market accessibility and agro-chemicals available to farmers, both small and large. Payments and loans from a stakeholder are enabled through mobile money. This is helping to incentivise farmers and make agriculture more lucrative to the populace.

Financial inclusion has raised the economic productivity potentials of Ghana and Kenya through the improvement in labour skills and provision of better education and health care. It has promoted growth in tax revenue due to the expansion of businesses through mobile money loans and empowering workers to be eligible for better protection and benefits through savings.

3.4 Conclusion

The chapter discussed mobile money and financial inclusion in Ghana. It explained financial inclusion with its dimensional measurement to include usage, outreach and quality of financial services. It also emphasised the contribution of mobile money in drawing the unbanked population into the financial sector and how it is contributing to the Ghanaian and Kenyan economies.

---

93 Mukoya (n 88) 3.
CHAPTER IV

THE REGULATION OF MOBILE MONEY IN GHANA

4.0 Overview

Regulation is the backbone of every innovation, this is because it helps to direct the operation and acceptability of such innovation. Mobile money as a money transfer and payment innovation needs regulation to manage its operations. The ease of acceptance and enrolment as well as services provided by mobile money are directly affected by regulations put in place.94 Where the regulations enable an uncomplicated access to non-bank financial services such as mobile money, it serves as a catalyst for increased financial inclusion.95 On the other hand, complicated and restrictive regulations can hinder the access to financial services.

4.1 History of financial services regulation in Ghana

As aforementioned in chapter two, the history of the financial system in Ghana was explained as one which was dominated by banks. The banking system went through restructuring in terms of its operations and regulations.96 However, it lacked innovations in enlarging its tentacles to increase financial inclusion among Ghanaians. Consequently, inadequate capital, weak

---

94 Bahia and Muthiora “The mobile money regulatory index” 2019 Global System for Mobile Communication Association 1 6.
95 Bahia and Muthiora (n 94) 6.
96 n 41 above.
governance structures, and insufficient regulations coupled with regulatory supervisions led to most bank failures.97 Financial reforms were put in place to improve regulation and supervision of banks and non-bank financial institutions.

4.2 Ghanaian context of banks and the Banking Act

The preamble of the Banking Act98 states that it is “[a]n act to amend and consolidate the laws relating to banking, to regulate institutions which carry on banking business and to provide for other related matters.”

The act is intended to regulate activities of banks and institutions which carry on banking business.99 A bank has not been defined by the Banking Act or any legislation in Ghana. However, the (English) common-law definition of a bank has been resorted to. This is due to the fact that the common-law per article 11(1)(e) of the 1992 Constitution of Ghana, forms part of the laws of Ghana.

The (English) common law’s position of what a bank is emanates from the case of United Dominion Trust Ltd (UDT) v Kirkwood.100 In this case, there was an action by UDT to recover the payment of a loan it had made to a dealer. The dealer defended the claim for repayment of the loan on the basis that UDT was not registered under the Moneylenders Act 1900 making the loan contract unlawful. UDT claimed it was exempted under section 6(d) of that Act because it

97 n 41 above.
99 emphasis is mine.
100 1966 2 QB 431.
conducted “banking business” The court held with the majority decision from Lord Diplock and Lord Denning that – reputation, which is whether other commercial men acknowledge the entity as a bank, and the performance of certain activities will constitute an entity as a bank. Thus, the activities included the acceptance of money from, and the collection of cheques for customers and the placing of funds to the customers’ credit, honouring cheques or orders drawn on the bank by their customers when presented for payment, the debiting of the customers’ accounts accordingly and keeping some form of current or running accounts for the entries of customers’ credits and debits.

In Ghana, a bank is defined with the activities mentioned in the UDT case as well as a banking licence as stipulated in the Banking Act. The activities of a bank which is termed as “banking business” in Ghana have been expanded beyond the enumerated ones in UDT. Section 11 of Act 673 lists the activities to include (but not limited to) the following: acceptance of deposits and other repayable funds from the public; lending; financial leasing; investment in financial securities; money transmission services; issuing and administering means of payment including credit cards, travellers’ cheques and bankers’ drafts; guarantees and commitments; trading for own account or for account of customers in money market instruments, foreign exchange, or transferable securities, participation in securities issues and provision of services related to those issues; advice to undertakings on capital structure, acquisition and merger of undertaking; portfolio management and advice; the keeping and administration of securities; credit reference services; safe custody of valuables and electronic banking.

---

101 section 4 of Act 673.

102 These are permissible activities of banks in Ghana. They are however not exhaustive as the section adds that the Bank of Ghana has the power to determine an activity as permissible.
With reference to the above, can it therefore be concluded that any entity that performs a substantial number of the activities regarded as a “banking business” is qualified to be a bank? This question is pertinent in defining the legal status of mobile money in Ghana since it is engaged in a number of these activities.

4.3 The legal status of mobile money in Ghana

Mobile money as defined in chapter one is a technology that allows people to receive, store and spend money using a mobile phone. It is operated by the mobile network operators (MNOs) using the specific telecommunication operator’s name and network, for instance MTN mobile money. The Electronic Transactions Act 772 of 2008 paved the way for mobile network operators to provide mobile money services in Ghana,\(^\text{103}\) thus issuance of electronic money by a non-bank entity. Traditionally, mobile network operators are to provide telecommunication networks for mobile phone communications. This service is licensed and regulated by the National Communications Authority (NCA) under the National Communication Authority Act.\(^\text{104}\) However, the recent role of mobile network operators in providing financial services through mobile money is outside the purview of the NCA. This new role gives them another outlook which cannot be specifically categorised under the provision of network for telephone communication.

\(^{103}\) sections 1(e) and 2: The object of this Act is “to provide for and facilitate electronic communications and related transactions in the public interest, and to promote the development of electronic transaction services responsive to the needs of consumers-this Act applies to electronic transactions and electronic records of every type.”

\(^{104}\) Act 524 of 1996.
The new role is similar to that of a bank, however, such entity has not been licensed under the Banking Act as a bank. Its operations were traditionally conducted at the various mobile money network operators’ offices or by agents who conducted the mobile money business in kiosks and similar structures, hence it was regarded as “branchless banking”.

4.4 Current regulations on mobile money in Ghana

Branchless Banking Guidelines\textsuperscript{105} were introduced in 2008 by the Bank of Ghana as the regulatory framework for electronic-money issuers which included mobile money operations in Ghana. This regulatory framework was bank-led, thus banks leading both the customer and agent relationships. This was likened to an adjunct conventional branch-based banking. For efficiency, a many-to-many model was put in place to ensure interoperability and interconnectedness between the mobile network operators and the banks. This model is where a partnership is created between a group of banks and a group of mobile network operators to share the agent network for the mobile money operations.\textsuperscript{106} Here, banks actively participated in the mobile money operation by jointly delivering banking services using the mobile money system. This model however became very uninspiring due to the lack of incentives and a vague allocation of responsibilities between the banks and the mobile network operators. The banks became unwilling to expand services to everyone since they were content with doing business with large companies who had regular incomes. This made the majority of the populace remain financially excluded. Also, some of the banks fearing the “free

\textsuperscript{105} Notice No. BG/GOV/SEC/2008/21.

\textsuperscript{106} Nyame-Mensah \textit{The Value of Mobile Banking: the Case of Mtn Mobile Money in Accra, Ghana} (2013) 11.
rider phenomenon”\textsuperscript{107} became unwilling to share their innovations and developments with the other banks. This created displeasure among the mobile network operators who then started investing in new developments and on-boarding customers onto the mobile money system. The activities undertaken by the mobile network operators made them possess the whole process of mobile money operations. However, it was contradictory to the Branchless Banking Guidelines and this caused some form of trepidation in committing more resources in the mobile money operation.\textsuperscript{108} This informed the Bank of Ghana to reconsider the regulatory framework and put in place a more flexible and compatible framework for the full functioning of mobile money in Ghana.

In 2015, the Branchless Banking Guidelines were replaced with Guidelines for E-money Issuers (EMI).\textsuperscript{109} These guidelines provide rules for e-money issuers who offer financial services outside traditional bank premises by using retail agents as alternative delivery channels.\textsuperscript{110} Non-banks who were previously within the ambit of the Branchless Banking Guidelines and providing mobile financial services had to be licensed under the new Guidelines for E-money Issuers. The guidelines authorise the issuance of e-money by financial institutions which are regulated under the Banking Act and or a “dedicated” electronic money (e-money) issuer which has been

\textsuperscript{107} It is a type of market failure that occurs when those who benefit from resources, public goods, or services of a communal nature do not pay for them. Free riders may become a problem because while not paying for the good, they may continue to access it. In the case of the bank-led model, banks who could champion new innovations became unwilling to do so since they did not want others who had not be actively involved in creating the innovation to benefit from it.

\textsuperscript{108} Mattern and McKay “Building inclusive payment ecosystems in Tanzania and Ghana” 2018 Consultative Group to Assist the Poor 1 2.

\textsuperscript{109} Notice no. BG/GOV/SEC/2015/09.

A dedicated electronic money issuer is a non-bank entity which has been duly licensed and engaged solely in the e-money business and related or incidental activities to the business of e-money and whose regulation and supervision is by the Bank of Ghana. The operations of mobile money as a dedicated electronic money issuer which operates as a non-bank qualifies mobile money operations to be regulated under these guidelines.

**4.4.1 Regulatory model under the Guidelines for E-money Issuers**

The Guidelines for E-money Issuers abolished the bank-led model and adopted a market-led model; a risk-based approach of Know-Your-Clients (KYC) for ensuring due diligence, regulatory guidelines for agents, retention of interest on e-money float by dedicated electronic money issuers and security, and compliance and consumer protection provisions for regulating mobile money operations.\(^{112}\)

**4.4.1.1 Market-led model**

The new guidelines abolished the many-to-many model and adopted the market-led model. This model is driven by demand, thus, it seeks to determine products which consumers want and provides them. The aim is to satisfy the wants of consumers.\(^{113}\) This model does not create any unmanageable relationships between mobile network operators and the banks. It affords the mobile

---

\(^{111}\) par 5(a) of EMI.

\(^{112}\) Bahia and Muthiora (n 94) 7.

network operators the opportunity to set up ancillaries to operate an e-money business (mobile money). These ancillaries are therefore supervised by the Bank of Ghana. The market-led model does not also require a compulsory interoperability as was the case of the many-to-many model. Here, interoperability is demand driven. In 2018, the launch of interoperability of mobile money transactions between different mobile networks and with banks was influenced by demand from customers.\textsuperscript{114}

\subsection*{4.4.1.1.1 Know-your-client (KYC) and customer due diligence}

The many-to-many model had a rigid rule-based approach of identification to be admitted into the mobile money registration system. Under this, registration was mainly done at the offices of the mobile network operators and agents with a valid identification card such as a voter’s identification card, national health insurance card, a driver’s license or a passport.

Now, individuals who have little or “no” identification documents are allowed to register for mobile money services.\textsuperscript{115} This is to allow the mobile network operators to reach out to more people who are financially excluded and at the same time driving the mobile money business.\textsuperscript{116}

Since one of the reasons for the failure of the Branchless Banking Guidelines was the banks’

\begin{flushleft}
\textsuperscript{114} Blay (n 1113) 9.
\end{flushleft}

\begin{flushleft}
\textsuperscript{115} No identification documents does not necessarily mean that such individual is allowed to transact without any form of identification at all- it is required that another person who has identification documents should guarantee knowing him.
\end{flushleft}

\begin{flushleft}
\textsuperscript{116} Bahia and Muthiora (n 94) 9.
\end{flushleft}
unwillingness to on-board all people, little or no requirement for an identification document was eminent to solve that problem.

The flexible requirements on identification do not necessarily mean there is no verification of persons at all. Every SIM card in use is registered with the owner’s identification documents and since mobile money registration is simply registering a potential subscriber’s mobile phone number on the mobile money system, verification is done through the mobile network provider’s operational system.

Also, the risk-based approach of ensuring due diligence through the know-your-client requirement has been categorised in three tiers. The first is the minimum know-your-client account which requires very low documentation for low transactions. The next is the medium know-your-client account which requires an intermediate transactions and documentation. The last is the enhanced know-your-client account for high limits of transactions.\textsuperscript{117}

There is however an exception to these categories which is “over the counter transactions”.\textsuperscript{118} These transactions require an acceptable identification document for the mobile money transaction to be processed by an agent. Limits of transactions for each account are published in the guidelines and act as the gateway for tracing a dubious transaction including money laundering.

\textsuperscript{117} par 12 and 15 of EMI.
\textsuperscript{118} This transaction occurs where a person does not have a mobile money account and yet either wants to send or receive mobile money. An agent either sends or withdraws the amount for the person using a code generated from the mobile money transaction performed or to be performed.
4.4.1.1.2 Agent guidelines

Under these new guidelines, agents are not shared by both the banks and the mobile network providers. Agents exclusively work for the mobile network providers in providing mobile money services. The guidelines outline the eligibility criteria, permissible activities as well as agent network conditions for agents of the mobile money service. However, the agents are not directly supervised by the Bank of Ghana but rather the entities providing the mobile money service. There is an agency relationship between the providers of the mobile money service and the agents and hence the providers are the direct supervisors of the agents. The guidelines for agents are only markers for the respective mobile network operators to draft exclusive agent guidelines and rules to govern the activities of their agents. Notwithstanding, the mobile network providers of mobile money as principals are liable to the Bank of Ghana for any issues that may arise out of the relationship with their agents.

Prior to the E-money Issuers Guidelines, mobile money agents in Ghana were about 60,000. Now, the service can boast about 150,000 agents nationwide, increasing mobile money transactions and widening the financial inclusion net. This is due to the exclusive nature of the agents and operators’ relationship which allows for the recruitment of more agents at any point in time.

---

119 Bahia and Muthiora (n 94) 17.
120 Ozyurt (n 77) 3.
4.4.1.1.3 Interest on mobile money

The e-money guidelines have also added on to the permissible activities of mobile money operators. Traditionally, mobile money operated cash-in-cash-out transactions but it is now permitted under the new guidelines to engage in other activities including savings products in partnership with banks and other deposit-taking institutions in the form of deposits. Interest is now required per the guidelines to be paid on transactions and the mobile money float accounts held by the partner banks. Eighty percent (80%) of the interest paid on those accounts is to be paid to the mobile money account holders while the remaining 20% is kept by the e-money issuer (mobile money provider).\textsuperscript{121} This is aimed at incentivising the mobile money providers to make more investment in the mobile money business. This is because the permission given to the providers to engage in a “somewhat” banking business of accepting deposits required that interest be paid on them since in traditional banking, deposits accrue interest.

4.4.1.1.4 Security, compliance and consumer protection

Every transaction which is against a mobile money holder’s account is required to be authorised by the account holder. This authorisation is done by the account holder’s PIN code verification, after which an electronic notification of the transaction with the amount, date, time and recipient is sent to the account holder.\textsuperscript{122}

\textsuperscript{121} Par 10 (5) of EMI.
\textsuperscript{122} Par 8 (2) of EMI.
Any transaction is required to be in Ghanaian cedis and at the stated face value of the amount to be sent or received. This is irrespective of the fact that the transaction is done across borders.\textsuperscript{123} For instance when mobile money is sent from a person in the United States of America through Worldremit to another person in Ghana, the recipient in Ghana can only cash out the money in the Ghanaian cedis and not in American dollars. Despite this, mobile money transactions are subject to a transactional limit irrespective of it being an outbound or inbound transaction. The transactional limit is dependent on the category of the Know-your-client account held.

This is to restrict the aggregate value of cash-in and cash-out transactions of customers. This mechanism is intended to prevent fraud. Fraud in mobile money can occur in different modes, namely – money laundering and terrorism financing especially with cross-border transactions, and illegally obtaining PIN codes of customers by agents and as well as customers obtaining illegal access to agents’ accounts to initiate cash-out transactions. Due to this, anti-money laundering laws are to be strictly complied with by mobile money providers.\textsuperscript{124}

\textbf{4.5 Assessment of mobile money regulatory index}

The Global System for Mobile Communications Association’s (GSMA’s) publication of the mobile money regulatory index for 2018 shows a list of countries engaged in the mobile money business and how their regulations have been successful to mobile money operations in those countries. The assessment was done in 81 countries engaged in mobile money. Countries were

\textsuperscript{123} Par 10 (1) of EMI.

\textsuperscript{124} Maina “Mobile money policy and regulatory handbook” 2018 \textit{Global System for Mobile communications Association (GSMA) I 22.}
rated percentage wise. The indicators for the assessment were authorisation, which determines whether the operation of mobile money has a legal backing in the country, consumer protection, transaction limits, know-your-customer (client), agent network and structure and investment environment measuring how conducive the mobile money system is for investment in a country. Thailand had the highest regulatory score of 93.15%, Ghana, the seventh highest score of 85.81% and the African giant of mobile money, Kenya, on the thirty-first position with a score of 79.24%.

This assessment shows how progressive Ghana has being in terms of its regulatory measures and how effective the guidelines for e-money issuers is, for mobile money operations.

4.6 Conclusion

In this chapter, the legal regulations on mobile money has been discussed with notable references to the history of financial services regulation in Ghana, the legal status of mobile money, the current regulations governing mobile money operations and the assessment of the regulatory index of mobile money. From the write-up above, it has been established that mobile money is a not a bank but operates as a branchless bank which conducts some banking businesses licensed by the Bank of Ghana as a payment system and operates under the electronic-money issuers guidelines.

125 Bahia and Muthiora (n 94) 22.
CHAPTER V

RECOMMENDATIONS AND CONCLUSIONS

5.0 Recommendations

After the assessment of mobile money operation in Ghana in terms of its nature, its contribution to financial inclusion, and the legal regulations guiding it, it is recommended that mobile money as a form of payment system, should have separate legal guidelines/law governing its operations. It can be termed as “Guidelines for Mobile Money Operation in Ghana.” This is because mobile money has become one of the widely used modes of payment in the Ghanaian economy. Its recorded transactions in 2018, as stated above, was GHS 223 billion, as compared to the traditional cheque payment whose 2018 transactions was GHS 203 billion, but the current guidelines deal with all electronic money issuers collectively, summing up mobile money together with other e-money issuers such as E-Zwich which has negligible transactions per year.

Also, the separate legal guidelines for mobile money should specifically define what mobile money is, differentiating it from mobile banking. This is due to the fact that most literature defines mobile money and mobile banking as the same innovation. Confusion often arises when the mobile money system is being explained to a person who resides in a jurisdiction which has not adopted the innovation. The distinction should be based on the fact that mobile money does not require the subscriber having a bank account, whereas mobile banking requires a bank account.

It is suggested that the guidelines should create a committee comprising of experts in the financial and telecommunication sector, including a representative from the National Communications
Authority and the Bank of Ghana. This is because mobile money is operated by MNOs which are supervised by the National Communications Authority and perform functions akin to banks, thus falling under the supervision of the Bank of Ghana. The committee is to supervise the activities and products of the mobile money operators. This committee must be accountable to the Central Bank of Ghana for oversight activities. The committee should be tasked with supervision of agents of mobile money in terms of their operations and conduct as agents to ensure a professionalised operations.

Also, on issues of security and money laundering, the providers of mobile money should be made to strictly comply with the Anti-money Laundering Act 749 of 2008, just as the banks. The operators need to put in place sophisticated systems to help in providing better telecommunication network for the mobile money operation. This is to help solve the issue of delayed short message service (SMS) confirmations for transactions.\textsuperscript{126} Delayed confirmations have been used as a tool by some unscrupulous people to defraud others. They dishonestly inform their payees that they have sent mobile money for the payment of an item bought, but due to poor network the confirmation message will be delayed and end up not making payment at all.

It is also recommended that, there should be mobile money literacy programmes for Ghanaians through outreach programmes on social media, door-to-door or on television stations in the various local dialects. This is because, though mobile money is one of the widely accepted modes of payment in Ghana, some people still find it difficult operating it on their phones, and hence refrain from using it. Its operation on a subscriber’s phone should give options on whether the subscriber

\textsuperscript{126} Ehrbeck, Pickens and Tarazi “Financially inclusive ecosystems: the roles of government today” 2012 Consultative Group to Assist the Poor 111.
will want transactional information or steps for transactions to be in a written form or a speech in the major local dialects or English.

Lastly, the risk-based approach adopted in the guidelines for EMI for various classes of customers’ accounts should be reviewed. This review should make the risks associated with all customer accounts equal. This is because the guidelines require certain accounts to have a very low form of identification. For instance, an over-the-counter customer requires another person with an ID to identify him since the transaction limit for such a customer is low. However, with reference to the terrorist attack in Kenya by the “white widow”, it is very informative that even a lower transactional amount by an unsuspecting person can be a form of terrorist financing or money laundering. Hence, it is recommended that a fairly standardised form of know-your-client be put in place for all types of account holders.

**Conclusion**

Mobile money as a mode of payment in Ghana has been assessed to be a non-bank financial system though its operations and products are akin to banks. It has been seen as one of the major means of financial inclusion in Ghana and Kenya, saving most people from the bureaucracy and inconveniences of the formal banking system. This system of payment was initially regulated by the Branchless Banking Guidelines, which introduced an unfriendly bank-led model and stagnated the growth of mobile money in Ghana, as compared to Kenya. A review of this regulation brought into being the Guidelines for Electronic-Money Issuers (the Guidelines). The Guidelines abolished the bank-led model replacing it with the market-led model. This new model seems to be in sync with mobile money’s role of increasing financial inclusion.
Notwithstanding, it was recommended that entirely new regulatory guidelines be made specifically for mobile money operations since it is the second largest mode of payment in Ghana. A committee was suggested to be created to supervise activities of mobile money operations which will report to the Bank of Ghana. Under the proposed regulatory guidelines, the Bank of Ghana will be tasked with oversight functions in identifying and preventing risks.

Also, the enormous contributions of mobile money to the economy of Ghana can however not overwrite the fact that the system is susceptible to fraud, money laundering and terrorism financing. It is therefore incumbent on all stakeholders of the system to help in the combat thereof by putting measures in place which will help to easily identify suspected fraud. An equalised know-your-client requirements as recommended can be adopted in this quest.
BIBLIOGRAPHY

BOOKS:


**ARTICLES:**

Aker JC and Wilson K “Can mobile money be used to promote savings? Evidence from northern Ghana” 2013 *SSRN Electronic Journal* 3.


Committee on Payments and Market Infrastructures “Fast payments-enhancing the speed and availability of retail payments” 2016 Bank for International Settlements (BIS) 47.

Davidson N and Leishman P “The case for interoperability: Assessing the value that the interconnection of mobile money services would create for customers and operators” 2012 Global System for Mobile Communications Association 1.


Donovan K “Mobile money for financial inclusion” 2012 Information and Communication for Development 73.


Huang J "How mobile payment is changing the world" 2017 Computer Science 19.


Maina J “Mobile money policy and regulatory handbook” 2018 Global System for Mobile Communications Association 22.
Mattern M “How Ghana became one of Africa’s top mobile money markets” 2018 Consultative Group to Assist the Poor 3.

Mattern M and McKay C “Building inclusive payment ecosystems in Tanzania and Ghana” 2018 Consultative Group to Assist the Poor 2.

Mukoya “M-Pesa helps drive up Kenyans’ access to financial services-study” 2019 AfricaTech 4.


Omwansa T “M-PESA: Progress and prospects, innovations case discussion” 2019 Mobile World Congress 123.

Ozyurt S “Ghana is now the fastest-growing mobile market in Africa” 2019 Agence francaise de development 3.

Pasti F “State of the industry report on mobile money” 2018 Global System for Mobile Communications Association 10.

Pelletier A, Khavul S, and Estrin S “Mobile payment services in developing countries” 2014 International Growth Centre 2.

Preston L “Mobile Money and Mobile Content” 2019 ScreenAfrica 1.

Suzuki A “Mobile money, individuals’ payments, remittances, and investments: evidence from the Ashanti region, Ghana” 2018 Sustainability 1412.


Wolbers JJA “Financial technologies paving a bright new path for the world’s unbanked population” 2017 University of Groningen Press 2.

LEGISLATION:


National Communications Authority Act 524 of 1996.

REGULATIONS:


CASES:

Libyan Arab Foreign Bank v Bankers Trust Co 1989 QB 728 764.

Coltrane v Day 2003 EWCA Civ 342.

United Dominion Trust v Kirkwood 1966 2 QB 431.

WORKING PAPERS


INTERNET SOURCES


MobileMoneyAfrica “Ghana: Mobile money accounts outstrip population” 2018

Ayitey Charles “Bawumia confident of a cash-lite economy by 2020”
