UNIVERSITY OF EDUCATION, WINNEBA

THE EFFECT OF MOBILE MONEY ON FINANCIAL INCLUSION AMONG SOME SELECTED COMMUNITIES IN THE AGONA EAST DISTRICT OF THE CENTRAL REGION OF GHANA

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DECLARATION

STUDENT'S DECLARATION

I, **Audrey Adu-Amoah,** declare that this dissertation, with the exception of the quotations and references contained in published works which have all been acknowledged, is entirely my original work and it has not been submitted either in part or whole for another degree elsewhere.

Signature: ……………………...

Date: …………………………

SUPERVISOR'S DECLARATION

I hereby declare that the preparation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

Dr. Abass Adams (Supervisor)

Signature: …………………………………………

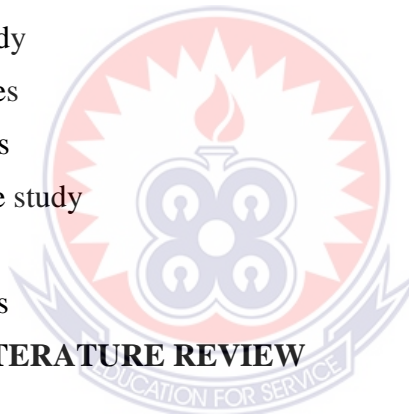Date: …………………………………………...

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ABBREVIATIONS

ABBREVIATION	MEANING
CFI	Centre for Financial Inclusion
CGAP	Consultative Group to Assist the Poor
e-cash	Electronic Cash
EIB	European Development Bank
Findex	Financial Inclusion Index
Fintech	Financial Technology
GhIPSS	Ghana Interbank Payment and Settlement Systems
Momo	Mobile Money
NBFIs	Non-Bank Financial Institutions
NFIDS	National Financial Inclusion Development Strategy
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
PWC	Pricewaterhouse Coopers
SDGs	Sustainable Development Goals
SIM	Subscriber Identification Module
Telecoms	Telecommunication
USSD	Unstructured Supplementary Service Dat

ABSTRACT

Financial inclusion continues to occupy the research space as challenge in emerging countries like Ghana. This study examined how mobile money (momo) adoption has influence financial inclusion in the Agona East District in the Central Region of Ghana. The study used a descriptive research design with a quota sampling technique to sample 160 respondents from 4 communities in the district. The structured questionnaire was used for the data collection. Descriptive statistics such as frequencies, percentaged, mean and standard deviations were used for the analyses. The study found a higher level of utilization of Momo services among the residence that have no access to formal banking sector which indicate that momo has contributed to financial inclusion in this area. However, interoperability has less utilization with cash-in, out, and purchase of airtime having high utilization. The reason offered for high utilization of momo services were its convenience and ease to use. Network challenges and high transaction costs were some pressing challenges users face when using Momo, with other minor ones. Momo service providers need to intensify public sensitization to inform users about the existence of other Momo services with less patronage like Momo interoperability, payment of bills, and store of value. The Momo service providers should also devise measures to reduce the high transaction cost and make Momo attractive for all to benefit from.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The effort of Financial Inclusion is to make financial services available to most people at a possible reasonable cost. Financial inclusion is important for economies and individuals since it affects economic growth and development and individual needs like transactions, payment, credit, savings, and insurance. Not everyone has access to mainstream financial services such as bank accounts, credit cards, and insurance policies: therefore, excluded financially from such services. Very often, people who live in typical rural areas, the illiterates, the physically challenged, and the poor are excluded mostly from the formal financial sectors. The presence of mobile money seems to be a good remedy for financial inclusion for socially excluded groups. In Ghana, as of December 2022, 55.3million mobile money accounts have been registered with 20.4million being active (BoG, 2022).

Several studies have been conducted on this area of financial inclusion. Digital financial inclusion assumes different dimensions from one study to another as technology changes in form from credit and debit cards to smart cards, visa cards, MasterCard, and automated teller machine (ATM) cards, among others. For instance, in Ghana, there has been the introduction of a Gh-Link card and e-zwich as means of hastening digital financial inclusion. Financial technology also continues to have an impact on financial inclusion by taking different shapes as different platforms rolled out by financial service providers target different segments of the market (Beck, 2020). The Ghana Interbank Payment and Settlement Systems (GhIPSS), in collaboration with the Bank of Ghana,

targeted both the elite and underserved populations, including the illiterate and those in rural areas, when introducing the e-zwich in Ghana.

Of all the digital financial platforms, Momo has been a universally accepted platform by the Ghanaian market. Momo has been recognized by the World Bank as a key driver of financial inclusion in Ghana. According to the World Bank, there has been significant growth in the number of financial accesses over the past years, due to the spread of mobile money and government commitment to driving digitization, and innovation in payment systems (World Bank, 2019). Mobile money has proven to be an innovation not limited to only the rich and elite but also the poor and illiterates all around. Though other companies existed in Ghana, MTN, AirtelTigo (now AT), and Vodafone (now Telecel) have penetrated the financial market across the board in the country. The impact of mobile money cannot be understated.in Ghana. (BoG, 2017). Hence the need to research deeply into digital financial inclusion specifically mobile money and its effect on financial inclusion.

Some studies have shown that sound financial systems and services sometimes have benefits for consumers, especially poor adults and women. (Demirguc-Kunt, Klapper & Singer, 2017) As such, some countries continue to invest in financial inclusion due to its multiplier effect on savings and investment. It was reported that between 2 billion and 2.5 billion adults worldwide do not use formal financial services (World Bank, 2015) and that represented about 34.25% of the world's population of 7.3 billion as of 2015 (United Nations, 2015). Recent reports show that 69% of adults globally have mobile money accounts signaling a weighty improvement from 51% to 62 % recorded in 2011 and 2014 respectively. It revealed that 515 new accounts were established in that year (World Bank,

2018). According to Demirguc-Kunt, Klapper & Singer (2017) in 2011, about 2.6 million adults constituted 51% of financial inclusion, in 2014, about 3.3 million adults also constituted 62% of financial inclusion, and in 2017, 3.8 million adults the population also constituted 69% of financial inclusion globally. Research indicates that social exclusion is linked to financial exclusion, as demonstrated by the higher rates of financial inclusion in developed countries compared to those in underdeveloped or developing nations (Ozili, 2010). From this, it is not alarming that in Ghana, socially excluded groups like the poor, and rural community dwellers among others are financially excluded. Despite this, mobile money is making it possible for these socially excluded groups to be financially included gradually. In Ghana, another digital financial platform that makes it easy to pay beneficiaries of some government social interventions like the Nation Builders Corps (NABCO), Livelihood Empowerment against Poverty (LEAP), and the Youth Employment Agency (YEA) is the e-zwich that was been introduced. So even without a formal financial service account, the beneficiaries are been paid through the e-zwich. The mobile money operation platform has become easy and accessible. It has a component where e-zwich cardholders can withdraw or deposit with a mobile money merchant easily without struggling to do a transaction with the banks.

Though mobile money has great potential for thickening financial inclusion, the problems it faces mostly are fraud and robbery of agents, which has become a threat to its growth and development in Ghana. Some mobile money agents operate under unfavourable conditions that lead to some of them closing early due to robbery attacks that have left some of them wounded and others killed (Joy Business, 2018). This has led the Mobile Money Agent Association of Ghana (MMAAG) to demand insurance policies

from the various telecommunication companies, which operate mobile money (Mobile World Live, 2018).

In addition, several mobile money agents and subscribers are been scammed almost all the time in the form of fake mobile money messages, fake promotional messages, and calls (fraudsters pretending to call from mobile money offices). The fraud in mobile money arises from weak internal controls and systems, a lack of sophisticated technologies to detect the menace, inadequate education and training, and poor remuneration of employees (Akomea-Frimpong et al 2019). If these fraud incidents are not checked can delay the ability of mobile money in financial inclusion to deepen especially where the illiteracy rate is high in rural areas. Despite the challenges posed by mobile money, its achievements are significant and can be concluded that mobile money is an effective tool for financial inclusion in Ghana due to its widespread popularity.

1.2 Statement of the problem

The incidence of financial exclusion continues to remain a challenge despite its successes marked by the use of technology over the past decade. World Bank reported that between 2 billion and 2.5 billion adults worldwide do not use formal financial services (World Bank, 2015) and that is a representation of about 34.25% of the world's population of 7.3 billion as of 2015 (United Nations, 2015). It is easy to assume that with the world's advanced financial services, everyone has a bank account but a recent report shows that, despite the progress made in some past years, about 1.7 billion (which is about 31% or close to one-fourth of global population) adults still are unbanked worldwide (Forbes, 2018). This study was motivated by the fact that financial inclusion is

proven to reduce incidence of poverty and empirical knowledge can direct policy in the study area.

Financial exclusion statistics primarily concern low-income individuals, illiterates, women, and those in rural areas. For instance, in 2018, over 90% of the high-income earners were financially included compared with less than 70% of the low-income earners. Again, 94.5% of men were compared with 92.9% of women were financially included in the high-income group while in the low-income group, 67.5% of men and 58.6% of women were financially included (World Bank, 2019). Traditional banking systems cannot be termed as enough solutions to financial exclusion because of their limitations. In Ghana, mobile money seems to be increasing and growing at a level higher than the traditional banks. Banks had the highest number of account holders than mobile money before 2014, but afterward, mobile money appears to have more account holders than traditional banks, which shows that, mobile money could be an ideal solution for the socially excluded groups to be financially included in Ghana (BoG, 2017).

Momo emerged in the early 21st century and was gaining fame and so due to this; some studies have been conducted, but not as many as on financial inclusion. Some studies conducted earlier on mobile money in Africa focused more on Kenya when Vodafone introduced M-Pesa in 2007. Though some people have done studies on Mobile money in Ghana, they had little or no linkage between financial inclusion and mobile money. For instance, a study by the BoG in 2017 focused on the impact of mobile money on payment systems in Ghana using econometric analysis. Aker and Wilson (2013) conducted a study on the impact of mobile money on savings in Northern Ghana. Akomea-Frimpong et al, 2019 did a study on the control of mobile money fraud the PWC

(2016) banking survey also did a study on how banks can gain in the era where mobile money is growing.

This study seeks to bridge the gap by giving the link through the provision of a comprehensive report on mobile money and financial inclusion in rural communities. It also focuses on the impact, approaches, and relationships that can used to encase rural communities into digital financial systems through mobile money.

1.3 Purpose of the study

Over the years, it has been observed that rural communities experience slightly less financial inclusion than those in urban areas. Most of the time, traditional banks do not have branches in these rural areas, which leaves a chunk of the people in these communities not having easy access to formal financial systems. The introduction of mobile money has made it possible for the residents of rural communities to make transactions with minimal barriers. Nevertheless, how has mobile money influenced financial inclusion in these areas? This study aims to analyze the impact of mobile money on financial inclusion in selected areas of the Agona East District, located in the Central Region of Ghana.

1.4 Research objectives

The objectives of this study are to:

1. Assess the level of utilization of mobile money among residents of communities in the Agona East District.

2. Identify the challenges faced by mobile money services users among residents of communities in the Agona East District.

1.5 Research questions

To achieve the objectives that have been set out for the study, this study seeks to answer some questions and they include:

1. To what extent has Momo been utilized in rural communities in Agona East District?

2. What factors hinder rural communities from getting access to formal financial services in Agona East District?

1.6 Significance of the study

Mobile money has become widely accepted in the country and has a greater potential to increase financial inclusion. Therefore, this study will plot out tactics that can be adapted to use mobile money as a tool for thickening financial inclusion. It also seeks to provide insight into the need to redefine financial inclusion to include digital financial inclusion, especially mobile money. The study inquires to guide the BoG and the NFIDS of the Ministry of Finance to shift from the policy of using traditional banks and the NBFIs to ease financial inclusion and use simple, accessible, convenient, and easy-to-use tools like mobile money to fasten financial inclusion, especially among rural communities.

It will also help to add to the already existing knowledge of finance especially in the area of digital financial inclusion and the use of mobile money beyond cash-in and cash-out. The result of this study will also give mobile telecommunications and mobile money

operators an ideal idea about mobile money challenges and usage in rural areas. This will help the telecoms to make informed decisions and map out strategies to enhance deeper penetration and usage of mobile money in rural areas. The study will also become a reference point for further studies in the same areas.

1.7 Delimitations

This study in general deals with a specific area of finance that has attained global attention, which is the area of mobile money and financial inclusion. This study looks at the relationship between mobile money and financial inclusion and seeks to unravel how mobile money can promote financial inclusion, especially among rural areas in Ghana. Aspects of Momo such as how mobile money impacts employment, economic growth, and development, to mention but few are not considered in this study.

Furthermore, the rate at which Momo is taking over traditional bank services and gradually getting towards the NBFS is alarming, and therefore, there is a need to determine whether mobile money is in competition with the banks or not. However, this study will not delve into all the areas stated above.

1.8 Definition of terms

This study will make use of some terms throughout and for it to be easy and understandable; there is the need to define the terms. These terms include mobile money, financial inclusion, financial services, and financial exclusion.

a. Mobile Money

Mobile money is a financial service or transaction carried out using a mobile device like a mobile phone or tablet in which the services may or may not be linked to a bank

account directly. It can also be a financial service accessed on a phone with services like receiving and sending money, paying bills, loans, and savings, among others. Other names for mobile money include Momo, e-cash, e-wallet, and more.

b. Financial Inclusion

Financial inclusion refers to the process by which individuals and businesses can get access to affordable, appropriate, and timely financial services and products including banking, loans, equity, and insurance products from traditional banks and non-banking financial services.

c. Financial Exclusion

Financial exclusion is a situation where people do not have easy access to mainstream financial services such as bank accounts, credit cards, and insurance policies due to some social factors, cost, and even location.

d. Financial services

Financial services refer to the elementary services offered by financial markets and institutions such as banks and non-banks. These products and services may include lending, investing, saving, or managing finances.
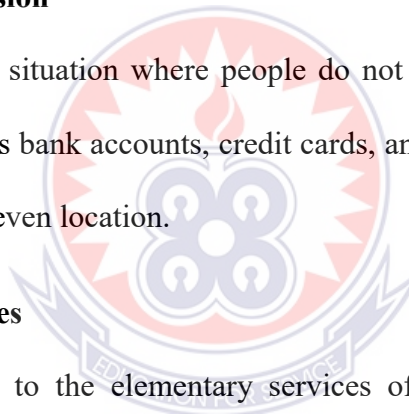
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter provides theoretical reviews, which focus on the concepts of financial inclusion and financial exclusion, the theory of social inclusion and social exclusion, financial inclusion and poverty reduction, access to income, inequality, and growth.

This chapter also reviews the literature on mobile money and financial inclusion. It justifies more study on financial inclusion and its importance. In addition, it discusses financial technologies, which narrows to mobile money development and in comparison, with traditional banking in Ghana. The final part deals with the conceptual framework of financial inclusion and mobile money.

2.1.1 Concept of financial inclusion

Financial inclusion is a concept defined in different ways by finance and development experts depending on the trend in financial services available and mechanisms for delivering financial services. Mader (2016) speculated that there is no single and universally accepted definition for financial inclusion. The concept of financial inclusion is said to have its roots in the late 1990s when the United Nations Capital Development Fund (UNCDF) considered efforts to support microcredit institutions and became one of the complements of both the MDGs (Thorat, 2006) and the recent SDGs (Klapper, 2016). Financial inclusion is the sustainable provision of affordable services that brings the poor into the formal economy according to a United Nations report

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(United Nations, 2016). It also means affordable, effective, and safe financial services for everyone per the 2018 report of the United Nations. According to the World Bank, it means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit, and insurance delivered responsibly and sustainably (World Bank, 2022). The Centre for Financial Inclusion indicated that full financial inclusion is a state in which all people who can use them have access to a full suite of quality financial services, provided at affordable prices, conveniently, with dignity for the clients. Financial services are been delivered by a range of providers, most of them are private, and reach everyone who can use them, including the disabled, poor, rural, and other excluded populations (CFI, 2009). This view of the concept of financial inclusion expands it to include other social factors that might exclude some people from using certain financial services even though it is available to them at no cost. For instance, in some Islamic communities, people may be reluctant to consume so financial services such as interest on loans. This is due to the prohibition by the Qur'an (Qur'an 2:275 says Allah has permitted trade but forbidden usury).

According to Ledgerwood and Gibson (2013), financial inclusion is a conceptual innovation vis-à-vis microfinance, connecting a broader range of actors and ideas. ADA (2019) defined financial inclusion to encompass a whole range of financial and non-financial products and services made available to the poor to combat financial inclusion. Hannig and Jansen (2010) defined it as the absence of price or non-price barriers in the use of financial services. They emphasized that financial inclusion aimed at improving

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financial service access, which includes financial services being available almost all the time at fair prices.

The National Financial Inclusion Development Strategy (NFIDS) steering committee of Ghana defines financial inclusion as 'universal access to, regular use of, a broad range of affordable formal financial services, including credit, saving and investment products, insurance, payment and money transfer services, mobile money, which meet consumers' needs and which they understand and trust'. They noted that this definition is broad and incorporates a multidimensional perspective of financial inclusion, which is necessary because of the diverse approaches available to promote financial inclusion. It highlights the importance of broadening the menu of products and services and building consumers' trust and their capability to use these services. It also reflects the particular context of Ghana, which characterizes the limited number of available products suitable for the excluded population, as well as low levels of financial literacy (NFIDS, 2019).

Mobile money is a regulated payment service performed via any mobile device such that, even without a bank account, users can have access to it anywhere and at any time. (David-West et al., 2019). This facilitates economic transactions for the entire society and serves as a vehicle for savings and long–term planning for the individual. Mobile money users own digital SIM that secures financial accounts to save, withdraw, transfer funds, pay third parties for services rendered and goods purchased, buy insurance and share products, invest, generate account statements, and even the ability to connect SIM-based mobile money accounts to a conventional bank account and Fintech platforms such as an e-zwich card (MTN Ghana, 2018). When this happens, a user or holder of a

mobile money account is not financially exclusive and when access and usage of mobile money services increases, there is an increase in financial inclusion by the population without bank accounts.

2.1.2 Financial exclusion concept

Leyshon and Thrift (1995) define financial exclusion as the processes that prevent poor and disadvantaged social groups from gaining access to the financial system. It describes a situation where people do not have access to typical financial services such as bank accounts, credit cards, and insurance policies, particularly home insurance. Carbo et al (2005) define financial exclusion as the inability of some societal groups to access financial systems. Financial exclusion refers to individuals and populations without access to common financial services (FINCA International, 2020). These services can include savings accounts, loans, cashless transactions, credit, and other traditional banking services. Sinclair (2001) suggests that financial exclusion means the inability to access necessary financial services in an appropriate form. Chakraborty (2010) advocates that financial exclusion is caused by demand-side and supply-side barriers to financial inclusion. Exclusion from the financial sector is because of a lack of access, market conditions, prices, marketing, or self-exclusion in response to negative experiences or perceptions (Ozili, 2108; Sarma 2008). Again, financial exclusion is caused by religious beliefs that are hostile to the use of financial technology in everyday life (Ozili, 2018). Conroy (2005) postulates that financial exclusion is a process that prevents poor and disadvantaged social groups from gaining access to the formal financial systems of their countries.

2.1.3 The concept of Social Inclusion versus Financial Exclusion

Social inclusion has various definitions by different people. It is defined as the process of improving the terms in which individuals and groups part-take in society, which is improving the ability, opportunity, and dignity of those advantaged, based on their identity. (World Bank, 2013). Social exclusion is a state in which individuals are unable to participate fully in economic, social, political, and cultural life as well as the process leading to and sustaining such a state. Social exclusion is what happens when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high, poor health, and family breakdown (United Kingdom Office of the Deputy Prime Minister, 2004). Social exclusion is a multidimensional relational process of serving social ties, preventing access to institutions, denying opportunities for social participation, and impairing social cohesion and solidarity (Silver, 2019). The socially excluded group is made of the physically and mentally handicapped, the invalids, abused children, drug addicts, delinquents, single parents, multi-problem households, marginalized, asocial persons, and other social misfits (Silver, 1995). Aduda and Kalunda (2012) proposed that financial exclusion has its roots in social exclusion, but there appears to be no strong relationship between financial exclusion and poverty according to Hannig & Jansen (2010) which is a key feature of the social excluded. Financial exclusion is defined in the literature in the context of social inclusion or exclusion (Sarma, 2008). However, sociologists generally agree that an aggravated level of social exclusion leads to further exclusions, including financial exclusion. Fraioli (2012) supported this view and concluded that the availability of financial services alone will not solve financial exclusion, rather, tackling financial

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exclusion. In general, the nature of the rural communities is socially exclusive. This demonstrates the high level of poverty, illiteracy, and lack of access to major social and financial services such as banks. This theory will help in examining how the socially excluded could be financially included based on the introduction of mobile money.

2.1.4 Financial Inclusion and poverty reduction

The relationship between financial inclusion and poverty reduction is similar to the theory of social exclusion versus financial exclusion. Financial inclusion has a positive impact on poverty reduction though the poor are the least financially included. Moreover, this brings about the relationship between financial inclusion and poverty reduction.

According to the World Bank, financial inclusion is considered a key enabler to reduce extreme poverty and boost shared prosperity (World Bank, 2022). The World Bank Global Financial Development Report (2014) highlights a strong suggestion that access to financial services reduces poverty. This claim was widely accepted by some researchers including Shehu (2012), Zins & Weill (2016), Demirguc-Kunt, Klapper & Singer (2017), World Bank (2018 &2019), and Amadou (2018). On the contrary other researchers like Ayensu (2017), found that financial inclusion does not have a significant impact on poverty reduction but rather, credit to the private sector by the banks and financial institutions significantly reduces poverty. The financially excluded cannot access credit from the banks and other financial services easily.

Other studies have shown that the penetration of mobile money has a direct effect on financial inclusion as well as economic growth and development. Those with access to bank accounts and other financial services have reliable means through which their

financial transaction are been tracked. The savings of these people are been monitored with ease and can be considered to gain credit from the banks more easily than those excluded from the formal financial systems do. When you have access to credit, it means an extra inflow, which can lead to other investments and subsequent savings. The financially excluded rely on the orthodox means of saving money making it difficult to assess their credit and have a lesser chance of accessing loans from the banking systems. This was evidenced by a 17% reduction in levels of poverty in India as a result of the government's effort to open banks in rural communities (Burgess & Pande, 2005) and a 16% growth in assets of women in Nepal who were offered bank accounts (Prina, 2013). Poverty and financial inclusion are interrelated since there is evidence to show that high incomes correlate with high financial inclusion. Research has found that an increase in access to and usage of financial services brings about an increase in income and reduces poverty; others on the other hand fail to accept that.

2.1.5 Access to income, inequality, and growth

Financial inclusion is known for having an impact on economic growth and development. Developed economies with high GPD and incomes have a higher inclusion rate than developing economies (World Bank, 2018). In developing economies, a percentage increase in ATMs or similar payment platforms could lead to a 0.0082% increase in GDP and reduce poverty (Williams, Adegoke, & Dare, 2017). A growth in the financial inclusion rate means an increase in demand for financial services and gives the bank and non-bank institutions the opportunity for growth affecting economic growth positively. Some studies have shown that, in some developing countries, less than half of the population has access to formal financial services and less than one in five households

have access to these services in most African countries. There is a need to deepen access to financial services among the financially excluded in Ghana and once these services are been extended to the rural communities, the rippling effects will be great. Mobile money in Ghana, for instance, employs over 44,000 agents (Konutsey, 2016), this is because low capital is required, and getting a license is easier compared to the banks.

2.2 Empirical Review

The empirical review examines existing studies for financial inclusion- mobile money and justifies why this current study. Financial inclusion is analyzed with its importance and relationship with SDGs in Africa. This review looks at financial technologies, mobile money in Ghana, and its relationship with the banks.

2.2.1 The need to deepen research in financial inclusion.

It is almost impossible to have entirely new knowledge in any subject area. This review will help avoid mistakes made in earlier studies or avoid unnecessary repetition of the same results on the same subject area. Hart (1989) noted that a literature review is needed to differentiate what has been done from what needs to be done, cover important variables relevant to the topic, and gain new perspectives. It also helps to reveal the knowledge gap, which requires further investigation and exploration, comparing previous findings and reviewing the existing findings. It also abreast the researcher with a thorough understanding of the subject under consideration. In 2017, a study conducted by the Bank of Ghana's Payment System Department on the impact of mobile money observed that some researchers paid little attention to mobile money until 2007. The BoG 2017 report noted that most of the studies were the review of papers by Duncombe &

Boateng (2009), Dahlberg et al (2008), and Deniz et al (2011). Below is a pictorial view of the global studies

country
0%

Other Asian countries
34%

USA, Europe & Japan
44%

Latin America
1%

Africa
21%

■ country   ■ Other Asian countries   ■ Africa   ■ Latin America   ■ USA, Europe & Japan
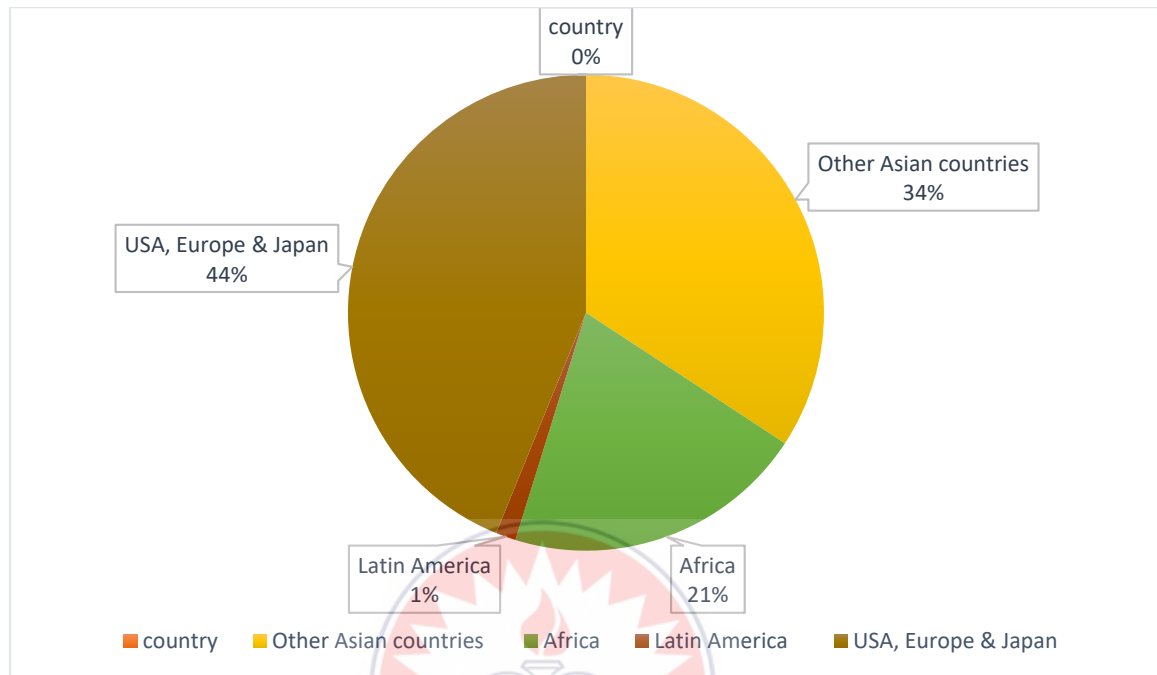
Source: BoG (2017)

Figure 1: Coverage of Reviewed Papers on Mobile Money

From the report, Africa's share of the papers reviewed on mobile money showed that the knowledge base in Africa relative to the world is still low with a 15% share for Africa. Kenya attracted the attention of researchers due to the impact of 'M-Pesa' introduced by Vodafone in 2007, which gained ground. Some researchers such as Aker & Wilson (2013), PWC (2016), and Tobin & Kuwornu (2011), Akomea-Frimpong, Andoh, Akomea-Frimpong & Dwomooh-Okudzeto (2019) sighted in the bank of Ghana (2017) report. Tobin and Kuwornu (2011) used consumer behavior analysis and a structure equation modeling approach to explain the adoption of mobile money transfer technology. They aimed to use the Diffusion of Innovation (DoI) theory and the Technology Acceptance Model (TAM) theory to determine the factors that influence the

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acceptance and use of mobile money by Ghanaian customers though their study significantly had nothing to do with the linkage between financial inclusion and mobile money.

The PWC (2016) banking survey dealt with the issue of how banks can gain in this era where mobile money growth is seen as a threat to traditional banks. The study was mainly about banks adapting to mobile money as a means to survive and for growth in the economy. Aker & Wilson (2013) also dealt with the impact of mobile money on savings among rural communities in the Northern part of Ghana. Their research tried to address some of the possible barricades to the adoption and usage of mobile money in Ghana. Their goal was to provide insight into whether Momo services can provide cash transfers to vulnerable groups and simplify savings among rural communities. They used an interactive approach to understand the diverse types of services available for mobile money and used action-oriented research to comprehend how households in rural communities demand formal and informal financial services. They found out that, the likelihood of using mobile money in Northern Ghana was high. Due to the differences in our parts of the country in terms of literacy level and occupation, there might be differences in results based on the regions; hence, a deepening in the study of the subject matter since their study was not specific on the extent to which mobile money has affected financial inclusion.

In 2017, the BoG also looked at the impact mobile money has on payment systems in Ghana. The study proposed that an increment or improvement in the mobile money area could lead to improvement in the development of the payment system. It also suggested that factors that promote the use of mobile money can lead to a deepening

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financial system but it failed to explain how it has affected financial inclusion. Akomea-Frimpong et al (2019) based their study on the causes of mobile money fraud and the measures to curb the menace. Not all the stated studies above addressed how mobile money has influenced financial inclusion. The rate of mobile money usage is high in Ghana as telecommunications try to extend the services they provide to cover all including those in the rural areas therefore a need to deepen the study on the effect of mobile money on financial inclusion.

2.2.3 Financial Inclusion in Africa

In Africa, most of the countries are been classified as either underdeveloped or developing with few among the middle-income economies. Poverty and literacy rates are high in most developing or underdeveloped countries hence; financial inclusion is low. Kenya for instance, was the most financially included African country in 2004 yet was ranked 40th in the world. According to Sarma (2008), four African countries made it to the top 50 countries with Ghana ranked as the 91st country. This is not so different from the report of the World Bank on financial inclusion, which showed that high-income economies have a higher level of financial inclusion than low-income economies. Low-income or developing economies record up to 63% in account ownership while high-income economies record up to 94% in account ownership (Demirguc-Kunt et al, 2017).

One big challenge to some companies, especially the Small and Medium-sized Enterprises (SMEs) in West Africa is financial assistance. Despite the progress in financial inclusion among businesses and individuals, financial assistance is still a challenge in Sub-Saharan Africa (EIB, 2018). In Africa, men are financially included than women even though women tend to dominate the SMEs and the formal sector. The

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25th African Union summit made financial inclusion an agenda to pursue to deepen the inclusion of women financially in the formal sector. There was an action plan developed for implementation among member states to address that (AU Directorate of Information and Communication, 2015).

2.2.4 Financial Inclusion in Ghana

Financial inclusion is low across the regions in Ghana, especially among women, poor, and rural citizens (World Bank, 2019). This is in line with the global trend where men are more included than women. For instance, in 2010, Brong Ahafo, Northern, Volta, Upper East, and Upper West regions were considered the top five poorest regions with financial inclusion of 37%, 30%, 27%, 24% and 19% respectively. In 2015, there were some gains recorded in some of the regions. For instance, the Volta region recorded 54%, Brong Ahafo also recorded 46% and the Upper East recorded 58%.

What drove financial inclusion was not the traditional banks since it only contributed 6% but rather, it was driven by non-bank financial services (mobile money inclusive) which contributed 19%. According to the World Bank (2018), 59% of the poor people are excluded financially compared with 35% of the non-poor people in Ghana. It is estimated that 83.1% of Ghanaians have mobile money accounts, bringing savings and other forms of financial services to the doorstep of the ordinary citizen, which has led to a rise in the level of payment (receiving or making) digitally from 22% to 44% in 2014 and 2017 respectively among rural inhabitants (Boateng, 2019). In terms of gender, men are more financially included than women in Ghana are and the latter rely more on nonbank financial services such as e-zwich and mobile money. The rate of financial inclusion improved from 57% to 62% to 62% for men and 37% to 45% to 54%

for women between 2010 and 2017 (World Bank, 2019). The figure below shows the summary of the gender distribution of financial inclusion
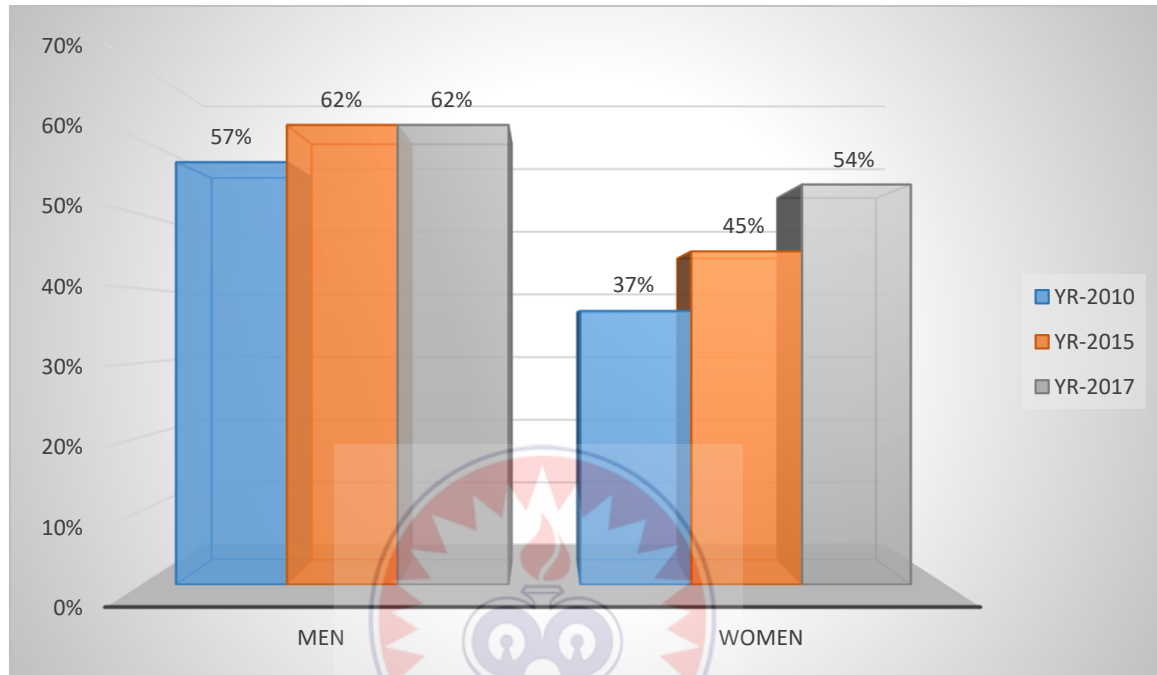
Source: World Bank (2018 & 2019)
Figure 2: Gender Distribution of Financial Inclusion in Ghana

2.2.5 Financial Technologies (Fintech)

Financial technology refers to companies that rely primarily on technology to conduct fundamental functions provided by financial services. According to the IMF, it has become a greater tool, especially for financial inclusion and open opportunities to boost economic growth in developing economies. It includes smartcards such as Visa, MasterCard, internet banking,

E-zwich, USSD banking, and commonly mobile money. All these financial technologies have gained wider acceptance in Africa due to their availability and ease of usage (IMF, 2019). Households, businesses, and governments are moving towards digital financial

payments because of the vast benefits. Fintech is recognized to have the capacity to improve efficiency and reduce corruption. A 47% decrease in pension fund leakage was observed in India when payments were switched from cash to biometric smart cards. Again, the variable cost of administering social benefits dropped by 20% when transfers were done through mobile money (World Bank, 2018).

It is worth it to note that, sub-Saharan Africa is the only region with a share of mobile money accounts, which exceeds 10% as of 2017 and the East Africa was the region's mobile money hub. In current times, holding mobile money accounts has spread to new parts of Sub-Saharan Africa with Cote d'Ivoire and Senegal recording over 30% and Gabon over 40% of mobile money accounts (Demirguc-Kunt et al, 2017). Attempts to increase financial inclusion in Ghana have not been without a challenge, especially among rural communities, and marginalized and poor groups. In the quest to recover from this situation, BoG licensed different classes of banks and financial institutions to target different groups. Apart from the universal banks, Ghana has rural banks, credit unions, and microfinance institutions that target mainly groups such as low-income groups, groups with common interests, and rural communities (NFIDS, 2019).

The government of Ghana began its journey to financial inclusion in 2008 by becoming the first country to launch an e-zwich in which the central bank collaborated with other banks to provide services upon realizing the importance of Fintech in solving financial exclusion (Addo, 2008). The e-zwich has become the medium of payment through which some beneficiaries of government programs receive their allowances. For instance, Youth Employment Agency (YEA), National Service Scheme (NSS), Nations Builders Corps (NABCO), and Livelihood Empowerment against Poverty (LEAP)

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beneficiaries receive their allowances, stipend, or support through this digital platform, which has helped increased financial inclusion. This has helped to minimize non-existent beneficiaries, minimize leakages and corruption in the payment process, and most importantly, it has brought the rural poor into the formal financial system.

The Bank of Ghana set a target of achieving a 75% financial inclusion rate by 2023 from 58% in 2017. It was clear that this would be done through the digitization of financial services. Citi Business Festival Fintech Summit in 2018 revealed that there exist over 70 Fintech firms operating in partnership with traditional banks (Graphic Online, 2018). E-zwich has gained wider acceptance in Ghana. The total number of cards issued currently stands at 2.77 million and the growth trend has continued with 17.35% in 2018. The value of wealth on each card averages GH₵83.38 with a growth rate of 34.33% in 2018. The total value on all cards grew from GH ₵ 8.76million in 2014 to GH₵123.19million in 2018 with an annual growth rate of 65.52% in 2018. Additionally, the value of transactions has been on a positive trend starting from GH₵ 272.70million in 2014 and standing at GH₵5.65billion in 2018 (BoG, 2018). In addition, in the first quarter of 2019, the value of transactions recorded an annual growth rate of 102% (GhIPSS, 2019). This positive trend indicates that a way to be financially included for Ghana is through Fintech driven by public-private sector collaborations. This was supported by the bank's recent analysis, which showed that Ghana could reach universal financial access across regions to key demographics using innovative technology (World Bank, 2019).

2.2.6 Mobile Money in Ghana

Ghana has 42% of its population outside the formal banking system (Joy Business, 2018), but is making massive improvements in financial inclusion with the use of mobile money. MTN Ghana first introduced it in Ghana in July 2009 (MTN Ghana, 2018). This led other telecommunication groups like Airtel and Tigo (now AT) cash and Vodafone cash (now Telecel Cash) to join the mobile money class providing similar services to MTN Ghana. Mobile Money Operators (MMOs) are profit-maximizing bodies, that issue electronic money (e-money), held in the banks. Every unit of e-money issued by the Mobile Network Operators (MNO) is backed by an equivalent amount of Bank of Ghana notes and coins held in a bank to ensure equilibrium in the mobile money (BoG, 2017).

The Global System for Mobile Communication Association (GSMA) 2013, quoted in BoG (2017) report observed that the booming in the Momo market is a result of increasing penetration and application of mobile phones, especially in the rural areas. Momo services are noted for their benefits in terms of speed, convenience, affordability, and flexibility. Mobile money can be described as electronic cash backed by an equivalence amount of Bank of Ghana notes and coins using the Subscriber Identification Module (SIM) as an identifier in a mobile phone. Mobile money works with a USSD code giving subscribers the chance to make transactions irrespective of the type of mobile phone used.

Porteous (2006), and Weber and Darbellay (2010) have subdivided mobile money into mobile banking (m banking) and mobile payment (m-payment) in Sub-Saharan Africa described as additive and transformational models. The Additive models

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are those in which the mobile phone is simply another channel to an existing bank account while Transformational models are those in which the financial product linked to the use of the phone is targeted at the unbanked, low-income people. Ghana is seen to be operating a hybrid model that combines functions of additive and transformative models with the introduction of mobile money interoperability. Thus, the financially excluded can access financial services through mobile money, and the financially included can link their bank accounts to mobile money accounts for transactions. Conventionally, mobile money was for cash-out (known as withdrawal), cash-in (known as a deposit), receiving and transferring of funds, and making payments. Recently, mobile money services offer almost everything the banks and nonbanks financial institutions offer like payment for goods and services online, school fees, airtime, utilities, salaries, DSTV bills, transport fares, insurance policies investments, and loans, among others.

Ghana happened to be the first country in the world to sell shares through mobile money in an Initial Public Offering (IPO) when MTN launched its IPO (Biztech Africa, 2018). Some of the insurance policies provided by the telecoms in Ghana include Mi-Life insurance by MTN, (MTN Ghana, 2018), AT insurance in partnership with BIMA (AirtelTigo, 2018), and Fishers' Future Plan Product by Vodafone in partnership with BIMA (BIMA, 2017). The BoG in partnership with GhIPPS, banks, and telecoms has successfully implemented a Mobile Money Interoperability (MMI) platform, which integrates all payment platforms in May 2018. This platform makes it easy to move funds from one bank or one mobile money account to the other, e-zwich to accounts. Latest data from the Ghana Interbank Payment & Settlement Systems (GhIPSS) indicate that

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Mobile Money Interoperability (MMI) processed 43.9 million transactions in 2020, representing a 367% increase from the 9 million transactions processed in 2019.

2.2.7 Momo Growth in Ghana

Recent reports of BoG (2018) show that the active number of mobile money agents stood at 396,599 and it has been on the increase since 2012 from 5,900. The number of mobile money account holders was 32.55 million (BoG, 2018) which exceeded the population of Ghana (30 million) then. In 2014, the World Bank Findex data mentioned Ghana as one of the 13 markets with mobile financial services (MFS) penetration above 10%. In the June 2015 report of BMI, 13% of Ghanaian adults had access to mobile accounts as compared to an average of 11.5% of Sub-Saharan Africa in 2014 (Konutsey, 2016).

The Momo float balance has increased since the introduction of mobile money. As of the end of 2018, the balance of e-cash was Gh₵ 2.63 billion. Current data showed an increase of 39.94% in the 2019 first quarter with a float balance of Gh₵3.03billion compared to the first six months of 2018 which recorded Gh₵2.18billion (BoG, 2019). The figure below shows the breakdown of the Mobile Money float.

Float Balance (Ghs Million)

■ Float Balance (Ghs Million

YEAR	FLOAT BALANCE
YR- 2018	2,633.93
YR-2017	2321.07
YR-2016	1257.4
YR-2015	547.96
YR- 2014	233.33
YR- 2013	62.82
YR- 2012	19.59
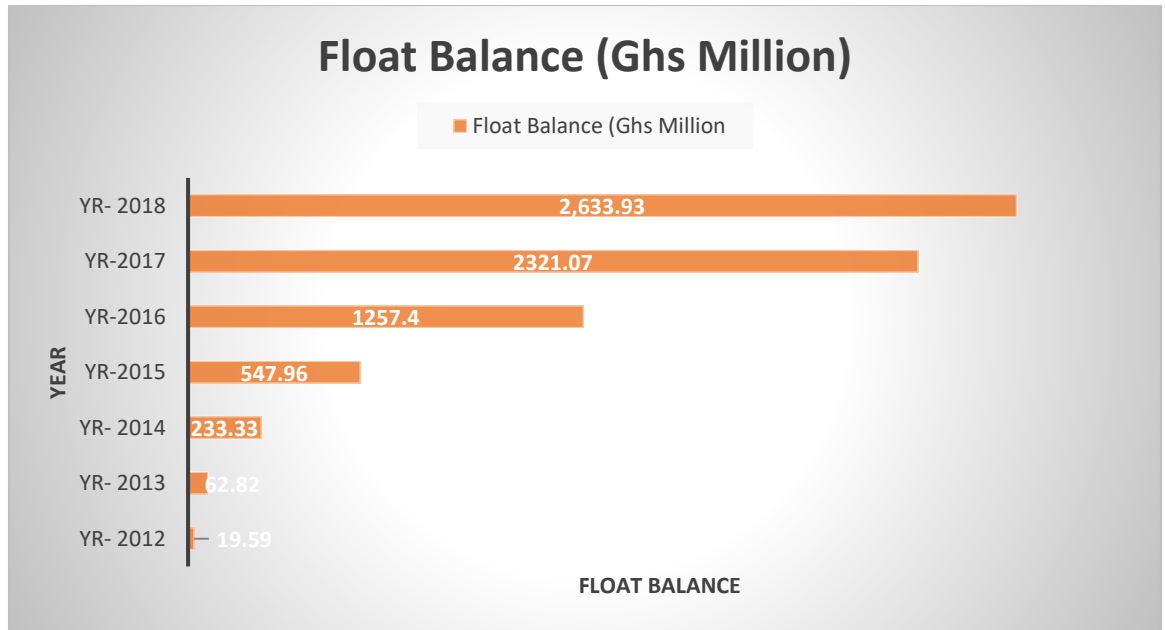
Source: BoG (2018)

Figure 3: Mobile Money Float Balance (2102-2018)

The increase in the mobile money float tallies with the growth in the transaction volume of mobile money over the years. The volume of transactions as of the end of 2018 was 1.4 billion against 1.03 billion recorded at the end of 2017. This growth rate has continued to date with positive rates. The first six months of 2019 showed mobile money transactions of 915,795,074 up by 39.81% compared to 655,002,089 transactions recorded in the first half of 2018 (BoG, 2019). The below figure shows the growth rate in mobile money volumes of transactions.

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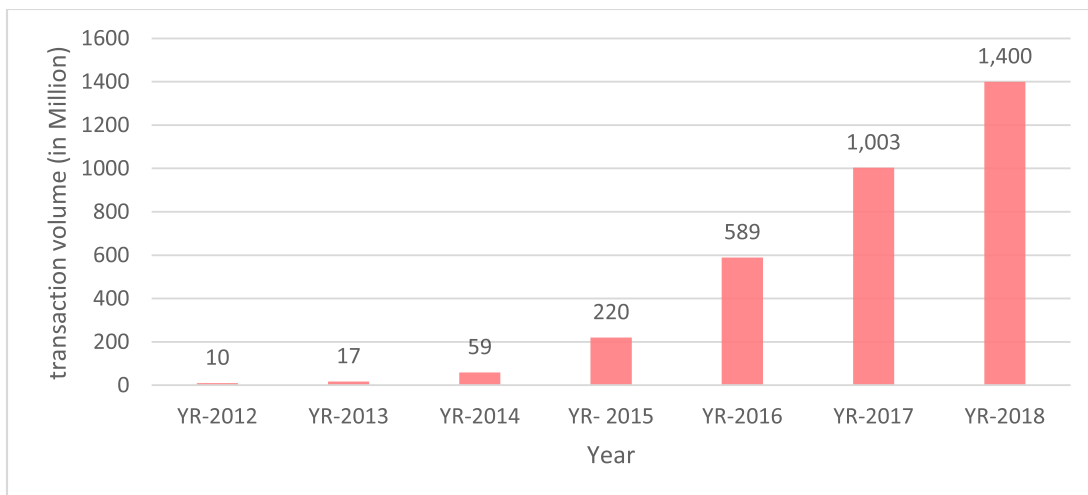
Source: BoG (2018)

Figure 4: Mobile Money Transactions Volumes (2012-2018) 'million

The number of mobile money agents has also increased over the years, which has brought employment to the agents. As of 2012, there were only 5900 agents. The increment led to an average of 74.8% each year and by 2019, the total number of agents increased to 226,298 representing 25.3% growth from 2018. A graphical representation of the breakdown of the growth trend is seen below.
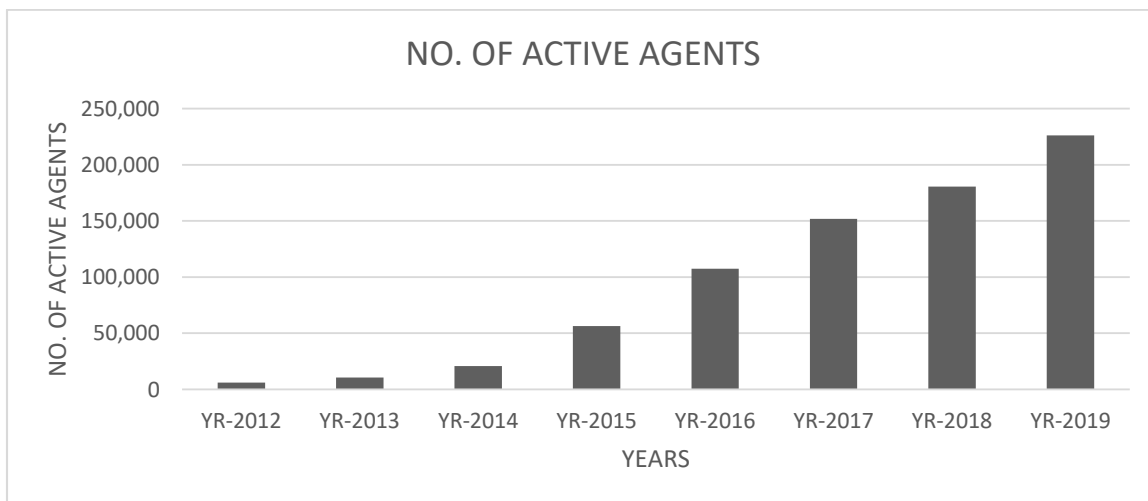
Source: BoG (2016 & 2018)

Figure 5: Growth in Mobile Money Agents

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2.2.8 Traditional Bank System versus Mobile Money

Mobile money in Ghana has led to somewhat of a revolution in the banking sector of Ghana. As some banks see mobile money as an opportunity for growth, others view it as a threat to the growth of the banking sector. The study found that, while some bankers perceive mobile money as an opportunity to explore, especially in the consumer-banking segment, others see it as a threat when nonbanks allow the provision of services in competition with banking services (PWC, 2016).

The number of bank account holders was higher than that of mobile money account holders as of 2013. The bank account holders exceeded the mobile money account holders nearly by 4 million as of 2013. The numbers changed when the mobile money account holders took over with over 4 million in 2015 and close to 10 million mobile money accounts than bank accounts. Whereas the traditional bank accounts were 10.1 million, mobile money accounts were 19.7 million (BoG, 2016). The figure below summarizes the growth rate in bank accounts and mobile money accounts.
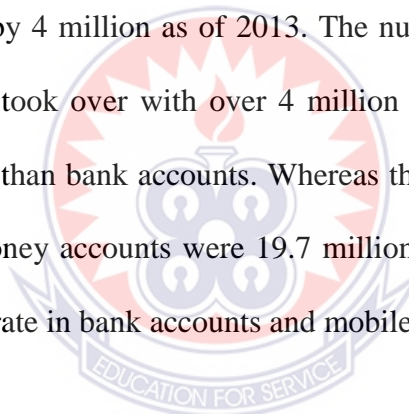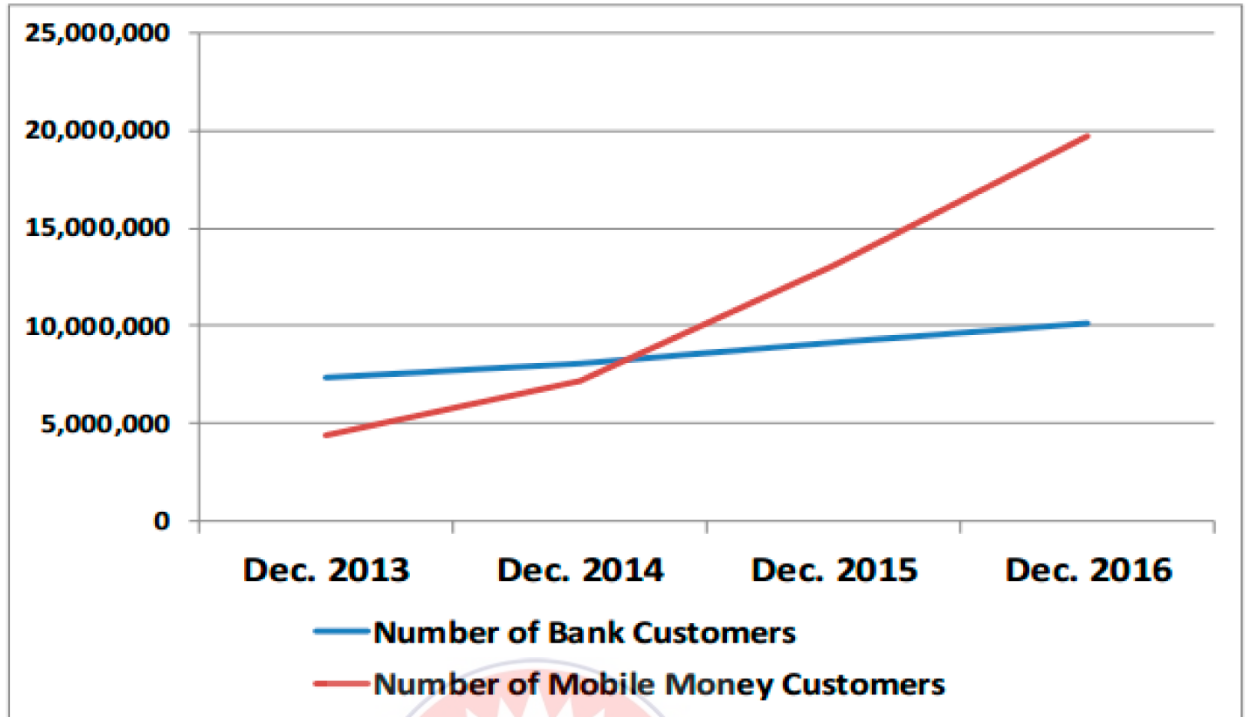
Source: BoG (2016 & 2017)
Figure 6 : Number of Bank Customers vs Mobile Money Customers

2.3 Conceptual Framework

The study is based on the Technology Acceptance Model (TAM), introduced in 1986 and has since been widely recognized as a theoretical framework in the field of information systems. The TAM was originally proposed by Davis (1986) but is said to have been adapted from the Theory of Reasoned Action (TRA) developed by Ajzen and Fishbein (1980). It defines the relationship between attitude and behavior within an action as presented in Figure 7.
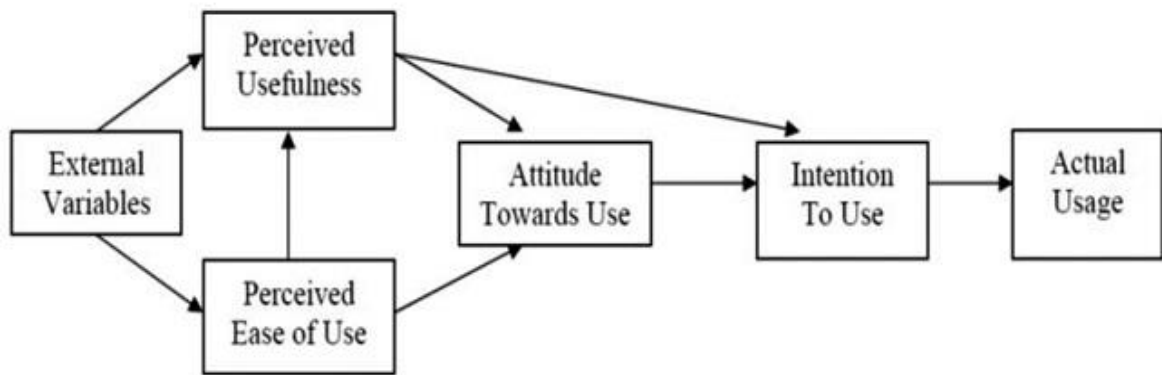
Source: Adopted from Davis (1986)
Figure 7: Conceptual Framework based on TAM Model

Lee, Kozar, and Larsen (2003) observed that TAM is considerably the most influential theory among all theories when describing an individual's acceptance of information systems. It is used to predict the likely behavior of individuals based on preexisting attitudes and behavioural intentions. Thus, the propensity for an individual to make a decision depends on the expectation about the outcome that would be derived from making that decision. Davis, based on the theory, assumes that the individual's acceptance of the information system is been determined by two major factors – Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) (Lee, Kozar & Larsen, 2003).

As TRA itself discourses that, the possibility of an individual to engage in a behavior is dependent on his pre-existing attitude and expectation from the outcome, TAM makes similar preposition but is limited to information systems. The present study postulated that an increase in mobile money penetration increases financial inclusion. It further seeks to examine the factors that deter rural communities from accessing formal

financial services, the extent of usage, the perceived benefits of mobile money to rural inhabitants, and the level of mobile money awareness.

Perceived Usefulness (PU) refers to the degree to which a person believes that using a particular system enhances his or her job performance. Davis, (1986) defines it as the subjective perception of users where they believe using certain technologies can improve the performance of their work. In terms of mobile money, perceived usefulness can be interpreted as the extent to which consumers believe that mobile money will improve their transactions (Gede et al., 2022). Perceived usefulness will include the benefits users derive from mobile money like the fastness, the lower cost of transaction involved, and how convenient and easy it is to use.

According to Davis, PEOU refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). An individual's assessment of a specific information system is free of mental effort to the extent. Perceived ease of use is an important factor that influences users' attitudes towards mobile money services. The higher perceived ease of use associated with positive attitudes towards the services, the more frequent usage and trust in the services (Mensah et al., 2017; Chen & Aklikokou, 2020; Zhu et al., 2017). Perceived ease of use has several indicators for measurement and they include easy learning, controllable, clear and easy to understand, easy to be proficient, flexible, and easy to use (Davis, 1989). Some studies found that PEOU has a positive impact on the adoption of mobile commerce (Tsu-Wei et al, 2009). It hence shows perceived effort in mobile commerce usage (Khalifa & Shen, 2008). The more mobile money is accepted, the higher the possibility of its usage which in tend will lead to an increase in financial inclusion.

2.4 Chapter Summary

This chapter dealt with a literature review on financial inclusion and mobile money in Ghana and beyond. It recognized the knowledge gap between mobile money and financial inclusion, and the need for deeper studies on the subject matter. It also talked about the theory of financial inclusion based on social exclusion, financial exclusion, financial inclusion and poverty reduction, access to income, inequality, and growth. It also touched on financial inclusion in Ghana and Africa and, the growth of mobile money in Ghana.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter seeks to deal with the method used to achieve the objective of the study. It takes into consideration the research design used, the research approach used, the area of the study, the population, sample size, and sampling techniques used, the data collection instrument used, the data collection process, and the software used in analyzing the data. Finally, a recap of all the methods or processes used (chapter summary) in this chapter.

3.1 Research Design

Research design is the framework of research methods and techniques chosen by a researcher to conduct a study. It is the plan a researcher uses to answer the research questions, achieve the objectives, or test the research hypothesis (Polit & Beck, 2004). It is also the overall plan for connecting the conceptual research problems with pertinent empirical research (Boru, 2018). This study adopts the Descriptive survey design. The descriptive survey design is a type of research design that aims to obtain information to describe a phenomenon, situation, or population. It provides a picture of a situation, event, and person or how things are related to each other (Robson, 2002; Blumberg, Cooper & Shindler, 2005). According to McCombe, descriptive research aims to describe accurately and systematically a population, situation, or phenomenon. It can answer 'what', 'where' 'when', and 'how' but not 'why' questions (McCombes, 2019). Thus, it is used to describe or investigate one or more variables using various research methods. It attempts to describe, explain, and interpret present conditions (Pedreza, 2015).

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This study seeks to examine the effect of mobile money on financial inclusion among rural communities. That is the level of interest, awareness, and the extent to which it is been used.

It talks about the benefits of mobile money and the relationship between mobile money and financial inclusion. Therefore, a Descriptive survey design is the most appropriate design for this study since it seeks to measure and describe accurately phenomena such as mobile money awareness and usage, the relationship between mobile money and financial inclusion, and what hinders access to formal financial services.

3.2 Research Approach

There are different ways to examine and explain a study and its findings based on qualitative, quantitative, or pragmatic approaches (a mixture of both). The qualitative approach is more associated with the social constructivist paradigm and uses inductive techniques to measure non-numerical variables such as perception, beliefs, and culture. The quantitative approach is also associated with the positivism paradigm and uses deductive techniques to measure numerical variables. This study will make use of a quantitative method.

3.3 Study Area

This study conducted is within the Agona East District in the Central Region of Ghana. In the 1990s and early 2000s, there existed only Agona District, which later split into Agona East District and Agona West Municipal in 2008. The district has a land coverage area of 318 square kilometers with a population density of 309.2 persons per kilometer square It is located within latitude 5º 30' and 5º 50' North and Longitude 0º 35' and 0º 55' West.

The district shares boundaries with Agona West Municipal and Gomoa East District to the south, Birim Central Municipal to the north, Awutu Senya West District to the East, and Asikuma Odoben Brakwa District and Ajumako Eyan Essiam District to the West.

The main occupation of the populaces of the district is farming. There are two rural banks (with two branches) and one credit union in the district hence the study of how mobile money has affected some communities to be financially included in the district.

3.4 Population

According to the 2021 population and housing census, the district has a population of 98,324 with 47, 350 males and 50,974 females. The district has an urban population of 47,109 (47.9%) and a rural population of 51,213 (52.1%) and Agona Nsaba is the administrative capital. The district is made of several ethnic groups of which Akan takes the dominancy (Ghana Statistical Service, 2021).

The population for this study considers adults who are 18 years and above who reside in the district. The reasoning behind this is that, since the study talks about financial inclusion, it exempts those below 18 years since such people are not permitted to own bank accounts. This study therefore will make use of the adult population instead of the general population. The study can lead to misleading outcomes if it includes children in the population.

3.5 Sampling Size

It is necessary to draw a sample size that can precisely define and represent the population, which can be used to generalize across different populations with similar characteristics. The sample size determination table proposed by Adam (2016) was followed to sample 160 respondents based on the target population.

3.6 Sampling Technique

Respondents for this study were selected from four of the communities in the district. Quota sampling technique was used in the selection of the sample size. Among the communities in the Agona East district, Agona Nsaba, Agona Duakwa, Agona Kwanyako, and Agona Asafo were the communities selected for the study. A total size of 160 people was selected from the selected communities. Forty-five (45) people were selected from Agona Nsaba while 35 were from Agona Duakwa. 45 were also selected from Agona Kwanyako while 35 were also selected from Agona Asafo. The response rate was 100% because the respondents were made to fill the questionnaires and collected them instantly.

3.7 Data Collection Instrument

A structured questionnaire was used to collect primary data for this study. This instrument consists mainly of close-ended questions. Close-ended questions collect quantitative or numerical data through predetermined answers. Close-ended questions are easy to administer and do not consume much time. In addition, it is easy to analyze data especially when it is made of more close-ended questions. The component of the structured questionnaire was designed to factor in the objectives of this study. Most of the

questions were placed on a five-point rating scale to generate ordinary or interval scale variable that allows for the use of median or mean based on normality.

The structured questionnaire was divided into three sections as explained below:

3.7.1 Demographic Factor

The demographic factor asks for information about the age range, sex, employment type, educational level, holding a phone, the presence of financial institutes or banks in the community, and the type of bank accounts the respondent has.

The respondents were also to tick if they have accessed a loan from a bank or formal financial institution before or not. The respondents' ticking preferred options listed against each question were used to measure the factors in this category.

3.7.2 Usage of Mobile Money Services.

This forms the second section of the structured questionnaire used. The questions asked in this section include if the respondent uses mobile money or not. It asked a follow-up question which says will the respondent like to use mobile money services if given the opportunity provided their answer was no to the previous question.

It also asks about the number of mobile money agents in their community and which time of the month they mostly use mobile money (that is either at the beginning of the month, in the middle of the month, or at the end of the month or throughout the month). It again asks if the respondents can perform Momo transactions by themselves or with the help of others.

The respondents were presented with Momo services transactions to choose from using a 5-point Likert scale with never as the least point, and always as the highest point option to measure their level of Momo services usage. These transactions included the

basic Momo transactions (that is cash-in, cash-out, and balance inquiries), on-net funds transfer (from one account to a different account within the same Momo service), and Top-ups (buying airtime and internet data).

Other transactions include personal savings, access to credit (loan), interoperability (between Momo networks), bill payment (school fees and utility), insurance (like health insurance renewal/registration), loan repayment, payment of dues and contributions, online shopping(buying and selling), receiving money from abroad and purchase of shares and other investments.

3.7.3 Challenges of Momo Services

This forms the third part of the structured questionnaire. The respondents were presented with some possible factors, which is likely to cause challenges when using Momo services. Here, a 5-point Likert scale where "no" represents the least and "severe" represents the highest point was used to measure the extent to which some factors could be a challenge when using Momo services.

These factors include the fear or loss of funds through scams, network issues, high transaction cost, locked up funds, poor customer delivery from Momo agents, unavailability of Momo agents in their locality, cash shortage or exceeded transaction limit by agents, no or unstable electricity and too many steps in using Momo services.

3.8 Field Data Collection

The data collection was done using a face-to-face interview with the designed structured questionnaire by visiting the selected communities. Respondents, who could read, understand, and write were given the questionnaire to complete on their own. At the same time, the questions were translated into the local dialect for those who could not

understand English to provide answers to the questions. The collection of the data lasted until July 2024.

3.9 Data Analysis

After the data was collected from the field, the questionnaires were coded according to categories for entry on an excel spreadsheet. A spreadsheet (excel) template was created for the entry and the data was latter exported to STATA statistical for further analyses. The analyses were purely descriptive and hence used descriptive statistics such as frequencies, percentages, mean and median. The data were presented using tables and charts were necessary.

3.10 Chapter Summary

This chapter discussed the methodology used in the study. The study was conducted within the Agona East District in the central region of Ghana where some communities were selected for the survey. A descriptive survey design and structured questionnaire were used in the study. This chapter also elaborates on the research design and approaches, the study area and population, the sample size, and the technique used. It also talks about the data collection instrument used how the data collection was done and how the collected data is analyzed per this study.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter of the study deals with the results and discussion of the data collected. The results were based on the objectives of the study, which begins with the analysis of the demographic information gathered from the respondents. It also presents the results on the frequency of usage of the various mobile money services and the challenges faced during the utilization of these services.

4.1 Profile of the Respondents

Table 1: A cross Tabulation representing the age range and sex of the respondents.

	Sex		
Age group	**Male**	**Female**	**Total**
Young (15-24)	12 (21.8%)	43 (78.2%)	55 (100%)
Mature (25-34)	26 (44.1%)	33 (55.9%)	59 (100%)
Old (35 and above)	27 (58.7%)	19 (41.3%)	46 (100%)
Total	65 (40.6%)	95 (59.4%)	160(100%)

Source: Field Data (2024)

From Table 1, a total of 160 respondents were used for the study. Out of the 160 respondents, 65 of them (which represents 40.6%) were males while 95 of them (representing 59.4%) were females. In addition, 55 out of the respondents were between the ages of 15 and 24 years of which 12 of them (21.8%) were males and 43 of them (78.2%) were females.

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Again, 59 of the respondents were between the ages of 25 to 34. Out of the 59, the males were 26 which represented 44.1% while 33 of them were females which also represented 55.9%. Furthermore, 46 of the respondent were 35 years and above of which 27 of them (representing 58.7%) were males while 19 of them (representing 41.3%) of them were females.

The figure below is a chart that shows the age range and sex of the respondents.
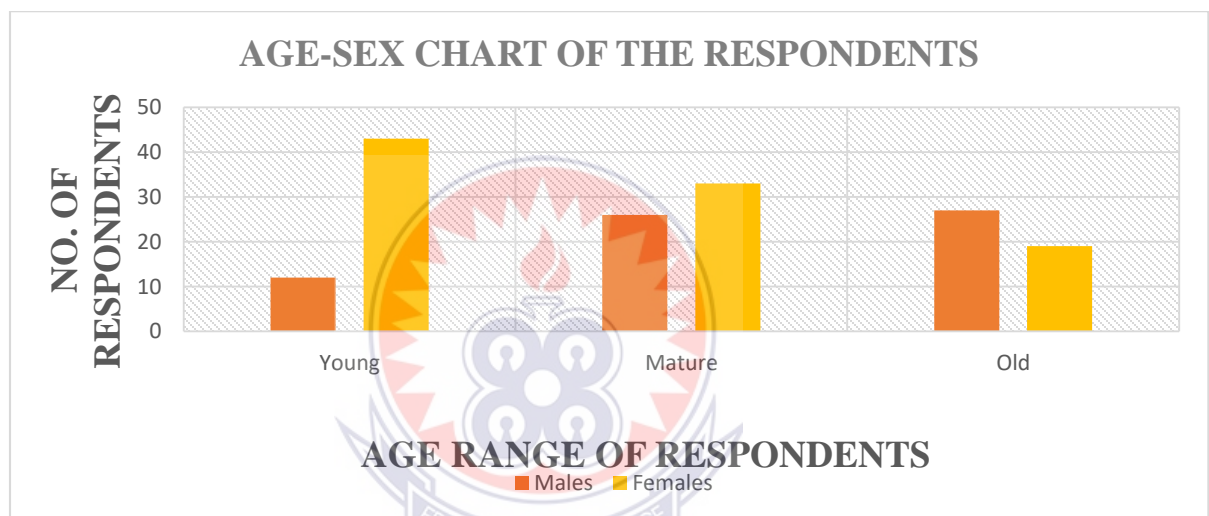
Source: Field data (2024)

Figure 8: Age-Sex Chart of the Respondents

Table 2: A Cross Tabulation Showing the Educational and Wage Type of the respondents.

	Educational level		
Wage Type	Pre-tertiary	Tertiary	Total
Formal wage	2	47	49
Informal wage	33	27	60
Retired/Unemployed	42	9	51
Total	77	83	160

Source: Field Data (2024)

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From Table 2, Out of the 160 respondents, 49 of them were classified as people who receive formal wages, 60 of them as people who receive informal wages and 51 of them under retired and unemployed. In addition, 77 of the respondents were classified as having pre-tertiary education while 83 of them have tertiary education. Of the respondents under the formal wage, 2 of them have pre-tertiary education while 47 of them also have tertiary education. Furthermore, 33 of the informal wage group have pre-tertiary education compared to 27 of them with tertiary education. In addition, under the retired and unemployed group, 42 of them have pre-tertiary education while nine of them have tertiary education. This result shows that, in the rural areas, those who receive informal wages (which includes most of the self-employed and those who receive private wages) are more than those who receive formal wages and the retired and unemployed due to the absence of more formal jobs in these communities. Also, with the informal wage group, there are more people with pre-tertiary education (that is those without education, pre-school education, Junior high education, secondary and vocational education) than those with tertiary education. According to Doris & Caroline (2017), their study conducted on Momo and financial inclusion showed that there are more self-employed people in rural areas than those employed in the public or private sector. Their study again showed that there are more people with junior high, secondary, technical, and vocational education. The figure below is a chart showing the educational level and wage type of the respondents.
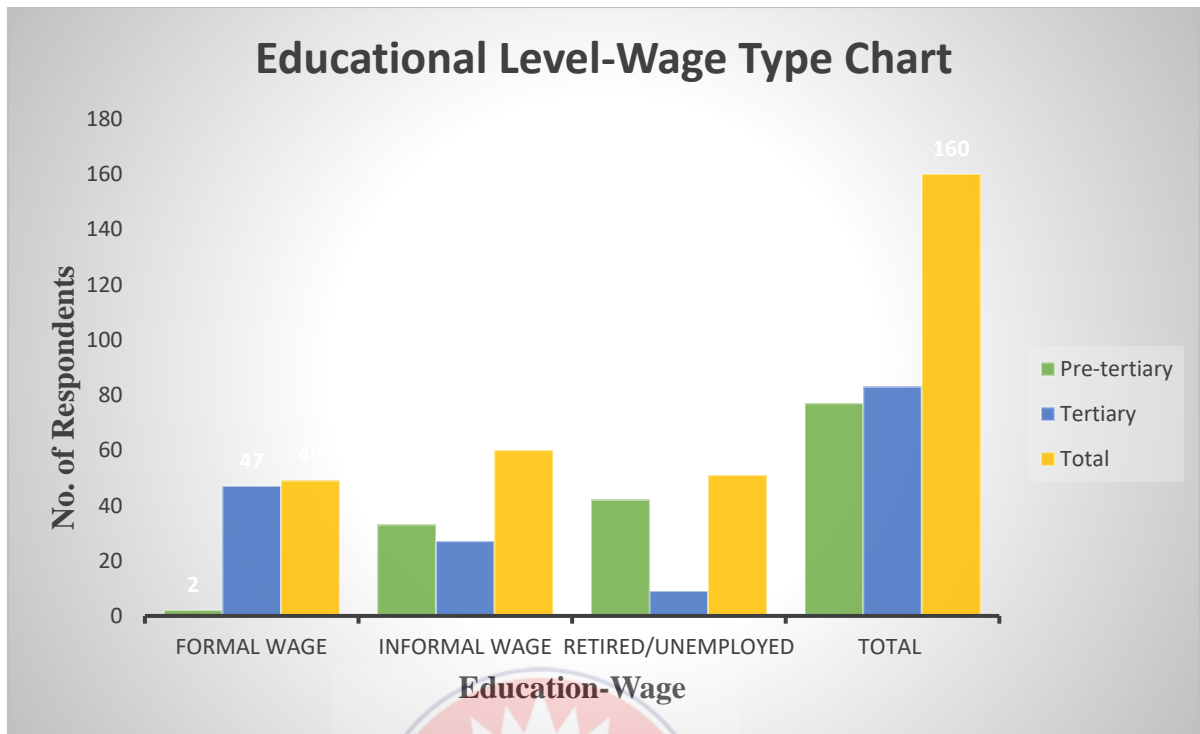
Source: Field Data (2024)

Figure 9: Educational level-Wage Type Chart

4.2 Research Question One: To what extent has Momo been utilized in rural communities?

This research question aimed to determine the extent to which the residence use mobile money services as a proxy for their level of financial inclusion. The variables were mainly placed on five-point Likert type scale which generated ordinal level data; and hence analysed using frequencies, percentages and median. The median was mainly used to provide an average response on each item as well as range the items in terms of usage.

Table 3 : A Cross Tabulation Showing the Relationship between Accessing Bank Loan and Momo Transaction Performance.

Accessing Bank Loan	Momo Transaction Performance		Total
	Alone On Phone	With Assistance From Others	
Accessed Bank Loan	62	5	67
Not Accessed Bank Loan	78	15	93
Total	140	20	160

 Source: Field Data (2024)

Table 3 shows the relationship between those who have either accessed loans from banks or not and how they perform their Momo transactions; either by their selves or with assistance from others. Out of the 160 respondents, 140 of them do perform their Momo transactions alone while 20 of them perform with the help of others. 67 of them said they have accessed loans from the banks while 93 of them have not accessed loans from the banks. 62 of those who have accessed loans from banks mostly perform their Momo transactions alone with no help from others while 5 of them perform their transaction with the help of others. Also, 93 of the respondents have not accessed loans from the banks, from which 78 of them perform their Momo transactions without the help of others while 15 of them perform their transactions with the help of others. This shows that, mostly, people perform their Momo transactions alone on their phones rather than sorting for assistance from others being it friends or Momo agents, though those who have not accessed loans from banks and perform their Momo transactions are more than those who have accessed loans from banks before per the respondents of the study.

46
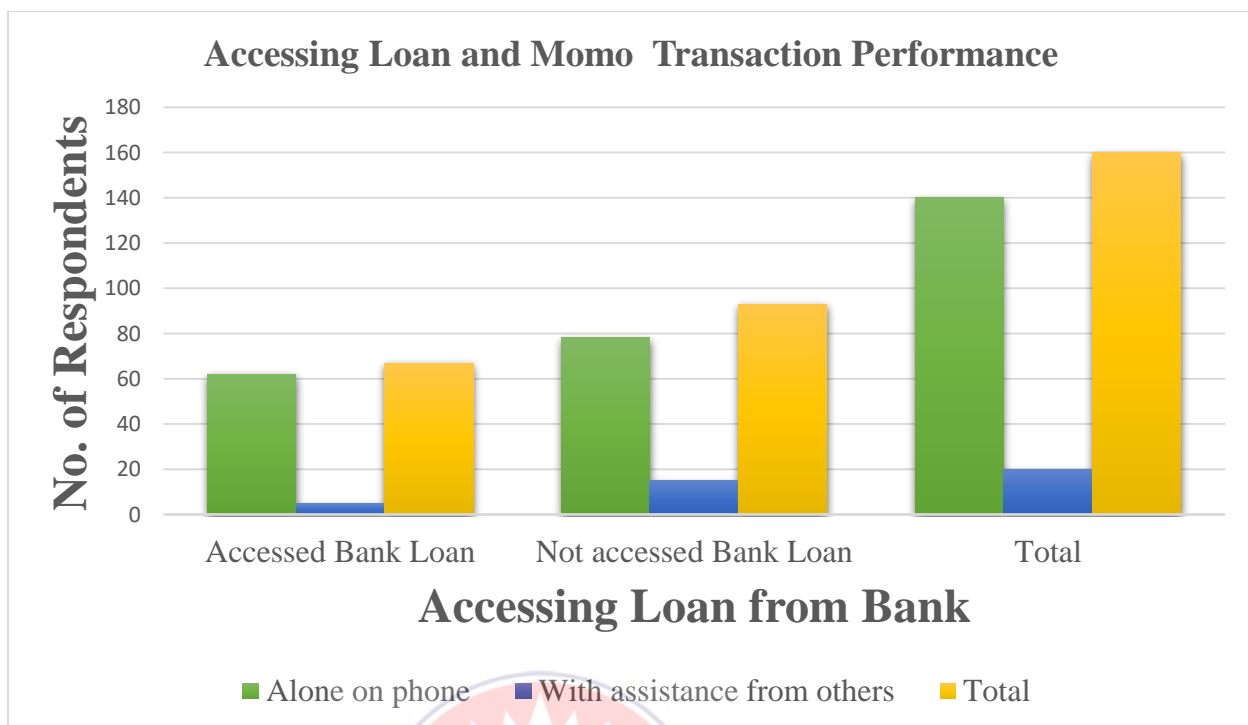
Source: Field Data (2024)

Figure 10: Accessing Loan and Momo Transaction Performance Chart

Table 4 : Shows the frequency with which the respondents use the following Momo Services.

Mobile Money Services	Never	Occasionally	Often	Mostly	Always	Median
Cash In (receiving or depositing)	8 (5.00%)	45 (28.13%)	36 (22.50%)	43 (26.88.%)	28 (17.50%)	2
Cash Out (withdrawal)	5 (3.13%)	31 (19.38%)	35 (21.88%)	59 (36.88%)	30 (18.75%)	3
Balance Enquiry (checking balance)	9 (5.63%)	40 (25.00%)	39 (24.38%)	44 (27.50%)	28 (17.50%)	2
Funds transfer (Mobile money to Mobile money)	22 (13.75%)	51 (31.88%)	30 (18.75%)	38 (23.75%)	18 (11.88%)	2
Top up (Airtime & internet data)	12 (7.50%)	21 (13.13%)	26 (16.25%)	35 (21.88%)	66 (41.25%)	3
Personal savings (To Store Value)	53 (33.13%)	45 (28.13%)	32 (20.00%)	19 (11.88%)	11 (6.88%)	1
Accessing credit (loan)	92 (57.50%)	43 (26.88%)	9 (5.63%)	8 (5.00%)	8 (5.00%)	0
Funds Transfer from one mobile money to another,	60 (37.50%)	38 (23.75%)	39 (24.38%)	13 (8.13%)	10 (6.25%)	1

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E-Zwich, Bank Account (Interoperability)						
Bills payment (School Fees, Electricity, Water, DSTv, Go TV, StarTimes)	82 (51.25%)	37 (23.13%)	23 (14.38%)	15 (9.38%)	3 (1.88%)	0
Receiving salaries through Momo	104 (65.00%)	18 (11.25%)	13 (8.13%)	7 (4.38%)	18 (11.25%)	0
Insurance (Registering and renewal of NHIS card)	65 (40.63%)	35 (21.88%)	21 (13.13%)	19 (13.57%)	19 (13.57%)	1
Loan repayment	92 (57.50%)	23 (14.38%)	14 (8.75%)	20 (12.50%)	11 (6.88%)	0
Payment of dues(clubs, associations, groups)	87 (54.38%)	37 (23.13%)	7 (4.38%)	21 (13.13%)	8 (5.00%)	0
Shopping online (buying or paying for goods and services online)	63 (39.38%)	51 (31.88%)	20 (12.50%)	19 (11.88%)	7 (4.38%)	1
Receiving money from abroad (e.g. RIA, Western Union, MoneyGram)	84 (52.50%)	38 (23.75%)	15 (9.38%)	14 (8.75%)	9 (5.63%)	0
Purchase of shares and/or other investment products.	111 (69.38%)	23 (14.38%)	11 (6.88%)	7 (4.38%)	8 (5.00%)	0

Source: Field Data (2024)

From Table 4.2.2, concerning receiving or depositing cash (cash in), 5% (8) of the respondents has never used this service, while 28.13% (45) of the respondents occasionally use this service. Also, 22.50% (36) often use this service, 26.88% (43) of them mostly use this service and lastly, 17.50% (28) of them always use this service. On average the results suggest the respondents often engage in cash-in or deposit with mobile money operation (median=2). With the withdrawal service (cash out), 3.13% (5) of them have never used this service, and 19.38% (31) of them occasionally use this service. In addition, 21.88% (35) of them often use this service, 36.88% (59) mostly use

this service and 18.75% (30) always use this service. On average, the results per the respondents show that they mostly do cash out with the Momo operation, which has a median of 3. This shows that the use of the cash-out service is more than the use of the cash-in service among the people in these communities.

For Balance inquiry service, 5.63% (9), 25.00% (40), 24.38% (39), 27.50% (44) and 17.50% (28) of the respondents have never, or occasionally, often, mostly and always use this service respectively. This Momo service also has a median of 2 which shows that, on average, they often check their Momo balance with this Momo service. When it comes to the transfer of funds within the same network, 22 (13.75%) of the respondents have never used this service, and 51 (31.88%) of them occasionally use this service. Furthermore, 30 (18.75%) of them often use this service, 38 (23.75%) of them mostly use this service and 18 (11.88%) of them always use this service. The result shows that normally, people often transfer funds from one Momo account to the other within the same mobile network (median=2).

Topping up airtime and internet data with mobile money, 12 (7.50%) have never used this service out of the 160 respondents, 21 (13.13%) of them occasionally use this service. In addition, 26 (16.25%) of them often use this service. 35(21.88%) of them mostly use this service while 66 (41.25%) of them always use this service. This shows that average, people like to mostly use their mobile money account to top up their airtime and internet data for use.

With the personal savings service, 53 (33.13%) out of the 160 respondents have never used this service, and 45 (28.13%) of them also occasionally use this type of service. In addition, 32 (20.00%) of them often use this service. Also, 19 (11.88%) out of

the 160 respondents mostly use this service and only 11 (6.88%) of them always use this service. This means, per the results, people do not use this service. They occasionally use this type of Momo service.

When it comes to accessing credit with mobile money, 92 (57.50%) of the respondents have never used this service while 45(26.88%) of them occasionally use this service. Again 9(5.63%) of them often use this service, 8(5.00%) of them each use this service always and mostly. This means people do not usually or have never used this service. With interoperability services, 60(37.50%) of them said they have never used this service, 38(23.75%) of them occasionally use this service, and 39(24.38%) often use this. Also, 13(8.13%) of them mostly use this service while 10(6.25%) of them always use this service. This also means that people hardly transfer funds from one mobile money network to a different network or the bank. In payment of bills, 82(51.25%) out of the 160 respondents have never used this service, 37(23.13%) of them occasionally use this service, 23(14.38%) often use this service while 15(9.83%) mostly use this service and 3(1.88%) always use this service. On average, most of the respondents have never used this Momo service thus payment of bills per the result obtained from this study. (Median= 0).

Receiving salaries through Momo has never been used by 104(65.00%) out of the 160 respondents, 18(11.25%) occasionally used this service, and 13(8.13%) often used this service. Out of the 160, 7(4.38%) mostly use this service while 18(11.25%) always use this service. According to the results, on average, the respondents have never used Momo to receive salaries. Of the 160 respondents, 65(40.63%) have never used Momo to register or renew their NHI card, 35(21.88%) occasionally use Momo for registration and

renewal, and 21(13.13%) of them often use this service. 19(13.75%) of them mostly use this service while 19(13.75%) always use this service. The results obtained from the study show that, on average, the respondents occasionally use Momo to renew or register their NHI cards. In the repayment of loans, 92(57.50%) out of the 160 have not used this service while 23(14.38%) occasionally use this service. Also, 14(8.75%) of them often use this service, 20(12.50%) mostly use this service, and 11(6.88%) always use this service. On average, most of the respondents have never used Momo to repay their loans.

Of the 160 respondents that were used for the study, 87(54.50%) of them have never used Momo to pay dues while 37(23.13%) of them occasionally use this service. In addition, 7(4.38%) of them often use this service while 21(13.13%) of them mostly use this service. 8(5.00%) out of the 160 respondents always use this service. Averagely the results show that the respondents have never used Momo to pay association or club dues or any form of contribution. With the usage of Momo for online shopping, 63(39.38%) out of the 160 respondents said they have never used it for shopping, and 51(31.88%) said they occasionally use it for shopping. 20(12.50%) of them often use this service whiles 19(11.88%) of them mostly use this service. Again, 7 (4.38%) of them always use this service. Usually, per the results obtained, they occasionally use Momo for shopping.

In receiving money from abroad, 84(52.50%) of them have never used Momo to receive money from abroad. Also, 38(23.75%) and 15(9.38%) of them occasionally and often use Momo to receive money from abroad respectively. 14(8.75%) out of the 160 mostly use Momo for receiving money abroad while 9(5.63%) of them always use Momo to receive money from abroad. On average, the respondents have never used Momo to receive money from abroad. In using Momo to purchase shares and other investment

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products, 111(69.38%) of them have never used Momo to purchase shares and other investment products while 23(14.38%) of them occasionally use Momo to purchase shares. 11(6.88%) out of the 160 said they often use Momo to purchase shares. Also, 7(4.38%) of them mostly use Momo to purchase shares while 8(5.00%) of them always use this service. On average, the results show that they have never used Momo to purchase shares and other investment products.

In general, the respondents for this study revealed that most of them use Momo for basic transactions, which include cash in, cash out, balance inquiries, topping up airtime, and internet data. However, there are various mobile money apps in Ghana, and they have different services they provide to their users, but their users patronize not all their services. A study conducted also shows mostly, Momo users engage in cash-in (deposit or receiving), cash-out (withdrawal), funds transfer, and airtime purchase (Doris & Caroline, 2017). With the usage of other mobile money services like payment of bills, storing value, accessing credit, insurance registration and renewal and interoperability, among others, it was found that, Momo users hardly use these services compared with cash in and cash out. This finding confirms the findings of Mbiti & Weil (2015) and Yakubu (2021). According to Mbiti & Weil, their study on the impact of M-Pesa in Kenya reveals that people do not often their M-Pesa accounts to store value. According to Yakubu (2021), a Momo service like interoperability has less patronage by the users of Momo.

4.3 Research Question Two: What factors hinder rural communities from getting access to formal financial services?

This research question sought to identify the factors that hinder or challenge the level of utilization of momo services in the study area. The analyses were purely descriptive and used frequencies, percentages and median.

Table 5 : Challenges Faced during the Utilization of Momo Services.

Challenge	No	Minor	Moderate	Major	Severe	Median
Fear of loss of funds through scam/fraud	44 (27.50%)	45 (28.13%)	17 (10.63%)	26 (16.25%)	28 (17.50%)	1
Network challenges	12 (7.50%)	39 (24.38%)	41 (25.63%)	43 (26.88%)	25 (15.63%)	2
High transaction cost	17 (10.63%)	16 (10.00%)	61 (38.13%)	43 (23.88%)	23 (14.38%)	2
Locked up funds/inability to access funds from Momo account	63 (39.38%)	35 (21.88%)	32 (20.00%)	16 (10.00%)	14 (8.75%)	1
Poor customer delivery by mobile money agents	51 (31.88%)	44 (27.50%)	35 (21.88%)	20 (12.50%)	10 (6.25%)	1
Unavailability of agent in my locality	78 (48.75%)	37 (23.13%)	27 (16.88%)	10 (6.25%)	8 (5.00%)	1
Cash shortage by agents	42 (26.25%)	54 (33.75%)	27 (16.88%)	30 (18.75%)	7 (4.38%)	1
Exceeded transaction limit	71 (44.38%)	38 (23.75%)	35 (21.88%)	9 (5.63%)	7 (4.38%)	1
No or unstable electricity to charge phones	79 (49.38%)	34 (21.25%)	25 (15.63%)	18 (11.25%)	4 (2.50%)	1
I do not own a phone	112 (70.00%)	23 (14.38%)	15 (9.38%)	8 (5.00%)	2 (1.25%)	0
Too many steps in using mobile money	58 (36.25%)	43 (26.88%)	38 (23.75%)	10 (6.25%)	11 (6.88%)	1

Source: Field Data (2024)

From Table 5 , 44 (27.50%) out of the 160 respondents said that the fear of loss of funds is not a challenge to them when using Momo. Also, 45(28.13%) of them said it is a minor challenge for them while 17(10.63%) of them also said this is a moderate challenge for them. Again, 26 (16.25%) of them said it is a major challenge to them when using Momo while 28(17.50%) of them said it is a severe challenge to them. On average, the fear of loss of funds through fraud is a minor challenge per the results obtained from the field data. When it comes to network challenges, 12(7.50%) of the 160 respondents said it is not to challenge to them when using Momo while 39(24.38%) of them said it is a minor challenge to them when using Momo. Also, 41(25.63%) of the 160 said it is a moderate challenge faced when using Momo while 43(26.88%) of them said it is a major challenge they face when using Momo. 25 (15.63%) of them said it is a severe challenge they face during the usage of Momo. Averagely, the result shows that network challenge is a moderate challenge faced by the users of Momo for their transactions.

In terms of high transaction cost, 17(10.63%) of the 160 said it is not a challenge to them while 16(10.00%) of them said it is a minor challenge with Momo usage. Furthermore, 61(38.13%) of them said it is a moderate challenge they face during the usage of Momo while 43(23.88%) said the high transaction cost is a major challenge to them. 23(14.38%) also said it is a severe challenge to them when using Momo. On average, per the results, high transaction cost seems to be a moderate challenge to the users of Momo. With the inability to access funds, 63(39.38%) of the 160 said it is not a challenge to them while 35(21.88%) said it is a minor challenge to them. In addition, 32(20.00%) of them said it is a moderate challenge faced when using Momo while 16(10.00%) also said it is a major challenge. 14(8.75%) said it is a severe challenge they

face when using Momo. From the results obtained, the inability to access funds from a Momo account seems to be a minor challenge to its users.

Also, with poor customer delivery by Momo agents, 51(31.88%) said it is not a challenge to them when using Momo while 44(27.50%) also said it is a minor challenge to them. Again, 35(21.88%) of the 160 said it is a moderate challenge they face while 20(12.25%) also said it is a major challenge they face using Momo. 10(6.25%) of them also said it is a severe issue for them. On average, customer delivery by the Momo agent is a minor challenge to the user of Momo. For the unavailability of Momo agents in the localities, 78 (48.75%) of the 160 said it is not a challenge to them while 37(23.13%) also said it is a minor issue to them. Again, 27(16.88%) said it is a moderate challenge to them using Momo while 10(6.25%) also said it is a major challenge to them. 8(5.00%) of them also said it is a severe challenge when it comes to Momo usage. On average, the unavailability of Momo agents in the localities is only but a minor challenge to the users of Momo.

With the challenge of cash shortage by Momo agents, 42 (26.25%) of them said it is not a challenge for them while 54(33.75%) also said it is a minor challenge for them. Also, 27(16.88%) said it is a moderate challenge they face when using Momo while 30(18.75%) also said it is a major challenge to them. 7(4.38%) of the 160 also said it is a severe challenge they face using Momo. On average, cash shortage by Momo agents is a minor challenge to the users of Momo. Out of the 160 respondents, 71(44.38%) of them said that the transaction limit exceeded by Momo agents is not an issue they face in using Momo while 38 (23.75%) of them said it is a minor challenge they face when using Momo. Again, 35(21.88%) of them said it is a moderate challenge to them while 9 (5.63%) of the 160 also said it is a major challenge to them. 7(4.38%) of the 160 also said

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it is a severe challenge they are being faced with using Momo. The result shows that on average, the issue of Momo agents exceeding their transaction limit for the day is a minor issue to the users of Momo in these communities.

The presence of no or unstable electricity to charge mobile phones also gave a breakdown of 79(49.38%) of the 160 saying that it is not a challenge to them at all while 34(21.25%) of them also said it is a minor challenge to them. In addition, 25(15.63%) said it is a moderate challenge to them using Momo while 18(11.25%) also said it is a major challenge to them. Also, 4(2.50%) of the 160 agreed that this is a major challenge they face when using Momo. Per the results, on average, the presence of unstable or no electricity at all is only a minor challenge to the users of Momo in these communities. Another challenge that was raised was the absence of a phone by the users of Momo and 112(70.00%) of the respondents said not owing a phone is not a challenge to them at all times while 23(14.38%) said it is a minor challenge when using Momo. Furthermore, 15(9.38%) of them said it is only a moderate challenge they face accessing Momo while 8(5.00%) also said it is a major challenge to them. Out of the 160, only 2 (1.25%) of them said it is a severe challenge to them.

Though all the respondents to this study said they have mobile phones, some said not owning a phone was a major or severe challenge to them and this may be due to the consistency of their owning a phone for a period. However, on average, not owning a phone is not a challenge to prevent Momo users from using it. Out of the 160 respondents, 58(36.25%) of them said there are not too many steps in using Momo while 43(26.88%) said it is a minor challenge to them. 38(23.75%) of them said it is a moderate challenge to them while 10(6.25%) said it is a major challenge to them. Again, 11(6.88%)

said it is a severe challenge to them. This result shows that though the steps involved in using Momo might be too many for some but average it is a minor challenge to most of the users.

In all, the results of the study show that most of the challenges happen to be minor challenges to the users of Momo in these communities. Among the challenges faced during the usage of Momo, it was found that network challenges and high transaction costs seem to be major challenges people face during the usage of Momo. Research by some Senior Financial Specialists at CGAP shows that network challenge happens to be one of the challenges faced by users of Momo in Senegal (FinDev Gateway, 2024); as it was discovered in this study. According to Lambongang et al (2023), one of the challenges associated with using Momo is the unreasonable charges by the network providers and merchants. These findings also confirm the findings of this current study that network issues and transaction costs are some pressing challenges faced when using Momo.

4.4 Chapter Summary

The chapter presented the results from the primary data collected to address the stated research questions. The outcomes indicated that both respondents included in the formal banking system and those who are not are active users of mobile money services which implies that mobile money services has improved financial inclusion in the study area. Also, some challenges to mobile money service adoption were highlighted mainly to include poor network, fear of fraud and high transaction cost.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the findings of the study. It also presents some conclusions based on the key findings. Then finally, the chapter ends with some recommendations based on the conclusions made.

5.1 Summary

The main aim of this study was to examine the effect of Momo on financial inclusion among some rural communities in the Agona East District. The objectives of this study were to assess the level of utilization of Momo among residents of the selected communities in the district and the challenges faced during the usage of Momo services by the residents of the selected communities within the Agona East District.

The theoretical and empirical reviews were done concerning financial inclusion and Momo. The theoretical review looked at financial inclusion as a concept and financial exclusion. It also looked at the concept of social inclusion versus financial exclusion, financial inclusion and poverty reduction, access to income, inequality, and growth were also considered. Empirical reviews were also done by considering the need to deepen research in financial inclusion, financial inclusion in Ghana and Africa, Fintech, and Momo in Ghana.

The study also made use of a descriptive survey design and a sampling technique where 160 respondents were selected from four communities within the Agona East District. A structured questionnaire was used to obtain data from the respondents and it was analyzed using descriptive statistics. The results obtained after analyzing the data

were presented in the form of charts and tables. Some findings made from this study are summarized below based on this study's objectives.

5.2 Summary of Findings.

Based on the results obtained, it was found that, in rural communities, there are more people within the informal wage group (the self-employed) than the formal wage group (public or private) and the retired/unemployed. This may be due to the lack of formal jobs in the rural areas. It was also found that, within the informal wage group, most of them have pre-tertiary education. Another finding based on the result is that people have not accessed formal loans from the banks and this may be due to the absence of traditional and commercial banks in these areas. Also, the study reveals that most, people perform their Momo transactions alone on their phones and few seek for assistance from others.

With the utilization of Momo services, it shows that people mostly use Momo for purchasing airtime, cash-in (deposit), and cash-out (withdrawal). They rarely use Momo for paying bills, dues, and contributions, insurance registration and renewal, funds interoperability, for storing value, among others in these areas. This may be due to the lack of knowledge they have concerning these other services and the service of the cash-in and cash-out which has been in existence for longer than the other services. Cash-out in this area is more massive than cash-in since they will mostly receive funds from people outside these communities leading to a higher withdrawal than deposits.

Concerning the challenges faced when using Momo, the study revealed that, a number of the challenges mentioned are only but minor challenges people face when using Momo. It was found that one of the most pressing challenges faced is the issue of

network challenges in this area. Again, high transaction costs seem to be another pressing issue associated with the utilization of Momo in this area

5.3 Conclusion.

This study based on the findings concludes that there is a high awareness of Momo among the residents of Agona East district and again higher interest in Momo by women more than men. There is also a high usage of Momo for the basic transaction services including cash-in, cash-out, and airtime purchase but a low usage for the other services of Momo including bill payment, storing of value, and interoperability. Momo happens to be easy to use and convenient for the respondents. The issues of high transaction costs and network issues are major challenges faced. Fraud, exceeding cash limits, and fear of loss of funds are only minor challenges faced.

This study further concludes that Momo has a positive impact on financial inclusion more than the banks in this area. Equally, Momo has great potential to bridge the financial inclusion gap between the rich and poor, men and women not only.

5.4 Recommendations

The telecoms providing Momo services should embark on intensive education to sensitize people on the other services available on their Momo platforms and again reduce the transaction cost involved if possible to make Momo attractive to people, especially in rural areas. Initiative programs can be introduced to reduce social exclusion, which in the long run with cause financial inclusion to increase in the rural areas.

The telecoms of Momo service providers should invest in modern network infrastructures that will reduce mobile network services in rural areas. This will make

Momo more accessible to the residents in the rural areas thereby increasing financial inclusion among them even without the presence of traditional and commercial banks.

It is also recommended that further studies be done in the area of gender and financial inclusion. Further studies can be done on how Momo has influenced the traditional banks, though Momo is in competition with the traditional banks in the rural areas, it also complements the traditional banks, especially in the urban areas. Another could be done on social exclusion and financial inclusion.

REFERENCES

ADA Microfinance. (2019, July 24). *Definition of Financial Inclusion*. Retrieved from https://www.ada-microfinance.org:https://www.ada-microfinance.org/en/aboutada/definition-financial-inclusion

Adam, Anokye M. 2020. Sample Size Determination in Survey Research. *Journal of Scientific Research and Reports, 26*(5):90-97. https://doi.org/10.9734/jsrr/2020/v26i530263.

AirtelTigo. (2018, November). *AirtelTigo partners BIMA to deepen insurance inclusion in Ghana*. : http://www.airteltigo.com.gh/airteltigo-partners-bima-to-deepen-insurance-inclusion-in-ghana/

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice Hall.

Aker, J. C., & Wilson, K. (2013). *Can mobile money be used to promote savings? Evidence from Northern Ghana*. The SWIFT Institute. Https://papers.ssrn.com/soI3/papers.cfmbstract_id=2217554

Akomea-Frimpong, A., Andoh, C., Akomea-Frimpong, I., & Dwomooh-Okudzeto, Y. (2019). *Control of fraud on mobile money services in Ghana: An exploratory study. Journal of Money Laundering Control*, 22(2), 300–317.doi:https://doi.org/10.1108/JMLC-03-2018-0023

Amadou, D. (2018). *Financial inclusion and poverty reduction: Selective approach and implications for Mali's choice. Academic Journal of Economic Studies*, 4(4), 50-56.

AU Directorate of Information and Communication.(2015). *25th AU Summit:2nd African Union high level panel on gender equality and women empowerment.* Ethiopia: African Union. https://www.brookings.edu/blog/africa-in-focus/2016/01/22/foresight-africa-2016-banking-on-agriculture-for-africas-future/

Ayensu, E. (2017). *The impact of financial inclusion on poverty reduction* (Master's thesis, University of Ghana). http://ugspace.ug.edu.gh/bitstream/handle/123456789/23566/The%20lmpact%20of%20Financial%20Inclusion%20on%20Poverty%20Reduction%20In%20Some%20Selected%20SubSaharan%20Africa%20Countries.pdf?sequence=1&isAllowed=y

Beck, T. (2020). *Fintech and financial inclusion: Opportunities and pitfalls*. Asian Development Bank Institute.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality, and the poor. *Journal of Economic Growth*, 12(1), 27–49.

Beck, T., Demirgüç-Kunt, A., & Honohan, P. (2009). Access to financial services: Measurement, impact, and policies. *The World Bank Research Observer*, 24(1), 119–145.

BIMA. (2017, October 3). *BIMA and Vodafone Cash launch Fishers' Future Plan in Ghana*. http://www.bimamobile.com:http://www.bimamobile.com/news-and-media/news/fishers-future-plan-launch-ghana

Biztech Africa. (2018, May 31). *MTN Ghana adopts mobile money to trade shares for its first $745M IPO*. https://www.biztechafrica.com:https://www.biztechafrica.com/article/mtn-ghana-adopts-mobilemoney- trade-shares-its-fir/13609/

Boateng, K. (2019). Ghana's progress on reaching out to the unbanked through financial inclusion. *International Journal of Management Studies*.

Bank of Ghana. (2015). *2015 Annual Report of the Bank of Ghana*. Accra: Bank of Ghana. https://www.bog.gov.gh/wp-content/uploads/2019/07/AnnRep-2015.pdf

Bank of Ghana. (2016). *2016 Annual report of the Bank of Ghana*. Accra: Bank of Ghana. https://www.bog.gov.gh/wp-content/uploads/2019/07/AnnRep-2016.pdf

Bank of Ghana, Payment Systems Department. (2017). *Impact of mobile money on the payment system in Ghana*: An econometric analysis. Accra: Bank of Ghana. https://www.bog.gov.gh/privatecontent/Public_Notices/Impact%20of%20Mobile%20Money%2on%20the%20Payment%20Systems%20in%20Ghana.pdf

Bank of Ghana. (2018). *2018 Annual Report. Accra*: Bank of Ghana. https://www.bog.gov.gh/privatecontent/Publications/AnnualReports/Annual%20Report%202018%2013-07-19.pdf

Bank of Ghana. (2019). *2019 Annual Report. Accra*: Bank of Ghana. https://www.bog.gov.gh/wp-content/uploads/2020/06/AnnRep-2019.pdf

Bank of Ghana. (2019, September 4). Mobile money growth slows at last. GoldStreet Business https://goldstreetbusiness.com/business/mobile-money-growth-slows-at-last/

Bold, C., Porteous, D., & Rotman, S. (2012). *Social Cash Transfers and Financial Inclusion: Evidence from Four Countries* (Focus Note, pp. 1-20). https://www.cgap.org/sites/default/files/Focus-Note-Social-Cash-Transfers-and-Financial-Inclusion-Evidence-from-Four-Countries-Feb-2012.pdf

Boru, T. (2018*). Research methodology*. University of South Africa. doi:10.13140/RG.2.2.21467.62242.

Burgess, R., & Pande, R. (2005). Do rural communities matter? Evidence from the Indian social banking experience. *American Economic Review*, 95(3), 780–795. http://econ.lse.ac.uk/staff/rburgess/wp/aer.pdf

Carbo, S., Gardener, P., & Molyneux, P. (2005). *Financial exclusion. Palgrave Macmillan Studies in Banking and Financial Institutions.* Palgrave Macmillan.

Center for Financial Inclusion. (2009*). Financial inclusion: What's the vision?* Accion International. https://centerforfinancialinclusionblog.files.wordpress.com/2011/12/financial-inclusionwhats-the-vision.pdf

Conroy, J. (2005). APEC and financial exclusion: Missed opportunities for collective action? *Asia-Pacific Development Journal*, 12(1), 53-79.

Davis, D. F. (1986). *Technology acceptance model for empirically testing new end-user information systems:Theory and Results*. Sloan School of Management, Massachusetts Institute of Technology https://dspace.mit.edu/bitstream/handle/1721.1/15192/14927137-MIT.pdf

Davis, D. F. (1989).Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.doi:https://doi.org/10.2307/249008

Davis, F. D., Bogozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models.*Management Science*,35,982-1003.doi:10.1287/mnsc.35.8.982.

Demirgüç-Kunt, A., Klapper, L., & Singer, D. (2017). *Financial inclusion and inclusive growth: A review of recent empirical evidence*. World Bank Group, Development Research Group, Finance and Private Sector Development.

Doris, F. A., & Caroline, T. (2017). Mobile money use in Ghana: An assessment of its relevance in the financial inclusion of rural communities. *Advances in Social Sciences Research Journal*, 4(7), 192–201.

Duncombe, R., & Boateng, R. (2009). Mobile phones and financial services in developing countries: A review of concepts, methods, issues, evidence, and future research directions. *Third World Quarterly*, 30(7), 1237–1258.

European Investment Bank. (2018). *Banking in Africa: Delivering on Financial Inclusion, Supporting Financial Stability*. Luxembourg: European Investment Bank https://www.eib.org/attachments/efs/economicreport_bankingafrica2018_en.pdf

Fraioli, K. L. (2012, April 27). *Financial Exclusion or Social Exclusion?* Centre for Financial Inclusion. https://www.centerforfinancialinclusion.org/financial-exclusion-or-social-exclusion

Gede, P., Sukaatmadja, P., Yasa, N., & Giantari, I. G. A. (2022). The role of trust in mediation: The effect of perception of ease of use and perception of usefulness on intention to re-use mobile banking service. *International Research Journal of Management, IT and Social Sciences*, 9(4), 482–493. doi: 10.21744/irjmis.v9n4.2102

GhanaWeb. (2019). *Daily Minimum Wage Increased to Gh¢1.82 Effective 2020*. GhanaWeb. https://www.ghanaweb.com/GhanaHomePage/business/Daily-minimum-wage-increased-to-GHC11-82-effective-2020-776706.

GhIPSS:GhIPSS (2019). *E-Zwich Transaction Increases by 102%*. GhIPSS. https://www.ghipss.net/products-services/gh-link/12-blog/investment/160-e-zwich-transaction-increases-by-102.

Ghana News Agency. (2015, May 27). *About 3,300 LEAP Beneficiaries Paid with E-Zwich*. Ghana Web: https://www.ghanaweb.com/GhanaHomePage/NewsArchive/About-3-300-LEAP-beneficiaries-paid-with-e-zwich-359798#

Graphic Online. (2018). *Bog Targets 75% Financial Inclusion by 2023*. Graphic Online: https://www.graphic.com.gh/business/business-news/bog-targets-75-financial-inclusion-by-2023.html

GSS. (2014). *2010 Population & Housing Census-National Analytical Report*. Accra:Ghana Statistical Service. http://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/2010 PHCNationalAnalytical_Report.pdf

Guzi, M., & de Pedraza García, P. (2015). A Web Survey Analysis of Subjective Well-Being. *International Journal of Manpower*, 36, 48-67. https://doi.org/10.1108/IJM-12-2014-0237

Hannig,A., & Jansen, S. (2010). *2010. Financial Inclusion and Financial Stability: Current Policy Issues*. Tokyo: Asian Development Bank Institute. http://www.adbi.org/workingpaper/2010/12/21/4272.financial.inclusion.stability.

Hart,C. (1989). *Doing a literature review: Releasing the Social Science Reseach Immagination*. California: SAGE Publications.

Jenkins, B.(2008). *Developing Mobile Money Ecosystems*. Washington DC: IFC and the Harvard Kennedy School. https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/programs/cri/files/report30mobilemoney.pdf

JoyBusiness. (2018, June 27). *Financial Inclusion in Ghana Improves by 58% - Report*. MyJoyOnline: https://www.myjoyonline.com/business/2018/June-27th/financial-inclusion-in-ghana-improves-by-58-report.php

JoyBusiness. (2018, June 8). *Mobile Money Merchants Still Operate Under Dangerous Conditions*. MyJoyOnline: https://www.myjoyonline.com/business/2018/June-8th/mobile-money-merchants-still-operate-under-dangerous-conditions.php

Khalifa, M., & Shen, K. N. (2008, February 15). Explaining the adoption of transactional B2C mobile commerce. *Journal of Enterprise Information Management*, 21(2), 110-124. https://www.emerald.com/insight/content/doi/10.1108/17410390810851372/full/html

Klapper, L. (2016, August 11). *Financial Inclusion Has a Big Role in Reaching the SDGs*. CGAP: https://www.cgap.org/blog/financial-inclusion-has- big-role-play-reaching-sdgs

Konutsey, S. (2016, April 13). *Economics of Mobile Money and Financial Inclusion: Bank of Ghana at the Forefront of Regulations*. http://citifmonline.com:http://citifmonline.com/2016/04/13/economics-mobile-money-financial-inclusion-bank-ghanaforefront-regulations/

Lambongang, J. M., Aborhey, P. A., & Benarkuu, G. G. (2023). *Investigating Challenges Of Mobile Money Usage In The Central Business District Of The Kumasi Metropolitan Assembly*, Adum-Ghana.

Ledgerwood, J., & Gibson, A. (2013). *The New Microfinance Handbook: A Financial Market System Perspective* (2nd Ed.). World Bank

Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, 12(50). doi:10.17705/1CAIS.01250

Leyshon, A., & Thrift, N. (1995). Geographies of financial exclusion: Financial abandonment in Britain and the United States. *Transactions of the Institute of British Geographers, New Series*, 20(3), 314-341.

Mader, P. (2016, February). *Questioning Three Fundamental Assumptions in Financial Inclusion*. Evidence Report, 176, 3.

Mas, I., & Morawczynski, O. (2009). *Designing Mobile Money Services: Lessons from M-PESA*. Innovations: Technology, Governance, Globalization, 4(2), 77–91.

Mbiti, I. M., & Weil, D. N. (2011). *Mobile banking: The impact of M-Pesa in Kenya* (Working Paper No. 17129). National Bureau of Economic Research.

Mbiti, I. M., & Weil, D. N. (2015). *Mobile banking: The impact of M-Pesa in Kenya*. In African Successes, Volume III: Modernization and Development (pp. 247-293). National Bureau of Economic Research

McCombes,   S.   (2019).   *Descriptive   Research.*   Scribbr.com:
        https://www.scribbr.com/methodology/descriptive-research/

McKourage. (2021). *NSS, NABCO, YEA, Trainees' Allowance To Be Paid Through
        Mobile   Money-E-Zwich*.
        https://ghanascholarship.net:https://ghanascholarship.net/nss-nabco-yea-trainees-
        allowance-to-be-paid-through-mobile-money/

MTN Ghana. (2018). *Initial Public Offering Prospectus*. Scancom PLC (MTN Ghana).

MTN   Ghana.   (2019).   *International   Remittance*.
        https://www.mtn.com.gh/personal/mobile-money/international-remittance

NCA.   (2019).*Telecom   Voice   Subscription*.   National   Communication   Authority:
        https://www.nca.org.gh/industry-data-2/market-share-statistics-2/voice-2/

NFIDS. (2019). *National Financial Inclusion Development Strategy (NFIDS) 2018-2023*.
        Accra: Ministry   of   Finance.
        https://mofep.gov.gh/sites/default/files/acts/NFIDsReport.pdf

Ozili, P. K. (2010). Social inclusion and financial inclusion: International evidence.
        International   Journal   of   Development   Issues,   9(2),   169-
        186.doi:https://doi.org/10.1108/IJDI-07-2019-0122

Polit,F.,&Beck,T.(2004).*Nursing Research. Principles and Methods*. Lippincott Williams
        and Wilkins.:Philadelphia,PA.

Porteous, D. (2006). *The Enabling Environment for Mobile Banking in Africa.*
        Department   for   International   Development   (DFID)   and   GSMA.
        http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/

Prina, S. (2013). *Banking the Poor Via Savings Accounts*: Evidence from a field
        experience.   Innovation   for   Poverty   Action.
        https://www.povertyaction.org/sites/default/files/publications/Banking%20the%2
        0Poor%20via%20Savings%20Accounts.pdf

PwC (2016). *2016 Ghana Banking Survey: How to Win in an Era of Mobile Money*. Price
        WaterHouseCoopers   (Ghana)   Limited.
        https://www.pwc.com/gh/en/assets/pdf/2016-banking-survey-report.pdf

Robson, C. (2002). *Real-World Research: A Resource for Social Scientists and
        Practitioner-Researchers* (2nd ed.). Blackwell Publishers

Sarma, M. (2008). Index of financial inclusion (Working Paper No. 215). *Indian Council
        for   Research   on   International   Economic   Relations   (ICRIER)*.
        https://www.econstor.eu/bitstream/10419/176233/1/icrier-wp-215.pdf

Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of International Development*, 23(1), 23-28.

Sharma, A., & Kukreja, S. (2013). An analytical study: Relevance of financial inclusion for developing nations. *International Journal of Engineering and Science*, 2(6), 15–20.

Shehu, Y. A. (2012, January 12). Promoting financial inclusion for effective anti-money laundering and counter financing of terrorism (AML/CFT). *Crime, Law and Social Change*, 57(3), 305–323. https://link.springer.com/article/10.1007/s10611-011-9351-0

Silver, H. (1995*). Re-Conceptualizing Social Disadvantage: Three Paradigms of Social Exclusion. In Social Exclusion: Rhetoric, Reality, Responses.* International Institute for Labour Studies.

Sinclair, S. P. (2001). *Financial Exclusion: An Introductory Survey*. Centre for Research in Socially Inclusive Services, Heriot-Watt University.

Sy, A. N., Maino, R., Massara, A., Perez-Saiz, H., & Sharma, P. (2019). *Fintech in Sub-Saharan African Countries: A Game Changer?* International Monetary Fund.

Thorat, S. U. (2006). *Financial Inclusion and Millennium Development Goals.* Rural Finance and Investment Learning Center: http://www.ruralfinanceandinvestment.org/sites/default/files/1138207377748 RBI speech_Jan06.pdf

Tobbin, P. (2010, Kampala, Uganda). *Modeling adoption of mobile money transfer: A consumer behaviour analysis.* Aalborg University. https://pdfs.semanticscholar.org/6275/663209ac0c3440d8eab9ecc858831c3eacd3.pdf?ga=2.248166599.1511331470.1564691703-43536075.1564691703

Tobin, P., & Kuwornu, J. K. (2011). Adoption of mobile money transfer technology: A structural equation modeling approach. 3(7), 1-11. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.736.3420&rep=rep1&type-pdf

Tsu-Wei, T., Marthandan, G., Chong, A. Y., Ooi, A. K., & Arumugam, S. (2009). What drives Malaysian m-commerce adoption? An empirical analysis. *Industrial Management & Data Systems,* 109(3), 370–388.

United Nations Capital Development Fund. (n.d.). *Our History on Financial Inclusion*. https://www.uncdf.org/50/history-on-financial-inclusion

United Nations. (2016). Digital financial inclusion. International Telecommunication Union (ITU). *Inter-Agency Task Force on Financing for Development (Issues Brief Series)* https://www.un.org/esa/ffd/wp-content/uploads/2016/01/Digital-Financial-InclusionITUIATF-Issue-Brief.pdf

Weber, R. H., & Darbellay, A. (2010). Legal issues in mobile banking. *Journal of Banking Regulation*, 11(2), 129–145.

Williams, H. T., Adegoke, A. J., & Dare, A. (2017, May). Role of financial inclusion in economic growth and poverty reduction in a developing economy. *International Journal of Research in Economic and Social Sciences (IJRESS),* 7(5), 265–271 https://www.researchgate.net/publication/321197681roleoffinancial_inclusion_in _economic_growth_and_poverty_reductioninadevelopingeconomy

World Bank. (2008). *Finance for All? Policies and Pitfalls in Expanding Access*. World Bank. https://siteresources.worldbank.org/intfinforall/Resources/4099583-1194373512632/FFAbook.pdf

World Bank. (2014). *Global Financial Development Report: Financial Inclusion*. World Bank. http://documentsl.worldbank.org/curated/en/225251468330270218/pdf/Global-financial-development-report-2014-financial-inclusion.pdf

World Bank. (2015). *Little Data Book on Financial Inclusion*. World Bank.

World Bank. (2018). *Financial Inclusion on the Rise, But Gaps Remain, Global Findex Database Shows*. https://www.worldbank.org/en/news/pressrelease/2018/04/19/financialinclusion-on-the-rise-but-gaps-remain-global-findex-database-shows

World Bank. (2018). *Gains in Financial Inclusion, Gains For A Sustainable World*. https://www.worldbank.org/en/news/immersive-story/2018/05/18/gains-in-financial-inclusion-gains-for-a-sustainable-world?cid=ECR_TT_worldbankENEXT

World Bank. (2018). *International Development Association Project Appraisal Document: Ghana Financial Sector Development Project (Report No. PAD1956)*. World Bank. http://documents.worldbank.org/curated/en/768071536096255699/pdf/Revised-PAD-P161787-002-08312018.pdf

World Bank. (2019). *Ghana Economic Update: Enhancing Financial Inclusion*. https://www.worldbank.org/en/country/ghana/publication/ghana-economic-update-enhancingfinancial-inclusion

APPENDICES

Appendix 'A'

Structured Questionnaire

University of Education, Winneba

School of Business

Dear Sir/ Madam,

The purpose of this questionnaire is to gather information for an academic research on the topic. "The effect of Mobile Money on Financial Inclusion among the inhabitants of Agona East District. The information obtained from you is solely for academic purposes and shall not be disclosed to any third parties. Kindly be objective as much as possible in your responses to enhance accuracy of the research results.

Part A– Demographic Information

1. Age: 15 – 24 [ ]   25 – 34 [ ]   35 – 44 [ ]   45 – 54[ ]   55 – 64 [ ] 65 and above [ ]

2. Sex: Male [ ]   Female [ ]

3. Employment: Public wage [   ]   Private wage [   ]   Self-employed [   ] Unemployed/Retired [   ]

4. Level of Education: None [   ]   Pre-tertiary [   ]   Tertiary [   ]

5. Do you own a phone?   Yes [ ]   No [ ]

6. Is the bank or financial institutes in the community? Yes [   ]   No. [   ]

7. Which of these bank accounts do you have (thick as many as it applies)?

Saving account [ ]   Current account [ ]   Fixed deposit account [ ]   Susu account [ ]   None [ ]

8. Have you accessed a loan from a bank or a formal financial institution before? Yes [ ] No [ ]

Part B – **Usage of Mobile Money Services**

9. Do you use mobile money?   Yes [ ]   No [ ]

10. If no, will you like to use mobile money service when given the opportunity? Yes [ ] No [ ] Maybe [ ]

11. Number of mobile money agents do you have in your community? …………………

12. During what time of the month do you usually use mobile money?

    Month start [ ]   Middle of Month [ ]   Month End [ ] Throughout Month [ ]

    Never [   ]

13. How do you perform your Momo transacts?   Alone on my phone [ ]

    With assistance from a friend or a relative [ ]   With assistance from an agent [ ]

    Not Applicable [ ]

14. Indicate the frequency with which you use the following Mobile Money Services.

Mobile money Service	Never	Occasionally	Often	Mostly	Always
Cash In (receiving or depositing)					
Cash Out (withdrawal)					
Balance Enquiry (checking balance)					
Funds transfer (Mobile money to Mobile money)					
Top up (Airtime & internet data)					
Personal savings (To Store Value)					
Accessing credit (loan)					
Funds Transfer from one mobile					

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money to another, E-Zwich, Bank Account (Interoperability)				
Bills payment (School Fees, Electricity, Water, DSTv, Go Tv, StarTimes)				
Receiving salaries through Momo				
Insurance (Registering and renewal of NHIS card)				
Loan repayment				
Payment of dues(clubs, associations, groups)				
Shopping online (buying or paying for goods and services online)				
Receiving money from abroad (e.g. RIA, Western Union, MoneyGram)				
Purchase of shares and/or other investment products.				

Part C – Challenges of Mobile Money Services

15. To what extent are the following factors a challenge or obstacle to your use of Momo transaction?

Reason	No	Minor	Moderate	Major	Severe
Fear of loss of funds through scam/fraud					
Network challenges					
High transaction cost					
Locked up funds/inability to access funds from Momo account					
Poor customer delivery by mobile money agents					
Unavailability of agent in my locality					
Cash shortage by agents					
Exceeded transaction limit					
No or unstable electricity to charge phones					
I do not own a phone					
Too many steps in using mobile money					
Other (specify)					

Any general comments on the challenges you face in using mobile money services.

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Thank you for your time and cooperation.

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