

**Exploring the potential of mobile money for financial inclusion for
socially deprived groups in northern region in Ghana**

A case of nomadic herdsmen in Savelugu District.

A Research Paper presented by:

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(Ghana)

in partial fulfilment of the requirements for obtaining the degree of
MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:
GOVERNANCE POLICY AND POLITICAL ECONOMY
(GPPE)
Specialization:
Local Development Strategies (LED)

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Disclaimer:

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

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Dedication

To my Son Jawula Naveed-Habib, Parents, Siblings, Husband and Mutiu

Acknowledgements

My thanks go to the Almighty Allah for his mercies and blessings.

To my supervisor, Professor Peter Knorringa words are not enough to express my appreciation for your support and guidance. To my second reader, Dr. Georgina Mercedes Gomez for her valuable critical contributions.

My heartfelt gratitude also goes to Dr. Kinsuk Mani Sinha for giving me immeasurable guidance, advice and attention.

My special thanks also go to my dearest friends Waiza, Ignitia, Dorothy, Laurie and Marina for their care and support.

To my friends Salima, Amod and Shikah for reading this paper and giving valuable suggestions.

To the ISS family: lecturers, conveners, course administrative support team, fellow participants and especially Jawula's many babysitters, for the immense support and inspiration during my pregnancy, and delivery. You all made it possible for me to have a baby and still pursue this program.

To the Netherlands Government for financing my studies at ISS.

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List of Acronyms

BoG	Bank of Ghana
CGAP	Consultative Group to Assist the Poor
ECG	Electricity Company of Ghana
FAO	Food and Agriculture Organization
FII	Financial Inclusion Index
GSMA	Groupe Speciale Mobile Association
ISS	Institute of Social Studies
KYC	Know your Customer
MMS	Mobile Money Services
MTN	Mobile Telecommunications Network
NCA	National Communication Authority
NGO	Non-Government Organizations
NHIS	National Health Insurance Scheme
PHC	Population and Housing Census
UNDP	United Nations Development Programme

Abstract

Ghana like most developing countries has witnessed an increased growth in the number of mobile phone users over the last few years. This has led to the increasing adoption and use of mobile money services (Aker and Mbiti 2010, Donovan 2012a). Mobile money is argued to have significantly increased access to basic financial services to the unbanked (*ibid*). This paper examines the accessibility and use of mobile financial services by nomadic *Fulani* herds-men in northern Ghana. Findings from this research indicate that mobile money financial services are facilitating a convenient means for the *Fulani* to make payments and transfer money. Evidence from this finding are also indicative that mobile money financial services to a certain degree if not wholly is supplementing in its provision of financial services to the socially deprived *Fulani*.

From in-depth face to face interviews and mobile money service providers at the community, this study presents an empirical data to their access and use of financial services provided by the new mobile money technologies. And discussed how they use this technology for their day to day management. It also highlights in what ways their social deprivation has restricted their full utilisation the services it offers.

Keywords

Financial inclusion, Basic financial services, Mobile money services, social excluded groups.

Chapter 1

INTRODUCTION

1.1 Background to study

Mobile money is a provision of financial services through a mobile device, it encompasses a range of services, it offers banking services, peer-to-peer (P2P) transfers, insurance products (Aker and Mbiti 2010, Jack and Suri 2011, Donovan 2012a). As such it can be used in “different ways which include sending text messages to transfer value or retrieving bank account details via the mobile phone are available that allow phones to transfer money to other contactless cash registers” (Donovan 2012a:61). That is, the provision of financial services without a physical presence of a financial institution but an enabled means of carrying out financial transaction business through mobile phones and other handheld mobile devices (Aker and Mbiti 2010).

Initially designed as a system of repayment of loans by a micro finance institution funded by the government of UK it was piloted in 2007 aimed at reducing risk in transacting business with cash and to also enable monitoring of customer finances (Rutten and Mwangi 2012). Customers found it useful in the transferring money from one person to another thus the service was transformed to useful services that met their banking needs (*ibid*). Driven by the current challenges of access to formal financial services such as that of required documentation, long queues, long distances to banks, and cost of transactions (Demirgürç-Kunt et al. 2015, Atkinson and Messy 2013). Mobile money is argued to be significantly reducing transaction cost, and making available banking services for populations who have been excluded from the formal financial system (Thorat 2006, Kikulwe et al. 2014).

Available literature suggest that mobile money systems have “effectively expanded the breadth and reach of money transfer systems for the rural and urban poor as well as provided a gateway to formal financial services” (Aker and Mbiti 2010:21). Consequently, mobile money is currently being associated to financial inclusion of society’s poorest, women, youth, the disabled, ethnic minorities and informal sector entrepreneurs. Providing these excluded groups

access to vital financial services such savings, insurance, risk management, payments and remittance facilities at low cost (Thorat 2006, Aker and Mbiti 2010, Dev 2006). Research also indicates mobile money is being recognised as an efficient means of providing financial services for the financially exclude populations generating worldwide enthusiasm by both service providers and customers. (Donovan 2012a).

Pessimist authors and critics of the new mobile money service argue that mobile money services do not yet provide a variety of services for it to be qualified as providing banking services (Aker and Mbiti 2010). Adding that its only enables the movement of cash, payments and a store of value of money and do not necessarily provide peoples access to credits as formal banks do (Aker and Mbiti 2010). In many developing countries, studies of the new innovation are showing that mobile money is providing mechanisms that is improving access to financial services which are universally demanded by the poor (Donovan 2012a).

Growing evidence further indicate that users are deriving benefits from type and quality of these services being offered from prevalent use and network effects (*ibid*). Through the “temporary conversion of cash into digital form, money can travel almost instantaneously within an extensive network of users, this further decreases many of the spatial and temporal constraints on money flows” (Morawczynski 2009:521). Furthermore, studies of Mpesa in Kenya showed that “rural farmers realized the benefits of the extended M-PESA (an example of a mobile money service in Kenya) network as they acquired small amounts of money from a larger base of contacts” (Morawczynski 2009:521).

Additionally, M-pesa has been found to be considerably easy means to cash in times of emergencies for poor households (Donovan 2012a). More so the low cost of mobile money services is argued to be its greatest strength in the financial inclusion debate, providing a considerably cheaper alternative to banks (Morawczynski 2009, Jack and Suri 2011). Mobile money was found to be “19 percent cheaper than alternatives, in Kenya M-PESA was routinely one-third to one-half as expensive” (Donovan 2012a:62). This reduced transaction cost is vital for the poors day to day survival and poverty reduction in the

broader context (Allen et al 2012, Demirgüç-Kunt and Klapper 2012b). Conversely there has been concerns that mobile money will only serve to benefit the already banked. As poor and marginalised groups, may be excluded from it due to remoteness and limited network coverage as well as inability to use the service resulting from illiteracy (Donovan 2012b). An estimated 2 billion of the world's population are unbanked especially in sub Saharan Africa where most of its population are rural. And do not have any form of access to formal financial services or are underserved by the formal financial institutions (Peša, 2015, World Bank 2016). Thus, mobile money is said to have the potential of banking the unbanked (Acker and Mbiti 2010, Donovan 2012a, world Bank 2016.) On the other hand, some are of the view that mobile money has not facilitated the financially excluded access to formal financial institutions but has only improved person to person transfers of cash (Morawczynski 2009).

Despite being linked to financial inclusion and consequently economic transformation by many Authors and the world bank. And its acclaimed 'transformational' possibilities (Jack and Suri 2011, Donovan 2012a, Rutten and Mwangi 2012). Some authors have argued that mobile money is used by people who already better off in the society (Aker and Mbiti 2010). Similarly, others have also claimed that "rather than enhancing access to finance and contributing to economic development, mobile money and its capitalist underpinnings will merely exacerbate global inequalities and the exploitation of the poor" (Peša, 2015:3)

Thus, the logic of it serving the very poorer, marginalized and excluded may not necessarily be the case. This therefore leaves a question of whether it can bring financial inclusion to the poorest and excluded. The proposition of Mobile money providing financial inclusion and subsequent impact is still being widely debated (Aker and Mbiti 2010). Against this background, this paper seeks to contribute to the broader debates on financial inclusion by empirically engaging with a case of the *Fulani* who are considered a socially excluded group in northern Ghana. It seeks to examine the extent to which mobile money services can promote financial inclusion for the *Fulani*. This study in its analysis will take into consideration how their social exclusion may affect the accessibility and use mobile money services.

1.2 Relevance and Justification

In most developing countries, “more than half of households lack an account with a financial institution, most of them allude to difficulty in accessing formal financial systems as a key constraint” (Donovan 2012 :62). The poor and excluded access to financial service can offer them means out of poverty by providing investment opportunities through increased savings, reduced financial vulnerability, access to credit and loans. Even though financial inclusion may not be a single bullet for poverty reduction it can serve as a catalyst for income generation and securing assets. Studies has linked mobile money to financial inclusion of the poor and excluded (Donovan 2012a).

According to Consultative Group to Assist the Poor (CGAP), 29% of adult Ghanaian population now have access to mobile money services which is almost equal to access to formal financial system in the country (Zetterli 2015). Mobile money has engineered access to informal banking with a 25% increase in Ghanaian users (ibid). “Currently well established in many emerging economies, mobile financial services are entering a new phase in their development. Mobile money, in particular, has become a core offering for many mobile network operators in developing countries, deepening investments in mobile infrastructure and further contributing to financial inclusion and economic development” (GSMA 2014:67).

The impact of mobile money services in Kenya has being researched extensively. In the case of Ghana, studies have only focused on the adoption of the service by consumers and a few on impact of mobile money services. There exist little or no research on its impact on the societies marginalized and excluded groups such as such as women, disabled, and ethnic minorities who have been the focus of most inclusive innovations (Heeks et al. 2014). As mobile money continues to evolve, there is the need to examine the extent to which mobile money is promoting financial inclusion for the poorest and excluded groups. This research will be contributing to existing literature and providing empirical data to the mobile money for financial inclusion debate by investigating the extent to which mobile money services can facilitate financial inclusion on socially excluded *Fulani* in northern Ghana.

1.3 Research questions and objectives

This study will examine financial inclusion for the *Fulani* in northern Ghana with a particular focus on the basic financial services provided by mobile money. The *Fulani* is identified as a socially excluded group in the region, thus this research seeks to explore the likelihood of their social exclusion as a barrier to their access of the service.

Overall the study will contribute to filling the literature gap on financial inclusion of socially excluded groups in Ghana and provide empirical data to the current debate on mobile money for financial inclusion.

Specifically, this paper seeks to,

1. Examine the accessibility and use of formal financial services by the *Fulani*
2. Examine mobile money as a mean for providing basic financial services to the *Fulani*
3. Explore the likelihood of the social deprivation of the *Fulani* as a barrier to accessing mobile money services their financial inclusion

Research question

The main research question is, to what extent are mobile money services providing basic financial services to socially excluded group of *Fulani* herdsmen in northern Ghana, and to explore whether their perceived social exclusion influences their access and use of the services.

Research sub-questions

1. How is access and use of basic financial services provided by banks for the *Fulani*?
2. What basic financial services of mobile money do the *Fulani* have access and use of?
3. How is the *Fulani* access and use of mobile money services affected by their social exclusion?

1.4 Background of study area

Savelugu district is the closest district to the regional capital, its geographical coordinates are $9^{\circ} 37' 0''$ N, $0^{\circ} 50' 0''$ W with a land area of about 2022.6 sq. km and an altitude of between 400 and 800 feet above sea level (PHC 2010). Bounded by Tamale to the south, north by West Mamprusi, east by Karaga and west by Kumbungu district (ibid). Below is the map of Savelugu district where the study was carried out.

Figure 1 Map of Savelugu District



Source: web images of Savelugu District, Ghana (2016) Assessed from <http://www.ijser.org/paper/Towards-Guinea-worm-Eradication-in-Savelugu-Nanton-District-Ghana-A-Spatio-Temporal-Approach.html> and PHC (2010)

The total population of the district as at 2010 was 139,283 with 48.5% males', 51.5 percent females, non-Ghanaian population in the district is 2.5 percent (ibid). The main economic activity of the districts is crop farming, livestock rearing, trade and fishery (ibid). The ethnic composition of the district is majorly Dagombas making up 88.4% of the total population the rest are Mam-

purusis, Ewes, Gonjas and Frafras. Being the administrative capital the District Assembly is the main political structure having the District Chief Executive as the head. (ibid). The district has four traditional area chiefs. Festival are an important part of the social life in the districts and people celebrate Bugum (fire) and Damba festivals to commemorate Lunar month of Bugum in Dagbani and Muharam in Arabic(ibid).

In this district resides the *Fulani* who are the focus of this study.

1.5 Nomadic herdsmen in Ghana

The *Fulani* are a group of nomadic herdsmen who are known to move from a travel with their cattle in search of pasture for the herds and in response to changing environmental conditions over different ecological zones (Tonah 2003). Besides the cattle herding they also engage in trade and business (Tonah 2002a, Phillips 2001, Tonah 2002b). They are referred to as Fulbe, they speak the language called fula, they are the most dispersed people in Africa (Tonah 2002a). Their populations are estimated to be about 20million, with most them in west African countries, the origin of the *Fulani* people has been an issue of controversy (Bukari and Schareika 2015). They are culturally distinct in their way of life, such as dressing, and no matter how long they stay at a place they continue to hold firmly to their way of life (ibid). They are predominantly nomadic with an estimated 13million of their population engaged nomadic pastoralism. (Bukari and Schareika 2015, Oppong 2002, Phillips 2001, Tonah 2002b, Tonah 2003).

The gradual migration of the *Fulani* into Ghana was first documented around the 20th century influenced by their quest for cattle trade, increasing desertification of the Sahel pushing them to search for lands for grazing their herds. In Ghana, they are known as *Fulani*, their population is not known but is estimate to be around 14,000 with majority of them in the northern part of Ghana (Barre 2012, Oppong 2002, Tonah 2003). The stay of the nomadic/ pastoralist in Ghana has been characterized by controversy and a few conflicts between the headers and the communities they move to, these conflicts is usually a result of the destruction of farms by their cattle (Bukari and Schareika 2015). The main reason for these conflicts is the accusations of theft, armed robbery, rap-

ing of women, of so called indigenous people, even though most of these accusations have not been substantiated with evidence (Tonah 2002a, Buhari and Schareika 2015). They have all resulted in the negative attitudes and prejudices leading to categorization and stereotyping of them (ibid). Some of these negative attitudes are also embedded in beliefs, for example, its believed marriage to a *Fulani* is forbidden and they are also perceived as illiterate, dirty, and considered strangers regardless of how long they stay in the community (Bukari and Schareika 2015, Tonah 2002a, Tonah 2002b, Tonah 2003).

The *Fulani* are excluded from social and political community and to some extent economic structure of the country (Tonah 2000). They do not take part in partisan politics, and neither are the second and third-generation *Fulani* pastoralist allowed to take part in electoral processes such as registration for a voter identification (Bukari and Schareika 2015). Nor are they allowed to vote except for exceptional instances where politician have tried to use them to gain political support and amass votes to win elections (ibid).

More so despite the long stay of some of them in the communities they are not recognized as citizens and few censuses have counted them as Ghanaians (ibid). For example, in a recent National Identification Exercise carried out by the Government of Ghana, officers of this exercise demanded money from *Fulani* in a few communities and for almost all communities they were the deliberately excluded from the exercise (ibid). This exercise was done to compute and produce an identity cards for both citizens and non-citizens to create a data base for all yet the *Fulani* was excluded from it. (Bukari and Schareika 2015, Tonah 2003)

This exclusion is further evident in their lack of integration into Ghanaian societies they live in, they do not participate community social life and events such as festivals, naming ceremonies, weddings and funerals (ibid). The *Fulani* do not participate in decision making at the community level or are involved in any social activities with the indigenes (Bukari and Schareika 2015). Irrespective of how long they stay in a community, *Fulani* huts are noticeably separated from the huts of the community members they reside at the outskirts of every community they settle (Tonah 2003, Bukari and Schareika 2015).

Economically one on hand they do not have access to resources in the communities or are charged excessively for economic resources with indigenes, they often have no specific claim to a piece of land, or grazing land for their herds (Tonah 2002a). In a few cases where land is offered to them it usually sold to them at exorbitant prices (Tonah 2002a, Barre 2012). Nonetheless they are professed extremely wealthy and acclaimed to be great cattle herders and are believed to expand and increase livestock, this makes indigenes entrust their cattle to them for rearing (Tonah 2003, Tonah 2002b). They either act as hired herds in the community or they settle in the community and take care of their herds it suits them economically (ibid). this mutually benefiting engagement is the c/economic relationship that exist between indigenes and the *Fulani* for the decades (Tonah 2003).

1.6 Over view of Mobile Money Services in Ghana

In Ghana, mobile money adoption rate took a tremendous turn, and over a short period has witnessed an overwhelming increase in users in 5 years after its launch by the Mobile Telecommunication Network (MTN) in 2009 (Zetterli 2015). Ghana like most developing countries has witnessed an increased growth in the number of mobile phone users over the last few years, currently mobile phone users are estimated to about 11 million (Aker and Wilson 2013). From just over 1% to 55% between 1999 to 2000. And this has significantly contributed to the increasing mobile money users in the country (ibid).

In Ghana, many households have often depended on informal methods of transferring money and remittances, such informal methods include bus courier services, person to person messaging (Davidson and McCarty 2011, Kikulwe et al. 2014). This forms of transfers have had several challenges which include the increase in the risk of carrying or transacting business in cash due to armed robbery, theft etc (Tobbin and Kuwornu 2011, Tobbin 2010, Donovan 2012b). Mobile money has therefore become an alternative as it is perceived to be safe, easy and dependable (Davidson and McCarty 2011, GSMA 2014).

In Ghana, mobile money started with a slow adoption rate and took a tremendous turn and in over a short period has witnessed an overwhelming increase in users in 5 year after its lunch in 2009 by MTN (Tobbin and Kuwornu 2011, Aker and Wilson 2013, Zetterli 2015). Currently 29% of adult Ghanaian pop-

ulation having access to mobile money services (Tobbin and Kuwornu 2011, Zetterli 2015).

Below is data on mobile Money in Ghana.

Table 1: Data on Mobile Money in Ghana

Indicators	2012	2013	2014	2015	Annual Growth 2015 (%)	Annual Growth 2014 (%)
Total number of mobile phone subscribers (Cumulative)	25,618,427	28,026,482	30,360,77	32,826,405	8.12	8.33
Registered mobile money customers (Cumulative)	3,778,374	4,393,721	7,167,542	13,120,367	83.05	63.13
Active mobile money customers ¹	345,434	991,780	2,526,588	4,868,569	92.69	154.75
Registered Agents (Cumulative)	8,660	17,492	26,889	79,747	196.58	53.72
Active Agents ²	5,900	10,404	20,722	56,270	171.55	99.17
Total volume of transactions	18,042,241	40,853,559	113,179,7	266,246,53	135.24	177.04
Balance on Float (GH¢ Million)	19.59	62.82	223.33	547.96		

¹ The number of customers who have used the service with in the 90 days prior to reporting (Bank of Ghana 2015).

² The number of agents who have in 30 days done transacted at least once (Bank of Ghana 2015).

					145.36	255.51
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Source: Bank of Ghana (2015)

Table 2: Actors and their roles in Mobile money service provision

Players	Roles in mobile money service provision
Mobile network operators	<ul style="list-style-type: none"> • Provides Mobile infrastructure • Extend agent and retail outlet • Building a strong brand • Establish consumer/ customer trust
Banks	<ul style="list-style-type: none"> • Facilitating foreign exchange and settlements • Retail outlet network • Generating e-cash • Ensure compliance with financial sector regulation • provide mobile money agents with a steady stream of cash
Agents ³	<ul style="list-style-type: none"> • Provide physical points of presence • Earn customer trust • the interface which customer's initiate transfers and payments • service as a liaison between customers and the telecommunication companies • does registration of mobile money for customers • perform cash in and cash out for customers • facilitate the service on behalf of telecommunication networks • create an enabling environment
Tellers ⁴	<ul style="list-style-type: none"> • Provide physical points of presence • Does registrations for mobile money • Provide cash-in and cash-out function • converts cash into digital money and back to cash

³ Are service providers of mobile money registered with the Telecommunication companies

⁴ Are usually people agents employ to directly carry out cash in and cash out service even though the agents themselves also carry out transactions

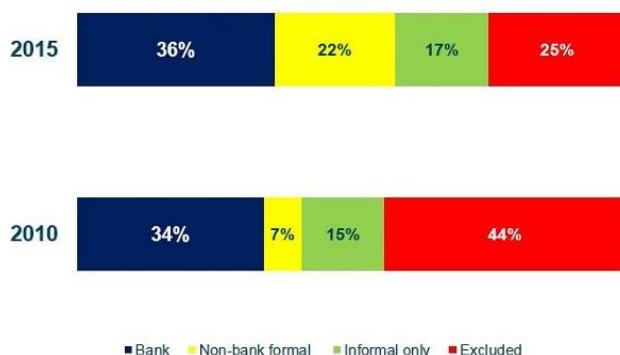
	<ul style="list-style-type: none"> • handle customer service
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Source: Jenkins (2008)

Services provided by mobile money services in Ghana

Mobile money services in Ghana provides a variety of services, it includes sending and receiving money, top-up airtime to from customer to customer, payment of bills (DStv, ECG Post-paid, air time), employee salaries, goods and services. It can also be linked to people's bank account from which they can check bank balances and make deposit from phone to bank account (MTN 2014, Tigo 2014 Vodafone 2014 Airtel 2015).

Figure 2: Financial Inclusion Index (FII) in Ghana of 2010 and 2015



Source: Zetterli (2015)

This figure shows the financial inclusion index for Ghana for 2010 and 2014, this indicates and is suggestive of an increase in access and use of financial services. It also highlights how access to non-bank formal and informal financial services of including mobile money is supporting reduce the number of financially excluded by half in the country.

1.7 Organisation of the research paper

This paper is comprised of five chapters. The rest of the paper is organised as follows:

In chapter 2 is a presentation of a theoretical and conceptual framework for this study, it provides a theoretical background for the study by examining and explaining financial inclusion and social exclusion.

Chapter 3 presents the research methodology and instruments used for data collection and analysis, it also highlights the limitations of this paper as well as challenges encountered during data collection.

Chapter 4 is a presentation of findings from fieldwork, of interviews of 20 nomadic *Fulani* herdsmen and mobile money agents and tellers. It present findings on their access to banks and use of mobile money financial services.

Chapter 5 is a discussion and conclusion of the study by presenting an analysis of main findings based on the literature and drawing a conclusion of the accessibility and use of mobile money financial services for the *Fulani*.

Chapter 2

THEORETICAL/CONCEPTUAL

FRAMEWORK

2.1 Introduction

This chapter seeks to establish a framework within which to study the financial lives of the *Fulani*, it will form a basis for analysing the findings from the interviews conducted. The first section of this chapter describes the idea of financial services, the accessibility and use of the mobile money technology by the *Fulani*. The second section explains social exclusion in theory and social exclusion in the context of the *Fulani*.

2.2 Conceptualising Financial Inclusion

Most definitions of financial inclusion explain it as a process by which financially excluded groups such as the poor, vulnerable groups, women, youth, the disabled, ethnic minorities and informal sector entrepreneurs have access to vital financial services. (Dev 2006, Sarma 2008, Demirguc-Kunt and Klapper 2012a). These definitions are appreciated in the context of understanding financial exclusion to mean a situation in which segments, individuals and groups are excluded from using the services of the formal financial system (Sarma and Pais 2011). This suggest that extending the scope of the financial sector by providing a suitable process that ensures excluded groups have access to banking services could lead to their participating in the financial system (Dev 2006). Thus, financial inclusion in this context is defined within the parameters of how groups of people are excluded from access and how they use of basic financial services provided by formal financial services.

The formal financial system is broad and has a myriad of services (Allen et al. 2016, Dev 2006). This paper focuses on financial inclusion as analogous to operating a deposit account which provides basic financial transactions services such as payments, transfers and savings. It is also postulated that poor and excluded peoples' vulnerability is reduced and their prospects at sustained livelihood, economic and social prosperity are enhanced if they have access to basic transactions services (World Bank 2013, World Bank 2016). Studies illustrates

that access to deposit accounts a potential of providing an enhanced mechanism for management of day to day financial transactions (Sarma 2008). In addition, research indicates that the poor and financially excluded need for a deposit accounts which enables them make payments as well as serve as a medium for savings maybe be greater than their demand for credits provide by banks. (Allen et al. 2012).

Access to basic financial services has been a challenge for millions of people across the globe, 2.5 billion people are said to be unbanked especially in developing countries (Demirguc-Kunt and Klapper 2012a). Studies of financial inclusion reveal that the financial sector still tends to exclude a lot of the world's population (Dev 2006). This continues to deny them the prospects of benefiting from services of the formal financial system despite its vast expansion. This exclusion does not essentially mean that the poor have non-existent financial lives (Dev 2006, Demirguc-Kunt and Klapper 2012a).

2.2 .1 Basic financial services

Access to basic financial services is expressed as the ability of households, firms and individuals to have banks deposits accounts which ensures easy payments and savings (Ardic et al. 2011). It is also understood as the provision of other financial services by non-banks such as insurance companies. In this regard access to basic financial services encompasses, electronic means which facilitates and enables people use deposit accounts for payments and savings etc (Aker and Mbiti 2010, Donovan 2012a, Sarma 2008). Likewise the availability of a range of financial products and services, which provide different types of services and products and has visible infrastructure such as offices, branches, outlets (Sarma 2008, Claessens 2005, Triki and Faye 2013). It is also increases people ability to make payments and savings, these financial institutions increase access by reducing time taken in doing transactions and long queues at access points (*ibid*). Sarma (2008) adds that physical presence of financial institution does not entirely increase accessibility if excluded groups do not use the services that it provides. Hence emphasizing that the use of financial services is very important in examining financial inclusion. An inclusive financial system will mean that services rendered are sufficiently used by customers beyond simple possessing a deposit account (Sarma 2008). Similarly, Beck et al. (2009)

adds that there is a difference between access to basic financial services and the use of these services. Peoples decision to own a bank account, make payments, save, make transfers and remit money through formal financial system or transacting business activities using existing or new means of financial systems is considered they using the financial services (Demirguc-Kunt and Klapper 2012b).

Extending this discussion to the challenges people face in access to financial services. There are numerous challenges and barriers to access and use of deposit accounts (Dev 2006). These barriers have generated a lot of increased discussions over the last three decades among policy makers especially as overcoming them is important to economic development (Honohan 2008). Demirguc-Kunt et al. (2015) notes that a lot of people are financially underserved due to strict documentation requirements by banks, long queue at access points, inappropriate marketing, and long distances to financial institution. Dymski (2005) adds that banks will increase their reach if products are designed at modest prices, targeted at the low-end customers and small scale businesses.

Sarma (2008) points out that major challenges and barriers people have with access and use to of deposit accounts include access, condition, marketing, price and self-exclusion. In this regard, exclusion happens because of remoteness, inappropriate products and services, potential customer targeting and “fear of refusal or due to psychological barriers” (Sarma 2008:3). Emphasizing that this exclusion is a “indicator of a much wider issue of social exclusion of certain societal groups such as the poor and the disadvantaged” (Sarma 2008:5).

According to Sarma and Pais (2011) exclusion of people from the owning and using deposit accounts can therefore be well understood when viewed with the lenses of why and how these groups are excluded. They added that financial exclusion is an outcome of the challenges associated with their access to services of the formal financial system (*ibid*). Cleassen (2006) notes that some groups of people exclude themselves from holding a bank account because they do not have the need for it or do not have enough money to operate a bank account. On the contrary Demirguc-Kunt and Klapper (2012a:3)

notes that “the financially excluded especially the poor whether they use the formal financial system or not employ different methods and systems to manage their finances”.

Secondly Demirgürç-Kunt et al. (2015) points out that data does not support the notion that people voluntarily exclude themselves based on not needing an account. For example, Demirgürç-Kunt and Klapper (2012a) reveal that studies have found that women do not have bank accounts not because they didn't need it but because they had indirect access.

Subsequently calls have been made for financial education, better legal framework, and promotion of new technologies that hold a potential for improving access and use of basic financial services (World Bank 2014). Over the years, efforts and strategies have been made by financial sector service providers and other stakeholders to offer new opportunities for the financial excluded (Aker and Mbiti 2010, World Bank 2016). These include banks, insurance companies, Non-Government and local community-based organizations, co-operatives postal offices and recently telecommunications companies and other businesses. (Aker and Mbiti 2010, East African Business Week 2013).

Demirgürç-Kunt and Klapper (2012a, 2012b) presents that the financial structure has been greatly transformed in developing markets by the new mobile money technology. In developing economies, informal financial systems have increasingly been significant as complementary services for formal financial services in reaching large segments of the population. Even though the emphasis has been developing the formal financial institutions (Ayyagari et al. 2010).

Notwithstanding this, Ayyagari et al. (2010) argue that “informal financial systems cannot substitute for formal financial systems, because their monitoring and enforcement mechanisms are ill equipped to scale up and meet the needs of the higher end of the market” (Ayyagari et al. 2010). Conversely, Schwittay (2011) point out that innovative technologies such as mobile money, instead contribute to complicate the excluded payment systems.

2.2.2 Mobile money technology and basic financial services

Recent studies show that technological and the widespread use of mobile phones has significantly transformed the financial structure in developing countries initiated by reduced cost of mobile phones and low cost of communication (Jack and Suri 2011, Kikulwe et al. 2014, Donovan 2012a). The mobile telecommunication devices have been transformed from a communication tool to an enabling device that support and allow its features to be used for financial services (Rutten and Mwangi 2012). This application enables users of mobile phones to transact and carry out financial transactions using the mobile phone (Donovan, 2012a). Widely known as mobile money, it offers financial services such as payments, transfers, insurance and banking services through a mobile device (Donovan 2012a). It is the provision of financial services without a physical presence of a financial institution but an enabled means of carrying out financial transaction business through mobile phones and other handheld mobile devices (Aker and Mbiti 2010).

It was initially designed as a system of repayment of loans by a micro finance institution funded by the government of UK. It was piloted in 2007 aimed at reducing risk in transacting business with cash and to also enable monitoring of customer finances (Rutten and Mwangi 2012). However, customers found it useful in the transferring money from one person to another. Thus, the service was transformed to useful services that met their banking needs (ibid). Hence Mobile money is acclaimed to be providing access to an electronic account. From which basic financial transactions such as payments, transfers, remittances and savings can be conducted at a low cost for the rural and urban poor (Aker and Mbiti 2010, Donovan 2010a). Aker and Mbiti (2010) add that it has the potential to pave way for their access to formal financial services.

Subsequently, mobile money is currently being associated to financial inclusion of societies financially excluded. It provides access to vital financial services such savings, insurance, risk management, payments, transfers and remittance facilities at low cost (Thorat 2006, Aker and Mbiti 2010, Dev 2006). Research also indicates “that the excitement around mobile money has arisen in part because it is widely seen as an effective way to provide access to finance to millions of people around the globe” (Donovan 2012a:62). More so the

banking sector is found to be struggling with expansion of infrastructure to meet the needs of the unbanked especially rural dwellers. Partly because it is expensive, and because they have not been able make products that are easy to use and at low cost (GSMA 2014).

Sarma (2008) adds that the formal financial service specifically services of banks have not also been able to do away with other barriers to access of its services such as fear of denial of services and other psychological barriers found to be associated with access of banks for some excluded groups. Jack and Suri (2011) found that M pesa enables easy, safe and convenient means of transfer of money among the unbanked, providing an electronic account that enable customers to make payments transfer money, and use it for savings. However, the benefits of mobile money for the unbanked will not be realized if it is made easily accessible to them.

Accessibility of mobile money services

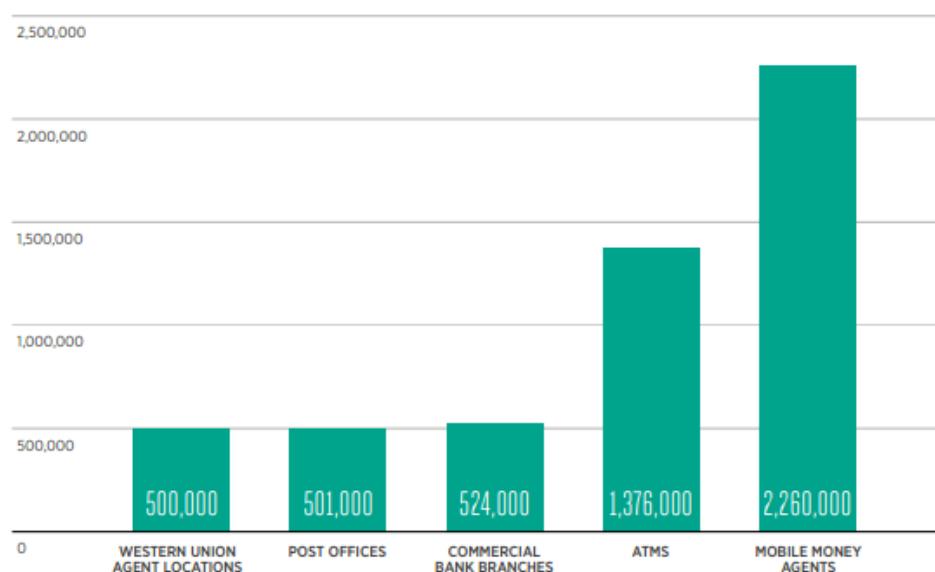
Accessibility is defined as the physical presence of mobile money access points such as tellers and agents, it is also the reduced distances from customers to agents contact point. It is also the convenience of location, lower transaction cost and flexibility of time, minimal documentation requirement for registration. (Donovan 2012a, Aker and Mbiti 2010, Demirguc-Kunt et al 2015, Demirguc-Kunt and Klapper 2012a, Demirguc-Kunt and Klapper, 2012b, GSMA 2014).

Donovan (2012a) and Demirguc-Kunt and Klapper (2012a) notes the ability of mobile money to provide financial services in far reach areas through its wireless phone service reduces distances between financial institutions and rural dwellers are in places where banks do not have branches. Likewise, the increasing number of agents in mobile money rural areas, though this is being influenced by profit motives by the providing telecommunication companies and some banks. It is still improving access to basic financial services (Aker and Mbiti 2010, Jack and Suri 2011). Aside the above mentioned, mobile money accessibility is greatly influenced by cost, “mobile money deployments especially in developing countries often target customers who may be poor, dispersed, and remote” (Donovan 2012a:65). Thus, at a reduced transaction cost mobile money can provide its services to these groups (Jack and Suri 2011).

Studies show that the low cost of transaction with mobile money is one of the key influences of the use of mobile money services in most developing countries (Jack and Suri 2011, Donovan 2012a, Aker and Mbiti 2010). Again, mobile money also offers the flexibility in terms of time in accessing the services such that customers can even contact agents at homes at almost time of the day to do transactions. It has also conveniently reduced waiting periods for transacting because of increasing number of agents in remote areas.

Additionally, registration and owning of a mobile money account requires limited identification (GSMA 2014). In a few places, “mobile money service providers have worked with regulators to adjust acceptable Know your Customer (KYC) documentation to meet market needs” (GSMA 2014:29). In addition, because of its affordability, there is an anticipation that mobile money is likely to close the gender gap in access to financial services (Demirgürç-Kunt et al. 2015). More so studies show that certain known excluded groups, such as women and rural residents are likely to use family members’ mobile money accounts for transactions (Demombynes and Thegeya 2012). Equally important to note is that “78 percent of women and 77 percent of rural residents and women and rural residents are more likely to use a phone owned by a family” (Demombynes and Thegeya 2012:3).

Figure 1: Number of financial access points across developing countries



Source: GSMA (2014:21)

The figure above shows the number of mobile money access points against the formal financial sector access points in numbers. It emphasizes the

Use of mobile Money services (Payments, transfers and savings)

Mobile money has been found to be used for a myriad of financial services (Aker and Mbiti 2010, Donovan 2012a), however this paper focuses on person to person transfer because studies have shown that vulnerable groups in society are using mobile money increasing for person to person transfers (Jack and Suri 2011). Kikulwe et al (2014) and Jack and Suri (2011) found that mobile money enables efficient system of transfer of money, remittances and payments mechanisms. For example, mobile money facilitates easy and convenient mechanisms for small holder rural farmers in Kenya to make payments for farm inputs (Kikulwe et al 2014).

More so businesses are increasingly using mobile money services as a means of payments for services and purchase of goods (Donovan 2012b). According to Mas and Mayer (2011) the success of M-pesa and specifically mobile money in general has put payments in the leading position in the financial inclusion realm. Mobile money is used in many developing countries for the payments for utility bills, school fees, tickets, etc (Donovan 2012b). For instance, in Sri Lanka, “where many households are connected to the electricity grid, dialog experienced significant uptake of its electricity bill payment product in rural areas. Using Dialog’s cash service to pay bills reduces both travel time and costs for rural customers, demonstrating another appealing value proposition that mobile money offers to remote users” (GSMA 2014:29).

Apart from payments one important basic financial services provided by mobile money is transfer of money from person to person, person to business, business to business, government to person (Donovan 2012a Aker and Mbiti 2010). Mobile money offers a convenient and safe alternative means of money transfers among the extremely vulnerable in the society (Aker and Wilson 2013). In a study in Ghana they reveal that rural populations in Ghana primarily use mobile money for receiving and sending money. Aker and Wilson (2013)

found that mobile money transfers services as a coping mechanism Ghana for poor people.

With regards to savings, mobile money is found to ensure safe storage of cash and provides a safe means for savings (Jack and Suri 2011). Likewise, Mas and Mayer (2011) and Morawczynski (2009) noted that mobile money is increasing being used as a savings product. A study of Aker and Wilson (2013) reveal that mobile money was initially used for remittances however it has evolved and shows a potential from being used for savings. Similarly, studies of Mpesa show that the use of it for savings has tremendously increased, considering this, Safaricom launched a savings product called M-KESHO (Demombynes and Thegeya 2012). More so Aker and Wilson (2013) study of within rural areas in Ghana suggest that the use of mobile money is facilitating savings. Revealing that 76% of the participants in the study used mobile money services for savings rural.

In terms of gender, studies of Mpesa found that the use of mobile money financial services for savings does not indicate a significant difference between men and women (Demombynes and Thegeya 2012). Secondly mobile money was found to be economically empowering for women, offering them economic freedom and a means to manage their funds. And a convenient and secured way for storing value of their cash (Demombynes and Thegeya 2012). More so mobile money can be used to create a sought of savings account which a subscriber can keep money aside for immediate use in times of emergencies (Mas and Mayer 2011). In this regard, mobile money is also considered as a means for improving access to basic financial services (Aker and Mbiti 2010, Donovan 2012a).

From this discussion, it is indicative that mobile money financial services maybe providing banking services for the financially excluded. It is also suggestive that to some extent it may have removed some of the barriers of access to basic financial services. By providing excluded people a means of payments for services, transfers of money from one person to another. And in some instances, might be facilitating a secured way of savings for otherwise excluded population.

However, people can be excluded from access to certain goods and services not only because they do not have the capability or means to purchase but certain distributive channels can serve to exclude them (Williams and Windebank 2002).

In line with this, challenges of access and use of basic financial services are significant enough to prevent accessibility and use for an average person in a rural area. This implies that they may even be more profound among groups of people who are already socially stigmatized. Since its access and use is heavily dependent on relationship and networks of people (Sibley 1990, Donovan 2012a, GSMA 2014). Which are made possible through interaction, interrelationships and sharing of information on what it is used for, and how is used (Sibley 1990, Donovan 2012a, GSMA 2014).

2.2.3 conclusion

This section presented an argument for mobile money for financial inclusion, it defined financial inclusion as established by the literature. It further explains what access to basic financial services means and present argument of how mobile money is promoting poor people's access to financial service. It also argues that excluded people have a need for an efficient means of managing day to day finances. In general, provided a frame work that will support answer the overall research question.

The next section discusses social exclusion by exploring the meaning of social exclusion in theory and what it means in the case of the *Fulani*. It further focuses on the how their perceived exclusion may be hindering their access and use of financial services provided by mobile money services.

2.3 Conceptualizing social exclusion

Social exclusion is defined as a “process by which individuals or groups are wholly or partially excluded from full participation in the society within which they live” (De Haan 2000:25). It is understood as “opposite of social integration, mirroring the perceived importance of being part of society, and of being included” (De Haan 2000:26). According to De Haan (2000) the usefulness of this concept stems from its multi-dimensional characteristics such that

people may be excluded from, or in economic, social and political sphere. The nexus of these spheres is captured by contextualizing people's needs, wants, livelihood strategies and benefits derived from a public resource (De Haan 2000). It should be noted that social exclusion is contextual concept and as indicated, it means different things to different people (De Haan 2000, Morgan et al. 2007, Jehoel-Gijsbers and Vrooman 2007).

The perspective of social exclusion is important to this study because the people under study here is perceived to be socially excluded. Thus, looking at financial inclusion as access to basic financial services for socially groups. As noted by existing literature, the effects of social exclusion in the lives of certain groups of people such as women, disabled, and especially minority groups people has an impact and affect the kind of services they can access (Sibley 1990, De Haan 2000, Sen 2000, Williams and Windebank 2002).

This paper looks at it as the interrelated process by which marginalization from mainstream social relationships can result to deprivation of certain social groups from access to or means of acquiring and use of certain goods and services (De Haan 2000, Kenyon et al. 2002, Sen 2000, Williams and Windebank 2002, Sarma 2008). Such that this derivation result because they do not have the social connections and social capital that makes these goods and services available and accessible to them (Sen 2000, Williams and Windebank 2002). Notably, marginalized groups in the society who are "defined by race and ethnicity" often find it more difficult to access of vital social services since some of these channels are dependent on complex social interrelationships', interaction and networks (Sibley 1990: 483, De Haan 2000, Sen 2000). It has also been established that the inability of people access to goods, opportunities and services to some extent are productions of social exclusion from relations due to denial or lack of social links (Sen 2000).

2.3.1 Contextualizing social exclusion context of the Fulani

To understand the setting within which to study the financial lives of excluded groups, this section draws on the processes that leads to their social exclusion. As indicated earlier this paper defines social exclusion as economic, social and political derivation of people (De Haan 2000, Sen 2000). Deprivation presents situation in which some groups of people are not allowed to ben-

efit from what is otherwise meant for everybody or entitled to (Townsend 1987, De Haan 2000, Labonte 2004).

Literature suggest that, this is a close description of the *Fulani* in Ghana where social situations and conditions (prejudices and stereotyping of the *Fulani*) has contributed to their political exclusion (exclusion from national and local community policies and discourses and exclusion from participating in national electoral processes) (Bukari and Schareika 2015). Limiting living opportunities such as deprivation from livelihoods, earnings, housing, and means of income generation (De Haan 2000). As asserted by Sen (2000:5) “being excluded from social relations in its self is not only a deprivation but often leads to other deprivations”. For example, in Ghana, a person is entitled to a citizenship through birth, marriage or through naturalization (Bukari and Schareika 2015). However due to local prejudices and believes that marriages between the *Fulani* and indigenes is forbidden, hence, this aids to their exclusion (ibid).

Even though citizenship does not entitle one to resources, it entitles one to enter the struggle for it thus this puts them in a disadvantage. Consequently, denying them the opportunity to access economic resources (land, water, farm lands, etc) to secure their livelihoods and income generating activities (ibid). Likewise, it is further exacerbated by ‘Indigenes’ ‘position’ as ‘natives’ and ‘Ghanaians,’ which gives them opportunity of “exercising ultimate control and decision making rights excluding the herders from the resource base” (Barre 2012:30).

As per Sen (2000) analysis political deprivations is denial of rights to a claim to citizenship implying that not being recognized as citizens means they are not able to assert their right to participate in any political activities. Such as electoral processes resulting in their voices not heard in national and local level policy making (Sen 2000). Political inclusion for the *Fulani* will therefore mean having the ability to attain citizenship rights which will not be an end in itself but will lessen the denial and enable their access to vital social services such as mobile money (Dryzek 1996). As argued by Dryzek (1996) “improving the excluded group ability to partake in decision making allows them negotiate a pro-

gressive recognition” (ibid :486) and support them deal with the other social deprivations.

Social deprivation is the inability to take part in social activities in the society and to relate to the community in which one lives in (Sen 2000). Hence the *Fulani* are socially deprived as they do not participate in decision making at the community level neither are they not perceived to be part of the community and are always regarded as ‘strangers’(Tonah 2000, Bukari and Schareika 2015). Nor are there marital relationships between them and ‘indigenes’ (ibid). In this context deprivation takes the form of cultural norms and prohibitions of using social spaces, which decreases opportunities for economic growth accrued from social contact (Sen 2000).

Drawing on the multi dimensionality of the concept of social exclusion mentioned earlier, apart from being politically, socially deprived, the *Fulani* are also deprived economically. Economic deprivation is the denial of people in a society access to vital economic resources such as land and water (Dreze and Sen 1999, Sen 2000). In this setting it is born out of being social and political deprived where deprivation from one form translates into other forms of deprivation (Sen 2000, De Haan 2000, Townsend 1987). For example, the *Fulani* are often denied access to farming lands or land for grazing their animals, and or pay for certain goods and services that are free for indigenes. This a result of the social construction of being a *Fulani* or strangers in the community (Bukari and Schareika 2015).

Also, trading or any form of economic activities between the ‘indigenes’ and the *Fulani* is subject to the extent indigenes want to engage for instance the ‘indigenes’ sometimes entrust their cattle to them because they are believed to be excellent herders (Tonah 2000, Bukari and Schareika 2015). in this circumstance, they may be offered grazing land in exchange for their services but this is dependent on what the benefits are for the ‘indigenes’ (Barre 2012, Labonte 2004). This illustrates the relational features of social exclusion Sen (2000) argued suggesting that social relation processes can be conditional on the nature of the process that leads to deprivation (Sen 2000).

Social exclusion problem of the *Fulani* is huge, complex, multidimensional, and related to so many factors, however this paper uses this concept in the

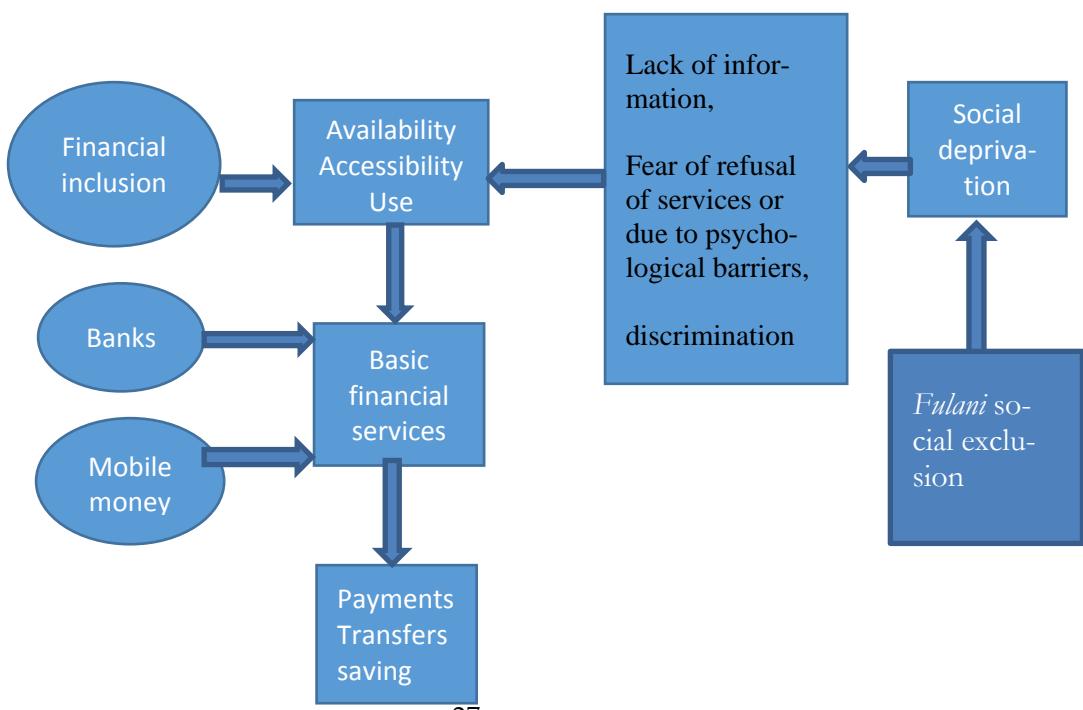
context of their social deprivation. Against this background the social deprivation they face will sheds light on the accessibility and use of mobile money services. This concept helps to understand and describes the context of financial inclusion for socially deprived groups in Ghana.

2.3.2 Conclusion

This section presented social exclusion in theory, it defined and outlined some dimensions of social exclusion, how it happens. It further explains the interrelated and interconnected nature of social exclusion. And discussed the various relational processes through which social exclusion occurs. It further demonstrates situations in which people are likely to be excluded from access to certain goods and services.

Secondly it attempts at contextualising what social exclusion is for the study the *Fulani* and what it means to be socially excluded in the area of study. It presents examples of how various dimensions of deprivations leads to their social exclusion. And finally shows the dimension of deprivation this paper will use in its analysis.

Figure 2: Analytical framework



Source: Own elaboration based Sarma (2008), De Haan (2000) and Sen (2000) definitions of financial inclusion and Social Exclusion

2.4 Conclusion

This discussion has theorised that it is indicative that mobile money financial services providing banking services for the large numbers of the financially excluded. As a focus of this chapter it has also argued that mobile money has removed some of the barriers of access to basic financial services, by providing excluded people a means of payments for services, transfers of money from one person to another. And savings for otherwise excluded populations.

However, people can be excluded from access to certain goods and services not only because they do not have the capability or means to purchase but certain distributive channels can serve to exclude them (Williams and Windebank 2002). In line with this, challenges of access and use of basic financial services are significant enough to prevent accessibility and use for an average person in a rural area.

This implies that they may even be more profound among groups of people who are already socially stigmatized, since its access and use is heavily dependent on relationship and networks of people (Sibley 1990, Donovan 2012a, GSMA 2014). Which are made possible through interaction, interrelationships and sharing of information on what it is used for, and how is used (Sibley 1990, Donovan 2012a, GSMA 2014).

This research utilizes these concepts in the analysis of how mobile financial service provides access to basic financial services for socially deprived herdsmen and will support answer the main research question in the final chapter of this paper.

Chapter 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents how the data was gathered and analysed for this study. Its focus is on processes that were utilized, it provides information on research communities, participants sampling procedure, data collection methods and analysis. It also presents data collection challenges and research limitations.

3.2 Research Methods

To achieve the objective of the study, this research reviewed existing literature from journal articles, books, newspaper reports, related research to build a theoretical framework. Secondary data from both electronic and print has been used in this paper; data from The Bank of Ghana (BOG), Ghana National Communication Authority (NPA), District Assembly census reports provided relevant data for this paper.

In addition, records and reports from the four mobile telecommunication networks operating in mobile money service in Ghana provided data on the available mobile money services. Also, reports from international institutions such as the World Bank and GCAP provided relevant and up-to-date information on financial inclusion.

To be able to determine the financial inclusiveness of mobile money services for excluded groups and whether access challenges and barriers are related to social exclusion, primary data was collected from the northern part of Ghana where majority of the *Fulani* reside.

Two communities, namely Gushie and Pong Tamale communities in the Savelugu district of the northern Ghana were selected for this study. This region was selected in Ghana because it is one of the poorest regions in the country and has few formal financial institutions especially in the rural areas. However, upon arrival to the field I had to change Nying to Pong Tamale.

Contrary to my prior research before the field work, Pong Tamale had many *Fulani*.

Additionally, this district and communities have *Fulani* who have stayed in the in the communities for a long time and have very good relationship with the communities. Furthermore, this area is predominantly a farming area which is notable for its crop and animal farming which the *Fulani* are engaged in. More so it was also influenced by my existing knowledge of the area due to prior engagement with the communities on development programmes. This knowledge came in handy when I was doing the mobilization for the interviews.

3.2.1 Data collection

The methodology approach used for data collection was qualitative approach. Issues of social exclusion are sensitive, therefore, there was a need for an approach that supported a deeper discussion. As stated by (O'leary 2004) “interview or ‘conversation’ draws out rich descriptions of lived experience” (O'Leary 2004:124). Hence the choice of interviews as a means for data collection. It allowed a discussion that explored the possibility of how their social exclusion is or may be posing as a barrier to availability, access and use of mobile money services.

Primary data was collected from conducting an in-depth semi structured face to face interviews in Dagbani the local language using an interview guide. Both *Fulani* herdsmen in the two communities and the mobile money service providers in the district capital were interviewed. The interviews lasted on average between 1hr to an hour and 30 minutes for the respondents.

To gain insight into the issues of social exclusion and to validate the findings from my desk research about social exclusion of the *Fulani* in Ghana, the interview checklists were pre-tested by interviewing 3 *Fulani* herdsmen, 3 community members and 2 mobile money service providers. Based on the findings from these interviews, changes were made to the interview guide check list which included adding more suggestive questions, rephrasing questions I was not comfortable asking and overall made appropriate changes where it was necessary. The interview guide helped limit the time spent as gave the interview a focus. The interviews were conducted between in August 2016.

In order to identify access challenges, especially with regards to the access to the services by the *Fulani*, it became necessary to interview both the *Fulani* and the service providers. Therefore 4 service providers in the district capital (Savelugu) were randomly selected based on the location of their business. Out of this 4, 2 were mobile money service tellers and 2 were agents, the 2 agents were located in the Central Business District (market) where communities in the district travel to transact their businesses which include transfer of money through mobile money. The tellers were located outskirts of the district capital, one in the north and the other to the south.

3.2.2 Sampling Technique

Snow ball non-random sampling technique used to identify research participants, because the *Fulani* are cattle herders and due to their herding. It was difficult to schedule time for the interviews and to identify respondents for the interviews. Therefore, snowball sampling techniques allowed for flexibility of reaching out to the respondent.

A total of 20 *Fulani* herdsmen were interviewed, initial design set out purposefully to interview 10 users of mobile money and 10 non-users of mobile money. However, after deciding to use snowball sampling 3 interviewed were subscribers and 17 of the *Fulani* were non- subscribers of mobile money services. A sample size of 4 mobile money service providers was interviewed to enable the identification of the barriers and challenges that are likely to hinder their access and use of the service by the *Fulani* from the service provider point. The 4 mobile money agents and tellers were interviewed in Savelugu the district capital since most *Fulani* go to do transactions. Based on the pretested interview guide it was found that most of the *Fulani* go to the Savelugu market to do their transactions. They were selected based on their location.

3.2.4 Data analysis

The information collected from the field was recorded using my mobile device, they were then transcribed manually and was analysed with the use of content analysis. And categorized into themes and sub-themes based on the research questions and objectives. Content analysis is explained as a research method for that allows the researcher to systematically identify and code

emerging themes from data collected (Hsieh and Shannon 2005). Significant messages and comments by respondents are also reported with precision where appropriate.

3.2 Research limitations and ethical Challenges

The desired objective of research is to produce knowledge that is objective, this means that the researcher has to be able to reduce biases (O'leary 2004). Guided by this, ethical considerations were compiled with during the research process. Respondents consent was sought, the purpose for the interview was explained and they were assured that no harm would come to them.

This research further acknowledges the fact that the sample size of 20 respondent's interviews may not be a comprehensive representative of the whole group of *Fulani*. But qualitative method of research seeks "to understand populations and is not looking for representativeness. The goal is to generate a rich understanding that may come from the few, rather than the many" (O'leary 2004:104).

One key limitation of this paper is that the social exclusion of the *Fulani*, is huge, interrelated, complex and multi-dimensional, as such several dimensions of their social exclusion was not explored. This paper only made use of their social deprivations and how that can possibly prevent the *Fulani* from access and use of mobile money services.

Secondly this paper left out the voices of the *Fulani* women, this was because the study targeted the herdsmen who trek to find grazing lands. Furthermore pre-testing of the interview guide showed that mostly it's the *Fulani* men who travel and herd the animals, this is not to say that the *Fulani* women do not use the services of mobile money.

Another limitation was time and difficulty in getting the herdsmen to participate in the study, firstly they are a nomadic and herders meaning that they travel with their herds. They were not readily available for the interviews; thus, interviews schedules were done numerous times but was unsuccessful hence it called for a change in sampling technique to snow balling which proved convenient for the circumstance.

Secondly getting secondary data on their population in the communities to enable a fairly representative sample size was unavailable. Possibly because of their transitory nature thus the study had to rely on the number that could be reached at the time. Which did not permit coverage of a large sample size in number and geographical dispersion.

Aside from the above challenges and limitations, the mobile money service agents were not forthcoming with information, and were a bit subtle with their responses. Most of them refused to be recorded on tape and were not convinced I was not from the mobile networks even after I showed them my student Identification. Secondly because of the issue of possible discrimination against the *Fulani* in services rendered their responses were not direct and took a lot of time to get responses on it.

More so interviewing the agents was time consuming because of frequency of transactions they were doing.

3.4 Conclusion

This chapter presented details on the research methods used to collect and analyse data gathered. it shows source of information and data used for the discussion and analysis. Also, it presents information on research participants and choice of participants. It Justifies choice of research methods and data collection techniques and finally presents research challenges and limitations and how these were dealt with to achieve the objective of this paper and provides useful information for future research.

Chapter 4

FINDINGS

4.1 Introduction

This chapter attempts to provide empirical results for the study, which seeks to find out the extent to which mobile money is providing access and use to basic financial services for the *Fulani* and subsequently financial inclusion. It will focus on their accessibility and use of mobile money. The conceptual framework of this paper, establishes that mobile money is providing access to basic financial services for excluded groups. Based on this this hypothesis, this findings support answer the main research question.

The first part of the findings discusses the financial lives of the *Fulani* with regards to how they make payments, transfer of money from one person to another and how they save. The second part focus on accessibility and use of mobile money financial services by the *Fulani*. The last part identifies the challenges of their accessibility and use of mobile money services considering some of the derivations established in the literature.

4. 2 Basic financial service for all?

This section seeks to answer the first research sub question on the *Fulani* access and use of banks. It also elicits responses to identify their barriers to owning and operating a savings account with formal financial institutions.

The theoretical foundation of this paper is seeing financial exclusion as a manifestation of social deprivation. Therefore, the assumption here was that being excluded from social relationships and interaction. The access and use of basic financial services provided by banks and mobile financial services can be a challenge. It is also hypothesized that being a socially excluded group, they are likely to have an additional challenge in terms of accessibility and use of financial services. However, in order to look at this there was a need to identify if the *Fulani* have a need to be financially included. Furthermore, a clear understanding of the challenges the *Fulani* have with the current banking services

will present a basis for examining how mobile money is able to provide basic financial services for the *Fulani* which is the focus of this paper.

The importance of access to basic financial services has been acknowledged by the world bank, policy makers and governments. The large numbers of people who are financially excluded demonstrate the barriers in the financial system (World Bank 2014). That is not to say that everybody has a need for the financial system (*ibid*). Thus “Financial inclusion does not mean finance for all at all costs. Some individuals and firms have no material demand or business need for financial services” (World Bank 2014:3). Based on this premise the research sought to assess the *Fulani* access to the formal financial system through banks.

FINDINGS

The findings are suggestive that *Fulani* despite being a nomadic, like any other group of people in the country have financial needs. Out of the 20 herdsmen interviewed 2 of them had bank account with the Savelugu rural bank.. One of them said:

“I know the benefits of having a bank account, I personally have a bank account because saving or keeping money in the room is not a safe practice, once your money is in the bank then you know that it is safe and anytime you need it you can walk into the bank and withdraw it knowing that it will be there waiting for you”

Some of them reported that they do have challenges with keeping money and often resort to hiding it in their rooms or keeping it with them on their long treks. They added that because they do not have a safe and secured place to keep money. They try not to keep as much cash on them as possible. Three of them mentioned that their money had been destroyed by insects before, they said they keep their money in the room. One of the three said he hide and forgot where it was and one day he was searching for something and found that it was completely destroyed by insects.

They convert cash into cattle, goat or sheep and back to cash to address immediate needs in order to avoid the challenge of handling a lot of cash. According to a 50-year-old *Fulani* who has stayed in the community for 6 years said:

“I don’t have a bank account, I have make sure I don’t always have a lot of money on me, anytime I need to buy something or need cash for anything then I sell a goat or cow depending on what I am going to use it for or I go to a brother or friend to take that amount and later pay back”.

From the responses, most of them indicated that they do their savings by converting it into assets mainly animals to keep it safe which they say comes with a lot of challenges. They also sometimes use animals as payments for some services. According to them when they are hard press for money and they take an animal to the market to sell. They do not get a good price for it and also because the sale is to meet an immediate need they often offer it at a lower price so that they can sell it faster. Asked why they do not keep cash on them the response was that, they travel distance with their cattle and carrying loads of cash is not a good idea, because it can get lost, one of them said:

“I lost some money in the bush, it was a lot of money, I sold a cow at the Diare market and intended to use it to but a calf, but on the way, home I lost the money”.

By these responses it cannot be concluded that the *Fulani* have needs of the services of banks but it points to the fact that like most financially excluded people in the world. The *Fulani* rely on their own mechanisms to save, borrow, make payments, and manage risk which is not just risky but equally expensive (Demirguc-Kunt and Klapper 2012a) thus could imply that they will be or are interested and if services are appropriate for them.

The Fulani and Basic financial service provided by Banks

The findings show that the *Fulani* do not patronize the services of the banks, despite being aware of the existence of banks, three of them have a bank account with a bank. When asked why they do not use it often, one of them said he receives money from his son. The other is a petty trader and a herdsman said he makes payments for goods from his retailers. One of the challenges almost all the 20 respondents mentioned was they being strangers a challenge to operating a bank account. To understand what they meant by being strangers they explained that the first reason is because they are ‘strangers’ not citizens they do not think they can put their money in the bank.

The second reason they mentioned by those who didn't have account or had never used the bank for any transaction is that they are illiterate and uneducated so they do not think that they can operate an account. According to one of them,

“how can a dirty looking person like me enter this nice place, it's for people who have gone to school, it's not for people like me, I can't read nor can I write if I go in there what will I say?”

They believe the bank is only for people who have had a formal education and can read and write and “*for them who leave among the bush and animals, the bank is too neat for us*”. When informed that the banks have people who can help them with filling out forms, their response was that they were not aware of that kind of support offered. Another challenge they stated was that they do not know the process to follow to have a bank account, deposit money or save money.

Another mentioned,

“the banks do not open on weekends, but a *Fulani* man does not have a weekend”

The above expressions about their access to formal banking service reveals that the *Fulani* are aware of the formal banking system but are not adequately informed of the services provided. According to some of them, they knew it was a place they could keep their money for safe keeping but aside from that they did not know about other services offered by the bank. One of them mentioned that he was aware he could send money to a relative in Burkina Faso through the bank but he had never used that medium, but sends money to his family in Burkina Faso through other relatives.

All the 20 interviewed mentioned that they heard that keeping money in the bank was beneficial since it provided a safe place to keep money the two who had bank account mentioned that it was helpful and they could go for it anytime they wanted. According to one of them.

“it is better to keep the money in the bank than keeping it in the room”.

These responses are an illustration of the condition and marketing exclusion as identified in the literature (Sarma 2008). In addition, it also points to self-exclusion, “when certain groups of people exclude themselves from the formal financial system owing to fear of refusal or due to psychological barriers” (Sarma 2008:3). More so the responses are indicative of the challenges such as distances, as they are far removed from the services offered by banks because of the herding of their animals. Equally, the convenience of time and flexibility of transactions tends to be a barrier to their access and use of the services.

In addition, a major challenge to their access and use of the banks might be the product of the interrelated and interconnected forms of deprivation they face. They are also demonstrative of these psychological barriers that contribute to the conditioning of themselves to being unworthy of using the services of banks. Hence in answering the question of how their access and use of banks is? the findings are indicative that being a socially excluded group with multiple deprivations is posing as a barrier to their access and use of banks through self-exclusion.

This section provided responses to answer the first research question, which was aimed at examining the *Fulani* access and use of banks. The evidence presented from this finding is suggestive that the *Fulani* do not operate deposit account. The barriers to their access is indicative of self-exclusion owing to fear and feeling of not worthy of services from the banks. It also shows that they are not adequately informed of services offered by banks.

4.3 *Fulani* herdsmen and mobile money services

This section provides empirical evidence to answer research sub question two. Which sought to find out what basic financial services of mobile money do the *Fulani* have access and use of? It focuses on the accessibility of the service to the *Fulani*. And their use of the services as well as the challenges they face in access and use of it.

Availability and accessibility of mobile money services to the Fulani

The main objective of this paper is to examine mobile money as a means of access to basic financial services to the *Fulani* who are a socially excluded group thus the questions were asked on their accessibility and use of the service. According to the Bank of Ghana (BoG) the number of registered mobile money agents are 79,747 (Bank of Ghana 2015). With regards accessibility, mobile money outlets were visible in the district capital Savelugu. In Gushie there is a mobile money agent who offer services of cash in and cash out, even in some communities there are registered mobile money agents.

In the district capital, in particular I counted more than 7 tellers and agents in the market and was informed there are many more within the community. These tellers make available the services to both subscribers and non-subscribers; they also provide mobile money token which enable non-subscribers to use the service. The mobile money token is a transaction where money is sent by generating a token and a transaction pin sent to the receiver who uses it to Withdraw at any mobile money cash outlet. This token they explained works like the western union money transfer system. However, this attract additional charges.

These tellers and agents have flexible hours and are open for transactions all the seven days in a week from sun rise to sun set, according to one of the agents,

“am always here doing transactions from morning to 22:00hrs and even sometime later than that, the *Fulani* come to me all the time to do transactions, am a business man, it’s the number of transactions that my commission is based on so the more customers I get the better, me I don’t discriminate, I operate at all times of the day even on weekends”

A *Fulani* man mentioned

There are a lot of mobile money agents who one can go to and send or receive money, because they are in the Savelugu market, and the maker is not far from us, so if there need arises I just go to the market to either send or receive money it is fast and convenient if the network is very good, it is far better than trying to send money through people”

The interviews with both the *Fulani* and the mobile money agents reveal that the basic financial services offered by mobile money services provides a convenient means for remitting, saving, payments and person to person trans-

fers even for non-subscribers. In addition, the physical presence of the tellers and their operational hours has reduced some of the challenges the *Fulani* mentioned with regards to the banks. This also implies that mobile financial services in terms of accessibility and availability the *Fulani* do not face any form of exclusion

Fulani use of mobile money services

The interviews of the MMS providers, indicates that mobile money is beneficial, based on the number of transactions they do for the *Fulani* and how frequently they do it,

“The *Fulani* herdsmen use the MMS a lot, it seems very beneficial for them, in a day I have more than 10 *Fulani* men coming to send or receive money but on market days they can exceed 20 people because they travel to the district capital on market days to buy the things they need”.

Another teller added

“The *Fulani* patronize the services of mobile money, they use it for transfer of cash from person to person, in a day I receive more than 3 *Fulani* men who come to use the service to transact business, they do cash out (withdrawal) and cash out (deposit)

They use it to transfer money to their relatives living elsewhere.

These narrations were confirmed by the interview of the *Fulani* who said that they find the MMSs beneficial, it easy to access because there are a lot of tellers in the district capital as well as in almost every community in Ghana. They are able to send and receive money to and from relatives, these transfer are either remittances to parents or it is for payment for services such as payment for fertilizer, seeds, medications for cattle, repayment of money borrowed from relatives or friends etc.

“ I think mobile money is really helping we those in the bush, I am able to send money to my father in Tumahi without any stress, as long as the network is good, immediately I send it he calls to tell me he has received it, so it is a very good service, sending money has become easier, also I have some cows with my brother in a different community, he sold one of them and sent

the money to me through mobile money, he didn't have to travel to bring it to me”.

Another added;

“these days anytime I need to send money to somebody I do it through mobile money, I don't have to go to the bus station to find a brother going to that place, I just communicate with the person via phone and transfer it to the person”

All the herdsmen report using mobile money for person to person transfer, pay for goods and services even though most of them are not registered, they expressed interest in continuing to use the service. With regards to the use of the service for savings, none of them said they use it for saving their money, even though they acknowledged that it can be a way of keeping money safe, but they do not use it for savings and if they have a lot of cash they use it to buy a calf to increase their herds. One of them mentioned that he sends money to his child in school in Tamale so that the child doesn't have to come home every weekend for money for their up keep in school. They use of MMS saves them transportation cost and the inconvenience associated with using other people as courier service. The interview of the *Fulani* and mobile money vendors revealed that the *Fulani* are facing a challenge in registering for the service using their sim cards which they use for making voice calls. One of the vendors said

“They are only able to use the transaction by coming with one of them who is registered and let the sender send it to that person or they let the sender send it to my merchant account and I withdraw it for them”

The *Fulani* are able to use the services of mobile money like everybody else, it also reveals that most of them are not registered to hold a mobile money E- account. Which has led to they not being able to use it for savings. They use it for transfers, payments and remittances but are unable to use it for savings. Their inability to use it for savings is one of the challenges they face in their use of MMS.

This section provided answers to the second research question, which objective was to examine mobile money as a means of providing basic financial

services *Fulani*. The responses reveal that the mobile money offers them person to person money transfer system, it also enables them make payments and provides a safe and convenient access to cash in times of emergencies.

Mobile money Challenges services and the social deprivation of the Fulani

This section it provides responses that will support in answering the research sub question three. It examines the challenges the *Fulani* are experiencing in terms of access and use of mobile money services. It solicits responses aimed at examining the challenges taking cognisance of the possible connections these barriers and challenges has to their social deprivation.

Results of this study provided insights into social exclusion of the *Fulani* in Ghana, the responses on their social deprivation confirmed some of what is already known from existing studies. Mobile money requires a form of identification for its registration, it also requires the subscriber to have a sim card registered to their name which makes the account the create personalized. In other to register a sim card one needs a valid identification as indicated earlier. All telecommunication networks which provides MMS will only register a subscriber if they have either a National voters photo identification card (ID card), NHIS card, driver's license, or any valid photo id card. MTN however has the largest share of subscriber and requires only the national voter card for registration of the MMS (Bank of Ghana 2015).

Most of the *Fulani* interviewed were not subscribers of MMSs though they use mobile money for cash transfers, the interview of the tellers and the *Fulani* revealed that most *Fulani* are unable to register for MMS, according to them they have sim cards not registered in their names, one of the tellers interviewed said

“most of the *Fulani* who come to me to either do a cash out or cash in are not registered for MMSs they and tell me their sim cards we registered in another person’s name so they are unable to register for MMS”

a *Fulani* man who uses the MMS said

“I don’t have the voters’ photo identification card to register a sim card so I got a sim card that was registered already”.

This already registered sim card they get for poses a challenge when they want to register for the service, according to another

“ I got my sim card a long time ago, I have been using it for my calls for more than 5 years now, when people started registering for mobile money, I also went, but the teller told me that he cannot register me because when he tried to the name that appeared was not the same as the one on my national health insurance photo id, and told me if I wanted to register I should get a new sim card which he will register to my name and then register mobile money for me as well, but that will mean changing my number completely or buying a different phone for the new sim card. So, I decided not to register, but even though I am not registered I still use mobile money, my brother is registered so I use his number for my transfers, and withdrawals”

MMS were introduced after the exercise of the National Communication Authority (NCA) which made it compulsory for all Ghanaians to have their sim cards registered. During this exercise vendors from the mobile telecommunication companies (MTN, Airtel, Tigo, Vodafone) services went to villages to do the registration and because they did not have the national voter’s id cards. These vendors registered them with their names, thus making it difficult for them to register for the service. Since the names on their sim registration are different from the ones they present when trying to register for the service, and the option will be for them to get a new sim card which they are unwilling to do because they will lose all their contacts and correspondence.

The vendors indicated that most of the *Fulani* who come to them to for new sim cards always request for an already registered sim card, these are sim cards which the vendor register with his own identification card. Or identification cards of other people who work for them, with this card they are able to use this number for their phone calls but this tends to become a problem when they decide to register for MMSs since the number is not registered in their name. According to one vendor

“they are unable to register for mobile money because the sim cards they have are register in another people’s name”

similarly, another vendor said that;

“some of them come to register only for me to find out that their sim is not registered to them and this I think is because they do not have identification card for the registration of their sim cards”

the vendors added that they move far away because of their herding, and are usually far from the capital where they can get a sim card, so when they come to the capital on market days they explain that they forgot to bring their id cards with them thus will like a sim card that is already registered.

The *Fulani* who did not have voter id cards cited being strangers in the community and Ghana as a reason they did not have identifications. They added that the vendors were unwilling to take any other form of identification which include other forms of id from other countries. 3 of the *Fulani* interviewed mentioned that they had identification cards from Niger but they can't use that for registering for either the sim or the MMS. They also mentioned that when they were buying the sim cards they felt the registration was just a protocol to be satisfied. And because they did not have any id on them they made the vendors register it for them using the tellers or agents' details.

From those interviewed some of the *Fulani* had id cards whilst others didn't, those who did not mentioned that during the registration they were on treks with their animals in the bush, others said they had just moved to the community so they didn't go to register, some also said that when they went to queue for the card the community members asked them “*is this your home town?*” another one said

“I was in the queue and a Dagomba⁵ man came and said so these monkeys also come to register and jumped the queue, I was patient, but another person came and also jumped the queue and this continued until I got fed up and decided to leave the queue and went home, so I didn't register, that is why I don't have the national voters' d”

another added that

⁵ Indigenous and dominant ethnic group in the community

“for me I don’t want any insult so I won’t even go near where they do the registration”

Due to this challenge, most of them who go to do transactions with mobile money are not registered for MMSs thus in order for them to be able to send money or receive money, they give the number of the receiver to the vendor (teller) who takes the cash from them and transfers the exact amount from his merchant account to the recipient. And to receive money they give the vendor’s number to the sender and wait for the person to send it. This means that they will be charged twice, since the transaction goes through the merchants/ vendors account.

Whilst waiting for the teller I was interviewing to sell voice call credit to somebody, two *Fulani* men came to the place to send money and they explained to the teller that they wanted to send money but were not registered and asked whether they could take his number and give it to the sender, he agreed and they called the person and called out the number to him and waited until the teller received the money in his merchant account. He then withdrew it for them.

I took the opportunity to ask why he was not registered, he responded that he used somebody’s id card to register, I asked why he used somebody’s card and he said he had forgotten his voter id home and did not want to go back for it.

Another challenge they mentioned was illiteracy, they were of the opinion that they are not able to utilize the service to the fullest because they⁶ are uneducated, so they cannot send money to another person by themselves unless they go to the vendor, they are also aware that with their secret pin they can use the service without going to the vendor, they similarly heard that mobile money can be used for different purposes but because they cannot read and write they cannot use these other services offered by mobile money.

⁶ That is those who have registered for mobile money

Another challenge identified with the use of mobile money for the *Fulani* is transaction cost of sending and receiving money. They thought that the transaction cost is very high and they are usually double charged for one single transaction, explaining that when somebody sends money the person pays a transaction cost and when they also receive they have to pay again. One of the *Fulani* said

“for every GH₵ 100.00 (€22.53) that I send they charge me GH₵ 1.00 (€ 0.23), I sent GH₵ 500.00 (€ 112.65) I was charged GH₵ 1.13 for sending and when my brother was going to withdraw it he was charged the same amount, which in my opinion is quite expensive”

Another added that

“anytime am sending money I have to add the transaction cost in other for the person to be able to withdraw the exact amount am sending”

“I sent money to pay for things I had purchased but in other for me to pay the exact amount I had to add the money to cover for the transaction cost for both sending and withdrawing”

All though they all complained of the transaction cost, yet they still said that its cheaper as compared to cost of transportation and the inconvenience of sending money by the other means, they also indicated that the cost of the transaction will not prevent them from using it for their transactions because it is better than the other alternatives.

Network challenges was also one of the things they mentioned, they said the network fluctuates a lot and most often they go to send money and they are told to come back later because the is no network, for them they did not understand what network is but it meant that they could not use it at that opportune time, this they said was very inconveniencing, because they could need the money urgently but had to wait.

“for me I have had to wait for more than 24 hours to collect money that was sent to me, I was not told there was no network, I gave the vendors number to my brother to send me money, he called me on my phone to tell me he had sent it, but the teller told me he had not received it, I waited and finally

decided to go home, the money came the following day, I kept going to the teller too check whether it had come”

“I needed money to buy some medications that were prescribed for my daughter, I didn’t have money on me, so I asked my friend to send me some money through mobile money, because of the network failure I had to wait for two days to receive the money”

“anytime am going to let somebody send me money I go to ask the teller if there was network and whether I can receive it immediately if he says yes then I will call the person to send it”

But some were of the opinion that sometimes the tellers do not have enough cash on them, but will not be honest and blame it on the network.

The responses and findings are suggestive of the challenges with the access and use of banks services, they are aware of the benefits of having a deposit account but do not use it because of the what might be self-exclusion. It also suggestive that mobile money is providing services that meet their financial needs to an extent. The findings are also similar to the findings of Acker and Wilson (2013), who found the use of mobile money relatively high among people in villages in a study. According Acker and Wilson (2013) rural dwellers were found to be using mobile money as a means of savings, stating that 76% of the respondents in the study used it for savings.

In the case of the *Fulani* they are facing challenges using it for savings, some of these challenges are a consequence of the social exclusion but not all the challenges outlined in the findings are to some extent because of the social exclusion. Thus, the findings are demonstrative of a high use of MMS among the *Fulani* even though they are having a number of challenges suggestive that the *Fulani*. It is further indicative that most of the challenges they have with accessibility might not be related to their social deprivation, But is also suggestive that the various processes of their deprivation is affecting to some extent the services of mobile money they can use.

4.5 Conclusion

It chapter discussed the primary data generated from findings of the field work in Pong Tamale and Gushie. It presented empirical evidence to support answer the main research question.

The first section provided empirical evidence to answer the first research sub question of how is the access and use of basic financial services provided by banks for the *Fulani*. The second section provides comments that response to the second research sub question of the services provided by MMSs and how the *Fulani* use it as well as what they use it for. The last section presented responses of the *Fulani* on their access challenges to MMSs, this finding will help in examining mobile money as a means of financial inclusion for a socially deprived group in the next chapter.

Chapter 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter elucidates the connections between some of the results of this findings and the literature, it attempts to answer the main research question. Which was set to find out the extent to which mobile money is providing basic financial service to the *Fulani*. It will recap on the salient issues that have emerged through the finding and uses the theoretical background as a basis for discussing the findings. And from the discussion a conclusion will be drawn.

5.2 Discussion

The theoretical chapter established that access to financial services such as payments, money transfers and savings has been greatly transformed by MMS. It also hypothesized that socially deprived people are more likely to be excluded from the new mobile money services. The evidence presented in this paper provides insights into the financial lives of the *Fulani*, which has received little or no attention in literature. Considering that one of the reasons they move about is partly on economic grounds. It suggests that, the *Fulani* like any social group involved in economic activities have financial needs, they experience challenges with the management of their finances; saving, transfer of cash, handling of large sums of money, and remitting to family members at different places.

This finding is consistent with studies on financial inclusion which suggest that the financially excluded inability to access and use formal financial system are as a result of access barriers and challenges. Such as remoteness, lack of financial literacy, and condition exclusion, this inability is also a result of self-exclusion. The *Fulani* like most financially excluded have devised means of dealing with these challenges such as borrowing from family members during emergencies, converting cash in livestock as a way of savings and as a way of avoiding handling lots of cash. These methods are expensive and risky.

These are indicative of people who seems to have a need that has not been satisfied by the current financial system.

The findings suggest that the *Fulani* are financially excluded from the services of banks, this exclusion is a result of several factors including financial illiteracy, remoteness, documentation challenges and especially self-exclusion as the theory presupposes. Literature has identified that most people are often financially excluded as a result of remoteness, price, conditions, marketing strategies and self-exclusion (Sarma 2010). In Ghana, a few rural banks that provide financial services at low cost, and do not require strict documentation to operate a deposit account. Though this it is not universal for all rural banks, this is one of the strategies the formal financial system trying to use to bring majority of rural people into the formal financial realm. Yet a lot of rural populations are still unbanked.

Interestingly the district capital where most *Fulani* go to do transactions with MMS has a rural bank, but most of them do not have deposit accounts. These reasons and the responses of the *Fulani* are suggestive of other barriers related to self-exclusion. Which may be due to other reasons, such as fear of refusal and psychological barriers. Furthermore, the *Fulani* have self-conditioned themselves based on the social construct of being a *Fulani*, which appear to be preventing them from access and use of services of banks. Also, lack of information about services offered and knowledge of how they can use these services also contribute to their financial exclusion. This can be as a result of inappropriate marketing strategies and customer targeting by these banks. The findings demonstrate that access and use of basic financial services is still a major challenge for the *Fulani*.

With respect to the accessibility of the mobile money financial service offers a means for them to register, this registration is open to all and if the *Fulani* have the requisite documentation they can subscribe. Thus, its availability is not affected by the fact that they are socially deprived. The financial services of mobile money included the mechanisms for deposits, savings, transfers, remittances and person to person transfers which are all available to the *Fulani*. Hence, indicative that the *Fulani* have easy access to MMS. This may be at-

tributed to the increasing numbers of agents offering cash in and cash out outlet.

Furthermore, the flexibility and convenience that mobile money offers make it easy for them to make use of the services it offers. More so, mobile money has reduced the distances and the bureaucracies that the banks have. It also requires less documentation as compared to banks thus it may be argued that this is could be what is making accessibility easy for the *Fulani*. For example, these services such as person to person transfer of cash services is offered to every mobile money user even to those who are not registered. It offers mobile money token, a service which allows people who are not registered to be able to send and receive money using mobile money.

The *Fulani* use of MMS from this study show them using it mainly for transfers of money, their use it for person to person transfer of cash may advance the argument that mobile money has only enhanced people's ability to effectively transfer money from one person to person (Donovan 2012). However most of the *Fulani* are uneducated, thus could also be a reason why they may only be using it for just transfers. More so, considering that it is an opportunity for them to participate to an extent an informal sort of banking, can likely be a step towards the use of other financial products which could potentially lead to financial inclusion.

The *Fulani* use the service for transfer of cash to and from one person to another, the proclamation that it has reduced cost and inconvenience of sending money through people, in their case other *Fulani*. Suggest that it is serving a need and providing them an efficient means of doing their transactions.

With regards to using the service for savings this study revealed the *Fulani* not using the service for savings, the evidence suggest that it is a result of their inability to register for the service with their current phone numbers. Even though saving with mobile money does not generate any interest for the subscriber. It does provide a means for storing the value of money and may be a less risky short term savings mechanism for the *Fulani* as well as reducing liquidity constraints in emergencies.

More so the possibility of interest may not matter much for savings decisions of nomadic herdsmen, as rightly pointed, their responses indicated that

they wanted to be able to put aside some money for emergencies. So as to reduce the liquidity challenges and the loss in converting animals to cash in time of emergencies.

They acknowledge that it could be a very good way to keep cash to deal with shocks, but that is not to say that if they can register they will use it for savings. More so, the *Fulani* have additional challenge of identifying mobile money agents who will be willing to allow them use their merchant number for their transaction since they are not registered subscribers. In addition, any transactions they make comes with an additional cost, whether they use agent's mobile money E- account or decide to use the mobile money token, as stated in the interviews. However, all these challenges do not prevent the *Fulani* from using the service of mobile money, or its and accessibility to them.

5.3 Concluding remarks

In this light mobile money, based on the evidence presented in this paper, it is suggestive of the potential for improving access and use of basic financial services among socially deprived *Fulani*. Even though MMS have been identified to be heavily dependent on the network of people and interrelationships (Donovan 2012b, Peša, I. 2015). Contrary to the assumptions made earlier, the *Fulani* despite being a marginalised group who are socially estranged from the community they live in. Still access and use the service like most other financially excluded groups. The ease access without fear of discrimination could be attributed to the fact that the agents commission are dependent on the number of transactions they do.

Thus, to get more customers the agents depend on networking by establishing good rapport, being open, being friendly and approachable to customers and potential customers. Hence they will not want to discriminate even if they have their own prejudices against them. In this regard, it is indicative though with this modest evidence that, mobile money might potentially transcend barriers and limitations to financial inclusion especially among socially deprived communities.

Jack et al. (2013) warned that mobile money can further deepen exclusion and marginalize the already poor and excluded in the society due to its network

effects. Likewise, there are arguments that people who do not have a deposit account are deprived from the “security and reliability” of formal financial institution (Demirguc-Kunt and Klapper 2012:9). Evidence is suggestive that the *Fulani* are often deprived of access to some services because of their social deprivation. Either directly, or becomes a precursor to their inability to access services that are privy to other segments of communities they live in.

Still the evidence from this finding are suggestive that mobile money financial services to a certain degree if not wholly is supplementing in its provision of financial services to the socially deprived *Fulani*. And may lead to reduced financial vulnerability and smoothen their consumption, and risk managing ability.

Even though MMS may not be a single bullet for their financial inclusion but it serves to as a means for an improved day-to-day management of their finances. Subsequently further research maybe needed to determine how the application is being used for the reduction of vulnerability in other contexts.

Overall this paper uses the theoretical and conceptual framework to analyse and present findings on the financial lives of the *Fulani*. It highlights their challenges in access to basic financial services provided by banks. It also presents an empirical data to their access and use of financial services provided by the new mobile money technologies. And discussed how they use this technology for their day to day management.

The paper also identifies their challenges with the new technology and establishes the effect of how being socially deprived has not affected their access and use of the service. Nevertheless, it also highlights in what ways their social deprivation has restricted their full utilisation the services it offers.

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Appendices

Appendix 1 Interview Guide for *Fulani* herdsmen

Introduction

I am a student from the International Institute of Social Studies, pursuing a Master of Arts Degree in Development Studies. I am conducting this interview to learn more about MMS in Ghana. Information provided will be treated with utmost confidentiality. Responses will be recorded (either manually or by voice recorder) for statistical analysis. The data collected from this interview will only be used for educational and/or research purposes. You can refuse to answer any question or to stop the interview at any time.

By allowing me to check the below, you agree to participate in the study.

Guided questions

1. Demographic Data:

- Name
- Sex
- Age
- Location
- Ever been to school?
- Occupation

2. Needs for financial services of the *Fulani*

- How do you manage your money?
- Do you have a bank account?
- If no, why don't they use it?
- Do you think it meets your financial needs?
- Do you have challenges with handling cash?

3. Challenges in accessing financial services

- What are your challenges with the access to banks?
- What are the reasons why you do not use the services of banks?
- What do you think are the reasons for these challenges?

4. Mobile money as a mean for providing basic financial services

- What kind of MMS are you aware of?
- Do you use MMS?
- What kind of MMS are you using?
- What do you use it for?
- Where (location) do you go to access MMS?
- When do you use it?
- How often do you use it?
- Why do you use it?
- Does it meet your financial needs?
- How different is it from banks?
- Does mobile money financial services address some of the challenges you face in managing your money?

5. Likelihood of their social deprivation as a barrier to access and use of MMS

- For how long have you been in this community?
- Are you married?
- Who are you married to?
- How often do you move?
- Do you feel you are a part of the community?
- Do you feel discriminated against?
- Do you think you pay more for other services?
- Do you pay more for the mobile money service?
- Do you move to new locations or you move across fixed locations?
- what are your challenges with registering for MMS?
- How often do you move?
- What will make you move from the community?
- what are the processes involved in registering for the service?
- What are the challenges in accessing MMS?
- How do you address these challenges?
- Do they feel comfortable to walk to a mobile money agent and do transactions?

- Do they feel that the mobile money agents in the community give preference to other community members when they go to use the service?

Appendix 2 Interview Guide for mobile money agents and Tellers

Introduction

I am student from the International Institute of Social Studies, pursuing a Master of Arts Degree in Development Studies. I am conducting this interview to learn more about mobile money services in Ghana. Information provided will be treated with utmost confidentiality. responses will be recorded (either manually or by voice recorder) for statistical analysis. The data collected from this interview will only be used for educational and/or research purposes. You can refuse to answer any question or to stop the interview at any time.

By allowing me to check the below, you agree to participate in the study.

Demographic Data:

- Name
- Sex
- Age
- location
- Ever been to school?

1. Mobile money as a mean for providing basic financial services
 - Do *Fulani* herdsmen come to use the services of mobile money?
 - What kind of services do they use?
 - If no, Why do you think are the reason they don't come to use it?
 - Do they come to you to use mobile money services?
 - How often do they come to you?
 - What time do they come to you to use the service?

- When do they use it?
- What kind of mobile money service do they use?
- Do they use it for financial services (withdrawal, savings, deposits, remittances, sending / receiving money, transfer of cash) What kind of mobile money services are they aware of?
- Where (location) do they go to access mobile money services?
- How often do they use it?
- What are its perceived benefits?
- Does mobile money financial services address some of the challenges they face in accessing the formal financial services?

3. Likelihood of the social exclusion as a barrier to accessing mobile money services.

- do they come to you to use the service?
- If no why?
- What are the processes involved in registering for the service?
- What are their challenges in accessing mobile money services?
- How do you address these challenges?
- Do they have to pay more to use the services?
- Do they feel comfortable to walk to come to you to use the service?
- Do you have any challenges with providing the services to them?
- Do you give preference to other community members you rendering services to them?

Appendix 3:

Table 1: Research participants

Respondent	Type of MMS provider	Age	location
1	Agent	30	Savelugu Market
2	Teller	24	Savelugu
3	Agent	34	Savelugu Market
4	Teller	33	Savelugu

Table 4: Respondents (*Fulani* herdsman)

Re-spondent	Age	Com-munity	# of years in community	Use Mobile money	Regis-tered for mobile money
1	38	Pont Tamale	4	yes	No
2	25	Pong Tamale	25	yes	No
3	30	Pong Tamale	6	yes	No
4	40	Pong Tamale	9	yes	No
5	26	Pong Tamale	26	yes	No
6	46	Pong Tamale	20	yes	No
7	45	Pong Tamale	35	yes	yes

8	3 0	Gushie	30	yes	No
9	3 5	Gushie	30	yes	No
10	3 1	Gushie	5	yes	No
11	3 3	Gushie	27	yes	No
12	3 4	Gushie	29	yes	No
13	3 0	Gushie	30	yes	No
14	4 0	Gushie	2	yes	No
15	4 9	Gushie	31	yes	No
16	4 2	Gushie	22	yes	yes
17	6 4	Pong Tamale	23	yes	No
18	5 0	Pong Tamale	6	yes	yes
19	5 3	Gushie	25	no	No
20	4 9	Pong Tamale	1	yes	No