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# EFFECTS OF THE COLLAPSE OF GN BANK ON FINANCIAL INCLUSION AMONG AGRARIAN HOUSEHOLDS IN THE TOLON DISTRICT OF THE NORTHERN REGION OF GHANA

**ZIBLIM SAAKA**

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# EFFECTS OF THE COLLAPSE OF GN BANK ON FINANCIAL INCLUSION AMONG AGRARIAN HOUSEHOLDS IN THE TOLON DISTRICT OF THE NORTHERN REGION OF GHANA

**BY**

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**(Bachelor of Business Administration (BSc))**

**(UDS/MIC/0010/20)**

**THIS THESIS IS SUBMITTED TO THE UNIVERSITY FOR DEVELOPMENT STUDIES, NYANKPALA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY IN INNOVATION COMMUNICATION DEGREE**

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# DECLARATION

I hereby declare that this dissertation/thesis is the result of my original work and that no part of it has been presented for another degree in this University or elsewhere:

**Candidate:**

Signature …………………………… Date………………………………………..

Ziblim Saaka

**Supervisors**

I hereby declare that the preparation and presentation of the dissertation/thesis was supervised following the guidelines on supervision of dissertation/thesis laid down by the University for Development Studies.

Principal Supervisor's

Signature ……………………………… Date………………………………………..

Prof. Hudu Zakaria

Co-Supervisor's

Signature ……………………………… Date………………………………………..

Dr. Mohammed Fadila

# DEDICATION

I dedicate this thesis to Allah my creator for his guidance and providence. I also dedicate this thesis to my loving mother Hajia Fati Saaka and my children: Saaka Mandeiya Irfan, Saaka Asfa Fatima for the love and support gave me through this course.

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## ABSTRACT

The study examined the effects of the collapse of GN Bank on the financial inclusion of agrarian households in the Tolon District of the Northern region of Ghana. The study adopted a descriptive survey design with a mixed research approach to achieve the study objective. Through a multi-stage sampling technique, 210 agrarian households from Nyankpala and Tolon where the bank used to have branches in the District were surveyed. Personal and key informant interviews were employed in gathering data for the study. Descriptive statistics such as percentage, frequency distribution, paired sample T-test, and Kendall's Coefficient of Concordance were applied in analysing the data and the results were presented using tables and graphs. The study revealed that after the collapse of the GN bank, the majority (69.3%) of the respondents surveyed resorted to home savings and the use of mobile money services to meet their financial service needs. The majority 147 (70.0%) of those using mobile money services were subscribers of MTN mobile network. Only 5% of the 210 former customers of the then GN-Bank had bank accounts with other banks. Moreover, most (71.9%) of the respondents surveyed had their savings and/or investments with GN-Bank before it collapsed, with only 34.5 percent able to retrieve savings or investments from the bank. In general, the collapse of the GN Bank had a significant negative effect on the financial inclusion of agrarian households in the study area. Additionally, the study revealed that the most pressing constraint agrarian households faced in accessing and using financial services is low financial literacy in dealing with other banks and financial institutions. The study recommends that the District Assembly should encourage other banks to open branches in the district capital.

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## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| **BoG** | Bank of Ghana |
| **DFID** | Department for International Development |
| **GDP** | Gross Domestic Product |
| **GN** | Groupe Ndoum |
| **GSS** | Ghana Statistical Services |
| **MFI** | Microfinance Institutions |
| **MOFA** | Ministry of Food and Agriculture |
| **Momo** | Mobile Money Wallet |
| **NGO** | Non-Governmental Organisation |
| **SPSS** | Statistical Package for Social Sciences |
| **USAID** | United States Agency for International Development |

# CHAPTER ONE

# INTRODUCTION

## 1.0 INTRODUCTION

Globally, access to financial services is recognised as the key factor for both economic and social development. Businesses excluded from conventional financial services are exposed to diverse risks like market exclusion and lack of access to capital and investment and other opportunities. Empirical studies have unearthed the significance of financial inclusion and the role it plays in achieving high levels of well-being and development through lowering income inequality, reducing poverty, and smoothing consumption (Aslan et al. 2017; Burgess and Pande 2005; Gertler, Levine, and Moretti 2009).

Africa is today the world's second fastest growing continent after Asia with annual GDP growth rates of more than 5% over the last decade. Despite this growth, the "Arab Spring" and other instances of civil unrest in the continent is evidence that economic growth in the region has not turned into better livelihoods for most Africans as observed by Stein, Goland, and Schiff (2010).

In this regard, growth has to be inclusive (socially and politically) and sustainable. One of the key components of inclusive development is financial inclusion, an area in which Africa has been lagging behind other regions. In Africa today, less than one adult out of four has access to a financial account at a formal financial institution compared to worldwide account ownership of 76 percent (Demirguc-Kunt et al., 2022). This is denying agrarian households the opportunity to mobilize more household savings, marshal capital for investment, expand the class of entrepreneurs, and enable more people to invest in themselves and their families (Oshora et al., 2021).

In Ghana, the central bank between 2015 and 2016 identified certain challenges which involved insufficient capital, licensing irregularities, liquidity problems, and weak corporate governance structures among financial institutions in the country (Benson, 2019). The pursuit to reform the financial system, the banks and specialized deposit-taking institutions Act, 2016 (Act 930) was enacted by the Ghanaian parliament and came into force in September 2016 (Halm-Laryea, 2019). The Act consolidates all laws relating to deposit-taking thus regulating all institutions in the business of deposit-taking. Following the implementation of Act 930 since September 2017, the Bank of Ghana (BoG) introduced a new capital requirement for banks and specialized deposit-taking institutions (Obuobi et al., 2019). Universal banks were to increase their minimum stated capital from GHS 120 million (GH₵) - ($23.2 million) to GHS 400 million (GH₵) - ($77.5 million) by the end of 2018 (Bank of Ghana, 2019). The implementation of the new minimum capital was to commence in July 2018; and by January 1, 2019, all relevant institutions were to comply with the directive. Other financial institutions such as savings and loans and microfinance institutions were also required to increase their stated minimum capital to 15 million Ghana cedis (GH₵)-($3.1 million) (Bank of Ghana, 2019).

The new capital directive was issued in line with one of the main pillars of Base II, which is minimum capital requirement. The Bank of Ghana’s quest to have a good capital adequacy ratio to protect depositors’ savings with the various financial institutions introduced the new capital requirement. The capital requirement directive was published in consonance with section 92(1) of Act 930 and section 4-(d) of the Bank of Ghana Act 2002 (Act 612) (Bank of Ghana, 2019).

Non-compliance with the new minimum capital requirement from the Ghanaian banks and other financial institutions at the stipulated deadline led to the revocation of licenses of banks and other specialized deposit-taking institutions. However, others ceased operations of their own volition due to insolvency and low liquidity, (Bank of Ghana, 2019).

The licenses of many savings and loans, micro-credit, and finance institutions were revoked. Three hundred and forty-seven (347) out of a total of 566 had their licenses revoked for either one or all of the above stated reasons (Bank of Ghana, 2019). The revocation of the licenses of these banks and other financial institutions led to a very significant decrease in the number of financial institutions operating in the country. For instance, thirty-four (34) universal banks which were operating prior to the clean-up exercise in Ghana shrunk to 23, whiles eleven (11) banks were affected by the clean-up exercise, which represented a 32% decrease in universal bank operators (Bank of Ghana, 2019).

The reduction in number of banks and financial institutions affected the financial inclusion of agrarian households and rural areas. Financial inclusion is concerned with how an economy's financial services incorporate the vulnerable and low-income earners in such a way that they are not marginalized from having access to financial services (Corrado & Corrado, 2017; Barua, Kathuria & Malik, 2016). Financial inclusion service includes access to insurance services, access to credit, banking services, assets and savings, consultancy on wealth management and financial literacy (Twumasi et al., 2021; Akileng, Lawino & Nzibonera, 2018). The purpose of financial inclusion is to provide a variety of quality financial services and products to those that are financially excluded such as the rural poor (Twumasi et al., 2021; Akileng, Lawino & Nzibonera, 2018).

Globally, close to one-third of adults; that is, 1.7 billion are still unbanked (Anarfo & Abor, 2020). Also, about half of unbanked people worldwide live in rural areas (Sapovadia, 2018; World Bank, 2019).

These people do not have savings or credit accounts, nor insurance and remittances. Ghana has about 15 million adults and just 4.5 million bank accounts which go to state that majority of people in Ghana are not captured in the mainstream financial system although the ratio of bank to unbanked adults is higher than the average in sub-Saharan Africa (Annan, 2019). Additionally, over 59.5 percent of rural farmers do not have access to financial services (Abu & Haruna, 2017). Over the years, developing countries have made significant progress toward increasing the number of people who lack access to financial services with such efforts including the introduction of financial innovations such as mobile money has expanded the financial scope of the unbanked population such as the rural poor small-scale farmers and rural dwellers to be financially included, (McKenzie, 2021).

Policymakers have recognized that if the vulnerable and the poor have effective access to financial services, it will promote social cohesion and reduce poverty (Alnaa & Matey, 2021). Gakpo et al. (2021), argue that financial systems that are all-inclusive promote efficiency and well-being by providing opportunities for safe and secure saving, secure money, transfer and prudent financial management practices. The banking sector cleanup affected the operations of eleven banks. However, most of these banks were operating in the cities with only GN Bank, operating largely in the rural areas, (Oxford Analytica, 2019).

The collapse of GN Bank, which largely dominated in the rural areas further widened the gap between the banked and the unbanked because, majority of the Ghanaian population are marginalized from the mainstream financial system (Oxford Analytica, 2019).

It is also perceived that financial inclusion will lead to economic growth, poverty reduction and income equality (Koomson, Villano & Hadley, 2020). However, the implementation of the Ghanaian banking sector reforms and subsequent collapse of some banks might limit agrarian households' access to conventional financial system and further worsen their already predisposed poverty situation, (Koomson, Villano & Hadley, 2020).

Most agrarian households practice small scale subsistence farming and therefore often receive low incomes with little extra income to save (Hilson, 2016). This study attempts to understand the dynamics of the bank's collapse on financial inclusion among agrarian households in the Tolon District of the Northern Region of Ghana. The research will further attempt to assess GN bank as nexus since before it collapsed, the GN Bank had branches across the country with most of its clients being agrarian households.

### 1.2 Problem Statement

The Central Bank of Ghana in 2019 initiated reforms to strengthen the banking sector and other financial institutions in the country (Tuffour, Gali & Tuffour, 2019; Bank of Ghana, 2019). The implementation of these reforms which ranged from corporate governance to capital requirements brought about several banks and financial institutions falling short of the liquidity ratio and having to have their licenses revoked (Bank of Ghana, 2019). The banking sector clean-up exercise did not come without a cost to the government because it had to spend a whopping GH¢11.7 billion (Bank of Ghana, 2019). The clean-up exercise saw a reduction in the number of banks operating in Ghana from 34 to 23 banks as the end of 2019, (Bank of Ghana, 2019).

Many agrarian households in rural Ghana do not have access to financial services (Abu & Haruna, 2017). The lack of access to financial services by agrarian households in rural Ghana can partly be blamed on most commercial banks operating in big towns or in rural communities where there are large cocoa farms or mining companies. Government and other policymakers, over the years, had tried several strategies to extend financial services to the un-bank population, (Abu & Haruna, 2017).

However, the success rate of increasing financial inclusion has been low, leaving a greater proportion of the masses out of the mainstream financial sector (Riley & Kulathunga, 2017). As reported in the Sixth Round of Ghana Living Standard Survey (GLSS6), an estimated 70 per cent of agrarian households living in rural areas do not have access to bank accounts in a formal financial institution (GSS, 2017). This situation has excluded most of these rural folks from the mainstream financial market and thereby denies them access to financial services. To promote financial inclusion of agrarian households, the state-own financial institutions have the main responsibility to lead the way, (GSS, 2017).

However, the private sector in Ghana has led the agenda of financial inclusion among agrarian households by establishing branches in both urban and rural areas (Iddrisu & Danquah, 2021). Leading among these private financial sector players was GN Bank with over 200 branches across the country prior to the revocation of its license. The bank operated in both urban and rural areas with its main clients being the rural folks, especially the agrarian households. These clients of GN Bank could easily obtain credit facilities at relatively lower interest rates as compared to other traditional banks operating in the rural areas (Annan, 2019). For agrarian households, having access to these financial services would allow them access to reliable and sustainable funds for their farming business and position them to overcome seasonal shocks related to farming (Issahaku et al., 2020). It is expected that, the collapse of GN bank would deny agrarian households access to financial services and further widen the already existing financial exclusion gap among the un-banked population in the Tolon District with its negative consequences on their livelihood, (Issahaku et al., 2020).

The collapse of rural banks in Dhaka, Bangladesh largely affected the poor rural folks in accessing and utilizing financial service in the late 1990s (Matin, Hulme & Rutherford, 2002). Similarly, the Indian Central Bank consolidated rural banks as a measure of ensuring monitoring by the central bank which later resulted in the reduction of financial inclusion of women in rural areas (Chakrabarti, 2013). Also, in 2008, when the Lehman brothers' financial investment collapsed, the whole world financial order was altered which affected largely developing countries in accessing credit facilities from International financial market (Edey, 2009).

In Ghana, when Diamond King Microfinance (DKM) and 'God is Love' microfinance institutions collapsed, a lot of people especially rural farmers were affected in terms of access to cash and other financial assistance (Anaman & Pobbi, 2019). However, the collapse of GN-Bank presented a new phenomenon about its effects on financial inclusion of rural communities where the bank used to operate. There is no empirical evidence in the available literature linking the collapse of GN Bank to financial inclusion of agrarian households in rural districts such the Tolon District. This evidently leaves a gap in knowledge. This study therefore seeks to assess the effects of GN-Bank's collapse on the financial inclusion of agrarian households in the Tolon District.

### 1.3 Research Question

#### 1.3.1 Main Research Question

How is the collapse of GN Bank affecting financial inclusion affects financial services among agrarian households in the Tolon District of the Northern Region of Ghana?

#### 1.3.2 Specific Research Questions

1. What are the forms of financial services available to agrarian households in the district?

2. What types of financial services are used by agrarian households in the Tolon District?

3. How has the collapse of GN-Bank affected financial inclusion amongst agrarian households in the Tolon District?

4. How are agrarian households in the district coping with the collapse of GN Bank in accessing financial resources?

5. What are the constraints that agrarian households face in accessing and using financial service following the GN-Bank collapse?

## 1.4 Research Objective

### 1.4.1 Main Research Objective

The main objective of the study is to assess the effects of the collapse of GN Banks on financial inclusion among agrarian households in Tolon District of the Northern Region of Ghana.

### 1.4.2 Specific Research Objectives

1. To assess the forms of financial services available to agrarian households in the Tolon District

2. To examine the types of financial services used by agrarian households in the Tolon District

3. To analyse the effects of the collapse of GN-Bank on financial inclusion of agrarian households in the Tolon District

4. To examine how agrarian households in the district are coping with the collapse of GN Bank in accessing financial market' in the Tolon District

5. To examine the constraints that agrarian households face in accessing and using financial service in advent of GN-Bank collapse

### 1.5 Justification of the Study

This study's ultimate aim is to add to knowledge and provide information to guide policy formulation and implementation strategies. The government of Ghana over the years has been making efforts to ensure inclusive development, which will enable the masses to enjoy certain basic services, among which are access to financial services. The study therefore contributes to the existing literature on financial inclusion, as it focuses on GN Bank as a case of the collapse of various financial institutions across the country which affected rural folks most since these groups of people are constrained in accessing financial services.

### 1.6 Limitation of the Study

This study is limited to only agrarian households. The study is concentrating on the banking sector collapse on financial inclusion but it is limited to only agrarian households' access to financial services from the then GN-Bank. However, it might be possible to make inference to similar situations as it relates to the financial sector clean-up which led to the collapse of some financial institutions in Ghana.

### 1.7 Organization of the Study

This thesis is in five chapters. Chapter one deals with the introduction of the study which focuses on the background of the study, the problem statement of the research, objectives and questions of the study, the justification of the study and the definition of key terms of the study. Chapter two reviews and discusses literature relevant to the topic so as to establish a theoretical approach for the research. Chapter three focuses on the methodology of the study as it discusses the instruments used to collect the needed information for the study, research design, sampling procedure, data collection and data analysis. Chapter four presents results and a discussion of the finding of the research within the context of the study objectives. Chapter five presents a summary, conclusions and recommendations based on the finding of the research.

### 1.8 Operational Definitions of Key Terms and Concepts

**Financial inclusion:** Agrarian households having access to useful and affordable financial products such as savings, insurance and loan facilities.

**Agrarian households**: These are households whose main occupation is cultivation food crops and rearing of animals either in large or small scale.

**Bank collapse:** The inability of GN-Bank to provide financial services such as savings, loans, and fixed deposit to clients.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter presents reviews of relevant literature to the study. The chapter is organized into two main sections, namely theoretical, empirical review and conceptual framework.

## 2.1 Concept of Financial Inclusion

Financial inclusion is an important concept in Ghana because of its ability to help reduce poverty among the rural poor. It is critical to the country's long-term economic growth as it can help to reduce the presence of other informal sources of loans, which frequently take advantage of people who lack access to formal financial systems critical need for credit (Koomson & Danquah, 2021). Furthermore, having a safe place to save a portion of one's earnings allows one to accumulate savings for future use.

The availability of dependable financial services in Ghana's rural areas is critical for the country's economic growth, as rural areas house a larger proportion of the country's population, and as access to financial services is necessary for improving the living conditions of rural poor farmers, (Amu & Amu, 2012). Financial inclusion is the provision of banking services at a low cost to large segments of the disadvantaged, low-income, and unbanked populations (Garg & Agarwal, 2014). Again, financial inclusion is a process that provides appropriate financial services to the most vulnerable segments of the population via a convenient financial tool at a low cost, and according to Naumenkova et al. (2019), aims to improve access to financial services by ensuring that there are no barriers (price or non-price) to the availability and use of financial services. All definitions of financial inclusion emphasize the availability, the accessibility, and affordability of financial services to those who were previously perceived to be excluded (Shofawati, 2019). Financial inclusion is receiving increased attention, owing to the numerous positive socioeconomic effects it has on reducing poverty, accelerating prosperity, and sustaining national development (Abor, Amidu & Issahaku, 2018).

## 2.2 Theories of Financial Inclusion

There are several theories explaining and providing some understanding of the dynamics of financial inclusion among people in the rural setting. However, five main theories were adopted and highlighted because of their relevance to the study's concepts and focus. These theories are financial inclusion beneficiary, public good theory of financial inclusion, dissatisfaction theory of financial inclusion, vulnerable group theory of financial inclusion and systems theory of financial inclusion, (Bhandari, Mammadov & Thevenot, 2018).

### 2.2.1 Theories of financial inclusion beneficiary

On who gains from financial inclusion results, there are differing viewpoints or perspectives. Some studies argue that poor people are the ultimate beneficiaries of financial inclusion (Bhandari, Mammadov & Thevenot, 2018), while others believe that financial inclusion outcomes benefit women (Ghosh & Vinod, 2017; Demirgüç-Kunt & Klapper, 2013), and still others believe that financial inclusion benefits the economy and the financial system (Mehrotra & Yetman, 2015; Ozili, 2020).

Apart from women and the poor, there are a number of other potential beneficiaries of financial inclusion who have been largely ignored in the literature, including young people, the elderly, the institutionalized and ill people, disabled people, and people who have previously been expelled from the financial sector for various reasons, such as committing criminal offenses, (Mehrotra & Yetman, 2015; Ozili, 2020).

### 2.2.2 Public Good Theory of Financial Inclusion

According to the public good theory of financial inclusion; (i) providing formal financial services to the entire population and (ii) guaranteeing that everyone has unrestricted access to finance must be viewed as a public good for the benefit of all members of the population, (Ozili, 2020).

Individuals cannot be barred from utilizing formal financial services or from having access to financial services, because they are a public good (Ozili, 2020). Individuals will have access to essential financial services without having to pay for them. Access to financial services by one person does not imply that it is unavailable to others, implying that all members of the population can be brought into the formal financial sector and everyone will benefit (Kumar, 2005).

According to this view, everyone in the population benefits from financial inclusion and no one is left out. According to the public good principle, any individual or small business that opens a formal bank account will be given free debit cards and will be able to use ATM machines without paying a transaction fee (Hunt, 2003). Financial service providers, such as financial institutions, will also have to absorb the expense of providing financial services to people at a cheaper rate in communities (Kotarba, 2016).

However, in a situation where these financial institutions are not available, it will be difficult for such benefits to be enjoyed by people whiles government can provide financial institutions with subsidies to help them deal with any cost issues that may occur as a result of providing free financial services (Rahman & Dean, 2013).

Government may even offer all residents a lump-sum cash deposit into their bank accounts, with the only qualification being that they have a formal bank account. When financial inclusion is considered as a public benefit, individuals who are unable to pay their debts and satisfy their basic necessities on a micro level become economically empowered, (Park & Mercado 2018).

There are two advantages to this hypothesis. To begin with, the public good hypothesis suggests that financial inclusion benefits everyone, regardless of their socioeconomic situation or income level (Park & Mercado 2018). This means that the benefits of financial inclusion will be enjoyed by both the rich and the poor, financially included and financially excluded. Second, establishing financial inclusion as a public benefit would necessitate public investment rather than private funding because investors would demand a premium on private funding, which is expensive when private funds are used to fulfill financial inclusion goals, (Park & Mercado 2018).

Third, because it is a public benefit, it allows the government to assume responsibility for fostering financial inclusion. Finally, private-sector agents are not recognized as advocates of financial inclusion in the public good theory of financial inclusion (Hannig & Jansen, 2010). There are four flaws in the public good theory. To begin with, emphasizing financial inclusion as a public good ignores the underlying causes of financial exclusion.

Second, defining financial inclusion as a public benefit that requires public support may cause public monies to be diverted away from other vital public programs to fund financial inclusion efforts. Finally, the public good hypothesis assumes that financial inclusion is a "public good" that is provided free of charge to end-users of financial services (Ahmad, Green & Jiang, 2020).

When financial inclusion is viewed as a public good, it is possible that the level of financial inclusion, even if backed by public funds and provided at no cost to end-users, would not be sustainable in the long run. Because financial institutions and banks in developing and emerging economies are mostly funded through private investments rather than public investments, making financial inclusion a public good in these nations can be difficult (Chen et al., 2011). In the case of the GN-Bank collapse, its non-availability in the Tolon District will make it difficult for the agrarian households to get access to funds for their farming activities. Because, the people of Tolon were largely marginalized from the formal financial service sector till the operation of GN-Bank started in this district.

### 2.2.3 Dissatisfaction Theory of Financial Inclusion

The Dissatisfaction theory of financial inclusion contends that a country's financial inclusion activities and programmes should first target all individuals who were previously on-boarded into the formal financial sector but left because they were dissatisfied with the formal financial sector's rules of engagement or had other negative personal experiences dealing with firms or agents in the formal financial sector (Alsbury, 2004). This hypothesis implies that if the areas of unhappiness in the formal financial sectors have been totally handled, it is easier to draw back persons who left the formal financial sector because they were dissatisfied, (Alsbury, 2004).

It is simpler to persuade this set of people to return to the official financial industry than to persuade those who have never worked in the formal financial sector (Berger & Nakata, 2013). The implication of this idea is that individuals of the population who have left the formal financial structure should be the first to benefit from financial inclusion laws and initiatives, rather than those who have never been on-boarded into the formal financial sector.

Individuals who have been previously on-boarded may become dissatisfied for a variety of reasons, including financial fraud, debit/credit card fraud, financial theft, and long waiting hours which allow depositors to withdraw funds, payments taking too long to clear, high transaction costs, and excessive bank fees, (Berger & Nakata, 2013).

The financial inclusion unhappiness argument has some advantages; the theory is a deliberate attempt to solve the problem of "voluntary financial exclusion," which is not addressed by previous theories, (Wilkinson & Pickett, 2020). It lowers voluntary financial exclusion by persuading persons who have left the formal financial sector due to unhappiness to return (Wilkinson &

Pickett, 2020). Second, under this hypothesis, it is simple to identify those who are financially excluded from society because their personal data is held with financial institutions, previously on-boarded members of the public can be easily discovered and contacted to be convinced to return to the official financial system. Reaching out to previously on-boarded persons is easier than reaching out to parts of the public who have never been to the formal financial sector to attain financial inclusion. Third, establishing financial inclusion does not necessitate the use of public funds because it is heavily reliant on human persuasion skills (Demirgüç-Kunt & Klapper, 2013). There are some flaws in the discontent theory and to begin with, the idea does not place a high priority on financial inclusion for all members of society.

People who have never worked in the official financial sector are excluded and second, it overlooks the poor people who are living in the rural areas without access to conventional financial institutions and finally, the dissatisfaction theory assumes that financial exclusion is driven by the customers' discontent with the formal financial sector's rules of interaction, (Ozili, 2020). This may not be the case in some cases because people can choose to leave the official financial sector for a variety of reasons, including religious and personal ones (Ozili, 2020).

Finally, individuals who are unsatisfied with the official financial sector may have no choice but to stay in the formal financial sector if societal culture is overly reliant on it and the collapse of GN-Bank would further deepen the little confidence the general public had for financial services. Here, it will be difficult to convince the people to joining new financial institutions because the people of the Tolon District are not happy with the operation and collapse of GN-Bank, (Ozili, 2020).

### 2.2.4 Vulnerable Group Theory of Financial Inclusion

The Vulnerable group theory of financial inclusion asserts that a country's financial inclusion activities should be directed toward the most vulnerable members of society, such as the poor, the young people, women, and the elderly, who are the most affected by economic hardships and crises (Mhlanga, 2020). Because vulnerable people are disproportionately affected by financial crises and economic recessions, it makes sense to bring them into the official financial sector. Government-to-person (G2P) social cash transfers into vulnerable people's formal accounts are one way to do this (McKay & Chebii, 2020). Making G2P social cash transfer payments to poor people, young people, women, and the elderly will encourage other poor people, young people, and women to join the formal financial sector.

Furthermore, when social cash transfers and other tools for achieving financial inclusion are offered to disadvantaged people in society, it might make them feel as though they are being compensated for the current economic gap that they face, allowing them to catch up with the rest of society (Dancey, 2013).

The theory's implication is that it identifies some members of the population as vulnerable, implying that the financial inclusion efforts should be directed at these individuals. The financial inclusion idea of vulnerable groups has several strengths, (Andrew & Keefe, 2014). To begin with the idea attempts to address the problem of financial exclusion by focusing on disadvantaged populations and bringing them into the official financial sector and second, under this idea, identifying the financially excluded people of the population is simple and the degree of vulnerability, income level, gender, age, and other demographic variables can all be used to identify vulnerable people of the population (Andrew & Keefe, 2014). Thirdly, targeting the most disadvantaged members of the population for financial inclusion may be more cost-effective rather than achieving financial inclusion for the entire population as there are some flaws in the vulnerable group idea, (Andrew & Keefe, 2014).

To begin with, the idea does not place a high priority on financial inclusion for all members of society. Second, it ignores non-vulnerable individuals who are not part of the formal financial industry. Non-vulnerable individuals require access to the formal financial system as well (Bello, Oyedokun & Adeolu-Akande, 2021).

Finally, it assumes that women are a susceptible category which implies that men are not vulnerable but because women and men compete for equal chances in modern nations, labeling women as a vulnerable group to the exclusion of men may have unforeseen effects for financial and social inclusion, (Bello, Oyedokun & Adeolu-Akande, 2021).

It may result in cultural animosity of women among men, and finally, targeting vulnerable people for financial inclusion may increase social inequality if social policies are geared to favor vulnerable people over others, as well as income inequality if vulnerable people have better access to financial services than others (Mitton, 2008).

In effect, GN-Bank operation in Tolon District was to meet the needs of the vulnerable group of people in the district financial needs but however, its' its collapses will deny these vulnerable group access to financial services in the district going forward.

### 2.2.5 Systems Theory of Financial Inclusion

The System theory of financial inclusion outcomes are achieved through existing sub-systems such as economic, social, or financial systems that financial inclusion relies on. According to the systems theory of financial inclusion greater financial inclusion will have positive benefits for the systems it relies on, (Yadav & Sharma, 2016).

A significant change in a sub-system which is one part of the system can have a significant impact on the expected financial inclusion outcomes. For example, imposing regulations on economic agents and the financial service providers who are part of the economic and financial system can align their interests with those of basic financial service users, compelling economic agents and financial service providers to provide affordable and high-quality financial services to those who need them, (Yadav & Sharma, 2016).

A substantial change at the entire system level, on the other hand, such as replacing the present national financial inclusion strategy with a completely new plan, does not always imply a change in the existing sub-systems, because a sub-system modification must be done at the sub-system level (Clarkson, Simons & Eckert, 2004).

According to the theory, financial inclusion will increase the efficiency and effectiveness of the sub-systems it relies on, and the success or failure of a financial inclusion agenda will be determined by efficiency and effectiveness of the sub-systems, (Yadav & Sharma, 2016). However, from the systems theory perspective, the existing sub-systems such as economic, the financial, and social institutions in a country are the ultimate beneficiaries of financial inclusion. The financial inclusion systems hypothesis has certain strengths, (Yadav & Sharma, 2016).

To begin, the systems theory acknowledges the role of existing economic, financial, and social systems or institutions in fostering financial inclusion in a society and second, it takes a macro view of financial inclusion, as opposed to other theories that take a micro one (Ali & Khan, 2020). Then finally, in the systems theory financial inclusion explores how the interrelationships among the sub-systems that financial inclusion relies on affect financial inclusion results, which shows some flaws in the systems theory, (Ali & Khan, 2020).

To begin with, the existing systems are a mirror of their surroundings, and the existing systems may not perform correctly in particular situations, and as a result, the desired financial inclusion outcomes may not be realized, whiles the second systems theory of financial inclusion ignores the impact of external factors on financial inclusion results, focusing instead on the impact of the system and its sub-systems on financial inclusion outcomes, (Ali & Khan, 2020). Finally, the systems theory of financial inclusion assumes that there is a direct link between the consequences of financial inclusion and the structures that enable it (Bongomin et al., 2018). The assumption of this theory directly affects clients of the collapsed GN-Bank, who save their money with the view of future use. However, the collapse will affect their access to money negatively.

## 2.3 Banking and Financial Sector Reforms in Ghana

Since Ghana gained independence, banks have been the dominant force in the financial system in the country. However, the Ghanaian economy suffered major crises, a balance of payment deficit, and decreasing economic development between 1976 and 1983, (Aryeetey and Kanbur, 2008). In 1983, the economic recovery programme was launched in partnership with the International Monetary Fund (IMF), and the financial sector adjustment Programme was launched in 1986, whiles the Financial Sector Strategic Plan was implemented in 2003 as a result of these reforms, (Owusu-Antwi, 2009). The Bank of Ghana Act 2002, Banking Amendment Act 2007, the foreign exchange Act 2007, the credit reporting Act 2008, and the lender and borrowers Act 2008 were among the other reform initiatives to be implemented.

The Financial Sector Adjustment Programme (FINSAP)-I (1989-1991), FINSAP-II (1992-1995), and FINSAP-III (1995-onwards) were the three phases of the reforms (Owusu-Antwi, 2009). FINSAP-I concentrated on measures to ensure efficiency in the existing banks, whereas the FINSAP-II and III focused on the establishment of new institutions, namely NBFIs and some banks in the public sector have been privatized (Owusu-Antwi, 2011) aimed to restrict fiscal influence in the financial sector and existing banks were in a state of difficulty prior to the changes. There was a strong need for action, and thus attempts to restructure the sector were taken and the direct interest rate regulation, directed financial resource allocation to key industries, and the dominance of public sector banks were all discussed (Owusu-Antwi, 2011). The reforms resulted in a loosening of bank credit regulations and deregulation of the interest rate ceiling. The establishment of the new prudential supervisory standards, and the restructuring of bankrupt banks were among the measures adopted (Owusu-Antwi, 2011).

### 2.4 The Banking and Financial Sector Clean-up Exercise

The Bank of Ghana began a "clean-up" operation in the financial industry in August 2017 to resolve or dissolve insolvent Financial Institutions whose continued existence was seen as a threat to depositors' interests, (Kamasa et al., 2020).

The Bank of Ghana has the authority under section 123 (1) of the Banks and Specialized Deposit-taking Institutions Act 930 (2016) to revoke the license of any financial institution considered to be insolvent in order to restore confidence in the banking and specialized deposit-taking sector, and following the failed efforts to clean up the banking system and safeguard the depositors' interests and confidence through the leadership of impacted institutions, an initiative was then undertaken to sanitize the banking sector and protect depositors' interests and confidence (Bank of Ghana, 2019 cited in Boateng, 2019). An all-encompassing investigation into the activities of banks and other financial organizations in the country revealed the flaws (Bank of Ghana, 2019 cited in Boateng, 2019).

Compliance issues such as defiance of minimum regulatory capital requirements, extreme risk-taking without obligatory risk management, use of depositors' funds to fund private ventures or businesses, weak corporate governance systems, misrepresentation of true financial positions to the Central Bank and other interested parties, and finally, persistent breaches of Bank of Ghana regulations and failure to conduct on-site audits or inspections were identified during the assessment (Bank of Ghana, 2019 cited in Boateng, 2019). At the conclusion of the exercise, nine (9) Universal Banks, three hundred and forty-seven (347) microfinance companies, of which one hundred and fifty-five (155) had already ceased operations, thirty-nine (39) micro credit companies, of which ten (10) collapsed due the financial sector cleanup, (Ofori-Atta,2022).

Fifteen (15) savings and loans companies, eight (8) Finance House Companies, and two (2) non-bank financial institutions had their licenses revoked (Business and Financial Times Online, 2019). Apart from the estimated GHC 21 billion cost to the government (Ofori-Atta,2022), other sources claim that jobs have been lost, businesses have been lost, and assets have been lost (Akoto, 2020).

### 2.4.1 Effects of Banking and Financial Sector Clean-up Exercise on GN Bank Operations

First National Savings and Loans (FNSL) Company Limited was the initial name under which GN Savings and Loans Company Limited was first incorporated and licensed as a savings and loans company on May 8, 2006. On September 4, 2014, the Bank of Ghana granted it a universal banking license, and it was given the new name GN Bank Limited.

The Bank of Ghana granted GN Bank's request to be reclassified from a universal bank to a savings and loans company on January 4 after it was unable to raise the increased minimum paid-up capital requirement of GH 400 million by December 31, 2018 (BoG, 2020).

The institution needed to shrink its activities and inject more capital to address the severe financial issues it was facing, among other things, as a result of the reclassification. After that, the Bank of Ghana recruited a consultant to help GN with the reclassification procedure. Despite the foregoing, the organization was not able to fix its liquidity crisis or adhere to the bulk of the requirements the

Bank of Ghana placed on it after reclassifying it as a savings and loans company. The financial condition of the institution had also deteriorated since the reclassification with both negative capital adequacy ratio and negative net worth (BoG, 2020).

According to section 123(4) of the Banks and SDIs Act, 2016 (Act 930), the Bank of Ghana had determined that GN was insolvent due to a violation of essential prudential regulatory standards. Its Capital Adequacy Ratio (CAR) was 61%, in breach of the minimum required of 13%. The Financial Stability Department of the Bank of Ghana had received several complaints from irate clients who had been unable to access their savings with the institution for the past few months, indicating that it was also experiencing a significant liquidity crisis. What is more, it had consistently failed to meet the minimum cash reserve requirement of 10% of its total deposits, since the end of the first quarter of 2019 (BoG, 2020).

Despite repeated assurances that fresh capital would come from outside investors, GN's shareholders were unable to bring the bank back to the necessary regulatory capital and liquidity levels. While GN claimed that the government owed it a total of GH 942.98 million, of which GH 102.73 million represented Interim Payment Certificates (IPCs), the Bank of Ghana believed that only GH 30.33 million worth of IPCs had been confirmed as being owed to contractors who may be indebted to affiliates of GN as of the 6th of August 2019. According to the Bank of Ghana's supervisory evaluation, even after taking the GN's capital deficiency of -GH683.66 million into account, the total amount of outstanding IPCs was GH30.33 million.

It should be stressed that the main cause of GN's bankruptcy problems was the provision of overdrafts and other facilities to related parties and other companies in the Groupe Ndoum network of businesses in a manner that contravened statutory prudential norms. Particularly noteworthy are the GH761.55 million in funds that the former GN Bank transferred to its sister firms Ghana

Growth Fund (Gold Coast Advisors) and Gold Coast Fund Management Limited, now known as Blackshield Capital Management, both of which are registered with the Securities and Exchange Commission. The two associated parties utilized some of these monies to pay their customers whose investments with them had matured, and they also used some of these funds to pay road and other contractors who purported to work on government projects. The IPCs that GN-Bank claimed were not backed by transactions that were directly concluded between GN and such contractors or between the Government and its businesses, which is a key distinction to make. They indicate transactions made between these contractors and Ghana Growth Fund or Gold Coast Fund Management utilizing monies obtained from GN in contravention of prudential standards. The failure of the two related parties to pay back these funds to GN affected GN's capital position, leading eventually to its insolvency and acute liquidity challenges (BoG, 2020).

In addition to GN's insolvency and liquidity challenges, the Bank of Ghana had found other key regulatory violations such as the following:

1) As of the end of May 2019, the institution's adjusted net worth was negative GH30.70 million, which is a violation of Section 28(1) of Act 930 because it shows that its paid-up capital is impaired.
2) Section 29(2) of Act 930 is broken by the institution's adjusted capital adequacy ratio, which was negative 61.20% as of the end of May 2019.
3) The institution's exposure to its linked party has routinely exceeded the regulatory limit of 25% of net own funds, which is against section 64 (2) of the Banks and Specialized Deposit-Taking Institutions Act, 2016 (Act 930). (NOF). The majority of the bank's exposures to other affiliate companies came from payments made on their behalf.

4) The balance sheet's structure for GN makes it abundantly evident that the bank mobilizes deposits for its affiliated businesses. Since all related party exposures are non-performing, the inability of these associated entities to fulfill their obligation to GN has created major liquidity issues. These linked party exposures, which were never paid, were primarily to blame for the institution's large non-performing loans (NPL), which put the deposits of its customers at danger. A recent Bank of Ghana investigation at GN revealed that a sizeable sum (USD 62,255,516, GBP 718,528.59, and EUR 4,200) of depositors' funds held with GN had been transferred to International Business Solutions, another company owned by Groupe Nduom and based in the United States, without any paperwork to support such transfers, in violation of Section IV of Bank of Ghana Notice No. BG/GOV/SEC/2007/4 and Section 19 of the Foreign Exchange Act 2006.
5) Contrary to section 90 (2) of the Banks and Specialized Deposit-Taking Institutions Act of 2016, the company has yet to publish its audited financial statements for 2018. (Act 930). Additionally, the business did not maintain accounting records in a way that would have allowed for an accurate and trustworthy account of its transactions, and as a result, its activities were not depicted in a true and fair manner.
6) In violation of section 25 (2) of the Banks and Specialized Deposit-Taking Institutions Act, 2016 (Act 930), GN temporarily suspended the operations of 70 of its branches, including the Head Office branch at Asylum Down and the Castle Road branch. This was done primarily due to the bank's insolvency and liquidity issues.

### 2.5 Financial Inclusion of Rural People in Ghana

In many countries, financial inclusion has been identified as a critical tool for economic growth and development. Financial inclusion is a major concern in Ghana, particularly in rural areas where access to formal financial services is limited (Atiase, Wang & Mahmood, 2019). According to the World Bank's Global Findex database, only 42 percent of adults in Ghana have access to formal financial services, compared to 47 percent in Sub-Saharan Africa (World Bank, 22015; Demirgüç-Kunt et al., 2015). The situation is even worse in rural areas, which are home to the majority of the population. According to studies, rural areas have lower levels of financial inclusion than urban areas due to a variety of factors such as low income, limited access to financial infrastructure, a lack of financial literacy, and cultural barriers.

Ampaw et al. (2018), used survey data from the Ghana Living Standards Survey to investigate the financial inclusion of rural households in Ghana (GLSS). The study discovered that rural households had lower levels of financial inclusion than urban households. Some of the main barriers to financial inclusion in rural areas, according to the authors, are a lack of physical access to financial services, low levels of financial literacy, and high transaction costs.

Abdul-Rahaman and Abdulai (2022), investigated the factors influencing the adoption of mobile money services in Ghana's rural areas. The study discovered that trust, perceived usefulness, and perceived ease of use were significant predictors of rural mobile money adoption. The study did, however, highlight the need for more awareness campaigns and financial literacy programs to encourage the use of mobile money services in rural areas.

Giesbert et al. (2011), also investigated the impact of financial inclusion on rural development in Ghana. According to the findings of the study, financial inclusion had a positive impact on poverty reduction and rural development in Ghana. However, the authors acknowledged that significant challenges remained, such as a lack of infrastructure and limited financial literacy. Various initiatives have been implemented in Ghana to address the challenges of financial inclusion in rural areas. For example, the government has launched the National Financial Inclusion Strategy to help the unbanked and underbanked population gain access to financial services. The strategy calls for increasing the number of rural bank branches and ATMs, promoting mobile money services, and improving financial literacy.

In Ghana for instance, most rural areas only have access to rural and private financial services (Danquah, Quartey & Iddrisu, 2017). Rural and Community Banks (RCBs) are entities owned by the people in a rural community in which they operate and are set up to conveniently cater for the financial needs of rural financially excluded entities. Therefore, rural banking provides financial intermediary services which are tailored to meet the needs of rural dwellers as the absence of institutional credit certainly generates a huge problem for rural dwellers, (Danquah, Quartey & Iddrisu, 2017). The major credit products of RCBs are microfinance loans, susu loans, salary loans and commercial loans. They also carry out transfer of remittances through the Apex Money Transfer system, (Nair & Fissha, 2010).

### 2.6 Agricultural Financing in Ghana

Over the years, formal financial institutions have established a lack of interest in agriculture finance for four reasons first, many agricultural households were located in remote parts of the country and were often dispersed, so financial institutions found it challenging to provide cost-effective and affordable services and second, big swaths of the agricultural population were subject to the same weather and climate risks, making it hard for providers of the financial services to hedge risks or operate profitable insurance pools, (MOFA, 2020). Thirdly, service providers, mainly urban-based, simply did not know enough about the business of agriculture to devise profitable financial products and fourthly, most small agricultural producers in the developing countries had little education and little knowledge of how modern banking institutions work. As a result of these difficulties, some innovations have been adopted in recent times, namely; index-based insurance schemes, microfinance, community banking, using modern communication technology to enhance payment systems and the financial institutions trying to bundle financial services with non-financial services as some of the innovations in agricultural financing, (MOFA, 2020).

As a result, the central government and development partners are the main sources of funds for agricultural activities in Ghana with the central government spending 186.37 million U.S. dollars in the sector in 2012, (MOFA, 2020).

The government was able to allocate a sum total budget of GH₵ 501.502 million in 2016, GH₵759.680 million in 2017, GH₵900.420million in 2018 and GH₵1,186,521 in 2019, whiles the allocations for 2018 and 2019 are the revised amounts of the first approved appropriation figures of GH₵598.620 and GH₵967.845 respectively (MOFA, 2020).

**2.7 Financial Regulations and Financial Inclusion in Ghana**

The clean-up of Ghana's financial system has aroused policymakers' and the government's interest in adopting the financial sector development rules. These regulations have made deposit commercial banks safer by emphasizing better asset quality (low non-performing loans or high provisions for impaired loans), more capital (less leverage), more liquidity (less maturity intermediation), and better risk management to avoid the accumulation of negative externalities that could fuel crises and contagion (Affum, 2020).

In general, the financial sector regulation has placed a higher emphasis on equity capital and strong liquidity norms, and has expanded the supervisory agents' obligation to ensure financial sector integrity and discipline (Anarfo & Abor, 2020). Financial exclusion is widespread in Sub-Saharan Africa (SSA) due to structural factors affecting the supply of financial services such as cost, information asymmetries in information management and demand of income and education levels, potential self-exclusion, or a weak regulatory environment and business climate. Financial inclusion has increased because of effective financial sector regulation. Like any other kind of financial development, financial inclusion brings new dangers to financial stability, (Claessens & Rojas-Suarez, 2016). As a result, increasing financial laws and oversight will boost public confidence in the financial sector (Claessens & Rojas-Suarez, 2016).

Economic empowerment, financial wellness, sustainable growth, and financial stability all require access to low-cost formal financial services and products (Chakrabarty, 2012). This will ensure that people are able to recognize and leverage the financial tools that are readily available for use to aid them in their efforts to build savings, protect themselves from economic shocks, and fund their businesses and commercial objectives. Only a few studies have focused on the role of regulation in facilitating financial inclusion.

The economy benefits greatly from increased access to and use of high-quality, low-cost financial services (Pazarbasioglu et al., 2020).

The use of the financial products and services provided by banks and non-bank financial institutions, on the other hand, is heavily reliant on the level of trust that customers have in the service providers, (Ofoeda, Gariba, & Amoah, 2016). People will deposit money in a financial institution, take loans, and use other products and services only if they are confident that their savings are safe with the service provider and that the service provider will not take advantage of them as a result. Therefore regulations and the supervisory role of Central Banks are critical to maintaining public trust in financial service providers (Ofoeda, Gariba, & Amoah, 2016).

According to Momany (2018), there are seven types of regulations: safety and soundness, monetary policy, credit allocation, consumer protection, investor protection, entry and chartering regulation, and price. Bailey, Breeden and Stevens (2012) classified all of these regulations into two categories: prudential regulation and business conduct regulation. Prudential regulation is by far concerned with the efficiency of financial service providers, whereas business conduct regulation is concerned with how financial service providers will interact with their customers, (Bailey, Breeden and Stevens (2012).

Prudential regulation is critical for ensuring that financial institutions (both banking and non-bank financial institutions) invest prudently so that customers get a good return on their deposits. As a result, prudential regulation aids in the reduction, if not elimination, of various types of inefficiencies within the financial system that may lead to market failure (Ofoeda et al., 2016). Bjerg (2017), also stated that the Central Bank must implement regulations to protect the funds that people have deposited from undue risks.

Regulation also assists financial institutions in being efficient, which contributes to the creation of a more competitive environment (Rao-Subramaniam., 2019). This competitive environment allows the economy to benefit from high-quality, diverse products and services at a lower cost (Mazer & Rowan, 2016).

According to the Cubillas and González (2014), the main reasons for financial exclusion in Europe could be financial liberalization and intense competition in the banking sector as a result financial liberalization had to increase competition, economic growth, and the development of the financial sector as stated by (Batuo et al., (2018). As a result, financial intermediaries devised a number of strategies to target the wealthy population, including developing loan application selection tools such as credit scoring and drafting financial contracts that excluded non-profitable market segments.

Furthermore, Anagnostopoulos (2018), contends that in a regulated environment, efficiency may be hampered, causing a few powerful banks to stifle competition because it is consistent with the findings of Sarma and Pais (2011), who found that financial regulation may have a negative impact on financial inclusion. Using data from 49 developing countries, the authors discovered that non-performing assets as a 13 percentage of total assets have a negative impact on financial inclusion, Sarma and Pais (2011).

Their findings also indicate that capital asset ratio has a negative impact on financial inclusion, implying that when banks are highly capitalized, they are cautious in their lending, emphasizing the fact that high capitalization in the banking system encourages banks to be cautious in their lending, which has the potential to impede financial inclusion. This finding is consistent with more recent empirical studies that conclude that increase in the capital requirements impede bank lending because equity is expensive and capital buffers are binding (Aiyar et al., 2014).

In contrast, evidence from Ugwuanyi (2015), shows that increased bank capital results in increased bank risk-taking behavior, which has the potential to result in greater financial inclusion. There has been an increase in interest in studies examining the relationship between the financial integrity regulations and the financial inclusion and overall, financial exclusion endangers financial integrity because it leads to the use of informal financial products and the services that do not always operate within the regulatory framework. Nonetheless, there are various concerns that financial integrity regulations may impede the achievement of financial inclusion goals thereby increasing compliance costs, erecting regulatory barriers to new service providers, and creating eligibility barriers for new users (Isern & de Koker, 2009).

In African countries, the relationship between financial integrity and financial inclusion remains ambiguous because access to formal financial services does not necessarily reduce preference for informal financial services (de Koker & Jentzsch, 2013). According to Hasan and Islam (2016), one of the major barriers to financial inclusion is a lack of a strong regulatory framework, whiles others do point to factors such as a lack of infrastructure development, low-quality institutions and poor cooperation.

According to Hasan and Islam (2016), financial regulation can either be a hindrance or a catalyst for financial inclusion and the importance of the regulatory frameworks that promote access to financial services and the account ownership is becoming more widely recognized. The regulatory framework is expected to be designed to facilitate the expansion of account ownership through financial regulation like the bank capital regulation, the introduction of tiered documentation requirements, the licensing of bank agents, low-fee accounts, and the introduction of new technologies such as mobile money (Hasan & Islam, 2016).

### 2.8 Effects of Rural Banks on access to and use of Financial Services

Rural banks, according to the Bank of Ghana, are to stimulate banking habits among rural dwellers, to mobilize resources locked up in the rural areas into the banking systems to help facilitate development and to identify viable industries in their respective catchment areas for the purpose of investment and development (Afful, Hejkrlík & Doucha, 2015).

In Ghana, the rural banks are typically the only banking institutions that open branches in previously unbanked areas as stated by (Abu & Haruna, 2017). Furthermore, rural banks serve as conduits for the distribution of poverty-relief funds provided by government programmes like cash and health insurance to the country's most impoverished households, (Abu & Haruna, 2017). Many rural residents have been able to access this fund, as well as loan facilities from rural banks, to cover for the basic needs such as the costs of a medical emergency, school fees, or the initial capital for a small family business, (Abu & Haruna, 2017).

In Ghana, rural banks are increasing financial inclusion among farmers and low-income earners by improving their ability to save, borrow for various types of entrepreneurial activities, build their assets, and improve their overall living conditions (Akudugu, 2011). However, if farmers and rural dwellers do not have access to a stable financial system, the growth of the rural economy will be hampered and the inability of the poor to obtain financial services has a negative impact on growth and poverty reduction, (Akudugu, 2011). In Ghana, rural banks were established to encourage saving habits and to ensure that adequate and timely credit at reasonable rates of interest was made available to as large a segment of the rural population as possible, (Akudugu, 2011).

Furthermore, it is important to note that the Ghana banking sector clean-up resulted in the collapse of many banks including GN-Bank due to factors such as regulatory constraints, prohibitive market factors, and the geographical/physical and connectivity barriers, all of which contribute to farmers' exclusion from banking services (Addae-Korankye, 2020).

## 2.9 Financial Inclusion in Global Level

An estimated 1.2 billion adults worldwide have gotten access to financial services between 2011 and 2017. As of 2017, 69% of the world's adults had access to financial services (Demirgüç-Kunt et al., 2020). There has been an increase in the number of single-country studies on financial inclusion as stated by Kindler, Ratcheva and Piechowska (2015). According to Bettio and Verashchagina (2014), migrants in the EU were disproportionately affected by Italy's economic crisis as they were more vulnerable to the social and financial exclusion, so programs focused at fulfilling migrants' financial requirements resulted in stronger integration into the destination country. Nanziri (2016) investigates the state of financial inclusion in the South Africa in relation to the gender gap, finding that women primarily use formal transactional products and informal financial mechanisms, whereas men primarily use formal credit, insurance, and savings products, despite no differences in the welfare of financially included men and women. Mitchell and Scott (2019) look at how the government of Argentina exploited financial inclusion to produce a more considerable amount of tax income to get more individuals into the official banking system; as a result, the consumers began to use less cash and more credit and debit cards, resulting in more consumption occurring in formal market places, which could be readily taxed by the government. Financial inclusion was achieved in Bangladesh, according to Ghosh and Bhattacharya (2019), through banking innovations such as 'Sure Cash,' which penetrated the oligopolistic financial system to reach out to women and disadvantaged people. In Comoros, Elrahman and Ali (2019) found that there were hurdles to poor women's access to Islamic financial services. They demonstrated that in Comoros, women either lack money or lack awareness of important financial services, making it impossible for them to escape poverty. Wang and Shihadeh (2015) report that when Palestine joined the Alliance for Financial Inclusion (AFI), the level of the financial inclusion increased, along with improvements in national financial infrastructure.

## 2.10 Financial Inclusion in Sub-Sahara Africa

Financial inclusion is a key component of the financial sector development, promotes economic growth in emerging economies by providing a diverse range of financial services at a very low cost to an increasing number of households and small and medium-sized businesses (Ahmedova, 2015). The Sub-Saharan Africa (SSA) has low levels of financial inclusion in terms of bank accounts (access and intensity of use) and credit (Ayensu, 2017).

There are widespread differences in bank account access based on education, age, gender, income, and location, although approximately 350 million adults in the SSA lacked access to formal financial ecosystems, the region offers numerous opportunities to increase access to and use of services available in the formal financial sector (Rouse, 2017).

Sub-Saharan countries are distinguished by a lack of banking infrastructure, financial exclusion, and high levels of poverty (Myovella, Karacuka & Haucap, 2020). In terms of Automatic Teller Machines (ATM)s per hundred thousand adults, bank branches per hundred thousand adults, commercial bank branches per hundred thousand adults, bank accounts per thousand adults, borrowers from commercial banks per thousand adults, and depositors with commercial banks per thousand adults which has made Africa to lag behind developed countries (Gezae, 2015).

The averages of these financial inclusion measures in Sub-Saharan African countries are compared to those in Europe and Central Asia to see how the level of development of these variables varies over time in Sub-Saharan African countries compared to those in Europe and Central Asia (Allen et al., 2014). Over time, the average performance of these variables in Sub-Saharan African countries has improved; however, the average for Sub-Saharan African countries is lower than for European and Central Asian countries. This suggests that financial inclusion is more of a problem in Sub-Saharan Africa than in Europe or Central Asia. Botswana, Mauritius, Namibia, South Africa, and Kenya are the only Sub-Saharan African countries with average performance in some of these financial inclusion measures when compared to countries in Europe and Central Asia (Tita, 2017).

## 2.11 Financial Inclusion in Ghana

Broadening and deepening financial inclusion in Ghana is important for ensuring inclusive growth and achieving the objectives of the financial sector strategic plan, whiles deeper and more inclusive financial sectors allow poor households to manage risks and smooth consumption; they provide opportunities for micro and small enterprises to survive and grow; they can bridge geographical dispersion by providing access to savings and payment services to populations in rural and remote regions, (Quaye et al., 2014).

In Ghana microfinance provision of savings, credit, and other financial products to the poor grew rapidly during the 2000s in existing institutions, performing well by international benchmarks for MFIs and raising the percentage of the population that is financially included (Quaye et al., 2014). On 18th May 2020, the Ministry of Finance launched three policy initiatives designed to deepen financial inclusion and accelerate the shift to digital payments (Pazarbasioglu et al., 2020; Ministry of Finance, 2020). The National Financial Inclusion and Development Strategy, developed in collaboration with the World Bank, aims at increasing financial inclusion from currently 58 percent to 85 percent by 2023, helping create economic opportunities and reducing poverty (Ministry of Finance, 2020). However, the Bank of Ghana reports that in 2021, there were 40.9 million registered mobile money accounts and 17.5 million active accounts, making Ghana the fastest growing country in improving access to financial inclusion for her citizens, (Ministry of Finance, 2020).

### 2.12 Types of Financial Services Product

Generally, there are two main forms of financial service products; these are formal and informal financial services.

#### 2.12.1 Formal Savings Institutions

Individuals and families engage in formal savings when they keep or set aside money or monetary resources with the formal financial institutions and non-financial institutions. Commercial and rural banks. are examples of financial institutions, while credit unions, microfinance companies, and Susu groups are examples of non-financial institutions (Addae-Korankye, 2020).

### 2.12.2 Commercial Banks

Among all formal financial intermediaries, commercial banks are the most prevalent and complex. A commercial bank is any financial firm or division of a larger firm that accepts deposits - subject to withdrawal by check on demand - and invests those depositors' funds in interest bearing loans and marketable investments (Bharati, 2019). Commercial banks' importance as a formal savings outlet for families cannot be overstated. According to Jakab and Kumhof (2018), interest in commercial banks as a savings vehicle has grown among families not only because they play a dominant role among financial intermediaries, but also because they retain the ability to influence the money supply process. Commercial banks' natural processes are also the primary channel through which central banks' monetary policies influence a nation's money supply and credit conditions for families and friends (Lartey, 2018).

### 2.12.3 Non-Bank Financial Institutions

A new banking law was enacted in 1993, establishing non-bank financial institutions (NBFIs), This law was replaced by the non-bank financial institutions Act, 2008 Act 774 and further amended in Banks Deposit-Taking Institutions Act, 2016 (Act 930).

A non-banking financial institution, according to section 27 of the NBFIs decree, is an institution that carries on the business of, or part of the business of, taking deposits, financing of any activity by way of making loans or advances or otherwise, which is not regulated by the securities industry law, dealing in shares, stocks, bonds, debenture or securities issued by the government or a company, or other marketable securities, leasing, letting, or delivering of goods (Rizwan and Semenoh, 2017).

A non-bank financial institution, according to this definition, is a very broad concept that includes, among other things, the discount houses, leasing and hire purchase companies, mortgage finance of companies, savings and loan companies, building societies, insurance companies, and credit unions, (Rizwan and Semenoh, 2017).

### 2.12.4 Credit Unions

According to Pindel and Martysz (2019), a credit union is a non-bank depository institution organized by people who share a mutual bond, such as employees of a fellowship, religious groups, or labor unions, with the primary purpose of assisting members in obtaining items such as cars, home appliances, and sometimes meeting emergencies. Credit unions are typically owned and managed by their members; they are institutions where families can put their money. McKillop and Wilson (2011) discovered that credit unions only accept deposits and make loans to their members. Credit union membership is frequently limited and restricted to a specific group (Rizwan and Semenoh, 2017).

### 2.12.5 Informal Savings Institutions

Informal savings are any savings that occur within the economy's informal sector. In the Ghanaian economy, the informal financial sector participates in all commercial savings and lending that occur outside of the formal sector (Boachie & Adu-Darko, 2022). Informal saving options for Ghanaian families include "susu," "walking the banks," and welfare societies, in addition to saving money at home or with a trusted member of the residential district, (Boachie & Adu-Darko, 2022).

### 2.12.6 Susu

According to Osei-Boateng and Ampratwum (2011), "susu" is applicable to a group of people with a common interest, such as friends, coworkers, traders in the same area, or neighbors, who agree to make periodic contributions and the total amount is paid to one of the members at a time until every member receives his or her payment within a complete cycle. Susu enables individuals and families to take items that they may have had difficulty saving for in the past, Osei-Boateng and Ampratwum (2011).

### 2.12.7 Walking Bank

According to Abdullahi (2010), credit union services are formed in most communities and workplaces with the goal of assisting one another in times of need but members pay fixed-amount dues, which are kept by an elected treasurer. Although members do not have direct access to their savings, the funds are available for members to use as loans in times of need, sometimes with little or no involvement at all, Abdullahi (2010).

### 2.12.8 Keeping Cash at Home

Keeping money at home is another popular way for families and individuals to save money. This method of saving is typically preferred by residents of rural communities where access to other financial intermediaries is nearly impossible, Abdullahi (2010).

It is also an option for those who do not trust banks or other financial institutions. People who have reservations about the operations of formal financial intermediary institutions typically keep cash at home most of the time. Rural families find it more convenient to deal with the informal financial intermediaries because formal financial intermediaries are not always available in Ghana's rural areas, (Annan, 2019).

### 2.12.9 Welfare Society

This is formed in most communities and workplaces with the intention of assisting one another in times of need. Members pay fixed-amount dues, which are kept by an elected treasurer, and although members do not have direct access to their savings, the funds are available for members to use as loans in times of need, sometimes with little or no involvement at all (Annan, 2019).

## 2.13 Policies and Challenges of Financial Inclusion

There are a few cross-country studies on financial inclusion policies and problems in Asia and Africa, (Ozili, 2021; Siddik et al., 2018; Rosengard & Prasetyantoko, 2011). These studies investigated how government actions could help provide access to finance; some looked into the regulatory guidelines that limit financial inclusion, while others looked into how financial institutions involved in community development can benefit from market failures to improve financial inclusion.

Ayensu (2017), classified financial inclusion challenges into supply side, those expected to be solved by financial institutions and demand side and those expected to be overcome by those without access to finance. According to the World Bank Group (2013), improving financial inclusion is hampered by several factors, including irregular loan repayment and high interest rates. Other factors are bank identity requirements, account terms and conditions, high bank charges, access to bank branches, psychological and cultural pressures, and the ease with which banks' services can be used (Farah, 2017). Most policies aimed at reducing financial exclusion tend to prioritize financial inclusion in rural areas while ignoring urban areas, particularly shanty towns.

Access to savings and loans as a measure of financial inclusion is dubious because people can obtain loans without having an account (Cámara & Tuesta, 2014). As a result of this phenomenon, research has been initiated to investigate more pertinent methods by which the financially excluded may become involved in the formal financial sector. Researchers have concluded that bettering urbanization, human development, inequality, income, physical infrastructure, and literacy for connectivity and information tends to encourage people to participate in the formal financial sector. The most persistent obstacles to financial inclusion appear to be higher interest rates and a lack of access to accounts and loans across nations, (Cámara & Tuesta, 2014).

## 2.14 Empirical information on Financial Inclusion

Chakravarty and Pal (2013) investigated the effects of major banking policies on financial inclusion across Indian states using state-level panel data from 17 Indian states from 1972 to 2009. Guiso et al. (2006) investigated the impact of bank deregulation on access to and the cost of finance, using the 1936 Italian banking law and its repeal in the 1980s as a natural experiment. The authors, in particular, took advantage of exogenous variation in the level of restrictions on bank competition across Italian provinces to provide evidence on the effects of bank regulation and the impact of banking sector deregulation. Their findings indicated that bank deregulation increased competition in the banking industry.

Other research has used bank branch deregulation policies to provide causal evidence on the impact of banking system penetration on economic growth, firm creation, poverty, and inequality, Guiso et al. (2006).

Bruhn and Love (2013) used the natural experiment of gradually relaxing bank branch restrictions on state-wide branching and entry of out-of-state banks in Mexico to provide evidence on the effect of financial sector development on economic growth. They discovered that relaxing bank branch restrictions resulted in an increase in bank presence across the various states, which resulted in a 0.5–1.2% increase in economic growth. Chatterji and Seamans (2012) investigated the effect of policy changes, specifically the US branch deregulation program, on entrepreneurship in a similar study. They discovered that removing bank branch restrictions increased the rate of new firm incorporation by up to 8% while reducing the negative effect of concentration on new firm incorporation.

Beck (2016) investigated the impact of deregulation on income distribution by expanding on the experience of branch deregulation across US states in the 1980s and 1990s. To address some of the concerns about cross-country regressions, such as indigeneity and measurement error, the authors used cross-state and cross-time variation.

Accounting for state- and time-fixed effects, to provide evidence on whether liberalizing restrictions on the intra-state branching in the United States had an effect on income distribution, Guiso et al. (2006). They discovered that bank branch deregulation reduced income inequality, owing largely to its impact on labor market conditions and more specifically, the authors argued that the effect of financial deepening on income inequality was not only statistically significant, but also economically significant, because the removal of branch restrictions could account for more than 60% of the cross-state, cross-year variation in income distribution, Guiso et al. (2006).

Raj et al. (2014) shed light on the impact of banking sector development on Indian firm establishment. Demirgüç-Kunt and Klapper (2013) investigated the use of financial services and the factors influencing financial inclusion in 148 countries. They estimated models on the effect of various individual and country characteristics on three main indicators of financial inclusion: ownership of a bank account, savings on a bank account, and use of bank credit. The authors discovered that income has a significant impact on the level of financial inclusion both within and across countries.

Leon and Zins (2020) have recently provided evidence on the role of regional foreign banks in increasing financial inclusion in Africa. In their empirical study, the authors combined three types of data: individual-level data from the World Bank Global index database, firm-level data from the World Bank Enterprise Surveys, and a hand-collected database on the presence of regional foreign banks. According to the study, the presence of regional foreign banks improves credit access for households whereas the presence of foreign banks from developed countries has a negative relationship with firms', Beck (2015).

### 2.15 Conceptual Framework

The conceptual framework in Figure 2.1 illustrates the relationship between GN-Bank collapse and financial inclusion, particularly in relation to the beneficiary and vulnerable groups theory of financial inclusion. The study conceptualized that the collapse of GN-Bank would have a significant impact on the ability of agrarian households to access and use financial services. As beneficiaries of financial inclusion, agrarian households are reliant on financial services such as saving, loan facilities, insurance, and fixed deposits to support their livelihoods.

However, the collapse of GN-Bank might make it more challenging for agrarian households to access these services, thereby exposing them to greater financial vulnerability. The vulnerable group theory of financial inclusion emphasizes the importance of ensuring that marginalized and vulnerable groups have access to sustainable financial services that meet their needs.

In the absence of reliable financial services, most agrarian households may have no choice but to resort to alternative forms of financial services such as Susu, money lenders, home saving, credit unions, and community saving groups. Unfortunately, these services are often not sustainable, which can lead to further financial vulnerability and exclusion. As such, it is essential to ensure that agrarian households have access to sustainable financial services that meet their needs, in line with the principles of financial inclusion and the beneficiary and vulnerable group theory.

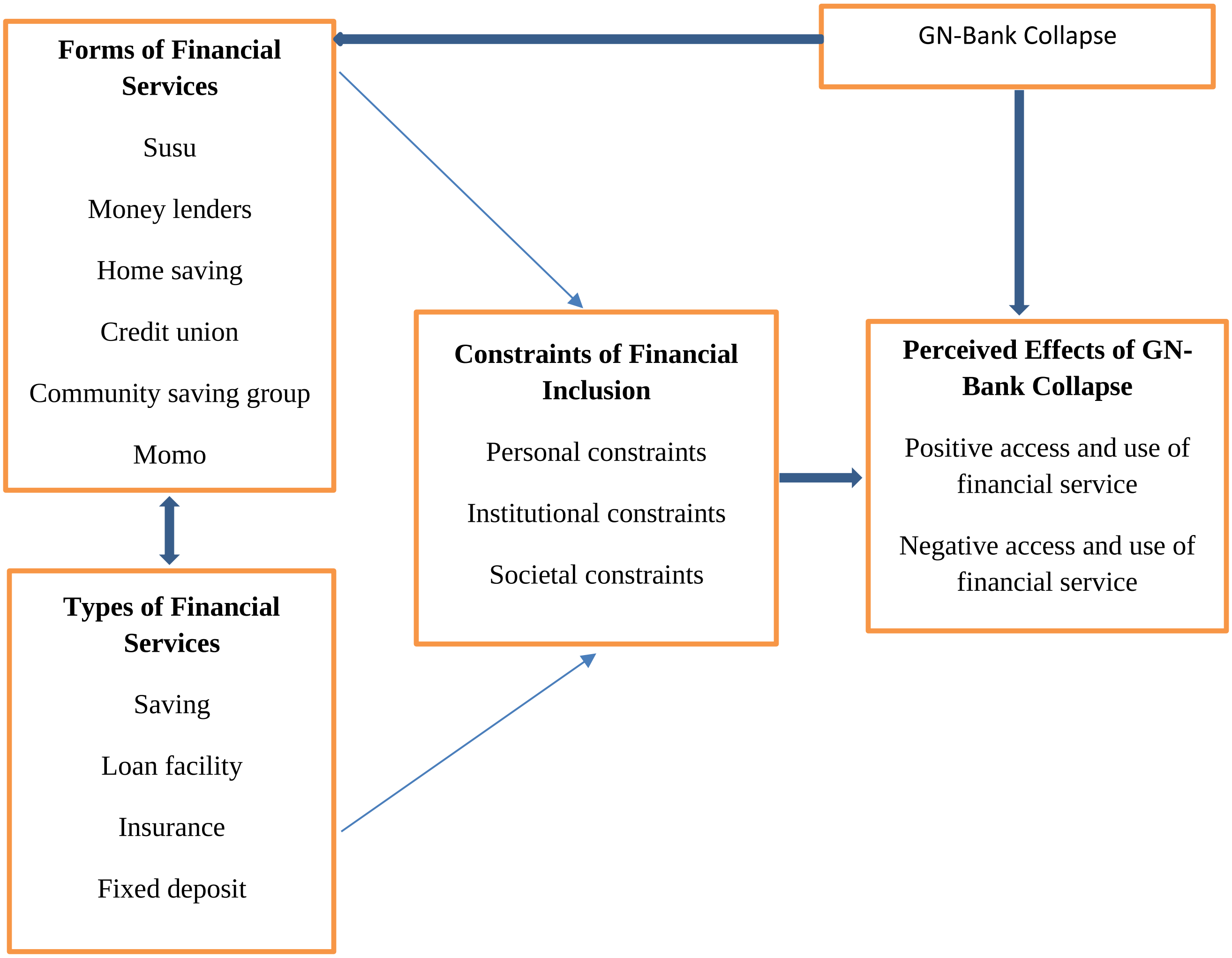


**Figure 2.1 Conceptual Framework**

Source: Authors' own construct (2022)

# CHAPTER THREE

# METHODOLOGY

## 3.0 Introduction

This chapter presents the methodology employed in carrying out the study. Research design, sampling procedure, and methods of collection and analysis used in the study are described in detail in this chapter.

## 3.1 Description of the Study Area

The research sought to examine how the collapse of GN Bank affected financial inclusion of agrarian households in Tolon district of the Northern region of Ghana. The GN Bank operated in both rural and urban areas of the region.

The Tolon District Assembly came into existence in 2011 by Legislative Instrument (LI) 2142 with Tolon as the district capital. Hitherto, the district was part of the Tolon/Kumbungu District; one of the 45 districts created by the then Provisional National Defense Council (PNDC) Law 207 in 1988. In order to enhance participation and development especially at the grass-root.

According to the 2010 Population and Housing Census, the Tolon district has about 72,990 people. The district lies between latitudes 9° 15′` and 10° 02` North and Longitudes 0° 53′and 1° 25′ west. It shares boundaries to the north with Kumbungu district, North Gonja district to the west, Central Gonja to the south, and Sagnarigu district-to the east. The district is characterized by a single rainy season, which starts in late April with little rainfall, rising to its peak in July-August and declining sharply and coming to a complete halt in October-November.

The dry season starts from November to March with day temperatures ranging from 33°C to 39°C, while mean night temperature range from 20°C to 26°C. The Mean annual rainfall ranges between

950mm - 1,200m (Ghana Statistical Service, 2010). Due to the emerging economic prospects of the district, GN-Bank established the Tolon and Nyankpala branch to extend financial services to the rural poor.

The GN-Bank is operated as a commercial bank created to service farmers, professionals, workers as well as small and medium scale entrepreneurs in the district (Aboagye, 2020). The bank was providing economic opportunities and affordable access to sustainable business practices and products to clients by pairing traditional banking with mobile banking to the people of Tolon district, (Aboagye, 2020).


**Figure 3.1: Map of Tolon District**

**Source:** Ghana Statistical Service, **(2014)**

### 3.2 Research Approach

This study used the mixed research approach, thus employing both qualitative and quantitative research approaches. This research focused on the establishing the relationship between access and usage of financial services and the effects of GN-Bank collapse. This requires an in-depth study, which involves the usage of qualitative approach like personal interviews in understanding how the collapse of GN-Bank affects people's ability to access and use financial services in the Tolon district. Using both qualitative and quantitative research approaches helped overcome the weakness associated with each of the approaches, (Fassinger & Morrow, 2013).

This, therefore, informed the decision to adopt a mixed method approach of gathering data to holistically explore the relationship between access and use and GN-Bank collapse among agrarian households in the Tolon district. It is widely perceived that the research problem is focused to determine the choice of a particular research approach (Fassinger & Morrow, 2013). The qualitative method is generally regarded to be inductive, interpretative, and natural and seeks to get deeper meaning and understanding of specific situations. It emphasizes processes and meanings rather than on measures of quantity, intensity, and frequency (Mertens, 2014).

However, it is believed that the key weaknesses of the qualitative method are that it tends to be subjective, and difficult to replicate, and it is not good for generalization and predictions (Arcagok & Yılmaz, 2020). On the other hand, the quantitative method is most important if only the researcher intends to collect numeric data that represent quantities of measurement or parameters of entities (O'Connor & Joffe, 2020).

Though, the quantitative method has been criticized for being too artificial as it allows for generalization of findings. Rose and Low-Choy (2019), claimed that though the qualitative approach is a pre-determined and finely tuned technological tool, it allows for much less flexibility, imaginative input and reflexivity.

### 3.3 Research Design

This research study adopted a survey research design. A descriptive survey is an important method of information gathering or data collection (Flynn & Korcuska, 2018). Furthermore, a survey research design helps to enrich a study because it makes it possible to address a huge sample within a short time and determine the causes and frequency of a phenomenon which other study designs cannot achieve (Mõttus et al., 2020). This design was used to assess the relationship between the collapse of banks on financial inclusion in the Tolon district of the Northern region of Ghana.

### 3.4 Population of the Study

Here population refers to any adults who were having accounts or doing business with GN bank in the Tolon district; thus, both formal clients of GN-Bank and clients of GN-Bank of agrarian households were the main target population of the study. According to the Tamale Apex Bank (2022), before the collapse of GN-Bank, there were 860 clients from Tolon and 210 clients from Nyankpala.

### 3.5 Sample Size and Sampling Procedure

Here, the target population for this study was adults who were having accounts or doing business with GN bank in the Tolon district particularly in Tolon and Nyankpala townships. The type of sample depends on the kind of data analysis a researcher intends to use. The accuracy of the sample depends largely on the researcher’s purpose and the population’s characteristics (Malone, 2020).

### 3.5.1 Sampling Procedure

The multi-stage sampling approach was used in selecting the sample for this study. In the first-stage, two (2) communities; that is, the Tolon and Nyankpala were purposively selected because of the operation of GN-Bank in Tolon and Nyankpala respectively. Using Tolon and Nyankpala further reduced the burden of searching for clients scattered across the entire district due to non-information about the current client base of GN-Bank. From a sample frame of 860 clients from the Tolon and 210 clients from Nyankpala (Tamale Apex Bank, 2022), the Fisher's method (Fisher, Laing and Stoeckel, 1983) of sample size determination was used to determine the sample size for the study. Thus, the sample size formula gives 95% confidence level shown below

$$n= \frac{pqZ^2}{d2}$$

Where;

n = sample size for infinite population

Z = 1.96 (at 95% Confidence level)

p = estimated proportion of clients (0.1)

q = 1-p d = precision of the estimate at 5% (0.05)

The sample size will be;

$$n = \frac{(1.96)^2 \quad 0.1 \times 0.9}{(0.05)^2}$$

n =138

The adjusted sample sizes for the finite population of 860 clients from Tolon and 210 clients from Nyankpala, in the two communities are:

$n^1$ = 1/ (1/n + 1/N)

Where;

$n^1$ = adjusted sample size ($n^T$ = Tolon and $n^N$ = Nyankpala)

n = estimated sample size for infinite population

N = Finite population size

$n^T$= 1/(1/138 + 1/860) and $n^N$= 1/(1/138 + 1/210)

$n^T$= 119 =120 and $n^N$= 84 =90

From the Tolon community, one hundred and twenty (120) adults who were doing business with the GN-Bank were selected. Also, from the Nyankpala community, ninety (90) adults who were doing business with GN-Bank were selected using purposive sampling techniques.

The adoption of purposive sampling techniques is because of the difficulties in getting information about the clients due to cessation of the bank's operation in these areas and the inability of the Tamale Apex Banks and Central Bank of Ghana to provide information about clients of GN-Bank. Hence, identification of clients from these communities relied on referral, since, the nature of social in these communities makes members more knowledgeable about each other's, (Malone, 2020).

**Table 3.1: Distribution of sampled Agrarian Households and Community**

| **Community** | **Clients of GN-Bank** |
|---|---|
| Tolon | 120 |
| Nyankpala | 90 |
| **Total** | **210** |

### 3.6 Types and Sources of Data

The study collected both primary and secondary sources of data. The primary data was collected from face-to-face interviews with agrarian households in the study area, while secondary data was obtained from records of the Apex Banks and Bank of Ghana and records of financial NGOs working in the selected district.

### 3.7 Instruments for Research

The main research instruments adopted for this study are questionnaire and interview guide for face-face interviews.

#### 3.7.1 Questionnaire

The questionnaire was administered through personal interview sessions with agrarian households. A semi-structured questionnaire, made up of closed and open-ended questions, was designed and pre-tested. The questionnaire for agrarian households features a mixture of questions that are related to the study concepts. The questionnaire comprises background questions such as sex, age, educational level and incomes status. The furthermore, questions were very specific on the indicators of access and utilization of financial services such as savings accounts, loan facilities, insurance and fixed deposits and furthermore the challenges that agrarian households face in accessing and using financial services in the area as a result of the GN-Bank collapse.

#### 3.7.2 Interview Guide

A semi-structured interview guide was used to obtain pertinent information on the socio-demographic characteristics of the farmers, access and utilization of financial services, the forms of financial services, copping strategies and challenges in overcoming the effects of collapse of GN-Bank.

The instrument consisted of close-ended questions that allowed agrarian households members to freely express their opinions. It is another technique for gathering data where the researcher asks the questions orally and records the respondents' answers. This approach was intended to allow respondents to speak freely on the effects of collapse of GN-Bank on financial inclusion among agrarian households' members. This method was adapted to account for some of the respondents' limited reading levels and to help the interviewer establish a connection with them so they would feel comfortable answering questions.

### 3.8 Data collection methods

In this study, both quantitative and qualitative data were gathered using a mixed-methods approach. Face-face interviews and key informant interviews were used to collect the data from the respondents.

#### 3.8.1 Face-face questionnaire administration

Two hundred and ten (210) agrarian households' members were interviewed with the aid of a questionnaire. The personal interviews session also allowed agrarian households' members to respond to the questions based on the study concepts. A structured questionnaire was used in gathering data consisted of the following: farmers' socio-demographic characteristics, the forms of financial services available to agrarian households, the effects of the collapse of GN-Bank on financial inclusion of agrarian households, how agrarian households are coping with the collapse of GN Bank in accessing financial market and the constraints that agrarian households face in accessing and using financial service in advent of GN-Bank collapse. Respondents were given options such as Yes or No responses to select from.

### 3.8.2 Key Informant Interviews

Key informant interview is a process of data collection is qualitative in nature. Key informants mostly refer to respondents in the sample that are perceived to have more in-depth information and knowledge on the phenomenon under study. The purpose of qualitative methods of data collection techniques is to gather in in-depth data that is based on personal experience and stories and compliment quantitative data collect by the researcher. The key informants included two lead farmers in both Tolon and Nyankpala township respectively. Also, one officer from Tamale Apex Bank and two mobile money agents in the Tolon and Nyankpala township respectively were considered as key informant for this study. These respondents were considered to have an in-depth knowledge about the study concepts. The officer from Tamale Apex Bank provided an in-depth information considering the types of financial services offered to clients. Whiles, the lead farmers provided information regarding the challenges and effects of GN-Bank collapsed on their access to financial services in the district. Also, the mobile money agents provided information on the usage of mobile money services by residents of Tolon and Nyankpala township. Finally, key informant interview being qualitative in nature, the information from the participants were recorded and transcripts into patterns and analysed qualitatively using content analysis.

## 3.8 Data Analysis

Data processing comprised of the data transformation into information through collating, organizing, categorizing, retrieving, disseminating information manually or using computer software. SPSS and Microsoft Excel were used as the software for data input and analysis. Each objective of the research was analyzed using appropriate statistical and analytical techniques. Descriptive and inferential statistics were used in the analysis of the data to achieve the study's objectives. Also, content analysis was used to analysed qualitative data. The results were presented in tables and charts.

### 3.8.1 Analysis of the forms and type of Financial Services

Analysis of the forms of financial services available to agrarian households and types of financial services used by agrarian household members were analysed using descriptive statistic that is, percentage and frequency count. Also, agrarian household members' levels of use of these financial services were measured on a five-point Likert scale thus, very high, high, moderate, low, very low, where, agrarian household members were asked to select these options.

### 3.8.2 Analysis of the effect of GN-Bank collapse on the usage to financial services

Analysis of the effects of GN-Bank collapse on usage of financial services by agrarian household members was achieved using a paired sample T-test. The paired sample T-test was used to check for statistical significance and independence between means. The paired sample T-test which is a parametric statistic is most appropriate for statistics when a study involves two groups with the independent variable being categorical. The indicators of financial services in this study were saving mobilization, access to credit/loan, pre-financing, insurance, investment portfolio and asset accumulation. These indicators were assessed based on agrarian household members experience with the operation of GN- Bank before and after the bank collapsed.

### 3.8.3 Analysis of coping with the collapse of GN bank in accessing financial market

Analysis of how agrarian households in the district are coping with the collapse of GN bank in accessing the financial market' was achieved using the qualitative method. Qualitative data is the non-numeric information such as interviews, transcripts, notes and audio recordings. The approach of data analysis in this study will be content analysis. Content analysis is the process whereby verbal, audio or verbal or behavioral data is classified. Responses from agrarian household members were done by first getting familiar with the data collected, this is achieved by going over the tapes and materials over and over again to identify patterns. Furthermore, the results were presented in the forms narratives and key concepts extracted to support general study concept in the analysis.

### 3.8.4 Analysis of the constraints using financial service in the advent of GN-Bank collapse

Analysis of the constraints that agrarian household members face in accessing and using financial service in advent of GN-Bank collapse was achieved using Likert scale of ranking and Kendall's coefficient concordance was used to assess the level agreement among the rank score of respondents. This study objective was analyzed by first establishing the constraints faced by agrarian households' in accessing and using financial services in the advent of GN-bank collapse in rural areas and ranking these constraints in order of severity.

The Kendall's coefficient of concordance analysis was used to test for the agreement of the rankings by the respondents. Kendall's coefficient of concordance (W) is a measure of the agreement among several (P) judges who are assessing a given set of n objects (Legendre, 2005). W is an index that measures the ratio of the observed variance of the sum of ranks to the maximum possible variance of the ranks. The idea behind this index is to find the sum of the ranks for each challenge being ranked.

If the rankings are in perfect agreement, the variability among these sums was a maximum (Mattson, 1986). The Kendall's coefficient of concordance (W) is therefore given by the relation:

$$W = \frac{12S}{p^2(n^3 - n) - pT} \qquad 1$$

Where W denotes the Kendall's Concordance Coefficient, P denotes number of constraints, n denotes the number of respondents (sample size), T denotes correlation factor for tied ranks and S denotes sum of square statistic. The value of W lies between 0 and 1, where 1 indicates perfect concordance or agreement and 0 indicates perfect disagreement among the rankers of the rankings. The sum of square statistic (S) is given as:

$$S = \sum_{i=1}^{n} (R_i - \bar{R})^2 \qquad 2$$

Where: $R_i$ = row sum of ranks, R= the mean of $R_i$

The correlation factor for tied ranks (T) is also given as:

$$T = \sum_{k=1}^{m} ({t_k}^3 - t_k) \qquad 3$$

Where: $t_k$ = the number of ranks in each (k) of m groups of ties.

The test of significance of the Kendall's concordance uses the chi-square ($X^2$) statistic which is computed using the formula;

$$X^2 = P(n-1)W \qquad 4$$

Where n= sample size, p=number of constraints, W= Kendall's coefficient of concordance

# CHAPTER FOUR

# RESULTS AND DISCUSSION

## 4.0 Introduction

This chapter presents results and discussion of findings of the study conducted to determine the effects of GN Bank collapse on the financial inclusion of agrarian households in the Tolon District of the Northern Region of Ghana. The chapter is organized into six (6) sections: the first presenting findings and discussions on the socio-demographic characteristics of the agrarian households. Section two (2) deals with the findings forms of financial services that are available to agrarian households, while section three (3) looks at the findings on the effect of GN-Bank collapseon access to financial services by agrarian households. Section four (4) presents how agrarian households in the district are coping with the collapse of the GN bank in accessing financial market and finally, section (5) discusses the constraints that agrarian households face in accessing and using financial services in the advent/event of GN-Bank collapse.

## 4.1 Demographic Characteristics of Respondents

This section presents findings and discussions of demographic characteristics of the agrarian households in the sample.

### 4.1.1 Sex of Respondents

The survey results (Table 4.1) show that majority of the agrarian respondents (73.3%; 73%) were males, with 26.7% (27%) of them being females. Despite the fact that females are fewer in this study area, women play major roles in farming activities like planting, harvesting and drying of cereals.

However, women are mostly seen helping on their husbands' farms in the form of family labour and this could account for the small number of female farmers (26.7% 27%) in the study area. Also, the type of farming men are engaged in is often considered as commercial farming and this could also account for the greater number of male farmers (73.3% 74%) interviewed in the study area. A report by the Ministry of Food and Agriculture revealed that farming in Ghana has always been male-dominated since Ghana's independence (MoFA, 2015) and it is therefore not surprising that this study confirms this trend of male dominance in farming.

**Table 4.1: Distribution of Sex of Respondents**

| Sex of Respondents | Frequency | Percentage (%) |
|---|---|---|
| Male | 154 | 73.3 |
| Female | 56 | 26.7 |
| **Total** | **210** | **100** |

**Source:** Field Survey Data, 2022

### 4.1.2 Age of Respondents

The figures in Table 4.2, revealed that majority (66.2%) of the respondents were between 30 and 45 years. Furthermore, 18.6 percent of the them were between 46 and60 years. Also, 10.0 percent of the respondents were below 30 years of age. However, the least age group was agrarian households above 60 years with only 5.2 percent.

Based on the study results, it is evident that majority of the farmers surveyed were within the productive age limit of 30 and45 years; suggesting that farmers within this age group possess the required energy and the strength to produce enough quantity of food and also meet household food security requirement (see Table 4.2).

**Table 4.2: Frequency distribution of respondents**

| Age of respondents | Frequency | Percentage (%) |
|---|---|---|
| Below 30 | 21 | 10.0 |
| 30-45 | 139 | 66.2 |
| 46-60 | 39 | 18.6 |
| Above 60 | 11 | 5.2 |
| **Total** | **210** | **100** |

**Source:** Field Survey Data, 2022

### 4.1.3 Marital Status of Respondents

The marital status of the agrarian households for this study was explored as shown in Figure 4.1 and the results show that the majority of the respondents (73.3% 73%) interviewed are married, while (14.3% 14%) are single (never married); 8.6% (9%) and 3.8% (4%) are divorcees and widows respectively. Marriage is considered as one of the most important institutions in Ghanaian societies. Someone who is not married at a certain age is almost abnormal, whiles every woman in African societies wants and hopes to be married, (Edin & Kefalas, 2011; Gyekye, 1998). In most of Ghanaian societies, authority of the family is mostly vested with the male heads, which has an impact on the decision as to save for the future or not.

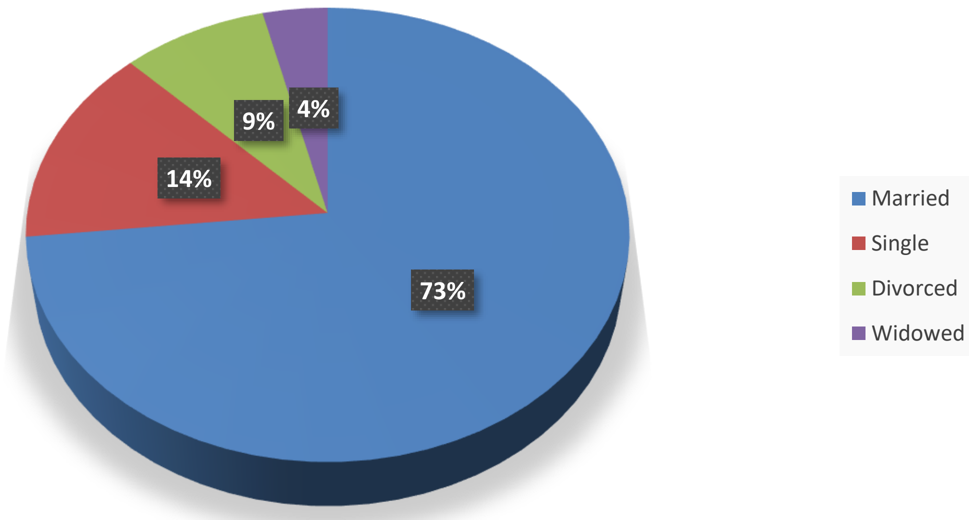


**Figure 4.1: Marital Status of Respondents**

**Source:** Field Survey Data, 2022

### 4.1.4 Educational Level of Respondents

According to Olorunfemi, Olorunfemi and Oladele (2020), higher education status of agrarian households increases their ability to process and use information disseminated to them as this could be related to their finances and savings behaviour. In recognition of the importance of education plays influencing the inclusion situation of agrarian households. Data was collected on the educational status of the respondents. From the results in Figure 4.2, most of the respondents 152 (72.4%) had no formal education. This result confirms a study by Anang and Asante (2020), which found out that low level of education is predominant among agrarian households in Ghana. Low educational status of the agrarian households has a negative implication on their livelihoods as the decision to be financially stable could also be influenced by literacy as stated by Olorunfemi and Oladele (2020).

Also, 25 (11.9%) of respondents had primary education, 14 (6.7%) of respondents had attended junior high school education and 12 (5.7%) of the respondents had senior high school certificates, whiles the other remaining 7 (3.3%) of respondents had tertiary education. This result implies that most of the respondents had no formal education, as shown in Figure 4.2.In view of the findings on the educational status of the respondents, it might be very difficult for respondents with low education understand effective financial education when they are provided.

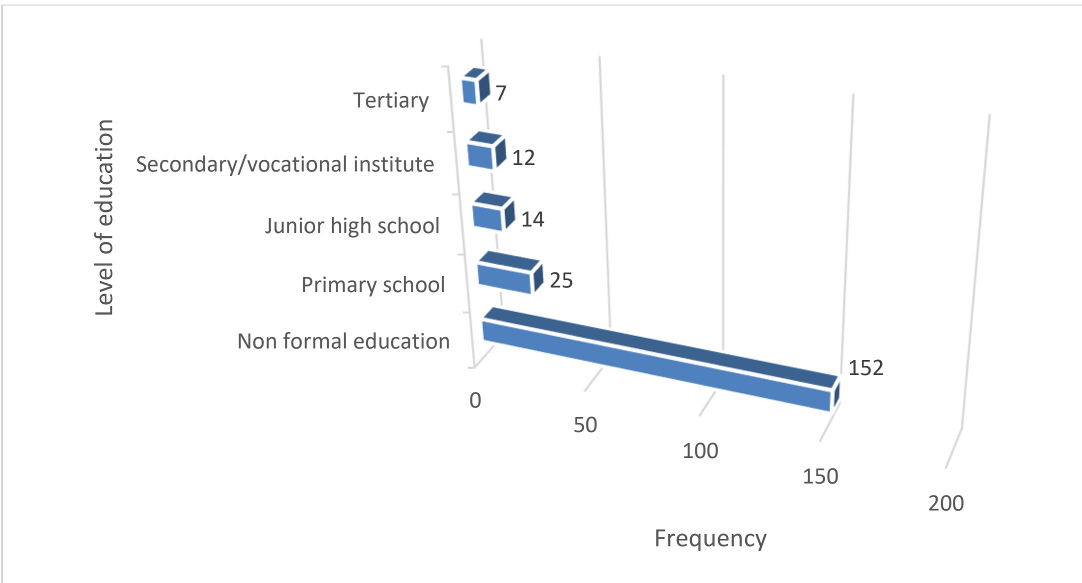


**Figure 4.2: Bar Chart Illustrating the Educational Level of Respondents**

**Source:** Field Survey Data, 2022

### 4.1.5 Length of Stay and Farming Experience of Farmers

Some researchers suggest that experience in a particular activity is relevant in achieving results over time, (Schunk & DiBenedetto, 2020; Peters et al., 2018; Fink, 2013). Further research does support this assumption that, the number of years working on a job influences output (Massa & Mosa, 2021). As a result, this study had explored how farming experience and duration of stay in the district had great influence on agrarian households' having access to and use of financial service in these areas.

Figure 4.3 presents the number of years the respondents have been farming. The results from the field study revealed that 15 (7. %) of the respondents started farming less than 5 years ago, 37 (17.6%) have been farming between 5 and10 years while 158 (75.2%) had been farming for more than 10 years Confirming the findings of Massa and Mosa (2021), most of the respondents have been engaged in farming for more than 10 years. This implies that the farmers possess a lot of experience. These respondents having the right financial resource could enhance their production capacity, however, on the length of stay of respondents in the study area, the results revealed that 16 (7.6% 8%) of them had lived in the area for less than 5 years ago, 34 (16 %) had lived between 5 and 10 years while 160 (76%) respondents had lived in the area for more than 10 years as shown in Figure 4.3.

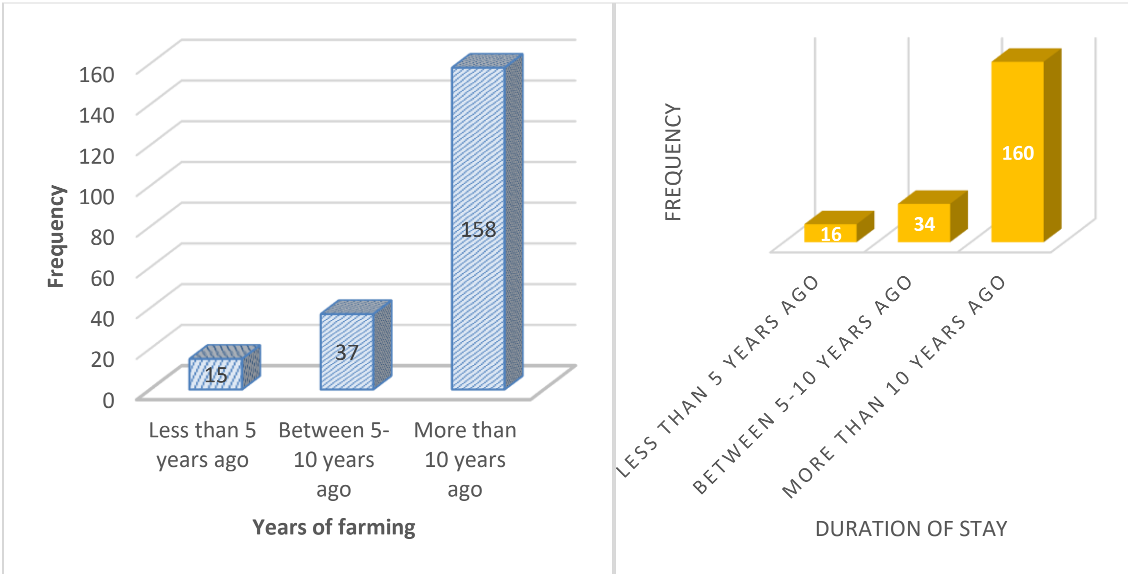


**Figure 4.3: Farming Experience and Length of Stay (in the Area)**

**Source:** Field Survey Data, 2022

### 4.1.6 Usage of Mobile Money Account and Types of Networks

This section presents results of agrarian households' usage of mobile money accounts and the types of networks they use in their business transactions. The data in Figure 4.4 revealed that, all 210 (100.0%) respondents interviewed for this study are using Mobile Money Wallet for financial transactions. Furthermore, as regards the specific network, it was revealed that majority 147 (70.0%) of the respondents are registered under MTN Mobile Money Wallet popularly known as "mobile money". Also, "Voda-Cash" and Airtel-Tigo recorded 23.3 percent and 6.7 percent respectively usage by the resondents. In Ghana, MTN Tele-communication network has most subscribers numbering over 60 percent. Hence, the high dominance of MTN mobile money could be as a result of their large market shares in the tele-communication industry. Gradually, mobile money wallet is now serving as a bank account for the un-bank population, particularly in the rural areas like Tolon and Nyankpala. Okello et al. (2018) reported that majority of farmers in Sub-

Saharan African countries do not have bank accounts, but solely depends on mobile money wallet as a means of meeting their financial needs.

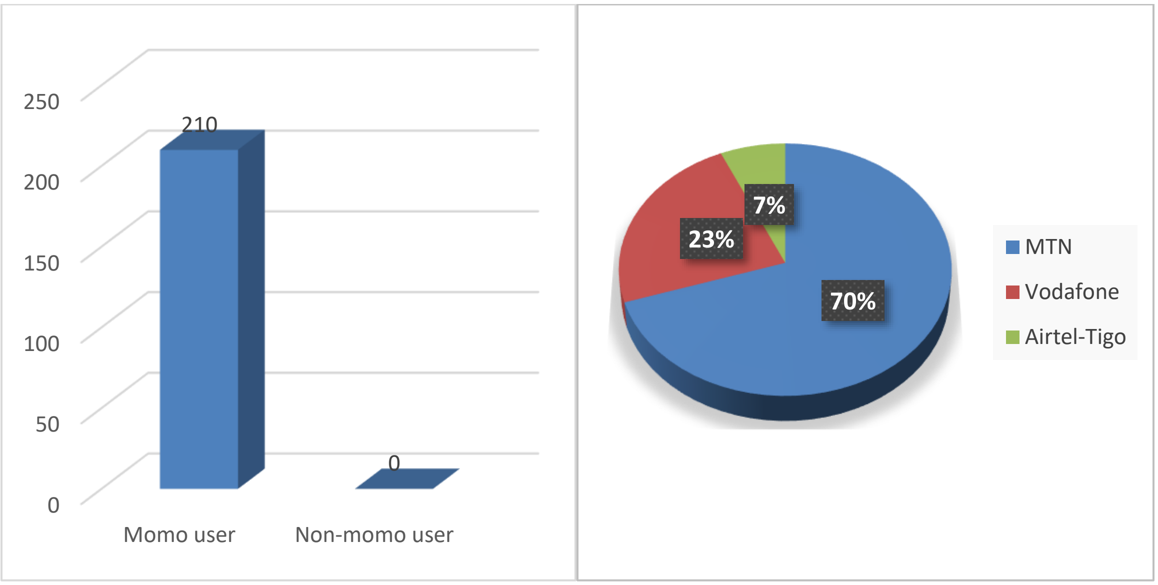


**Figure 4.4: Usage of Mobile Money Account and Types of Networks**

**Source:** Field Survey Data, 2022

### 4.1.7 Ownership of Bank Accounts

This section present results of ownership of bank accounts with other financial institutions or banks in the study area. In Ghana, most of the population are excluded from the formal financial sector. According to the Ghana Living Standard Survey (GLSS) (2016), about 80.0% of Ghanaians do not have a bank account. Similarly, data in Figure 4.5, shows that majority 190 (90.5%) of agrarian households do not have any bank account with other banks despite the collapse of GN-Bank.

Though, on the global stage, ownership of bank accounts among the adult population is about 62 percent (Demirguc-Kunt et al., 2015). However, only a few 20 (9.5%) of the agrarian households owned bank accounts with other banks mainly the Agricultural Development Bank (ADB), the

Bonzali Rural Bank, the Ghana Commercial Bank (GCB) and the National Investment Bank (NIB). These figures depict that over 90.0 percent of the agrarian households are currently, financially excluded from the formal banking sector due to the collapse of GN-Bank.

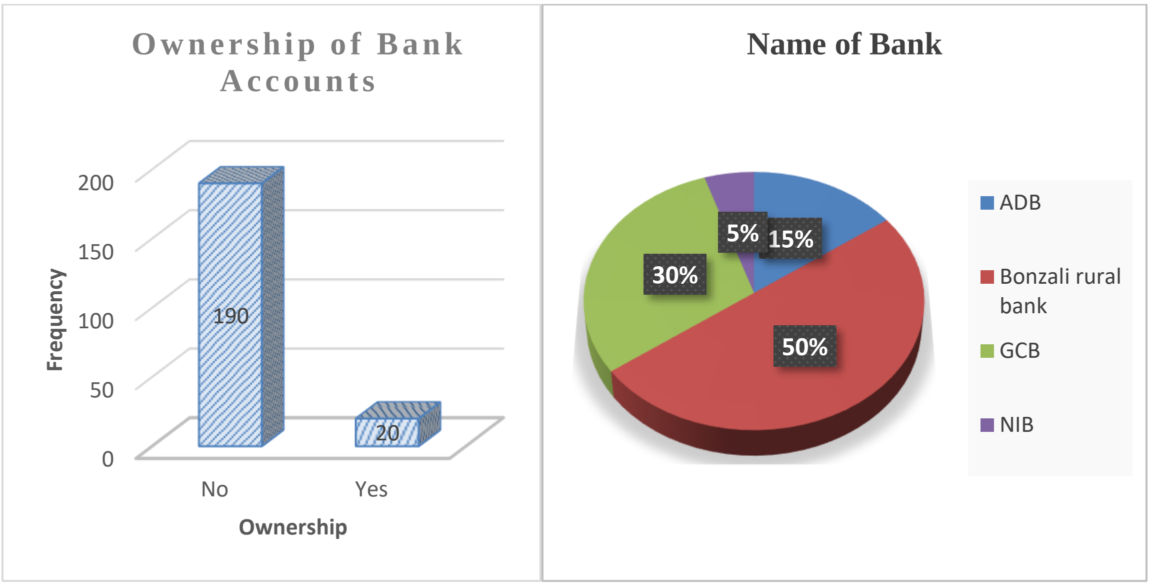


**Figure 4.5: Ownership of Bank Accounts**

**Source:** Field Survey Data, 2022

### 4.1.8 Agrarian Household Members Experience with the Collapse of GN-Bank

[Respondents' Experience with Collapse of GN Bank]

This section presents respondents' experience as regards the collapse of the GNBank. Results in Table 4.3 shows that majority 151 (71.9%) of respondents had monies or investments with GN-Bank before it collapsed. However, out of the 151 respondents, only 52 representing 34.5% were able to retrieve their monies or investments from the receivers of the collapsed bank as at the time of the interviews. This stance has been supported by a respondent who acknowledged that during the time of GN-Bank operation in Tolon, he saved with the bank with the aim of investing it on his farm during the next the planting season. However, he could not retrieve his money before it collapsed (Field Survey Data 2022).

It was further revealed that the amounts of money respondents had in GN Bank ranged from GHC 1,000.00 to over GHC 4, 000.00. A little over over 40.0% of the respondents had less than GHC 1,000.00, about 20% households had between GHC 1,000.00 and GHC 3, 000.00 and 11.4% members had between GHC 3,100.00 - GHC 4, 000.00 saved with the collapsed GN-Bank.

The collapse of the bank resulted in a lot of speculations among individuals and the media and in particular, the social media platforms. As a result, this study further assessed how the agrarian households first heard of the unfortunate news about the collapse of GN-Bank. Based on the analysis, it was evident that over (40.0%) of the respondents first heard about the collapse of GN-Bank through either the media or a colleague. However, about 11.0% of the agrarian households first heard about the collapsed GN-Bank through the bank's notice as shown in Table 4.3.

**Table 4.3: Agrarian household members experience with the collapse of GN-Bank [Respondents' Experience with Collapse of GN Bank]**

| Attributes | Responses | |
|---|---|---|
| | **Frequency** | **Percentage** |
| **Had money/investment with GN-bank before collapse**: | | |
| No | 59 | 28.1 |
| Yes | 151 | 71.9 |
| **Total** | **210** | **100.0** |
| **Ability to retrieve money/investment:** | | |
| No | 99 | 65.5 |
| Yes | 52 | 34.5 |
| **Total** | **151** | **100.0** |

| | | |
|---|---|---|
| **Amount of money locked up in the bank**: | | |
| Less than GHC 1,000.00 | 65 | 43.0 |
| GHC 1, 000. 00 – GHC 2, 000.00 | 34 | 22.5 |
| GHC 2, 1000.00 – GHC 3, 000.00 | 35 | 23.1 |
| GHC 3,100.00 - GHC 4, 000.00 | 17 | 11.4 |
| **Total** | **151** | **100.0** |
| **Source of information on the collapsed GN-Bank:** | | |
| Through the media | | |
| From a colleague | 96 | 45.7 |
| The bank informed me | 89 | 42.4 |
| | 25 | 11.9 |
| **Total** | **210** | **100.0** |

**Source:** Field Survey Data, 2022

### 4.2 Forms of Financial Services Available to Agrarian Households

This section presents results and discussions addressing objective one of this study which sought to; 'examine the forms of financial services available to agrarian households in the Tolon District. In this study, respondents were asked to indicate the various types of financial services that are currently available to the agrarian households.

#### 4.2.1 Forms of Financial Services used by Agrarian Households before its Collapse

In this section, respondents were asked to indicate the forms of financial services used by respondents before the collapse of GN-Bank. According to Boachie and Adu-Darko (2022), the various types of the financial services available in rural areas are mainly, "Susu", local money lenders, home saving method, community saving groups, mobile money services, rural and microfinance institutions.

Based on these types of financial services, respondents' views were assessed on the types of financial services available in their communities. From the results in Table 4.4, it is evident that majority (69.3%) of the respondents interviewed for the study were of the view that they were using home saving methods and mobile money wallet as means of accessing and using financial services. A greater proportion 135 (64.3%) and 132 (62.9%) of respondents acknowledged that they were using "Susu" with GN Bank" and other community saving group respectively. However, none (0.0%) of respondents acknowledged that they had used either credit union or microfinance institutions' services. These findings are not surprising as most of these agrarian households save their money at home before deciding on saving with a bank or not. Also, the use of mobile money wallet has become a common phenomenon among Ghanaian small-scale farmers and other small businesses.

In view of ease of usage, there is high level of patronage among people for mobile money system. Furthermore, before the collapse of GN-Bank, most of their clients in rural areas were accessing financial services through the bank's special "susu" model, where clients were permitted to transact business through mobile money wallet.

Generally, individuals living in rural communities mostly save their money at home or through village savings and loan services as reported by Ksoll et al. (2016). Rural people save money at home purposely for future use, in terms of buying agricultural inputs and payment of tractor services (Bannor et al., 2020).

Before the collapse of GN-Bank, it could be seen that, most forms of financial services accessed by agrarian households' members were the special "susu" and home saving methods. It is suggested that members of the agrarian households had access to traditional financial service, since most of the rural communities heavily rely on these two forms of financial services and complimented by GN-Bank operation.

**Table 4.4: Forms of Financial Services used by Agrarian Households Before Collapse of GN-Bank**

| **Forms of financial services** | **Responses *f* (%)** | |
|---|---|---|
| | **Yes** | **No** |
| Susu with GN Bank | 135 (64.3%) | 75 (35.7%) |
| Money lenders | 35 (16.7%) | 175 (83.3%) |
| Home savings | 210 (100.0%) | 0 (0.0%) |
| Credit union | 0 (0.0%) | 210 (100.0%) |
| Community saving group | 132 (62.9%) | 78 (37.1%) |
| Momo | 210 (100.0%) | 0 (0.0%) |
| Bonzali Rural Bank | 53 (25.2%) | 157 (74.8%) |
| Microfinance institutions | 0 (0.0%) | 210 (100.0%) |

**Source:** Field Survey Data, 2022

### 4.2.2 Forms of Financial Services used by Agrarian Households after the Collapse

This section of the study presents results and discussions on the forms of financial services used by agrarian households after the collapse of GN-Bank. After, identifying forms of financial services available to agrarian household members, they were further asked to indicate the types of financial services they use.

Figures in Table 4.5 show that most (71.4%) of the respondents interviewed were still using home saving method and the mobile money wallet platforms as the means of accessing and using financial services (financial inclusion). After the collapse of GN-Bank, a greater proportion 148 (70.5%) of respondents acknowledged currently using “Susu with private operators”, since they were used to “susu” with GN-Bank. They were, however, careful dealing with private operators as their monies could be lost.

However, none (0.0%) of respondents had used either credit union services or microfinance institutions services (see Table 4.4).

From the results, it is apparent that the collapse of the GN-Bank has not affected the agrarian households’ access to and use of these traditional forms of financial services. It was observed that, these households have rather increased the use of these forms of financial services, notably, “susu”, and mobile money wallet. All the 210 (100.0%) respondents currently, save their monies at home as they believe it is the surest way to ensuring the safety of their money.

According to Alabi, Alabi and Akrobo (2007), in areas where there are no financial institutions or banks, the natives are compelled to save at home or use “susu” method. Also, the high cost of setting up of financial institutions or banks in rural communities have led to low financial inclusion of the rural folks (Chitokwindo, Mago & Hofisi, 2014).

In the case of GN-Bank, it was the only traditional bank with the highest numbers of branches across Ghana. However, the collapse of GN-Bank has affected majority of the agrarian households in these rural communities in accessing financial services.

**Table 4.5: Forms of Financial Services used by Agrarian Households after the Collapse of GN-Bank**

| **Forms of Financial Services** | **Responses *f* (%)** | |
|---|---|---|
| | **Yes** | **No** |
| Susu with private operators | 148 (70.5%) | 62 (29.5%) |
| Money lenders | 35 (16.7%) | 175 (83.3%) |
| Home saving | 210 (100.0%) | 0 (0.0%) |
| Credit union | 0 (0.0%) | 210 (100.0%) |
| Community saving group | 60 (28.6%) | 150 (71.4%) |
| Momo | 210 (100.0%) | 0 (0.0%) |
| Bonzali rural bank | 53 (25.2%) | 157 (74.8%) |
| Microfinance institutions | 0 (0.0%) | 210 (100.0%) |

**Source:** Field Survey Data, 2022

## 4.3 Types of Financial Services and Products used by Agrarian Households Members/Respondents

Objective two presents' results and discussion on the various types of financial services and products used by agrarian households' members.

### 4.3.1 Types of Financial Services used by Agrarian Households

This section of the study presents results and discussions on types of financial services used by agrarian households.

From the results presented in Table 4.6, the study revealed that before the collapse of GN-Bank, all 210 (100.0%) of the agrarian households were operating bank accounts with "susu GN-Bank". Furthermore, majority 142 (67.6%) of the farmers who were banking with GN-Bank before it collapsed had access loan to facility/borrowing while, only 27 (12.9%) of them banking with GN-Bank before its collapse, were accessing insurance policies. However, none of them used fixed deposit and bonds (see Table 4.6).

These findings suggest that respondents only banked with GN-Bank with the motive of accessing loans from the bank. The model of the banking system in Ghana is such that only clients and public sector workers can access loans from banks. However, because most of the clients of GN-Bank in the Tolon District are into farming without any formal employment status, the only way to qualify for loan is to save for a number of months before they are deemed qualified.

Hence, this could partly be linked to the high number of saving accounts by clients of GN-Bank in the Tolon District. However, with the collapse of GN-bank in the district, it might not be possible for the farmers to qualify for loans thereby being excluded from the financial sector.

**Table 4.6: Types of Financial Services used by Agrarian Households**

| Types of Financial Services | Responses *f* (%) | |
|---|---|---|
| | **Yes** | **No** |
| Saving account and "susu" | 210 (100.0%) | 0 (0.0%) |
| Loan facility/borrowing | 142 (67.6%) | 68 (32.4%) |
| Insurance | 27 (12.9%) | 183 (87.1%) |
| Fixed deposit | 0 (0.0%) | 210 (100.0%) |
| Bank bonds | 0 (0.0%) | 210 (100.0%) |

**Source:** Field Survey Data, 2022

### 4.4 Effect of GN-Bank Collapse on Usage of Financial Services by Agrarian Households'

This section of the study presents results and discussions on the effect of GN-Bank collapse on usage of financial services and products by agrarian members. This section establishes the relationship among the various financial services thus saving mobilization, access to credit/loan and insurance on the collapsed of GN-Bank operation in the study area.

#### 4.4.1 Effects of GN-Bank Collapse on Saving Mobilization

This section of the study presents results and discussion on the perceived effects of GN-bank collapse on saving mobilization.

A paired sample of the T-test was conducted to examine whether a statistically significant relationship could be established in the mean scores before and after the collapse of GN-bank and how this has affected respondents' ability to mobilize savings over the years.

The Paired Sample T-test table is presented below and shows the following:

i. There seems to be significant difference between the scores before and after the collapse of the GN-Bank. Thus, this shows an overall significant difference in agrarian households' ability to mobilize saving before and after the collapse of GN-Bank. The probability value in Table 4.7, is .000, which is less than .0005. This value is substantially lower than the specified alpha value of .05 and indicates a significant decrease in members' ability to mobilize savings over the years due to the collapsed GN-Bank.

ii. The next statistic reveals the difference in scores before and after the operation of GN-Bank. The mean scores, before the collapsed GN-Bank was 4.40; and that after the collapse of GN-Bank was 1.41. Therefore, this study can conclude that there was a significant decrease in agrarian households members' ability to mobilized savings.

Generally, the farmers had difficulties in mobilizing savings on their own, which was attributed to their inability to discipline themselves towards achieving the needed saving as a result of the unavailability of GN-bank in the area. This finding corresponds with that of Fabris (2019), who reported that in the absence of financial institutions, people hardly save for the future. Fenochietto and Benitez (2021), also noted that the only way of encouraging people to save is through deductions from payment source among low-income earners.

Based on the respondents' narratives, it was evident that GN-Bank used innovative means to mobilize savings from their clients; notably among them was the "GN-Susu Save". This system allowed clients to save an amount of GHC 2.00 per day. According to a farmer in the Tolon, he said this:

> "*When GN-Bank was still here in Tolon, I was saving GHC 2.00 per day. This savings always helped me during the planting season in buying fertilizer for my farm*" (Key informant, Nyankpala, Tolon District, Ghana, 2022).

Before the collapse of GN-Bank, agrarian households were able save till the start of the planting season. However, with the collapse of the GN-Bank, the farmers do not have the opportunity of saving for subsequent farming seasons. This view was expressed by a farmer in Nyankpala community who acknowledged that since the bank stopped operating in the area, he was unable to save, thereby, making his farm operations difficult (Field survey data 2022).

**Table 4.7: Effects of GN-Bank Collapse on Savings Mobilization**

| | Paired Differences | | | | | T | Df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Before After | 2.986 | 1.042 | .072 | 2.844 | 3.127 | 41.520 | 209 | .000 |
| Before | 4.40 | .658 | .045 | | | | | |
| After | 1.41 | .798 | .055 | | | | | |

(NB: 1= Very High; 2 = High; 3 = Moderate; 4 = Low; 5 = Very Low)

**Source:** Field Survey Data, 2022

### 4.4.2 Effects of GN-Bank Collapse on Access to Credit/Loan

The results and discussions on the perceived effects of GN-Bank collapse on access to credit and loan services are presented in this section.

A paired sample T-test was conducted to examine whether a statistically significant relationship could be established in the mean scores before and after the collapsed GN-Bank and how this has affected agrarian households' access to credit/loan.

The Paired Sample T-test table is presented below and shows the following:

i. There is a significant difference between the scores before and after the collapse of GN-Bank. It shows an overall significant difference in agrarian households' having access to credit/loan before and after the collapse of the GN-bank. The probability value in Table 4.8, is .000, which is less than .0005.

ii. This value as stated, is substantially lower than the specified alpha value of .05 and indicates a significant decrease in agrarian households' access to credit/loan due to the collapse of GN-bank.

iii. The next statistic reveals, in terms of the scores, which score is lower than the other before and after the collapse of GN-bank. The mean scores, before the collapse of GN-bank was 4.11; and that after the collapse of GN-bank was 1.52. Therefore, this study can conclude that there was a significant decrease in agrarian households' access to credit/loan.

This finding suggested that, the households were unable to access credit and according to Mallinguh and Zoltan (2022), financial institutions are the most reliable sources for accessing credit/loan. As in the case of GN-Bank, most of their clients were able to access credit/loan from the bank.

Generally, farmers can only access credit and loan from GN-Bank if they saved a certain amount. Hence, based on the field survey, most household members form groups to access credit and loan from GN-bank. The minimum amount each group could access is GHC 500.00 (Bank security guard 2022). According to Key informant in Tolon, the bank gave loan to groups in the district, but most of them defaulted result to non-group loan. However, clients were still able to access loan, payable through daily "susu". Hence, clients who needed loans were encouraged to contribute daily in order to qualify for credit or loan.

This was expressed by a lead farmer in Nyankpala.

"*My daily savings in GN-bank allowed me to acquire loan from the bank, but I did not finish paying before the bank collapsed*" (Key informant, Nyankpala, 2022).

Another respondent from Tolon said this;

"GN-Bank was the only place I could access credit for my farming business, but after it collapsed, I am able to get credit from any institution in the district

*not finish paying before the bank collapsed*" (Key informant, Tolon, 2022). [Meaning?]

**Table 4.8: Effects of GN-Bank Collapse on Access to Credit/Loan**

| | Paired Differences | | | | | T | Df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference: Lower | Upper | | | |
| Before * After | 2.590 | 1.138 | .079 | 2.436 | 2.745 | 32.980 | 209 | .000 |
| Before<br>After | 4.11<br>1.52 | .839<br>.802 | .058<br>.055 | | | | | |

(NB: 1= Very High; 2 = High; 3 = Moderate; 4 = Low; 5 = Very Low)

**Source:** Field Survey Data, 2022

### 4.4.4 Effects of GN-Bank Collapse on Insurance

This section of the study presents results and discussions on the perceived effects of GN-Bank collapse on insurance. A paired sample T-test was conducted to examine whether a statistically significant relationship could be established in the mean scores before and after the collapse of GN-bank and how this has affected the agrarian households' ability of accessing insurance policies.

The Paired Sample T-test table is presented below and shows the following:

i. There is significant difference between the scores before and after the collapsed GN-bank.

ii. Thus, this shows an overall significant difference in agrarian households' ability to access insurance policies before and after the collapse of GN-Bank. The probability value in Table 4.9 is .000, which is less than .0005. This value is substantially lower than the specified alpha value of .05 and indicates a significant decrease in the agrarian households' ability to accessing insurance policies due to the collapse of GN-Bank.

iii. The next statistical data reveals, in terms of the scores, which score is lower than the other before and after the collapsed of GN-bank. The mean scores, before the collapse of GN-Bank was 4.67; and that after the collapse of GN-Bank was 1.52. Therefore, this study can conclude that there was a significant decrease in the agrarian households' ability to access insurance policies.

This finding suggests, that agrarian households were unable access insurance policies due to the collapsed GN-Bank.

The current state of banking in Ghana makes insurance services a profitable aspect of banking thereby encouraging their clients in taking up insurance policies as part of the banking package.

Before, the collapse of GN-bank, clients were enrolled on their insurance packages after they make a deposit of GHC 1,000.00 per account. However, with GN-Bank collapsed, these agrarian household members who hitherto were benefitting from GN-Bank insurance policies might not enjoy it again.

The farmers expressed dissatisfaction with the nature of the collapse of the bank as they were denied their insurance policy; particularly the hospital and funeral policies. On the other hand, one respondent acknowledged that, before the bank collapsed, she was able to get the bank pay her son's hospital bills after she had deposited GHC 3200.00 in her savings account (Field survey data 2022). Furthermore, clients of GN-banks were expected to keep minimum amounts in their savings accounts for a period of three months. As a result of this restriction, most of the households could not benefit fully from the insurance policy before the bank collapsed.

This view was expressed by a former client in the Nyankpala township:

> "*Even-though, I was promised insurance cover based on the condition of saving up to GHC 1000.00, however, when I saved that amount, I never benefited from that insurance policy because, I could not keep my money for more than one month in the account"* (Key informant interview; Nyankpala; Tolon District; Ghana, 2022).

Thus, client's inability to keep their monies in their accounts did prevent them from benefiting from the insurance policy.

Finally, the collapse of GN-banks would have denied agrarian household members who ordinary were saving towards of benefiting from the insurance policy, due to the apprehend collapsed of GN-banks.

**Table 4.9: Perceived Effects of GN-Bank Collapse on Insurance**

| | Paired Differences | | | | | T | Df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Before * After | 3.148 | .854 | .059 | 3.031 | 3.264 | 53.412 | 209 | .000 |
| Before | 4.67 | .665 | .046 | | | | | |
| After | 1.52 | .620 | .043 | | | | | |

(NB: 1= Very High; 2 = High; 3 = Moderate; 4 = Low; 5 = Very Low)

**Source:** Field Survey Data, 2022

In establishing the hypothesis for study on the relationship between the effects of GN-Bank collapse on usage of financial services by agrarian households. The study established that there was decrease in agrarian households' usage of financial services due to the collapse of GN-Bank, hence, the alternative hypothesis was accepted; while, the null hypothesis was rejected. This result was expected as literature points to the fact that in the absence of financial institutions among a particular group of people, there are ultimately excluded from the financial system (Braun, 2020; Ozili, 2018; Aduda & Kalunda, 2012)

### 4.5 How Agrarian Households in the District are Coping with the Collapse of GN Bank in Accessing Financial Market' in the Tolon District

This section of the study employed qualitative approach in examining how agrarian households in the district are coping with accessing financial market in the Tolon District after the collapse of GN Bank. The views and narratives of the farmers were outlined qualitatively and from the study, three key variables were identified as the main coping strategies used in accessing financial market in the Tolon District. These indicators are: use of mobile money wallet, personal savings and buying of grains and animals for future sale.

***Use of Mobile Money Services***

Based on personal interviews with some of the clients of GN-Bank, the households acknowledged that due to the collapse of GN-Bank, they have resulted to saving monies on their mobile money wallets. They further attributed the use of mobile money services as an alternative source for accessing financial market due to its ease of use and large customer base where a lot of people in the district are currently using it for their financial services. An farmer who also doubles as a mobile money agent expressed this view:

> "*Since, GN-Bank stopped operating in Nyankpala, my customers have increased significantly. At first, people will send their monies to GN-Bank because their mobile money service accounts were free, but now the case is different*……"
>
> (Key informant interview; Nyankpala; Tolon District; Ghana, 2022).

Furthermore, a farmer at Nyankpala, narrated how he is losing monies due to transfer charges by mobile money agents. According to him, whenever he wants to send money to his business partners, the charges on the transfer affects his profit. However, when GN-Bank was operating in the area, he could send money directly from his bank account to his customers.

Generally, in as much as most of these agrarian households are using mobile money wallet for their financial needs, they still face challenges in becoming fully financially inclusive. This situation would worsen for farmers whose sole access to financial market is dependent on mobile money wallet due to the introduction of the electronic transfer levy.

***Home Saving Method***

As a result of the non-operation of GN-Bank in the area, most of the households who were transacting with the bank have now resulted to personal saving method or home saving. Based on the personal interview conducted with some households, it was discovered that the absence of GN-Bank in the area has forced most of them to save at homes. According to a lead farmer in the Tolon enclave, he acknowledged that, since he could not retrieve his money from GN-Bank, he has decided never to save money with any bank; but rather he will keep his money at home. He further expressed that keeping the money at home requires high level of discipline in order to meet one's saving target, as he is always tempted to use it at the least opportunity.

***Buying of Grains and Animals for Future Sale***

The poor financial status of agrarian households in developing countries makes them non-credit worthy. In view of this, the purchasing power of farmers in accessing agricultural inputs during the farming season is usually difficult (Etowa & Nwiido, 2019). As a result, most of them save money for future purposes. But the absence of well-functioning financial institutions due to the collapse of GN-Bank in the area has forced most respondents in using alternative saving like buying of grains and animals for future sale.

The respondents held the general view that they buy grains and animals to sell in future to make profit (Field survey, 2022). According to the members in Tolon and Nyankpala, having grains and animals helps them a lot during the planting season and crisis periods. A lady at Nyankpala acknowledged that her husband usually gives her money to buy soybeans to store and when they are about to plant, she then sells it for higher profit. However, she is of the view that, at first, they could have invested their money at GN-Bank with interest till the farming season is due before the money would be redeemed; but with its collapse, they do not have any option than to buy grains and animals for future sale.

### 4.6 Constraints that Agrarian Households Face in Accessing and Using Financial Services in the Event of GN-Bank Collapse

The final objective sought to determine the constraints faced by agrarian households in accessing and using financial services in event of GN-Bank collapse. With the collapse of GN-Bank operations, it is expected that farmers would find it difficult accessing financial services in the area. As a result, this section of the analysis presents results and discussion on constraints the farmers face in accessing and using financial services in event of GN-Bank collapse.

Nine main secondary information were obtained from literature and presented to the agrarian households to rank in order of severity. These statements are: high cost of borrowing from the non-financial institutions (Chui, Kuruc & Turner, 2016), susu collectors running away with our monies (Cruz, 2014), documentation processes involved in getting loan from other institutions (Thaker, 2018), low financial literacy in dealing with other banks and financial institutions (Navickas et al., 2014), and the lack of trust in dealing with other banks and financial institutions (Shim, Serido & Tang, 2013). In addition, the non-availability of other banks and financial institutions in this area (Bhuvana & Vasantha, 2016), networking failure in using "momo" accounts (Kodom, 2019), discouragement from colleagues engaged in other banks and financial institutions (Freel et al., 2012) and insufficient money from other banks and financial institutions to lend to clients (Munene & Guyo, 2013).

The results of the Kendall's coefficients of concordance conducted established a highly significant agreement among the agrarian households ranking scores of their perceived constraints in accessing and using financial services in the event of GN-Bank collapse.

As shown in Table 4.10, the Chi-Squire (df = 8) = 183.324. Asymptotic Significance = 0.000 thus indicating significant agreement among respondents' ranking scores at 1%. A Kendall's coefficient of concordance (W) = 0.609, implies that 60.9% of the ranking scores assigned by agrarian households are in agreement.

With a mean rank of 4.07, low financial literacy in dealing with other banks and financial institutions is the highest ranked constraint. Followed by Non-availability of other banks and financial institutions in this area and Networking failure in using 'Momo' accounts.

The fourth constraint faced by agrarian households was lack of trust in dealing with other banks and financial institutions. The issue of trust is a major determinant of banking success, hence, if the public loses trust and confidence in a bank, it is usually for them to do business with such banks.

The fifth constraint was the documentation process involved in getting loans from other institutions and the sixth was susu collectors running away with their monies. Also, least constraint was insufficient money from other banks and financial institutions to lend to clients.

**Table 4.10: Rankings of Constraints that Agrarian Households Face in Accessing and Using Financial Services in the Event of GN-Bank Collapse**

| Constraints | Mean Rank | Ranking |
|---|---|---|
| High cost of borrowing from non-financial institutions | 6.70 | 8th |
| Susu collectors running away with our monies | 5.15 | 6th |
| Documentation process involved in getting loan from other institutions | 4.81 | 5th |
| Low financial literacy rate in dealing with other banks and financial institutions | 4.07 | 1st |
| Lack of trust in dealing with other banks and financial institutions | 4.34 | 4th |
| Non-availability of other banks and financial institutions in this area | 4.19 | 2nd |
| Networking failure in using Momo accounts | 4.29 | 3rd |
| Discouragement from colleagues engaged in other banks and financial institutions | 5.52 | 7th |
| Insufficient money from other banks and financial institutions to lend to clients | 5.93 | 9th |
| ***No of observations*** | 210 | |
| ***Kendall's W*** | .609 | |
| ***Chi-Square*** | 183.324 | |
| ***Degree of freedom*** | 8 | |
| ***Asymp. Sig.*** | 0.000 | |

**Source:** Field Survey Data, 2022

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents the summary of findings, conclusions and recommendations. The summary and conclusions are presented in sections 5.2.0 and 5.3.0 respectively. Section 5.4.0 presents recommendations based on the findings of the study. Suggestions for future research are also presented in section 5.5.0.

## 5.2.0 Summary of Findings

This section presents summary of the study background, methodology and key findings of the study.

### 5.2.1 Summary of Key Findings

In the study area, the majority of agrarian households (73.3%) were males, with 26.7% of them being females. The male dominance is as a result of their engagement in commercial farming activities; whiles, women serve as family labour. On the age of respondents, the majority (66.2%) of the agrarian households were between 30 and 45 years. As regards the marital status of respondents, majority of them (73.3%) are married, while (14.3%) are single (never married) and 8.6% and 3.8% divorcees and widows respectively. Also, majority of agrarian households 152 (72.4%) had no formal education.

The study revealed that before the collapse of GN-Bank, the majority (69.3%) of the respondents interviewed for the study were of the view that they were using home savings method and mobile money wallet as means of accessing and using financial services (financial inclusion) with 135

(64.3%) and 132 (62.9%) of agrarian households using “susu” and community saving groups respectively.

However, after the collapse of GN-Bank, the study revealed that all 210 (100.0%) of the agrarian households are still using home savings method and mobile money wallet, with a greater proportion 148 (70.5%) of agrarian households currently using “susu” services.

Based on the findings, all 210 (100.0%) of the agrarian households are using mobile money wallet for their financial transactions and needs; 147 (70.0%) of the agrarian households are registered under MTN mobile money and “Voda-cash” and Airtel-Tigo recorded 23.3 percent and 6.7 percent usage respectively. However, over 90.0 percent of the agrarian households do not have bank account with other banks despite the collapse of GN-Bank. Furthermore, the study revealed that before the collapse of GN-Bank, majority 151 (71.9%) of the agrarian households had their money or investment with GN-Bank. Though only 34.5 percent of the agrarian households were able to retrieve their monies and investment, the majority of them could not get access to their money and investment.

The study revealed that before the collapse of GN-Bank, all 210 (100.0%) of the agrarian households had bank savings accounts. Furthermore, majority 142 (67.6%) of the agrarian households were banking with GN-Bank before its collapse and was accessing loans facility/borrowing from the bank. Again, only 27 (12.9%) of the agrarian households transacting with GN-Bank before it collapsed were accessing insurance policies. However, none of them used fixed deposits nor bank bonds. Generally, the most 158 (75.2%) of agrarian households acknowledged that the use of savings account is poor. In spite of the poor perception held by agrarian households towards savings account, the study revealed that the usage of savings account was very high.

The three key coping strategies of qualitative approach that was employed by the agrarian households in accessing financial market in the Tolon District are use of mobile money wallet, personal savings method and buying of grains and animals for sale in future.

The study basically, identified nine main constraints from literature. These constraints are: high cost of borrowing from the non-financial institutions (Chui, Kuruc & Turner, 2016), susu collectors running away with our monies (Cruz, 2014), documentation process involved in getting loan from other institutions (Thaker, 2018), low financial literacy rate in dealing with other banks and financial institutions (Navickas et al., 2014), lack of trust in dealing with other banks and financial institutions (Shim, Serido & Tang, 2013), non-availability of other banks and financial institutions in this area (Bhuvana & Vasantha, 2016), networking failure in using "Momo" accounts (Kodom, 2019), discouragement from colleagues in engaging with other banks and financial institutions (Freel et al., 2012) and insufficient money from other banks and financial institutions to lend to clients (Munene & Guyo, 2013). Using these constraints to rank in the order of severity, the study established a 60.9% of agreement among agrarian households in the study area.

### 5.3.0 Conclusions

In assessing the forms of financial services available to agrarian households in the Tolon District, the study identified several financial services available. These financial services are: susu collectors, money lenders, home savings, credit union, community savings group, mobile money, Bonzali Rural Bank and microfinance institutions.

However, the study concludes that in the study area, the home savings methods and mobile money wallets were widely used by agrarian households; also, some of the agrarian households depended on susu collectors as means of being financially inclusive.

In examining the effect of GN-Bank collapse on access to financial services by agrarian households in the Tolon District, the study concluded that most of the agrarian households still had access to financial resources through the mobile money account, with MTN tele-communication network dominating. The study further concludes that the majority, being the pre-existing customers who were banking with GN-Bank before it collapsed, are not currently having bank account with other banks despite the collapse of GN-Bank. Additionally, the collapse of GN-Bank has led to the agrarian households having a negative perception about the quality of the financial services offered by banks in general. The study further established that agrarian households' usage of financial services has decreased due to the collapse of GN-Bank.

In examining how agrarian households in the district are coping with the collapse of GN bank in accessing financial market in the Tolon District, the study concludes that most of these agrarian households have resorted to using personal home savings method and using of mobile money accounts due to unavailability of reliable financial institutions and loss of confidence in the formal financial sector because most of the customers in the district could not retrieve their money or investment with GN-Bank.

Finally, in assessing the constraints that agrarian households face in accessing and using financial services with regards GN-Bank collapse, the study concluded that, the most pressing constraint hindering agrarian households in accessing and using financial services is low financial literacy rate in dealing with other banks and financial institutions.

**5.4 Recommendations**

Based on the research findings, the following recommendations are made for research and policy consideration.

1) This study recommends that, the government of Ghana, through the Bank of Ghana and the receiver of the collapsed bank, should expedite action and refund these agrarian households' monies or investments to them.
2) The study recommends that, universal bank and rural banks in the region should consider setting up branches in the Tolon District.
3) The Ghana Government, through the Ministry of Finance and the National Communications Authority should consider the plight of the poor and vulnerable agrarian households when implementing the electronic levy policy as these agrarian households are now using mobile money services as alternative banking services.

**5.5.0 Suggestions for Future Research**

Future research should be conducted on agrarian households' willingness to bank with other local banks and be willing to pay a premium for their services in the Tolon District.

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The President exercised this power in line with his article 58 mandate by the 1992 Constitution of Ghana, which vests the executive authority of Ghana in the president. This includes the issuance of a statutory instrument to establish a body.

These are UT bank, Capital bank, Unibank, Sovereign bank, Construction bank, Beige bank, Heritage bank, Royal bank and three mergers through mergers and acquisition to raise the minimum capital requirement: Omni bank and Sahel Sahara as OmniBSIC: First National Bank and GHL as First National bank and First Atlantic bank and Energy bank as First Atlantic Bank

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# Appendices

## Appendix A

**THE COLLAPSE OF BANKS ON FINANCIAL INCLUSION AMONG AGRARIAN HOUSEHOLDS. THE CASE OF GN-BANK IN THE TOLON DISTRICT OF THE NORTHERN REGION OF GHANA**

This study is purely for academic purposes towards the award of Master of Philosophy degree in Innovation Communication. You will be contributing to its success if you answer the items as frankly and honestly as possible. You are assured of confidentiality and anonymity because the study is purely for academic purposes.

**Section A. Demographic Data**

1. Sex of respondents

   1 = Male [ ]   2 = Female [ ]

2. Age of respondent (Number of years) …….

   1 = Below 30 [ ] 2 = 30-45 [ ] 3 = 46-60 [ ]   4 = Above 60 [ ]

3. Marital Status

1= Married [ ]   2 = Single [ ]   3= Divorced [ ] 4= Widowed [ ]

4. Educational level

(Number of years in school) ………1=No education [ ]   2=Primary school [ ]   3=Junior high school [ ]   4=secondary/vocational institute [ ]   5 = tertiary [ ]

5. What is your household size? (Number of people) …………………….

6. How long have you stayed in this area? (Number of years) ………………………….

7. How long have you been farming? (Number of years) ………………..

**Section B: To assess the forms of financial services available to agrarian households'**

8. Which of the following forms of financial services are available to you?

| **Forms of financial services** | **Responses** | |
|---|---|---|
| | **Yes** | **No** |
| Susu | | |
| Money lenders | | |
| Home savings | | |
| Credit union | | |
| Community savings group | | |
| Momo | | |
| Bonzali Rural Bank | | |
| Microfinance institutions | | |

9. Which of the following forms of financial services are you forced to use due to the collapse of GN-Bank in your area?

| **Forms of financial services** | **Responses** | |
|---|---|---|
| | **Yes** | **No** |
| Susu | | |
| Money lenders | | |
| Home savings | | |
| Credit union | | |
| Community savings group | | |
| Momo | | |

| | | |
|---|---|---|
| Bonzali rural bank | | |
| Microfinance institutions | | |

**Section C: To examine the effect of collapsed GN-Bank on access to financial services by agrarian households**

10. Were you having personal account with GN-Bank? 1 = Yes [ ]  2 = No [ ]

11. Before the collapse of GN bank, were you having money/investment with the bank?  1 = Yes [ ]  2 = No [ ]

12. If Yes, to question 11, how much money/invest had been locked up with the bank? 1 = less than GHC 1,000.00; 2 = GHC 1, 000. 00 – GHC 2, 000.00; 3 = GHC 2, 1000.00 – 3, 000.00; 4 = GHC 3,100.00 to GHC 4, 000.00; 5 = GHC 4,100.00 – GHC 5,000.00; 6 = more than GHC 5, 000.00

13. If Yes, to question 11, have you been able to retrieve your money/investment? 1 = Yes [ ]  2 = No [ ]

14. If No, to question 12, please explain how it has affected you …………………………………………………………………………………………… ……………………………………………………………………………………………

15. How did you get to know of the collapse of GN Bank? 1 = through the media; 2 = from a colleague; 3 = the bank informed me; 4 = others (specify) ………………………………………..

16. How have you been coping since the collapse of GN Bank? ………………………………..

17. How will you describe your situation regarding the following before and after the collapse of the GN Bank?

| **Indicators** | **Before the collapse of GN Bank**[1] | **After the collapse of GN Bank**[2] |
|---|---|---|
| 1. Saving mobilization | | |
| 2. Access to credit/loan | | |
| 3. pre-financing | | |
| 4. insurance | | |
| 5. Investment | | |
| 6. Asset accumulation | | |

[1,2]Situation; 1= very poor; 2 = poor; 3 = not sure; 4 = somewhat good; 5 = good; 6 = very good

17. Do you have personal account with other bank/financial institution? 1 = Yes [ ]   2 = No [ ]

18. If Yes, which bank/financial institution? …………………………………………….

19. Do you have mobile money account? 1 = Yes [ ]   2 = No [ ]

20. If Yes, which network?  1= MTN [ ]  2 = Vodafone [ ] 3= Airtel-Tigo[ ] 4= others [ ]

21. Which of the following types of financial services do you use?

| **Forms of financial services** | **Responses** | | | |
|---|---|---|---|---|
| | **Yes** | **No** | **Name (if applicable)** | **Describe quality of service**[1] |
| Susu | | | | |
| Bank account | | | | |
| Money lenders | | | | |
| Home savings | | | | |
| Credit union | | | | |
| Community savinsg group | | | | |

[1]Situation; 1= very poor; 2 = poor; 3 = not sure; 4 = somewhat good; 5 = good; 6 = very = good

**Section D: To examine the effect of collapse of GN-Bank on usage of financial services by agrarian households**

22. Which of the following types of financial services do you use?

| Types of financial services | Responses | | | |
|---|---|---|---|---|
| | Yes | No | Name of service provider (if applicable) | Describe quality of the financial product[1] |
| Savings account | | | | |
| Loan facility/borrowing | | | | |
| Insurance | | | | |
| Fixed deposit | | | | |
| Bank bonds | | | | |

[1]Situation; 1= very poor; 2 = poor; 3 = not sure; 4 = somewhat good; 5 = good; 6 = very = good

23. What is your frequency of use of following types of financial products? [How often do you use these financial products?]

| Types of financial services | Responses | | | | |
|---|---|---|---|---|---|
| | Very High | High | Moderate | Low | Very Low |
| Savings account | | | | | |
| Loan facility/borrowing | | | | | |
| Insurance | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Fixed deposit | | | | | |
| Bank bonds | | | | | |

**SECTION E: To examine the constraints that agrarian households face in accessing and using financial services in theevent of GN-Bank collapse**

24. Kindly rank the constraints you encounter in accessing and using financial services in the event of GN-Bank collapse in order of severity.

| Constraints | Ranking |
|---|---|
| High cost of borrowing from the non-financial institutions | |
| Susu collectors running away with our monies | |
| Documentation process involved in getting loan from other institutions | |
| Low financial literacy rate in dealing with other banks and financial institutions | |
| Lack of trust in dealing with other banks and financial institutions | |
| Non-availability of other banks and financial institutions in this area | |
| Networking failure in using Momo accounts | |
| Discouragement from colleagues in engaging with other banks and financial institutions | |
| Insufficient money from other banks and financial institutions to lend to clients | |

**Thank You**

## Appendix B

### THE COLLAPSE OF BANKS ON FINANCIAL INCLUSION AMONG AGRARIAN HOUSEHOLDS. THE CASE OF GN-BANK IN THE TOLON DISTRICT OF THE NORTHERN REGION OF GHANA

This study is purely for academic purposes towards the award of Master of Philosophy degree in Innovation Communication. You will be contributing to the success if you answer the items as frankly and honestly as possible. You are assured of confidentiality and anonymity because the study is purely for academic purposes.

**Interview guide for Community leaders and Elders**

1. What has been the situation for financial services in this community since GN-Bank collapsed?
2. How were members of the community accessing financial services before GN-Bank started operating in this community?
3. Were community members having different forms of financial services before GN-Bank started operating in this community?
4. How has the collapse of GN-Bank affected your ability to access financial services in this community?
5. How has the collapse of GN-Bank affected your ability to use financial services in this community?
6. What are the challenges that you face as a result of the collapse of GN-Bank in this community?

**Thank you**