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Loan Repayment Behaviour of Farmers and Its Impact on Performance of Rural Banks in Ghana

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DECLARATION

I hereby declare that this work has not been submitted in substance for any degree elsewhere other than the Doctor of Philosophy (Ph.D.) in Business Administration pursued at Selinus University of Sciences and Literature. I also declare that this work is the result of my investigations and it contains no material previously published by any other person, nor material which has been accepted for the award of any other degree of the University, except for reference which has been duly acknowledged in the text and at the end of the work.

A handwritten signature in black ink, appearing to read 'Samuel Amissah', is centered on the page. The signature is stylized with a large 'S' and a prominent 'A'.

Samuel Amissah

DEDICATION

I dedicate this work to my mother Mad. Margaret Bassaw (aka Sister Efua Annan) for always believing in me and working tirelessly to see me through my education as a single mother. I also dedicate this work to my lovely wife Afua Boahemaa Dwamena (Mrs. Afua Boahemaa Amissah) for the support and encouragement she gave me throughout this work.

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May God bless you all.

ABSTRACT

Agricultural financing is regarded as a crucial component of farming input, assisting underprivileged farmers in maintaining their consumption of essentials, implementing cutting-edge technologies, and increasing their incomes. Farmers and agribusinesses over the years have been denied a part of the formal financial system with the excuse that there is a high rate of loan default amongst farmers leading to a negative impact on rural financial institutions. The primary objective of the study was to identify the impact of farmers' loan defaults on rural banks in Ghana. Both random and purposive sampling were used in selecting 400 farmers and 30 rural bank officials respectively. The rural bank officials consisted of 10 loan officers, 10 loan supervisors, and 10 rural bank branch managers. The study used descriptive statistics such as frequencies, percentages, and means in analyzing the data gathered. The findings of the study were also presented using bar charts, pie charts, and tables to present the results of the analysis. The study revealed that insufficient loan amount, late disbursement, inappropriate repayment schedule, high-interest rate, poor producer prices, unexpected natural occurrences, loan diversion, and poor supervision were the causes of loan default among farmers. The study also showed that lower interest rates, increased loan monitoring, use of loans for contractual purposes, appropriate loan repayment schedule to suit farm business, and use of collateral are the steps by which loan default can be reduced. Again the study showed that loan defaults affect rural banks' liquidity, reduce the profitability of the bank, increase the operational cost of the bank due to the loan recovery process, and lead to banks reducing their loan portfolios and the eventual collapse of the bank.

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CHAPTER ONE

INTRODUCTION

1.1 Background

The World Bank (2015) states that due to the growing global population and shifting dietary preferences of the expanding middle class in emerging economies toward higher-value goods (such as dairy, meats, seafood, fruits, and vegetables), there is an increased need for agricultural investment. It further posits that by 2050, demand for food will increase by 70% with the need for a minimum of \$80 billion annual investment if the demand is to be met. These investments are expected to be financed by the private sector of the world economies. It is therefore imperative for financial sectors around the world to get involved. In contrast to agriculture's percentage of GDP, banking sectors in developing nations lend a substantially lesser proportion of their loan portfolios to agriculture (World Bank, 2015).

The World Bank (2015) goes on to state that lending restrictions, rather than a shortage of banking sector liquidity, are to blame for the low levels of investment in agriculture. Investment and funding in agriculture are dominated by the informal financial sectors and usually on a short-term basis. The financial needs of farmers and small agribusinesses are only partially met by this informal funding, and it typically comes at a significant cost (World Bank, 2015). The lesser participation of the formal sector precludes long-term investment.

Ghana's agricultural sector has suffered neglect by banks over the years. Citing default risk as the basis of the neglect of the agricultural sector, Banks in Ghana are unwilling to extend credit to the sector. Kwakye (2012), confirms in his study that, 26 banks interviewed were unwilling to

finance agriculture and its related activities due to the perceived high default of the sector. The majority of these banks justified their lower or lack of investment in the sector with the points of high-risk factors in the agricultural sector and the high rate of credit default. The agriculture sector had only 4% of the total outstanding credit according to the Bank of Ghana's sectoral loan allocation for 2013 (Bank of Ghana, 2013), whereas the service and industry sectors had 65% and 31%, respectively.

It should be emphasized that finance availability is a key factor in the growth and advancement of agricultural activity. According to Baker and Holcomb (1964), innovations that come from the farm supply industry boost the productivity of agricultural resources. But one cannot rule out the fact that high capital investment is required to finance these innovations which have the potential of promoting agricultural modernization. The informal lending sector, which includes private lenders, family members, and friends, cannot readily and adequately provide these financial needs.

For the required agricultural transition or growth, the net excess of subsistent farmers from both on- and off-farm businesses is also insufficient. Due to their financial limitations, the majority of these farmers raise animals and grow crops on lesser scales (Asiedu and Fosu, 2008). A decline in credit to the sector may have an opportunity to have an impact on both upstream and downstream enterprises as agriculture is extremely input-intensive and agricultural products are used significantly by various agro-based firms in Ghana (Asiedu and Fosu, 2008). Therefore, it is impossible to overstate the significance of institutional credit as a source of funding for

agriculture (Fosu, 1998). To prevent any long-term negative repercussions, Deposit Money Banks (DMBs) must check the trend and continuous drop in agricultural loans.

There hasn't been much recent empirical study in the field of agricultural lending. Recent studies in the Ghanaian context have shown that banks' lending to the non-agricultural sector is growing while their lending to agriculture is declining (ISSER, 2003). The allocation of resources in the formal financial system to the agricultural sector is constrained by the paucity of studies on the reasons why loans to that industry default. It is crucial to understand how these defaults affect the financial system and look for solutions to lessen those effects. Therefore, the goal of this study is to ascertain how farmers repay their loans and how this affects the rural banking sector of the financial system.

1.2 Problem Statement

According to Hoda and Terway (2015), agricultural financing is viewed as a key part of farming input that helps disadvantaged farmers continue to consume necessities, adopt cutting-edge technology, and increase their incomes. High-quality financial services are one of the factors thought to be responsible for economic progress. The development of financial services is another instrument for breaking the cycle of poverty. Governments in less developed countries have frequently used financial intermediaries as a means of providing the agriculture industry with affordable funding. This accessible financing was thought to reduce dependency on rural money lenders (Rizwan et al., 2019). Access to finance is therefore a helpful tool for boosting agricultural output, fostering economic growth, and alleviating poverty.

In poor countries, where farmers often have low agricultural production due to a shortage of money (Akmal et al., 2012; Sattar, 2012; Rizwan et al., 2019), credit is a capital option to boost productivity. Inadequate productivity is caused by several issues, one of which is the lack of capital, which results in low fertilizer doses, especially in developing nations (Sattar, 2012). Poor farmers typically borrow money since they have poor margins and income (Njeru *et al.*, 2016). Utilizing cutting-edge technology in the agricultural sector is crucial for increasing farm output. Small, medium-sized, and big farms all need agricultural financing because of the poor margins associated with the industry (Das et al., 2009; Julien et al., 2021).

The amount of credit allocated to Ghana's agriculture is the lowest compared to other economic sectors (Bank of Ghana, 2013). These farmers therefore rely on their income from friends and family, remittances, and informal lenders to obtain resources (Gollin, 2014; Rizwan et al., 2019). It is also stated that because farmers who use informal loans must pay high-interest rates, it will be more difficult for them to make changes (Ojiako *et al.*, 2014; Julien *et al.*, 2021). In addition, despite the existence of official financial institutions, there is growing evidence that the use of formal financial credit is low. (Getnet, 2014; Richard & Ramzy, 2016, Kopparthi & Alice, 2016, Samson & Obafemi, 2018, Rizwan *et al.*, 2019). Despite what has been said, conventional microfinance institutions (MFIs) as well as banks continue to neglect the majority of African farmers.

Loan grants are the main source of income for rural banks. Therefore, by increasing credit growth and thereby the whole loan portfolio, rural banks can produce more money to maximize profitability. However bad loans or non-performing loans impede this goal (NPLs). Bad loans

are credit products for which clients or borrowers frequently experience difficulties making payments or settlements. Studies on bad loans have concluded that they are unserviceable bad debts that are impossible to recover and are therefore extremely uncertain. According to Kassim (2009), the main causes of bad loans include inadequate loan analysis, errors in documentation, an emphasis on profit over the quality of the loan to be granted, dishonest practices and attitudes, political challenges in the form of depressed moods and instability, unfair rivalry, inconsistent policy and regulation, and political considerations. In a legal sense, a loan facility is an agreement between a lender and a borrower where the lender, generally a bank, agrees to grant the borrower an amount in exchange for the borrower's pledge to repay the lender in full or in installments within a specific period (Amoako, 2015). Many of Ghana's rural banks have been unable to remain in business since NPLs have affected the majority of their operations. These massive past-due sums (bad loans) on their books and the resulting impacts were the cause of rural banks' downfall (Amoako, 2015).

The impacts of poor loans on banks are (a) limitations on the bank's financial performance and (b) the banks' ability to lend, according to Appiah (2011) and Awunyo-Vitor (2012). According to the Ghana Banking Survey (2011), banks in Ghana recognized two contributing causes (coming from the increase in minimum regulatory capital): the lack of a strong response to a large number of NPLs or bad loans, and the rising cost of capital. Farmers' loan repayment behavior is impacted by the fact that Ghanaian banks' loan payback policies are often unfavorable to the country's agricultural industries. According to the intern, this conduct may indicate how Ghana's rural banks are performing. Although Financial Institutions continue to ignore the agricultural industry because it is perceived to have high default risk, no research has

been done to determine how farmers honor their loan repayment obligation. Therefore, the goal of this study is to ascertain the causes of farmer loan defaults and how they impact rural banks' performance.

1.3 Research questions

1. What are the causes of loan default by farmers of Rural Banks?
2. What are the steps that Rural Banks should take to reduce loan default by farmers?
3. What is the impact of loan default by farmers on the operations of Rural Banks?

1.4 Objective of the Study

The main objective of the study is to assess the impact of loan repayment behavior on the performance of rural banks. This can be achieved by achieving these specific objectives;

1. To identify the causes of loan default by farmers of Rural Banks.
2. To identify the steps that must be taken to reduce loan default among farmers of Rural Banks.
3. To identify the impact of loan default by farmers on the operations of Rural Banks.

1.5 Significance of the Study

The relevance of this study cannot be glossed over. It is both timely and essential to take cognizance of the fact that Ghanaian Banks continuously shy away from investing in the agricultural sector which has become a great worry to agribusiness practitioners and the government. The study seeks to bring an end to the usual unempirical explanations for the non-payment of agricultural loans by banks. This study also seeks to direct the attention of Banks to

the most significant causes of agricultural loan default and bring to an end the excessive over-reliance on extraneous factors that lead to agricultural loan default.

The proliferation of Banks implies the usefulness of this study. A lot of Banks have paraded the business environment with little or absolutely no knowledge of agricultural financing but claim the sector is risky. This study aims to resource these Banks with a stock of empirical knowledge on the causes and effects of default or non-payment of agricultural loans. This study will undoubtedly improve the operations of Rural Banks by minimizing the causes of agricultural loan default to ensure prompt repayment.

Agricultural Development Bank can use the findings of this study to improve its productivity and outperform its competitors. The study would also direct the Management of ADB on the most appropriate steps to take toward minimizing non-payment of agricultural loans.

A strong-performing bank can contribute to the alleviation of poverty, increased yield, and an improved livelihood of farmers and other stakeholders. Where there is a positive impact on the performance of banks through performing loans, demand depositors will be protected whereas there will be liquidity for other credit-worthy farmers to obtain credit. The study will therefore contribute to the understanding of farmers' behavior pertaining to loan repayment to help develop measures to improve loan repayment.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter assesses relevant literature related to the study's problem to provide a theoretical framework for the investigation. Writings containing pertinent information, such as books, newspapers, and journals, fall under this category. The findings of other researchers' investigations on the same or a related topic will also be taken into account as essential data in this situation. The study goals outlined in the previous chapter are further clarified in this chapter, and the research topic is also explored in further detail. The topic will be deeply understood based on the understanding of the concept of loans, loan repayment, and rural banking. This chapter will help identify the causes of loan repayment default, measures banks adopt to reduce or prevent loan repayment default, and the cost of such default to the performance of the bank.

2.2 Financial Sector of Ghana

Numerous financial organizations in developing nations offer lending and savings services to support a variety of smallholder businesses, including farming. The purpose of this project is to lessen poverty per the Millennium Development Goals. Formal, semi-formal, and informal are the three primary divisions of Ghana's financial system. All regulated organizations, such as Banks, Non-Bank Financial Institutions (FIs), Insurance Companies, Capital Market Intermediaries including Brokerage Houses, Merchant Banks, etc., and Micro Finance Institutions (MFIs), are included in the formal financial sector. Formal financial institutions are those that are organized following the Companies Code of 2019 and granted authorization by the

Bank of Ghana (BOG) to offer financial services in accordance with Bank of Ghana regulations under the Banking Law 1989 or the Financial Institutions (Non-Banking) Law 1993 (NBFI Law). Under the Banking Law, Rural and Community Banks (RCBs) perform the same functions as commercial banks, with the exception that they are not permitted to conduct foreign exchange transactions, only serve customers in their immediate geographic area, and have a far lower minimum capital requirement. Savings and Loans Companies (S&Ls), which are limited to a modest range of services and are one of the nine designated categories of non-bank financial institutions (NBFIs), are mainly active in micro and small-scale financial intermediation employing microfinance methodology (Obeng, 2008).

NGOs and credit unions are regarded as semi-formal because they are lawfully registered but do not hold Bank of Ghana licenses. According to the corporations Code, NGOs are incorporated as corporations limited by guarantee (not for profit). Most of them offer a variety of services to low-income clientele, including microcredit, as a result of their focus on alleviating poverty, though typically on a small scale. Since they lack authorization to accept public deposits, they must use outside (often donor) monies to provide microcredit. The Department of Cooperatives registers credit unions as cooperative thrift societies that can take deposits from and lend to their members. Even though credit unions are ostensibly covered by the NBFI Law, BOG has given the top authority Ghana Cooperative Credit Union Association permission to continue to oversee the societies until a new Credit Union Law is introduced.

A variety of practices known as Susu are included in the informal financial system. These practices include individual savings collectors, revolving savings and credit associations, and

savings and credit "clubs" operated by an operator. Moneylenders, trade creditors, self-help organizations, and personal loans from friends and family are all included. According to the Moneylenders Ordinance of 1957, moneylenders are required to obtain a police license. Only around 5% of households have access to the commercial banking system, which is dominated by a small number of large banks (out of a total of 17). The majority of these households are shut out due to high minimum deposit requirements.

2.3 Commercial banking

A commercial bank is a type of financial institution that carries out the tasks of taking public deposits and disbursing loans for investments in order to generate profits. Commercial banks are profit-seeking institutions, as their name implies; they conduct banking operations in order to make money. Commercial banks are typically stock corporations with a profit-making goal as their main responsibility. Banks enable the transfer of money by accepting deposits, holding them in a variety of accounts, and extending credit through loans and other instruments. Commercial banks have a wide range of financial capabilities, but their primary area of expertise is providing short-term company credit. They also offer consumer loans and mortgages. They typically use short-term loans to finance trade and commerce. The disparity between the two rates of interest becomes the main source of profit for the banks since they charge borrowers a high rate of interest while paying their depositors a considerably lower rate. The two defining characteristics of a commercial bank are borrowing and lending, or accepting deposits and disbursing funds to projects in order to generate interest (profit). Commercial banks essentially borrow to lend.

2.4 Rural Banking in Ghana

Members of the rural community purchase shares in Rural Community Banks, which are unit banks with a license to offer financial intermediation. They were first started in 1976 to increase credit services and savings mobilization in rural areas that weren't served by commercial and development banks. The government's decision to pay cocoa farmers with special checks rather than cash in the early 1980s caused the number to grow quickly, which had a negative impact on their financial performance (Nissanke and Aryeetey, 1998). Only 23 of the 123 RCBs were classified as "satisfactory" in 1992 due to a mix of rapid inflation, currency devaluation, economic contraction, improper money management, and natural calamities, combined with lax oversight. Under the World Bank's Rural Finance Project, the clear need for re-capitalization and capacity-building was taken into account from 1990 to 1994, with half of them obtaining "satisfactory" status by 1996. The BOG's 1996 imposition of extremely high (62%) primary and secondary reserve requirements together with high Treasury bill rates assisted in lowering risk assets, raising net worth, and further enhancing their financial performance. With the closure of 23 troubled banks and the official opening of one new bank, the number of RCBs decreased from a peak of 133 in 1998 to 111 in 1999. The remaining rural banks received a clear message from these closures to continue or enhance their operations in order to obtain acceptable status. The number of successful rural banks increased by 64% between 1999 and 2001.

Over the years, rural banks have been at the forefront of offering formal financial services, particularly credit to rural residents and small-scale farmers. In Ghana, the majority of smallholder farmers' credit is provided through rural banks. Therefore, this suggests that the loan

repayment behavior has a significant impact on the liquidity and profitability of these rural banks.

2.5 Concept of Loan

In terms of law, a loan facility is an agreement between a lender and a borrower wherein the lender, typically a bank, agrees to the granting of an amount to a borrower who agrees to remit the same to the lender either in bulk or in installments within a certain period (Amoako, 2015). A mortgage, credit card debt, or a personal line of credit are examples of financial instruments where one party borrows money from another. The term "loan" refers to a certain sort of credit instrument in which a certain quantity of money is borrowed from another party in exchange for the value or principal amount to be repaid in the future. Loans may be made for a predetermined, one-time sum or as an open-ended line of credit with a cap up to a certain amount. A loan is a type of debt that a person or other entity incurs. The lender, which is typically a business, financial institution, or government, loans the borrower some cash. The borrower accepts a specific set of terms in return, which may include any financial costs, interest, a repayment schedule, and other requirements. The principal, loan period, interest rate, and loan payment make up a loan. In addition to secured and unsecured loans, there are also commercial and personal lending options.

2.5.1 Secured Loans

An item of collateral serves as the security for a secured loan. Financial institutions demand that borrowers provide their title deeds or other ownership documentation until the loans are fully repaid. Stocks, bonds, and personal property can also be pledged as collateral. When they need to

borrow sizable amounts of money, most people ask for secured loans. Secured loans frequently include lower interest rates, strict borrowing restrictions, and protracted repayment terms.

2.5.2 Unsecured Loans

An unsecured loan is one where the borrower is not required to put up any property as security. Lenders who offer unsecured loans conduct a thorough evaluation of the borrower's financial situation. They will then be able to determine whether or not to provide the loan and estimate the recipient's capacity for payback. Credit card purchases, student loans, and personal loans are examples of unsecured loans. Due to the higher default risk compared to secured loans, unsecured loans typically have higher interest rates. This is so that if the borrower defaults on a secured loan, the lender may seize the collateral. Unsecured loan rates may change dramatically depending on a number of variables, including the borrower's credit history.

2.5.3 Commercial Loans

Business owners might use a commercial loan as a financial tool to meet their immediate cash needs. The sanctioned sum may be used to finance operational costs, expand working capital, buy new equipment, create new infrastructure, and fulfill other similar needs. Commercial loans can be relatively short-term secured or unsecured loans. A firm and a financial institution, like a bank, enter into a debt-based funding agreement known as a commercial loan. Typically, it is used to finance sizable capital investments and/or pay for operational expenses that the business might not otherwise be able to afford. According to Amiti et al. (2018), the majority of commercial credit in the world is made up of four different loan types: asset-based loans, cash flow loans, trade finance agreements, and leases.

There are additional types of loans that are classified according to the objective for which they are granted. The reason for which these loans are requested and approved typically gives rise to their names. These loans could be for things like agriculture, salaries, transportation, businesses, susu, etc.

2.5.4 Agricultural Lending

Agricultural Lending may refer to the provision of loans to farmers to finance the production of crops, livestock, and fruits, or the procurement of capital assets like farmland, machinery, and equipment. Giving small-scale farmers loans for their farming operations, both in cash and in kind, is also agricultural financing. One of the most crucial elements in the development of rural areas in developing nations is the financing of agriculture (Kohansal & Mansoori). Credit is a crucial tool for enhancing the wellbeing of the poor directly by reducing their reliance on short-term income and smoothing out their consumption. Financing investments in both human and physical capital also increases the production potential of underprivileged resource farmers (Nwachuku, 2010).

In emerging nations, agricultural lending is crucial for agricultural growth. It accelerates technical development to stimulate agricultural production by improving smallholder farmers' productivity, asset creation, food security, and ultimately, rural agricultural income (Kimuyu & Omiti, 2000). It serves as a temporary replacement for personal savings. Agricultural lending involves loans for the acquisition or refinancing of capital assets like lands, machinery and equipment, breeder livestock, and agricultural real estate upgrades. It also includes loans to fund the production of crops, fruits, vegetables, and livestock. (FDIO, 2022).

If smallholder farmers are to produce a marketable surplus and hence contribute to the development process, they must have access to institutional financing (World Bank, 2008). One of the main limiting constraints is the lack of access to credit for smallholder farmers, who make up the majority of the sector's drivers (Freeman et al., 1998; World Bank, 2013). In order to increase agricultural production, it is necessary to extend the status of rural credit generally since financing agricultural inputs and labor wages requires liquid cash, which is frequently not readily available to smallholder farmers (Karanja et al., 2014). However, the lack of farm records, tangible collateral like land titles, and valuable assets prevent formal institutions from lending to smallholder farmers, further exacerbating the credit problem. Many smallholder farmers organize credit organizations through which they raise money to lend to one another in an effort to get around barriers to accessing credit and financial institutions (Owuor, 2002). However, the amount of such loans is constrained due to insufficient money mobilization and geographical restrictions, leading borrowers to look for additional credit from other financial institutions. (2015) (Kiplimo¹ et al.). An essential component of smallholder agriculture is the agricultural loan. In order to boost their revenue and capacity to repay loans, it enables farmers to start and expand their farms (Imoudu & Onakspanone, 1992).

The ability of financial institutions to sustainably and continuously expand the amount of credit extended to support the alleviation of poverty depends on the repayment rates. High payback rates enable the banks to reduce interest rates and administrative expenses, which in turn boosts loan demand. Repayment behavior therefore acts as a favorable signal to increase the volume of credit available to different economic sectors (Acquah and Addo, 2011). Financial institutions, meanwhile, still refuse to extend credit to the agriculture and fishing industries. These sectors'

subpar loan repayment record is a contributing factor to this drop. Poor management practices, loan diversion, reluctance to repay loans, as well as other socioeconomic traits, may be the main causes of loan defaults in these industries.

2.4.5 Loan Repayment

Despite the fact that loans are crucial to agricultural productivity, obtaining and repaying them can be difficult, especially for smallholder farmers (Awoke, 2004). Loan availability and repayment have always been problems, particularly in poor nations. In order to avoid losing their funding, loan-granting organizations take precautions to make sure that the people they lend money to will repay them. Since it affects farmers' access to credit, the issue of farmer loan repayment is one of the most crucial ones (Awunyo-Vitor, 2012). According to empirical studies by Awunyo-Vitor (2012), a high rate of default has been a significant issue for the delivery and sustainability of agricultural credit, and as a result, a significant number of formal financial institutions have halted agricultural loans. Therefore, better loan payback is a crucial issue for the sustainability of agricultural credit delivery. Therefore, it is crucial that financial institutions come up with ways to lower the rates of loan default. The long-term viability of lending institutions depends on borrowers' capacity to repay the volume of loans obtained.

Recently, a lot of people have become interested in the need to give Ghanaian farmers greater attention, including agricultural economists, planners, politicians, agribusiness managers, agriculturists, and financial institutions. The issue of loan repayment has emerged as a result of the revived interest in enhancing the status of rural resource-poor farmers through credit extension. Even though loans are crucial to agricultural productivity, repaying them can be difficult, especially in smallholder farming. The procurement, administration, and repayment of

agricultural loans provide significant challenges for farmers (Oboh et al., 2011). Due to poor levels of loan payback, institutionalized sources of credit are unwilling to offer loans to small-scale farmers. Development in agriculture is harmed by this (Afolabi, 2002).

Nwachukwu et al. (2010) claim that one of the many issues with agricultural development in the developing world, including Ghana, is the repayment of borrowed loans and their use for the purpose for which they were borrowed. In terms of the amount of loan disbursed, the length of the repayment period, customer service, and loans from other financial institutions, such as unregulated financial institutions, may have a different repayment structure that is beneficial for the borrower.

Over the years, Ghana has experienced a consistent bottleneck related to loan repayment. High default rates have been shown in several circumstances (Njoku and Obasi 2001; Afolabi 2010; Oladeebo and Oladeebo, 2008). Delinquency in repayment has also been linked to insufficient income, a sharp drop in price, a lackluster infrastructure, a poor market, natural disasters, improper use, and illiteracy. According to Adofu, Shaibu, and Yakubu (2013), some of the issues preventing banks from providing loans to agricultural entrepreneurs include the high cost of managing such loans and the high rate of farmer default. However, ensuring simple access to financing and fast repayment is necessary if agricultural businesses are to continue playing significant roles in economic development.

Investigating the variables that influence loan repayment, according to Onyeagocha et al. (2012), is one strategy for overcoming difficulties with loan payback. The possibility of smallholder farmers being able to repay their debts is said to improve with the availability of additional

lending sources. The farmer has a variety of options, and he may locate a loan facilitator who can assist in customizing the repayment process to the convenience of the businessperson. This will spur the entrepreneur to put forth more effort in an effort to repay his debt. Due to the abundance of institutions available to the business, the interest rate charged may also be lowered (Agwu and Eluwah, 2017). Regardless of the entrepreneur's level of business expertise, farmers' ability to repay their loans depends on his or her management and commercial savvy. Since entrepreneurs are more likely to repay loans without default when the repayment period and arrangement are favorable to them, they also find it challenging when the repayment arrangement is unfavorable. The arrangements of the suitable loan repayment period for entrepreneurs affect their chances of repayment (Agwu and Eluwah, 2017).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section provides an overview of the research's methodology. It is broken down into the following subsections, which describe the methods used to accomplish the study's goals: study area, study population, types and sources of data, survey instruments, sampling size and technique, conceptual framework, method of data analysis, and reliability and validity.

3.2 Study Area

The Republic of Ghana is located between latitudes 4°44' and 11°11'N, 3°11'W, and 1°11'E. The Republic of Togo to the east, Burkina Faso (previously Upper Volta) to the north and northwest, and the Republic of Côte d'Ivoire to the west are Ghana's neighbors. South of the nation, the Gulf of Guinea, a portion of the Atlantic Ocean, creates a 550 km-long coastline. The majority of the nation's drainage system is dominated by the Volta River basin, which includes the man-made Lake Volta. A total of 136,000 km², or around 57% of the country's 238,539 km² total land area, is categorized as "agricultural land area," of which 58,000 km² (24.4%) is under cultivation and 11,000 hectares (27,500 acres) are irrigated. Only 15% of farms in the nation are more than 2.0 hectares, and 60% of all farms in the nation are smaller than 1.2 hectares in size. As a result, smallholder farming is the predominate type of farming in Ghana. Less than 1.6 hectares make up the average farm size. 95% of the land is cultivated on small and medium-sized farms with a total area of up to 10.0 hectares (SRID, 2001).

Ghana's agroecological zones have different farming practices. However, many universal characteristics may be seen all around the nation. Where there is adequate space to allow a plot to rest long enough to re-establish its fertility after one to three years of agriculture, the bush fallow method is prevalent. While income crops are often mono-cropped, staple crops are frequently mixed-cropped (FAO, 2020). Ghana's population is now estimated at 32.75 million, with a 2.09% annual growth rate (GSS, 2021). According to the Food and Agricultural Organization, 52% of Ghana's workforce is employed in agriculture (FAO, 2021).

3.3 Study Population

According to Bryman (2004), population refers to a collection of people, animals, or items of interest for study. A population may be defined according to the nature and field within which a research study is being undertaken. This study's population consisted of smallholder farmers in Ghana.

3.4 Types and Sources of Data

The research was carried out in Ghana in West Africa. Smallholder farmers, loan officers, branch managers, and loan supervisors were the study's target demographics. In the study, both primary and secondary data were used. Field surveys with farmers, loan officers, Rural Bank branch managers, and loan supervisors were used to collect primary data. The research literature, articles, journals, theses, and other relevant books were searched for secondary data. ARB Apex Bank, Rural Banks, the Bank of Ghana, and the Ministry of Agriculture's websites are further sources. The primary data focused on the objectives of the study and focused on finding specific

answers to the research questions. Secondary data contributed to bringing more clarity to the findings of the study.

3.5 Survey Instruments

Face-to-face interviews with rural bank managers, loan officers, and loan supervisors, as well as the administration of a semi-structured questionnaire to smallholder farmers who use their services as a source of credit, were used to gather data. Data was gathered in accordance with the precise goals that complemented the study. To find any errors or queries that were unclear to the responders, a set of questions was initially generated and pretested. The pretest helped to refine the questions such that the final set of questions, which were given to the respondents, fully addressed the study topics.

3.6 Sampling Size and Sampling Technique

The method used to choose the respondents consisted of multiple stages of sampling. Using a purposive sample technique, bank managers, loan officers, and loan supervisors were chosen for the first step of the engagement process. Smallholder farmers who have applied for and received loans from the rural banks were also purposively selected in the second stage. Random sampling was then used in selecting a sample from the total smallholder farmers in the final stage. There are 147 rural and community banks in Ghana, which are duly registered with the Bank of Ghana (Bank of Ghana, 2022). The study used 1 branch manager, 1 Loan officer, and 1 loan supervisor each from 10 rural banks as a sample and also employed 400 smallholder farmers as respondents. For the survey 430 respondents in total were questioned.

3.7 Conceptual Framework

Agriculture in Ghana is a major contributor to employment and poverty reduction in Ghana (World Bank, 2017). The sector is a major source of foreign exchange for the economy as a whole (Nyamekye *et al.*, 2021). About 90 percent of Agricultural production in Ghana is undertaken by smallholder farmers. Despite the significance of crop production to the economy and individuals, the sector is marred by various challenges and risks ranging from low yield, pest and disease attacks, limited access to credit and farm inputs, and poor producer prices among others.

The financial industry makes contributions to the economy as well as the financial system. Commercial banks play a significant role in providing capital and other financial services to the economy as members of the financial sector. Credit is one of the most significant businesses for commercial banks in emerging nations. Banks strive to make money, much like other businesses. They accept deposits in cash-on-demand for this purpose and give consumers advance loans on credit. Credit can, however, also expose commercial banks to risks and raise the number of non-performing loans. A nonperforming loan (NPL) is a loan for which the borrower has fallen behind on payments for a predetermined amount of time and is therefore in default. Credit risk can impair bank stability, which in turn may have an impact on economic growth, but NPLs are always the primary worry (Chand et al., 2021; Isnurhadi et al., 2021). Financial organizations utilize credit risk analysis models to calculate the likelihood that a prospective borrower would default. The models offer details on the degree of credit risk associated with a borrower at any given period. Lenders run the risk of experiencing default and money losses if they don't foresee the credit risk. When deciding whether or not to offer credit to

a borrower and how much credit will be charged, lenders rely on the validation supplied by credit risk analysis models (Hundie et al., 2004). Banking principles and a strong monitoring system may aid in lowering the number of non-performing loans when it comes to lending to rural and underdeveloped areas (Agbeko et al., 2017). Customers must specify their intended use of the loan in order to obtain one, and banks use this information to determine whether or not to grant the loan. Collaterals are also usually required as guarantees for loans while some loans also demand guarantors who are usually salaried workers.

The loan repayment behavior of farmers is usually influenced by the Loan amount, interest charged on the loan, repayment schedule and the amount to be paid on schedule and monitoring. In situations where farmers are given the appropriate amount they require for their investment, they tend to pay as it helps them generate their expected yield, revenue, and profit. The interest charged on the loan also affects the repayment behavior of farmers as high-interest rates make it difficult to pay as compared to a lower interest rate. According to Agbeko et al. (2017), monitoring does increase payback rates regardless of the borrowers' gender, business experience, or educational background. The majority of studies (Okorie, 1986; Wongnaa & Awunyo-Vitor, 2013; Dorfleitner & Oswald, 2016; Agbeko et al., 2017) concur that loan monitoring will enhance loan payback performance. Farmers over the years have been observed to pay back their loans where the repayment schedule is in sync with their revenue generation. Loan repayment that is designed, taking into consideration, the type of business (farming) that generates the revenue for repayment is deemed to be successful.

The most frequent and frequently most serious vulnerability in a microfinance organization is the possibility that it won't get its money back from borrowers (plus interest) (Warue, 2012). Lack of motivation to pay, borrower fund diversion, a delay in loan delivery, and a small farm's size can all result in loan default. Once more, high-interest rates, a farmer's advanced age, inadequate supervision, and the unprofitability of the farm business may cause them to default on their loans.

Rural banks and Microfinance Institutions can also take measures to ensure repayment. This can be done by ensuring that farmers pledge collateral for the loans they take. According to Kohansal and Mansoori (2009), lenders create a variety of institutional procedures to lower the risk of loan default. Collateral pledges, credit guarantees from third parties, utilization of credit rating and collection agencies, etc. are a few examples. Rural Banks must also conduct credit ratings of borrowers before giving out loans. To assess the borrower's credit risk and make a loan decision, a credit analysis of potential borrowers should be done. According to Alley (2009), it is possible to limit bad loans by making sure that only borrowers who have a good chance of being able to repay the loan and who are unlikely to become bankrupt are given credit. Rural Banks must also undertake adequate loan appraisal before loan delivery. According to Sheila (2011), a proper and adequate appraisal is essential for preventing or minimizing default. The fundamental step in the loan procedure is this one. Adequate Monitoring must also be done by rural banks to ensure that loans are used for loan purposes that will aid repayment on schedule. Monitoring loan repayments is necessary, and anytime a client defaults, action must be taken. As a result, banks should refrain from lending to high-risk borrowers, keep an eye on loan repayments, and

renegotiate loans with troubled borrowers (Ameyaw-Amankwah, 2011). Also, rural banks may employ the use of collecting agents to aid loan repayment.

3.8 Method of Data Analysis

The study used Statistical Package for the Social Scientist (SPSS) to capture, code, and analyze data for the study. It also employed descriptive statistics such as frequencies, percentages, and means in analyzing the data gathered. The findings of the study were also presented using bar charts, pie charts, and tables to present the results of the analysis.

3.9 Reliability and Validity

According to Gilham (2000), the integrity of the findings and recommendations made as a result of a research study are key indicators of a study's validity. He further asserts that a research conclusion's external validity refers to the degree to which its findings may be applied to a population and in different social, economic, and political contexts. In light of this, the survey questions were pre-tested to identify omissions and questions that need to be changed to collect the right data for the study. The questionnaire was reviewed to make the required adjustments to further improve dependability. According to Denscombe (2007), dependability has to do with how easily a research finding may be repeated and replicated. To ensure reliable measurement, the research instrument will be identified and incorporate the concepts and constructs that are essential to the study.

CHAPTER FOUR

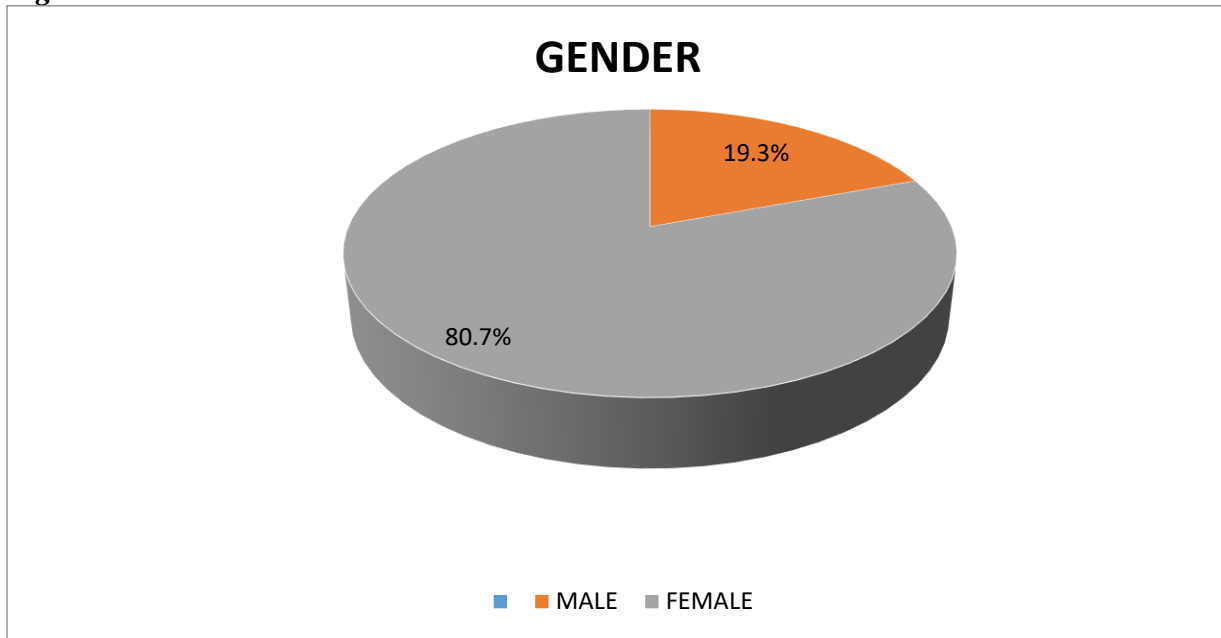
RESULTS AND DISCUSSION

4.1 Socio-Demographic Factors

Farmers' ability to adopt certain practices and undertake initiatives concerning their activities such as securing agricultural loans is influenced by human characteristics. These socio-demographic characteristics shape the rational decision-making of these farmers concerning initiatives with respect to their farming activities (Haruna, *et al.*, 2019; Shu'aib, 2009). This makes it very important to assess the socio-demographic characteristics of farmers to have a deeper understanding of their loan repayment behavior.

The study therefore revealed as depicted by figure 4.1, that the majority of the respondents were males 80.7%. This shows that agriculture and farming, in general, are male-dominated owing to the tedious nature of farming. This can also be attributed to the pattern of land ownership and land acquisition in Ghana which is dominated by males. Male farmers also have a tendency to acquire loans for their farming activities, either for expansion or buying of agro-inputs than their female counterparts. This is consistent with a study by Ojiako and Ogbukwa (2012) who examined the economic analysis of smallholder cooperative farmers' ability to repay loans in the Yewa North Local Government Area of Ogun State, Nigeria. They discovered that the proportion of male respondents was 91.8% and the proportion of female respondents was 8.2%. According to Wognaa & Awunyo-Vitor (2013), who conducted a study titled "Factors affecting loan repayment performance among yam farmers in the Sene district, Ghana," male farmers dominate the farming industry and have easier access to loans than their female counterparts (93% of their respondents were male, compared to 7% of female respondents).

Figure 4. 1 Gender Distribution



Source: Researcher's construct, (2023)

The study also shows (from Table 4.1 below) that the minimum age of farmers was 20 years with a maximum age of 88 years. The average age of farmers was also found to be 50.25. This shows that farming is somewhat attractive to the youth with a little over teenagers being involved with farming. The average age also depicts that the majority of farmers in general are mature and therefore understand the implications of loan default and repayment on their farming activities and the rural banks they deal with. The age also suggests that farming business in Ghana has a bright future ahead as it is dominated by the youth. According to a study by Acquah and Addo (2011), fisherman in Cape Coast, Ghana, have a mean age of 43.04 years, with the bulk of them (40.3%) falling between the ages of 41 and 50, 22.4% between the ages of 19 and 30, and 7.5% between the ages of 61 and 70. Wongnaa & Awunyo-Vitor (2013) also affirms this by postulating that 43% (the majority) of the respondents in their study were between the ages of 41 and 60, however, they also contradict the findings of this study by asserting that few teenagers are into farming as their study revealed only 2% of their respondents are at most 20 years. Also,

Akpan (2010) also demonstrates growing evidence of aging farmers in rural developing economies. However, according to Aidoo et al. (2011), farmers might be as old as 80 years old. The minimum age was 19 years. They assert once more that the farmers in their study were 41.29 years of age on average. This supports the study's conclusions.

With respect to years spent in school, the study showed that farmers at least spent a year in school with a maximum of 17 years spent in school. It also depicts that respondents spent an average of 9.65 years in school. This implies that farmers who have spent more years in school understand the implications of loan default and repayment. They also have an understanding of loan agreements such as repayment periods, grace periods, loan payments in installments, etc. These findings conform to the findings of Aidoo *et al.*, (2011) who postulate that 9.79 years are spent in schools by farmers and these farmers understood loan repayment terms.

Table 4. 1 Socio-demographic variables

Variables	Minimum	Maximum	Mean	Std. Deviation
Age Of Respondent	20	88	50.25	12.954
Years In School	1	17	9.65	2.586
Number Of Dependents On Respondents	1	20	3.82	1.742
Years In Farming	1	60	19.26	11.493

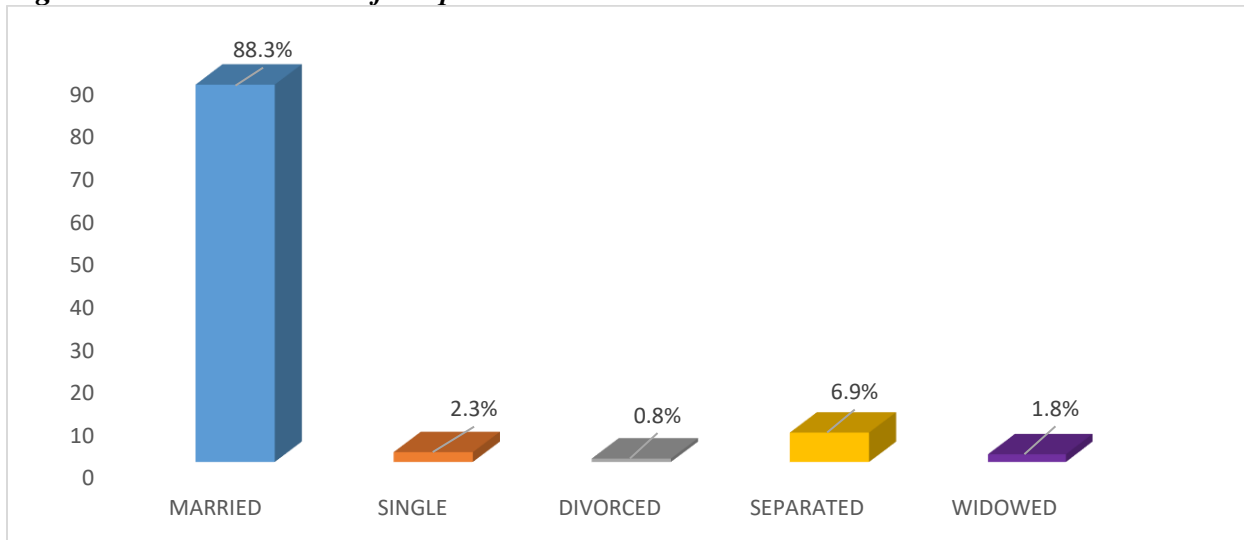
Source: Researcher's Construct, (2023).

It was also found, through the study that, respondents have an average of 4 people as dependents with maximum dependents of 20. The number of dependents affects the loan repayment behavior of farmers as it has a bearing on their revenue generation and expenses. From the study, where there are a higher number of dependents on the farmer, such farmer has poor repayment behavior as his expenses are higher and therefore affect his loan repayment ability. Farmers with small

family sizes and few dependents were found to have good repayment behavior and as such pay on time and do not also default. However, the number of dependents, depending on their age also serves as a source of labour to the farmer and his farm and therefore also reduces his expenditure in terms of labor cost. This study is in line with Wongnaa and Awunyo-Vitor (2013), who found that a greater percentage of their respondents had a large family size and therefore asserted that the size of the families could likely raise their total expenses and negatively affect their loan repayment ability. They also asserted that the availability of large dependents serves as a source of labor that contributes to increased productivity and therefore could positively affect farmers' loan repayment ability. Aidoo *et al.*, (2011) also contribute to this by asserting that the average family size of their study was found to be 6.84.

The study again revealed that the average age spent in farming was 19.26 years. This demonstrates that farmers have enough experience to determine the exact needs of their farms and the amount needed for their farm expenditure. This prevents them from taking loans that are more than their needs or inadequate for their farm expenditure, thus improving loan repayment ability. Their farming experience also enables them to negotiate for a proper term of the loan agreement as they know the timing of their revenues and expenditures. The findings of the study conform to the study by Baffoe Ansah (2022), which asserts that farmers had an average of 14.69 years. He asserted that farmers tended to adopt agricultural interventions such as insurance and agricultural loans as they increased in the number of years in farming. Iddrisu (2015) also asserts that farmers increase their knowledge of the pros and cons of agricultural intervention as they increase in years in farming.

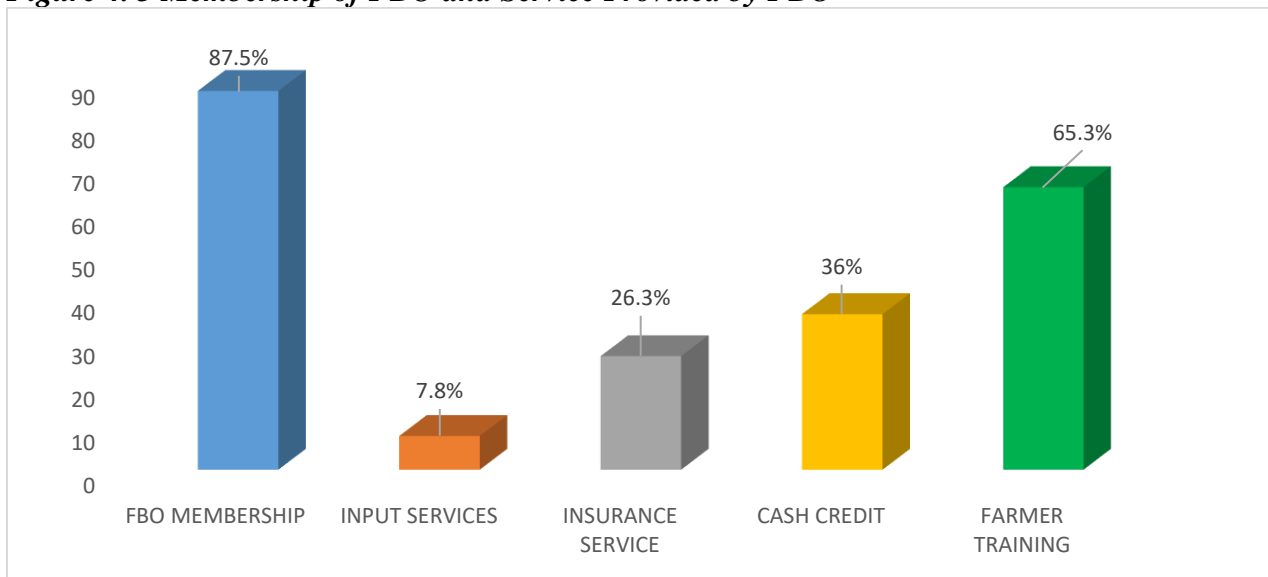
Figure 4. 2 Marital Status of Respondents



Source: Researcher's Construct, (2023)

The majority of the respondents (88.3%) were married with 2.3% being single. A total of 6.9% were also separated, 1.8% widowed and 0.8% divorced. Marriage in agricultural-dominated areas serves as a source of labor and therefore may account for the majority of respondents being married. Rural banks are also comfortable granting loans to married farmers as they find them to be more responsible and therefore are not likely to default as compared to single or separated farmers. However, married farmers may also incur more expenses (family expenses) than their single counterparts and this may affect their revenue flow and loan repayment abilities. The findings of the study are therefore in line with the findings of Nwafor Grace *et al.*, (2018) who found 71.2% of their respondents to be married, and Arup Pillai (2019) who also found 79% of smallholder farmers in his study “creditworthiness and repayment performance among smallholder farmers in Sri Lanka: application of Probit model to be married, with the remaining 21% being single.

Figure 4. 3 Membership of FBO and Service Provided by FBO



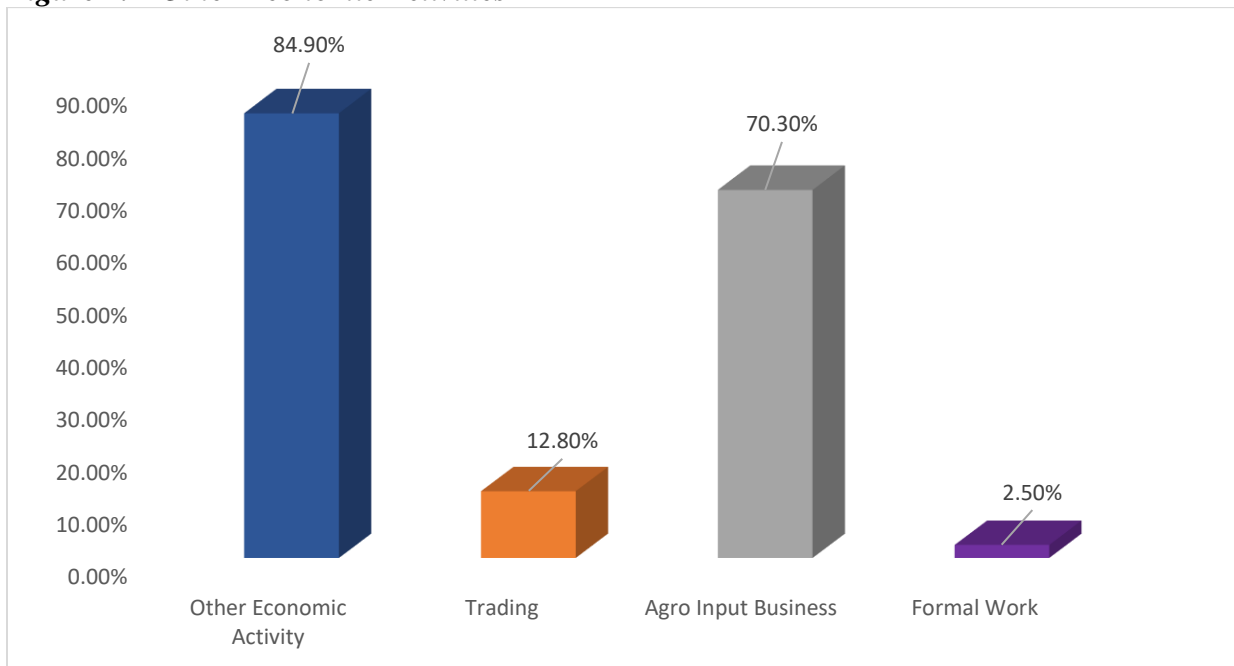
Source: Researcher's construct, (2023)

Figure 4.3 depicts that the majority of the respondents were members of farmer-based organizations (FBO) with 87.5%. Farmers who are members of farmer-based organizations usually qualify for agricultural loans as some rural banks require them to provide group guarantees which these FBOs can easily provide. They also tend to understand loan repayment terms through training offered by these organizations. The provision of a cash credit to members of FBOs usually also barred them from accessing formal financial credit. This conforms to the findings of Ojiako (2014) who asserts that farmers who are part of cooperatives rely more on cooperative credit than formal banking institutions' credit. It was therefore revealed that the FBOs provided input services to 7.8% of the respondents, insurance services to 26.3%, cash credit to 36%, and farmer training to 65.3%. These services provided by the FBOs were found to improve the loan repayment behavior of farmers as farmers had access to needed input and therefore spent their loans on farm-related products and activities and farmer training improved farm revenue which positively increased loan repayment of farmers.

4.1.1 Income and other economic information of Respondents

They again showed that 84.9% of the farmers were involved in other economic activities such as trading, agro-input business, and formal work. This increases the total revenue and income of the farmer and thus has a positive effect on the loan repayment behavior of farmers. The multiple sources of income of these respondents reduce the burden of expenditure on the farmer and therefore improve the farmers' repayment behavior. The study again also showed that 12.80% of the farmers were involved in trading, 70.3% were involved in agro-input business and 2.5% were also formal workers. The findings of the study conform to the findings of Arup Pillai (2019), which found the majority of farmers (58%) engage in other economic activities.

Figure 4. 4 Other Economic Activities



Source: Researcher's construct, (2023)

The study found that the average size of the respondents' farm was 9.36 acres with a minimum of 1 acre and a maximum of 45 acres. It was also revealed that maize farmers had an average yield of 20 bags of produce as compared to the average expected yield of 23.69 bags per acre.

Smallholder cocoa farmers also had an average yield of 5 bags per acre as compared to the average expected yield of 8 bags per acre.

Table 4. 2 Farm size, Expected yield, and Actual Yield

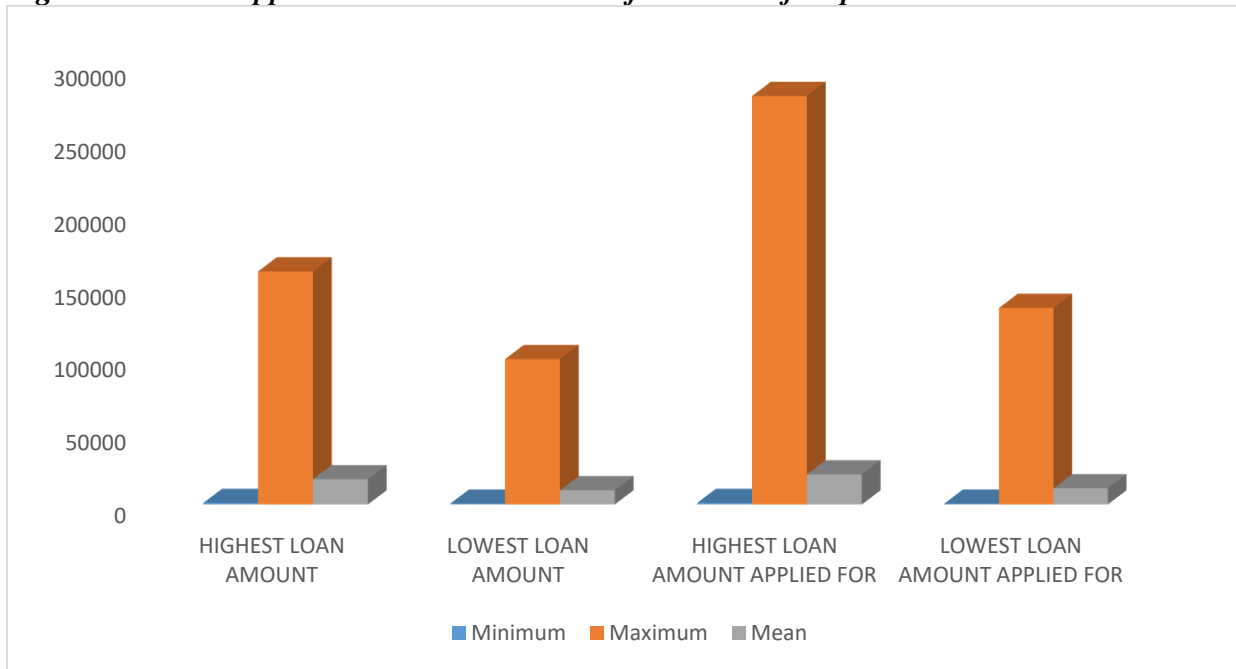
Variables	Actual Average Yield (bags/50kg)	Average Expected Yield (bags/64 kg)
Food Crops (Maize)	20	23.69
Cash Crop (Cocoa)	5	8

Source: Researcher's Construct, (2023)

4.1.2 Loan application and Receivable information of respondents

The study found that the highest minimum amount received by respondents who applied for loans was GHC 1,000.00 which was the same as the highest minimum loan amount applied for. Respondents also received GHC 160,000.00 as the highest maximum loan amount as compared to the highest maximum loan amount applied for which was GHC 280,000.00. Again, it was also revealed that the lowest minimum loan amount applied for and received was GHC 500.00. The lowest maximum amount received by respondents was also found to be GHC 100,000.00 as compared to the lowest maximum amount applied, which was GHC 135,000.00.

Figure 4. 5 Loan application and Receivable information of respondents

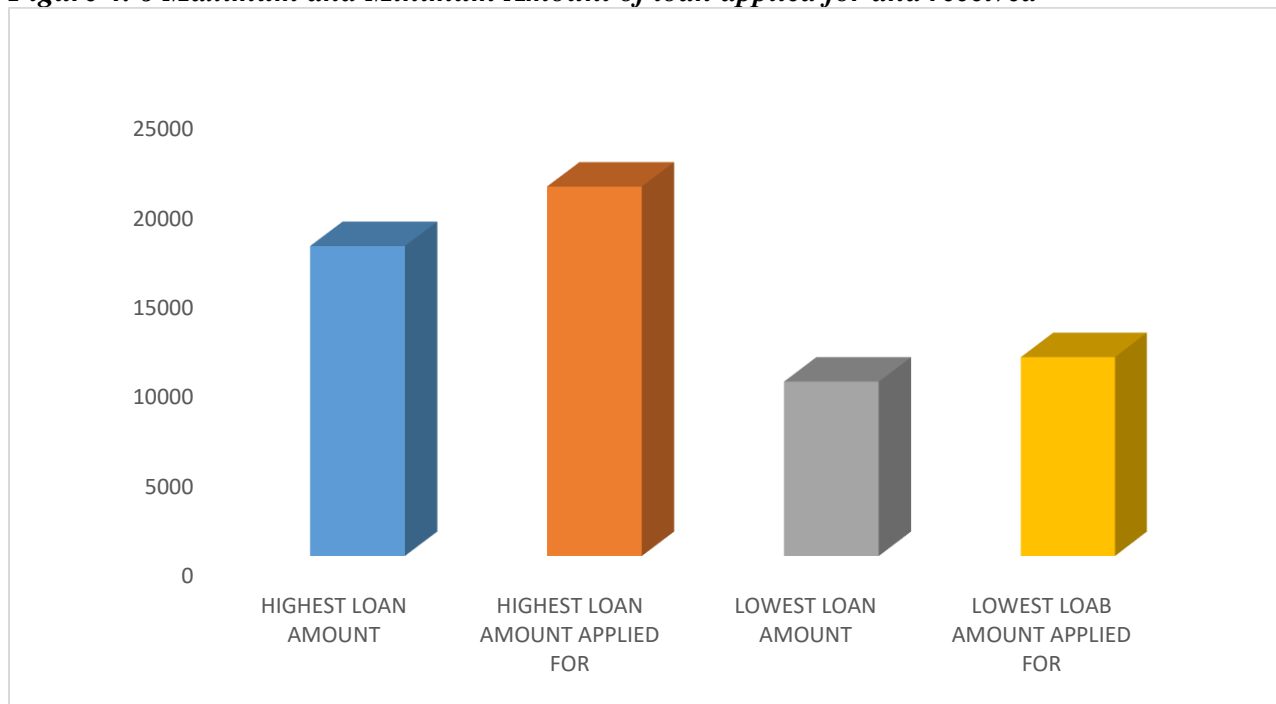


Source: Researcher's Construct, (2023)

4.1.3 Maximum and Minimum amount of loan applied for and received

The Data also revealed that the average highest loan amount (17,348.46) received by respondents was lower than the average highest loan amount (20,678.38) applied for, which indicates that farmers did not receive the amount they applied for and therefore must look elsewhere to acquire additional funds for their farming activities. Also, the average lowest loan amount received (9,766.15) was lower than the average lowest amount applied for (11,138.22). This also indicates that farmers did not receive the lowest loan amount they applied for their farming business.

Figure 4. 6 Maximum and Minimum Amount of loan applied for and received



Source: Researcher's Construct, (2023)

4.2 Causes of Loan Default

From the table below, analysis of the data showed that the majority of the respondents (95.4%) found their loan amount received to be adequate for their farm business with 99.6% ensuring repayment of their loans. However, the study showed that 49.4% of respondents defaulted on their loans in terms of repayment dates and schedules. In understanding reasons for default on loans, 45% of respondents were of the view that the loan amount was not enough with 47.3% asserting that the timing of the loan delivery was also inappropriate. Respondents opined that agricultural loans were obtained for agricultural inputs which are needed strictly in accordance with the crop calendar and meeting the onset of rains, but the loans applied for were not disbursed to them at the right time. The late disbursement of the loans led to misapplication of the inputs resulting in loan repayment default. Rahman and Sarker (2018) asserted in their study that timely disbursement of loans was paramount to improving loan repayment. They concluded

that loan amounts to borrowers should be made available to them as and when they are needed as it is very critical to repayment. Also, Korankye (2014) also opined that one of the factors that contributed to loan repayment default was the inadequate loan sizes distributed to borrowers. This affects their revenue streams purported for repayment.

They also opined that 87.7%, of repayment schedules were in sync with their revenue generation with 12.3% disagreeing with this assertion. Respondents of the study, therefore, asserted that loan repayment should be devoid of complications as repayment terms and timings coincide with their revenue receivables. However, a section of the respondents opined that their loan default could be attributed to the differences between their loan repayment amount (in installment) and the revenue received. Where their loan repayment obligation was higher than the revenue received, default on repayment was expected.

Respondents (47.3%) also attributed default on loans to high interest rates with 41% also blaming loan collection agents that the lack of loan collection leads to loan default. This conforms to the findings of Korankye (2014) who asserted that high-interest rates contribute to defaults on loan repayment. Unfortunate incidents such as floods, bush fire, etc. were also cited by 34.2% of the respondents as reasons for loan default with 18.1% also citing poor producer price for their produce as reasons for loan default. They explained that expected revenue is predicated on yield and good producer price and therefore in situations where producer prices are low or poor, it affects revenue meant for the repayment of the loan. Lastly, 9.58% of the respondents disagreed with the view that lack of collateral was the reason for default, however, 4.2% of respondents held on to that view. The study also revealed that almost half of the

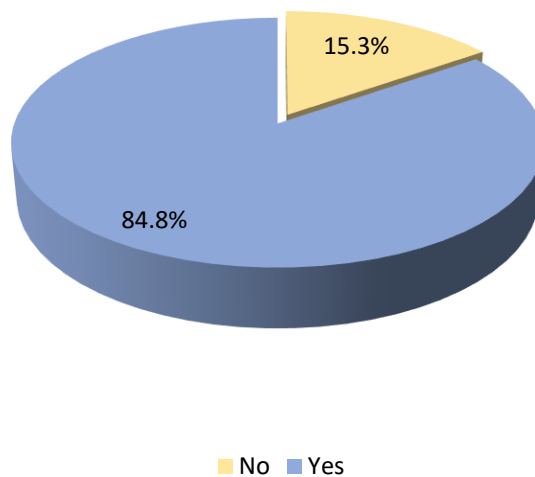
respondents (45.9%) used their agricultural loans contracted for unintended purposes and this may account for the default on loan repayment. In terms of supervision of the loan usage by respondents by the bank, the majority of the respondents 54.1% asserted that the banks did not provide such supervision to ensure proper utilization of the loans. However, 55.4% of respondents opined that there was supervision from the banks concerning the repayment of loans, accounting for the high rate of loan repayment. According to 51.5% of the respondents, the banks also provided training, about their businesses, financial literacy, and financial management which aided the avoidance of loan default and improved loan repayment by farmers. The majority of the respondents (96.3%) also asserted training provided by the banks helped increase their business income and in effect helped improve their loan repayment behavior. It was also found that 10.1% of respondents had also contracted loans from other banks and some also had multiple loans from different banks. This was expected to pose a challenge to the majority of the respondents in terms of loan repayment, however, analysis of the data indicated that only 32.3% of the respondents had difficulty in making repayments for their multiple loans. The majority of the respondents, 84.8% associated default on loan repayment with high interest rates charged on the loans. They asserted that the high-interest rate charged on loans is more than the revenue they make by using the loans and therefore find it difficult to make repayment

Table 4. 3 Causes of Loan Default

Variables	Yes (%)	No (%)
Adequacy of loan	95.4	4.6
Payment of microcredit	99.6	0.4
Default on microcredit	49.1	50.9
Microcredit Information		
Underfinancing	45	55
Late disbursement of loans	47.3	52.7
The repayment schedule is not in sync with the revenue generation	12.3	87.7
High-interest rate	47.3	52.7
No monitoring of loan usage	41.2	58.8
Lack of loan repayment collection agents	43.5	56.5
An unfortunate incident on a farm / Force majeure	34.2	65.8
Poor producer price	18.1	81.9
Lack of Collateral	4.2	95.8
Loan diversion	45.9	54.1
Loan Supervision by the Bank regarding the utilization	37.1	62.9
Supervision on Loan repayment	55.4	44.6
Training to avoid default	51.5	48.5
Training increases business income and repayment	96.3	3.7
Loans from other banks	10.1	89.9
Difficulty in repayment of multiple loans	32.3	67.7
Defaults on loans associated with high-interest rates	99.6	0.4

Source: Researcher's Construct, (2023)

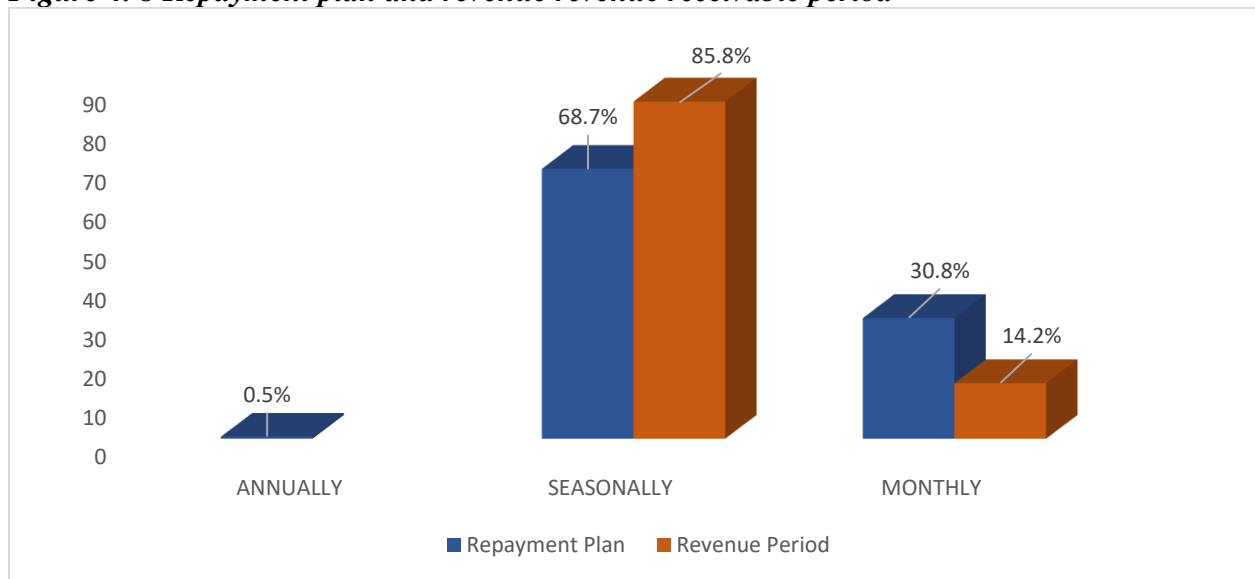
Figure 4. 7 Default on loan associated with a high-interest rate.



Source: Researcher's Construct (2023)

In comparing the repayment terms with the revenue generation period of farmers, the study found that 0.5% of the respondents were allowed to make payments annually. This was associated with the type of farming in which harvesting and sales were done on an annual basis. The study also found 68.7% of the respondents had seasonal payment plans which coincided with 85.8% having their revenue from sales on a seasonal basis. Again, 30.8% also had a monthly payment plan which also coincided with 14.2% of respondents receiving their revenues from the sale of their produce every month. The study also showed the number of respondents who received revenue from their produce on a seasonal basis outweighed the number of respondents who were to settle their loans on a seasonal basis. This indicates that if banks can schedule loan repayment to meet farmers' cash flow, it will massively improve the loan repayment rate of farmers and foster good relationships between farmers and formal financial institutions. This also implies that banks must have reliable credit software to enable the generation of both regular and irregular repayment schedules which will take into consideration the seasonality of production or cropping calendar. The study also showed that the number of farmers who had their repayment plan monthly outweighed the number of farmers who had their revenue generation monthly. This confirms that farming irrespective of the crop or animal usually does not generate monthly inflows and therefore monthly loan repayment schedule will put the farmer at a disadvantage and negatively affect their ability and willingness to repay the loan.

Figure 4. 8 Repayment plan and revenue revenue receivable period



Source: Researcher's Construct (2023)

4.3 Steps to Reduce Rural Banks' Loans Default

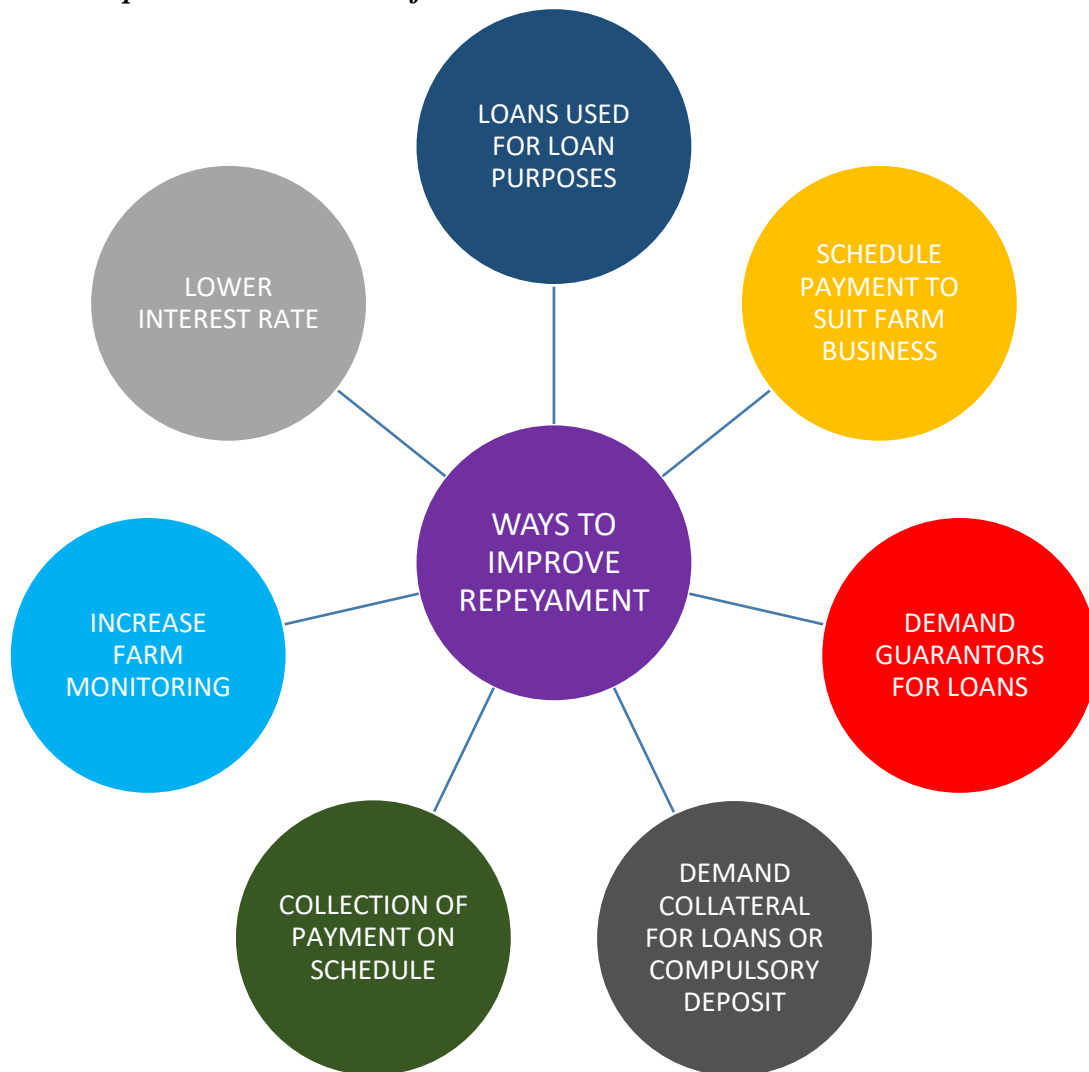
The study showed that almost all the respondents interviewed believed that to improve loan repayment from farmers, the interest charge on loans should be lowered. They opined that, the interest rate on loans made the scheduled loan amount and the total amount (principal plus interest) too much for farmers to pay. This they said cannot be matched by the revenue from the sales of their products, therefore making repayment very difficult. They also asserted that banks should increase the monitoring of their farm business to ensure that respondents' businesses were growing and that they were doing the right thing to be able to pay off their loans. This claim is consistent with Lamichhane's (2022) results, which contend that consistent monitoring and follow-up are necessary in the microfinance industry to ensure credit security. To monitor a client's company performance, a regular visit is required. The likelihood of default is reduced by the wise use of borrowed funds. Customers can create income and make loan repayment simple by using the borrowed funds in the methods that have been set.

Training on Good Agricultural Practices which were lacking according to respondents could be revealed through monitoring and this training could be offered by the bank to improve business and consequently improve loan repayment. They again asserted that through monitoring, the banks should ensure that respondents were using loans for loan purposes to ensure repayment. This would prevent farmers from using loans on activities that could not fetch any revenue for loan repayment. conclusions from Lamichhane (2022), which argue that proper use of borrowed funds may create income, support these conclusions. He added that if the money is used in a non-productive area, consumers' cash flow won't meet credit repayment, which could lead to delinquency. As a result, Rural Banks must teach their consumers how to use the loaned money. The proper documentation promptly notifies Rural Banks of the recovery status and alerts them to loan repayment. Early contact and follow-up with borrowers reduce the likelihood of loan default. The study by Njeru Warue (2012) also corroborates the findings of this study as he also opined that credit monitoring and controls are amongst the effective methods by which loan repayment can be improved. Cheng (2021) also opines that one of the contributing factors to loan default is the lack of loan supervision and therefore an improvement in loan supervision would improve loan repayment. Tiwari *et al.*, (2020), also contribute to this by stating in their findings that visiting by MFIs after loan disbursement is key to loan recovery or repayment.

Also, some respondents, attributed their default on loan repayment to a lack of collection of repayment amounts by banks on schedule. According to the study, banks should endeavor to collect loan repayments on schedule as agreed with farmers. These farmers indicated that, when banks fail to take back loans on schedule by their collection agents, they are trapped in using these payments for other purposes.

They also revealed that to improve loan repayment, banks should also schedule loan repayment to suit the cash flow or revenue generation period of the farm business. The loan repayment schedule must be tailored to suit specific farm businesses to ensure that cash is available when the loan repayment is due. Through the study, farmers asserted that to protect banks and their monies, and to ensure that farmers take loan repayment seriously, banks must demand collateral from farmers to ensure repayment. They opined that farmers use their farms as collateral and this will ensure that farmers pay back their loans. They further explained that due to the lack of land title deeds on most farm lands and land ownership problems, the loan collateral could be in the form of compulsory savings or deposits which will be locked in the farmer's account until complete repayment is made. Lastly, they opined that farmers present guarantors and guarantees for the loans advanced to them.

Figure 4. 9 Steps to Reduce Loan Defaults



Source: Researcher's Construct (2023)

4.4 Effects of Loan Default on the Performance of Rural Banks

According to the Bank of Ghana Act, 2004, which outlines the loan acquisition policy, loans are considered non-performing if they have been unpaid for at least 90 days. This will subject them to a basic interest rate of 25%, 50%, and 100% for substandard, questionable, and loss, respectively. On the opinion of farmers on the effects of loan default on banks, the study showed that 74.1% of farmers believed that, a loan default will lead to a lack of liquidity on the part of Rural Banks to pay demand depositors. This, they opined, that the loan amounts are depositors'

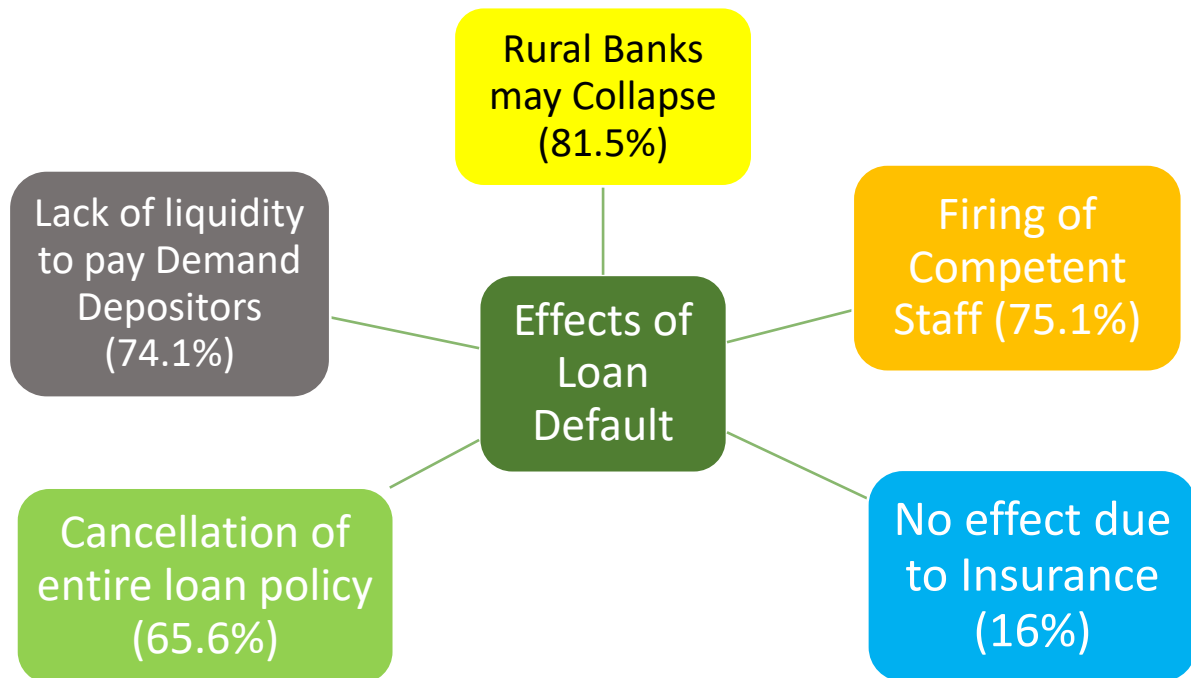
funds, and as such any default will result in demand depositors not getting their funds back. Some of the respondents also asserted that lack of liquidity due to loan default can also stunt the growth of the Rural Banks and deprive them of the opportunity to lend to other viable businesses. This is in line with research that shows the main impact of poor loans on banks is that they restrict their ability to grow financially (Karim et al., 2010; Kuo et al., 2010). This effect comes about as a result of bad loans robbing banks of the money they require, limiting their ability to finance other potentially viable firms and provide credit to individuals. Karim et al. (2021) contend that the bank is unable to pursue many other promising enterprises because its resources are ensnared in subpar loans. A majority of 81.5% also indicated that loan repayment default may result in the collapse of Rural Banks. They asserted that loan default leads to liquidity problems which will eventually lead to the collapse of the Rural Banks.

Again, the study revealed that 65.6% of the respondents were of the view that, loan repayment default may result in the cancellation of the entire loan portfolio of the bank. When banks appraise their loan portfolio, the non-performing loans are written off when they become bad debt per the banks' policy and these losses could affect the performance of the bank. According to Asari et al. (2011), a bank's performance and the credit and recovery process are correlated linearly. Banks are not able to make money off of defaulted credits, as Asari et al. (2011) convincingly established. The authenticity of credit documentation, which is a tool for preventing defaults, is a study that directly relates to how well a bank performs. The reduction in the banks' overall loan portfolio caused by loan default provisions has an impact on the interest earned on those assets. For banks, this entails a significant expense. Unsecured loans have a direct impact on the profitability of banks, according to a review of their financial accounts. This

is so that banks' profit positions don't improve, as the charge for bad loans is viewed as an expense on the profit and loss statement (Price Water-House Coopers, 2009).

4.10 Effects of Loan Default on Rural Banks from the Perspective of Farmers

Figure 4. 10 Effects of Loan Default on Rural Banks



Source: Researcher's Construct, (2023)

4.5 Rural Banks' assessment on causes of Loan Default

The majority of the Rural Banks included in the study had the goal of offering clients of their bank effective financial services through a variety of tailored products and corporate governance. All the Rural Banks involved in the study offered agricultural loans to small-scale farmers. They had loan portfolios that included the following.

- Agric loans
- Personal Loans
- Group loans

- SME loans
- Commercial loans
- Salary Loans
- Auto loans
- Microfinance Loans
- Transport Loans

The study found that the banks allocated an average of 17.85% of their loan funds to agricultural loans. This was found to be inadequate on the part of farmers who are the beneficiaries, however, most of the banks were willing and contemplating reducing the loan product percentage due to the risk associated with it. Some banks posited that they offered agricultural loans because of their location and the occupational status of the population. Despite the high performance of the agricultural loan portfolio of the banks, they were still skeptical due to the risky nature of agriculture in Ghana and the low returns on investment on agricultural loans. This is in sharp contrast to the Bank of Ghana's directive to all rural banks to disburse 50% of their loan funds to agriculture in Ghana (Oxfordbusinessgroup.com, 2020). The table below depicts the minimum and maximum, and the average percentages of the banks' loans to their various loan products.

Table 4. 4 Loan products and their percentage allocations

Loan Product	Minimum Percentage	Maximum Percentage	Mean Percentage
Agric Loan	3.1%	55%	17.85%
Personal Loan	1.25%	69%	30.29%
Group Loan	7.37%	15%	11.80%
SME	24%	25.7%	25.09%
Commercial Loan	4%	50%	33.82%
Salary Loan	1.8%	55%	23.67%
Auto Loan	11.3%	34%	24.94%
Micro Finance Loan	1.77%	36%	14.86%
Susu Loan	0.09%	36%	16.80%
Transport Loan	1.7%	50%	15.92%

Source: Researcher's Construct, 2023

From the table above, the study revealed that on average, the Loan portfolio of Rural Banks was dominated by commercial loans, personal loans, SME loans, Auto loans, and Salary loans. Rural Banks were more interested in commercial loans as they allocated the highest average percentage of 33% of their loan portfolio to commercial loans. This may account for the vast difference in the loans applied and loans disbursed to farmers as the amount allocated to the agricultural loan product only stood at an average of 17.85% of the entire banks' loan portfolio.

Table 4. 5 Agricultural Loan Amount Disbursement

Loan Amount	Minimum	Maximum	Mean
Agric Loan	100.00	5,000.00	1,514.29
Agric Loan	7,000.00	200,000.00	95,400.00

Source: Researcher's Construct (2023)

The study revealed that the average minimum loan amount disbursed by the banks was GHC 1,514.29 with a maximum of GHC 5000.00 and a minimum of GHC 100.00. The study also revealed that the average maximum agricultural loan amount disbursed was GHC 95,400.00 with the Maximum being GHC 200,000.00 and the minimum being GHC 7,000.00. This confirms that a smaller percentage of the loan portfolio of the banks is dedicated to agriculture. The study revealed that these amounts are not enough for farmers to acquire the needed requirements for successful farming seasons, however, banks are also mindful of the risk that comes with the sector to disburse huge agricultural loan amounts to farmers.

The study also showed that these loans were given to farmers for input purchase, payment of farm labor, and purchase of planting materials. Analysis of the data showed that 90% of the banks' customers used the loan contracted and given for input purchases 44.4% also used their

loan amount for the payment of farm labor while 77.8% also contracted the loans for the purchase of planting materials.

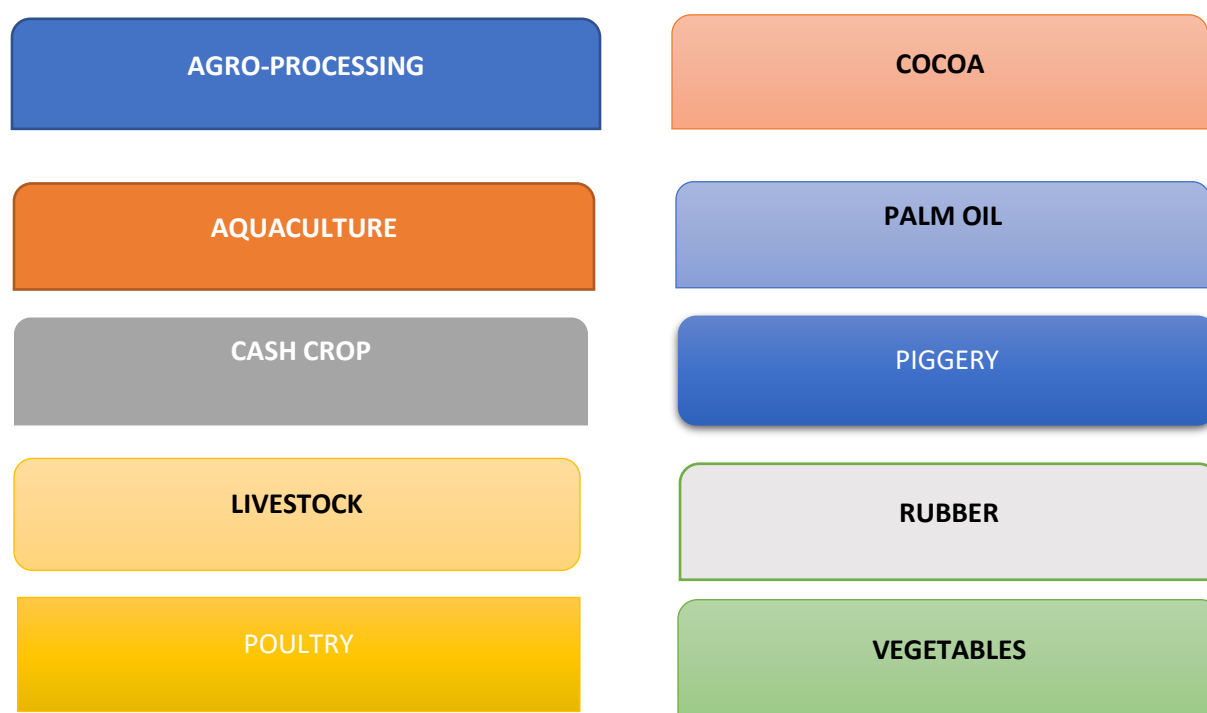
According to the study, the banks that made large loans explained why they did so: to ensure that farmers could finance their input needs, to attract more farmers to agricultural loan programs, to provide support to cottage industries, and to support agriculture in general. The reasons for the high loan disbursement stems from the mission of these banks. On the other hand, the reasons for the low loan amounts disbursed to farmers were due to the high default rate associated with agriculture, the lack of collateral on the part of the farmers, poor repayment behavior, and the seasonality of the sector.

4.5 Types of Agricultural Loans Offered by the Rural Banks

From the figure below, the study found that the majority of Rural Banks allocated between 27-30% of their agricultural loans to cocoa loans. The study further revealed that the cocoa industry in Ghana has an already existing market and a well-organized guaranteed market where purchases are assured from the Ghana Cocoa Board. They also asserted that there is high revenue from the cocoa proceeds which therefore makes it easier for loan repayment by cocoa farmers. Again, it was also found that Rural banks also allocated between 11-12% of their agricultural loan portfolio to other cash crops and poultry production. This, they asserted was due to the relatively less risky nature of the two ventures and the availability of markets for producers of cash crops and poultry farmers. They further opined that farmers in these ventures have a good track record of loan repayment and therefore justify their loan portfolio allocations to these farmers.

Also, the study showed that Rural Banks allocated the remainder of their agriculture loan portfolios to rubber producers, palm oil producers, vegetable producers, piggery, aquaculture, and agro-processors. It was the opinion of these banks that the percentage allocations to these farmers were due to their small number, the high-risk nature of their ventures, and the low loan applications by farmers in these ventures

Figure 4. 11 Types of Agricultural Loans



Source: Researcher's Construct (2023)

4.6 LOAN RECOVERY BY RURAL BANKS

The study revealed that the Rural Banks make an average of 71.57% loan recovery concerning their agricultural loans. They further stressed that their maximum loan recovery percentage was 100% which is usually associated with cocoa loans due to the existence of a guaranteed market by the Ghana Cocoa Board for cocoa farmers. The study also showed that Rural Banks made a minimum loan recovery of 13.8% for their agricultural loans. The banks associated these

recovery percentages with crops and animal production other than cocoa with their agricultural loans.

Also, analysis of the data from the study showed that the banks made an average of 49.9% recovery about their group loans portfolio, 98.42% for their salary loans, 65.38% for their trading loans, 79.2% for their microfinance loan, 61.75% for their auto loans and 80.83% for their susu loans. It was shown from the study that salary loans had the highest percentage of loan recovery and this was attributed to the stable cash flow from salaries of applicants. The Susu loans; also had a higher percentage of loan recovery and the banks opined that this was due to the use of savings by the applicant as collateral for the loans which is calculated as a percentage of the principal amount.

Table 4. 6 Loan Recovery by the Rural Banks

Types Of Loan	Minimum	Maximum	Mean
Agric Loan	13.8%	100%	71.57%
Group Loans	9.8%	90%	49.9%
Salary Loan	95%	100%	98.42%
Trading	28.9%	90%	65.38%
Microfinance	58%	98%	79.2%
Auto Loan	19%	95%	61.75%
Susu Loan	50%	100%	80.83%

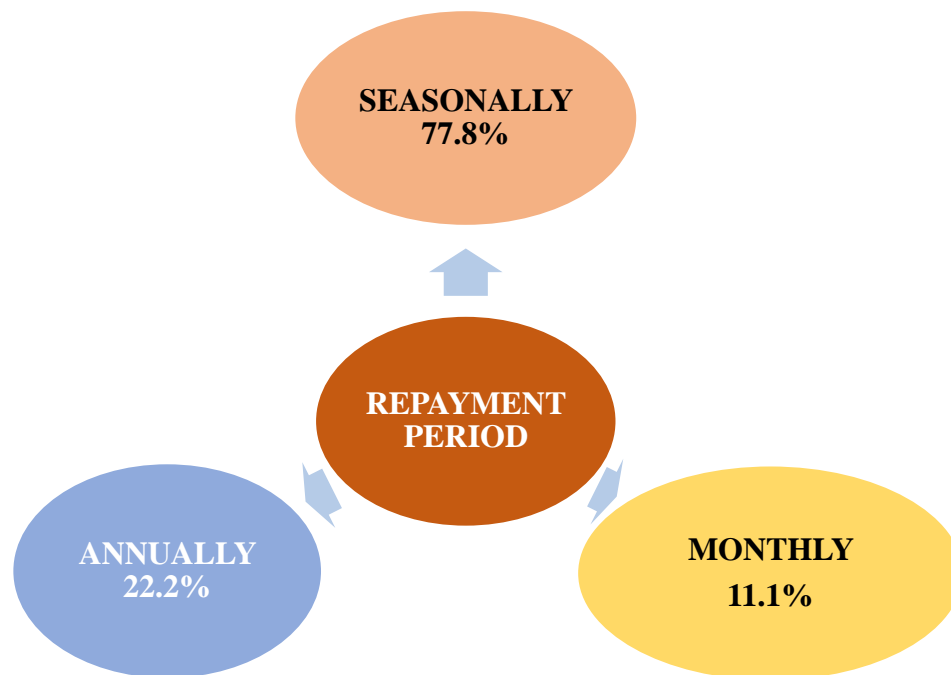
Source: Researcher's construct, (2023)

4.7 Loan repayment period

The study showed that on average the minimum repayment period offered to loan applicants was 5 months with the maximum loan repayment period being 11 months. It was also found that 77.8% of the loans disbursed were allowed to be paid on a seasonal basis, 22.2% on an annual basis, and 11.1% every month. The banks asserted that these loan repayment dates were due to the nature of the type of loans offered. The seasonal loan repayment periods were associated with

agricultural loans due to the nature of agribusiness where farmers made their harvest and sales on a seasonal basis. The monthly loan repayment dates were associated with auto loans, salary loans, microfinance loans, and trading loans. This was also due to the nature of business and periods of revenue mobilization.

Figure 4. 12 Loan Repayment Schedules



Source: Researcher's construct (2023)

4.8 Agricultural Loan Default

Analysis of data from the study showed that the loan default on the agricultural loan portfolio was a minimum of 2.48%, a maximum of 50%, and an average of 18.60%. This default was attributed to the risk associated with agriculture, the mode of production, and the overreliance on nature for rains for production. They also asserted that, apart from cocoa, the majority of the agricultural produce lacks a ready market to absorb farmers' produce after harvesting and offer

them a fair price for easy repayment of their loans. Furthermore, the study also showed that from the perspective of the banks, the following are the reasons for default on agricultural loans;

- Delay in loan disbursement
- Small farm size
- High-interest rates
- Age of farms
- Poor Supervision and monitoring by loan officers
- Non-profitable farm enterprises
- Undue government intervention
- Inadequacy collateral for loan default
- Unrealistic terms and schedule of repayment
- Default due to natural calamities

The banks asserted that the delay in loan disbursement denies farmers the opportunity to purchase the necessary input for their farm business at the right time for higher yield. Farming, mostly in Africa is at the mercy of the natural rain and therefore farmers need loans to purchase their needed input at the appropriate time to meet the onset of the rains, Thus, when disbursement of loans occurs, farmers divert contracted loans for other purposes other than their farm business leading to a default on loans.

Also, Small farm size was cited by the banks as a cause of agricultural loan default as they opined that, due to the size of these farms, usually the cost of production from these farms outweighs the revenue generated from these farms due to low yield. Farmers also usually

contract loans that are far more than what they need for their farm business and exaggerate their expected yield for these farms as their basis for loan application and this usually ends in default.

Furthermore, the high interest rates offered by the banks to the farmers lead to default as asserted by the banks. The high interest rate plus the principal usually outweighs the revenues generated by the farmers. This occurs due to the high base rate offered by the Bank of Ghana and subsequently transferred to the clients of the banks. The rate of interest is also influenced by the risky nature of agriculture in Ghana as opined by the banks.

Again, the banks postulated through the study that the age of the farms had a bearing on the default on agricultural loans. They asserted that farmers with older farms were found to default as their farms could not give them the expected and needed yield due to the age of the farms. This impacts their ability to honor their loan repayment obligation.

The Banks, again associated default on loans to the poor monitoring and supervision on the part of their loan officers. They postulated that the lack of supervision and monitoring makes it difficult for the banks to take corrective actions when there is the possibility of default. The supervision by the banks also encourage farmers to make repayment when they fall due but the lack of monitoring and supervision cause farmers to relax on their repayment obligations and fall into default. Also, farmers who engage in non-profitable farm enterprises are likely to default as they cannot raise the needed revenue to make repayments as the loans fall due.

Undue government intervention or programs also served as a reason for loan default as respondents or loan applicants involved in various agribusinesses had business disruptions from government interventions. Businesses involved in the provision of items such as agro-inputs are affected when government interventions such as free agro-inputs to farmers are introduced. This either leads to no patronage of their products or non-payment for their products. This, therefore, affects their loan repayment abilities, thus leading to loan default.

Repayment schedules and other terms of loan repayment were also found to lead to loan default. The study revealed that the majority of the banks do not take into consideration the nature of client business in terms of the period of revenue mobilization and therefore offer them inappropriate repayment terms. The study showed that where some farm businesses are seasonal, repayment terms are offered every month as against a befitting seasonal basis.

Uncertainties and unexpected natural phenomenon such as floods, bushfires, etc also affects farm business and therefore cripple their repayment abilities. The occurrence of natural disasters affects farm revenues that will be used for repayment.

4.9 Loan Recovery Strategies

Analysis of the data from the study showed that 44.4% of the banks suggested that, the use of lower interest rates will aid in loan recovery. They aversed that, a lower interest rate plus the principal makes the loans affordable to farmers and commiserate with their farm revenue. This makes it easier for loan repayment. Also, 77.8% of the banks suggested that increased monitoring of farm business also aids in loan recovery as it prevents farmers from using their

farm revenue for other ventures rather than their loan repayment. Again, 88.9% of the banks also asserted that an effective way of loan recovery is to ensure that farmers used loans for the purpose for which it was contracted. This ensures that the farm gets the needed resources to generate the right revenue for loan repayment. Also, the banks asserted that the repayment collection agencies of the lending Rural Bank must ensure that they collect loan repayment from clients when they fall due to ensure repayment. The Banks asserted that part of loan default can be attributed to the inability of collection agents to take repayment from clients as they fall due.

Furthermore, 66.7% of the Banks postulated that loan repayment terms should be scheduled to suit farm business to ensure repayment. They opined that banks must critically consider the nature of farm business, the expenses associated with it, and its revenue as and when they occur and schedule loan repayment to suit them to ensure repayment. Some of the Banks also indicated that the banks should provide financial and Good Agricultural Practices training to farmers to help improve their farm business, increase their income, and subsequently honor their loan repayment. Again, some of the banks also suggested that the banks demand collateral as a security for their loans and this will ensure loan repayment. They further explained that farmers or clients who usually provide collateral for their loans are afraid to lose their collateral and therefore honor their loan repayment obligations. Lastly, to improve loan security and repayment, 44.4% of the banks again suggested that banks demand guarantors for loans as security. They asserted that where there is a possibility of default, guarantors ensure repayment to avoid being held responsible for the servicing of the loan.

Table 4. 7 Loan Recovery Strategies by Rural Banks

Loan Recovery Strategies	Percentage
Lower Interest rate	44.4%
Increase Monitoring of farm business	77.8%
Ensure Loans are used for loan purposes	88.9%
Ensure collection of scheduled payments by collection agents	55.6%
Schedule loan repayment to suit farm business	66.7%
Provide training to farmers to improve business income and loan repayment	66.7%
Demand collateral for loans	33.3%
Demand guarantors for loans as security	44.4%

Source: Researcher's Construct (2023)

4.10 The Impact of Loan Defaults on Rural Banks

The study showed that 40% of the banks asserted that loan default impacts the liquidity of the banks which negatively affects the operations of the bank. When there are liquidity problems, the bank cannot service demand depositors which will lead to panic withdrawal and cause problems for the banks. Again the study revealed that 45% of the banks asserted that loan default impacts and reduces the profitability of the banks. They suggested that not only does the bank lose money but also increases their cost of ensuring loan repayment. Again, 15% of the banks also asserted that loan default leads to the banks reducing their loan portfolio allocations and this affects the amount that can be given to an individual as a loan. Also, 88.9% of the Banks asserted that loan default can lead to the collapse of the Rural Banks due to liquidity problems arising out of loan default. Lastly, 22.2% of the banks also asserted that loan default does not affect the banks' performance as these loans are usually insured to cater to defaults.

4.11 Minimizing the Impact of Loan Defaults on Rural Banks

From the perspective of the Banks, the study revealed that insurance of loans should be undertaken for the loans at the expense of the borrower (farmers) to cater for any unforeseen defaults. They suggested that, when loans are insured, the impact of default on the banks will be minimized as the insurance companies will cater for the amount in arrears. Again, analysis of the data showed that banks should undertake proper loan appraisal to help ascertain and establish farmers' capacity and willingness to repay. This means that agricultural loan officers must have a strong background in Agriculture to appreciate and understand the operations of farm businesses. A proper loan appraisal reveals the uncertainties around various loan applications for prudent approval decisions by the banks. Also, the study revealed that clear-cut implementation of loan policies will minimize the impact of loan default and at best prevent loan default. The study also showed the following as factors that encourage loan repayment by farmers;

- Timely disbursement of loans
- Good credit appraisal
- Good loan terms
- Proper loan repayment schedule
- Good yield and profitability of farm businesses
- Proper training of farmers on timely loan repayment
- Monitoring of loans

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATION

5.1 Conclusion

This chapter focuses on the numerous inferences made from the study regarding the reasons why loans default, how to prevent loan defaults, and how loan default affects rural banks' performance. The conclusions are drawn based on the analysis of the primary and secondary data used for the study. The study drew responses from over 400 respondents and employed Statistical Package for the Social Scientist for its analysis.

5.2 Causes of Loan Default

Insufficient loan amounts resulted in loan default as farmers asserted that, when loan amounts are insufficient, farmers cannot purchase the needed input in the right amount to realize the expected yields from their farms. These yields are the source of revenue for the repayment of loans and interest. Thus, when loans disbursed are insufficient, then sufficient yield and revenue thereof cannot be realized for payment. Timing of loan delivery is also very critical to farmers and their farm business and the fulfillment of their loan obligation. This can be attributed to the time sensitivity of the farm business. Farming in Ghana is mostly rainfed and these rains have specific periods in the farm calendar. Inputs for farming are also needed within a specific period, hence when loans are not delivered at the right time, it negatively affects the farm business in terms of yield. Again, yields from farm businesses are reaped within a specific time frame, and therefore loan repayment terms and agreements must match these revenue periods. Farm businesses usually, realize revenue from their farm on a seasonal basis. However, rural banks and other financial institutions usually schedule loan repayment every month, which results in a mismatch between the farm revenue period and the loan repayment schedules which results in

default. Loan repayment amounts are also usually higher than farm revenue due to the high interest rates and poor producer prices. Farmers' use of loans for wrong purposes and poor loan supervision also result in loan defaults as revealed by data from the study.

5.3 Steps to Reduce Loan Default

From the study, it can be concluded lower interest may result in a reduction in loan default. The study also showed that rural financial institutions should increase monitoring of loans to ensure that farmers use contracted loans for their purposes. This will result in farmers achieving the expected yield and revenue that can pay off the contracted loans and their ensuing interest. The study also showed that a proper loan schedule, in terms of the loan repayment period, should match the period by which farmers' revenue is raked. The study also showed that rural banks should also undertake proper documentation of farmers they make loans available to and also demand collateral for the loans they give out.

5.4 Effects of Loan Default on the Performance of Rural Banks

From the study, it can be concluded that loan default leads to liquidity issues for the banks. The banks issue customers' deposits as loans to other customers and therefore when these loans are not paid, then demand depositors cannot access their deposits which leads to liquidity problems for the Banks. Banks also make a profit from the interest on loans disbursed to customers, thus, loan default deprives them of these profits and therefore reduces the profitability of the Banks. An attempt to recover default loans results in additional operational costs to the banks and in worse scenarios where loans are declared bad, the bank loses entirely, therefore increasing their total cost. From the study, it can also be concluded that banks are reducing their loan portfolios,

especially in the agricultural sector due to rising loan defaults. Lastly, these loan defaults may result in the collapse of the bank when these defaults result in panic withdrawals and the inability to cover the operational cost of the Banks.

5.5 Recommendations

From the study, it can be recommended that rural banks undertake thorough appraisals to identify the actual amount needed by farmers who request loans from their banks. This will erase the issue of over-financing and under-financing of these farmers which results in loan default. The rural banks must also employ and train qualified staff with an educational background in agriculture and address the timing of loan disbursement since it affects the sustainability of farm business and effective loan repayment. Rural banks must also identify and understand the cash flow dynamics of farm businesses and the seasonality of production and thereby schedule loan repayment to suit the nature of the farm business to reduce loan defaults. Again, rural banks must be able to provide both regular and irregular repayment for farm businesses to avoid loan defaults. Furthermore, interest rates should be lowered by the rural banks to reduce the loan repayment amounts so that farmers can afford the loans and encourage repayment. Rural banks should also insure their loans so that if farmers are unable to repay their loans due to force majeure, they can recover the loans in arrears. Rural banks must also improve their loan monitoring and supervision exercise to ensure farmers do not divert loans but use them for contractual purposes to improve farm revenue and reduce loan defaults.

Agriculture has over the years been the backbone of the Ghanaian economy and therefore, it is recommended that, as a matter of policy, rural banks must allocate a percentage of their loan

portfolios to agriculture. Government must also ensure that farmers have a ready market to sell their produce, to be able to repay their loans from their farm revenues. The government must also develop policies that ensure that farm produce has a proper producer price to help increase farm revenue and encourage loan repayment. Rural banks must also develop tailor-made credit policies that fit various farm businesses in terms of the loan amount, loan tenure, repayment schedule, and loan disbursement time.

Again, it is recommended that future research is undertaken to ascertain the loan repayment behavior of specific crops such as tree crops, cash crops, etc. to ascertain the validity of the generalization of credit behavior in the agricultural space.

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APPENDIX

Farmer Questionnaire



SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

QUESTIONNAIRE FOR ASSESSING LOAN REPAYMENT BEHAVIOR OF FARMERS AND ITS IMPACT ON THE PERFORMANCE OF RURAL BANKS IN GHANA

This questionnaire is to help gather data on the loan repayment behavior of farmers and its impact on the performance of rural banks in Ghana and as such your response shall be part of my data for analysis for a Ph.D. The thesis report and therefore any information given shall be used for academic purposes only. No individual data shall be identifiable in the report to be generated and as such all information given shall be confidential.

NAME OF RESPONDENT	
CONTACT OF RESPONDENT	
NAME OF ENUMERATOR	

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF FARMERS

1. Gender of Respondent *1. Male* *0. Female*
2. Age of Respondent _____
3. Years in School? _____ years
4. What is your marital Status?
1. Married *2. Single* *3. Divorced* *4. Separated* *5. Widowed* *6. Engaged*
5. Are you the head of your household? *1. Yes* *0. No*
6. Number of dependence on respondent _____
7. How long have you been a farmer? _____
8. Do you belong to any farmer-based organization (FBO)? *1. Yes* *0. No*
10. What services does the FBO provide to you and its members? (Choose as many as applicable)
1. Input Credit *2. Insurance* *3. Cash Credit* *4. Farmer Training* *5.*
Other/Specify _____

11. Apart from farming, are you involved in any other economic activity? 1. Yes 0. No
12. If yes, what other activities are you involved in? (Choose as many as applicable)
1. Mining (Galamsey) 2. Trader 3. Agro-input business 4. Formal work (salary work) 5. Other/Specify_____
13. What is the Size of your entire Farm? _____ acres
14. How did you acquire your farm Land? 1. Rented 2. Inheritance 3. Purchased
4. Gift 5. Leased 6. Family Owned
15. What is your expected yield from your farm per acre? _____ bags
16. What is the actual Yield of your farm per acre? _____ bags
17. Do you have access to extension services? 1. Yes 0. No

MICRO-CREDIT INFORMATION

18. What is the highest Loan amount you have received from the bank? *GHC*.....
19. What is the Lowest Loan Amount you have received from the bank? *GHC*.....
20. What is the Highest Loan Amount you have applied for from the Bank? *GHC*.....
21. What is the Lowest Loan Amount you have ever applied for from the Bank? *GHC*_____
22. Was the Loan amount approved and delivered to you, adequate for your farm business?
1. Yes 0. No
23. Do you usually pay your microcredit? 1. Yes 0. No
24. Do you usually pay your microcredit at maturity time?
1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
25. Have you ever defaulted on your microcredit (loan) before? 1. Yes 2 No
26. What made you default on the Loan given to you? (**Choose as many as applicable**)
1. The loan amount was not enough for my farm business (Inadequate Loan Amount)
2. The timing of the loan delivery was not appropriate
3. The repayment schedule was not in sync with the revenue generation of my farm business
4. The interest rate was high
5. There was no monitoring of the use of the loan

6. *Collection agents of the bank did not come for the collection*
7. *An unfortunate incident happened to my farm (fire, flood, low yield, etc.)*
8. *Poor producer prices on the market affected my farm revenue*
9. *The Loan required no collateral so there was no on me to pay it back.*
10. *Others/Specify.....*
.....
.....
.....
27. Have you ever used business loans for unintended purposes? *1. Yes 0. No*
28. Is there any form of supervision on loan utilization provided by the Bank regarding your loans? *1. Yes 0. No*
29. Is there any form of supervision on loan repayment provided by the Bank regarding your loans? *1. Yes 0. No*
30. Is there any form of training provided by the Bank to help you avoid Loan default?
1. Yes 0. No
31. If yes, has the training helped to increase business income and improved your loan repayment? *1. Yes 0. No*
32. Do you have other loans (s) from other MFIs apart from that of your current Bank?
1. Yes 0. No
33. If yes to the above do you face any difficulty with loan repayment as a result of having Multiple loans? *1. Yes 0. No*
34. Interest rates that are placed on loans are usually high.
1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree
35. Defaults on loans associated with the high interest rate? *1. Yes 0. No*
36. What is the repayment plan in terms of payment dates for agricultural loans?
1. Annually 2. Seasonal 3. Monthly 4. Half-yearly
37. When do you receive revenue for your farm produce (harvest and sales period)?
1. Annually/ yearly 2. Seasonal 3. Monthly 4. Half-yearly
38. In your opinion, how can farmers and banks improve on loan repayment? **(Choose as many as applicable)**
1. Lower interest on loans

2. *Increase monitoring of farm business*
3. *Ensure Loans are used for loan Purposes*
4. *Ensure collection of scheduled payments by collection agents*
5. *Schedule loan repayment to suit farm business*
6. *Provide training to farmers to improve business income and loan repayment.*
7. *Demand Collateral for loans*
8. *Demand guarantors for loans as security*
9. *Other/Specify*.....
.....
.....
.....

39. In your opinion, how does default on loans affect the bank's performance?

1. *It leads to a lack of liquidity to pay demand depositors.*
2. *Sometimes staff of the bank is fired due to default by customers.*
3. *The Bank may even collapse*
4. *It does not affect them due to the insurance they make on the loans*
5. *Some banks may cancel their entire Loan policy due to high default.*
6. *Other/Specify*.....
.....
.....
.....

40. What are the implications of Loan default on your farm business?

1. *The bank may blacklist me from receiving any loans in the future.*
2. *I may lose my farm if I use it as collateral*
3. *My guarantor (if any) may have troubles with the Bank when I default.*
4. *It will negatively affect my farm business*
5.
- Other/Specify*.....
.....

Bank Questionnaire



SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

QUESTIONNAIRE FOR ASSESSING LOAN REPAYMENT BEHAVIOUR OF FARMERS AND ITS IMPACT ON PERFORMANCE OF RURAL BANKS IN GHANA.

This questionnaire is to help gather data on the loan repayment behaviour of farmers and its impact on the performance of rural banks in Ghana as such your response shall be part of my data analysis for a Ph.D. thesis report and therefore any information given shall be used for academic purposes only. No individual data shall be identifiable in the report to be generated and as such all information given shall be confidential.

BANK NAME	
CONTACT NAME	
CONTACT NUMBER	

1. What is the Mission of the Bank?

.....
.....
.....
.....
.....

2. Do you offer Agricultural Loans? *1. YES* *0. NO*

3. List of Bank Loan portfolios or Products

1.
2.
3.
4.
5.

4. What is the percentage of the Bank's total loan allocated to each Loan Portfolio?

LOAN PORTFOLIO	PERCENTAGE (%)

5. What is the amount given as an agricultural loan?

LOAN	AMOUNT (GH)
MINIMUM	
MAXIMUM	

6. What is the purpose of a Loan request from farmers to the bank?

1. *Input Purchase*
planting materials

2. *Payment of farm Labour*

3. *Purchase of*

4. *Other/ Specify*.....

7. Reasons behind agricultural loan percentage?

a).....

.....

b).....

.....

c).....

.....

8. What are the types of agricultural loans offered by the Bank?

1.....

2.....

3.....

4.....

5.....

9. What is the percentage of loan recovery for each portfolio?

LOAN PORTFOLIO	RECOVERY PERCENTAGE (%)

10. What is the minimum repayment period for agricultural loans?.....(*months*)

11. What is the maximum repayment period for agricultural loans?(*months*)

12. What is the repayment plan in terms of payment dates for agricultural loans?

2. *Annually/yearly* 2. *Seasonal* 3. *Monthly* 4. *Half-yearly*

13. What is the percentage of default on agricultural loans?

.....

14. What are the reasons for default on agricultural Loans?

1. *Loan Shortages,*
2. *Delay In Time Of Loan Delivery,*
3. *Small Farm Size,*
4. *High-Interest Rate,*
5. *Age Of Farmers,*
6. *Poor Supervision And Monitoring*
7. *Non-Profitability Of Farm Enterprises*
8. *Undue Government Intervention With The Operations Of Government Sponsored Credit Programmes*
9. *Inadequacy Of Collateral Security/Equitable Mortgage Against Loans,*
10. *Unrealistic Terms And Schedule Of Repayment*
11. *Default Due To Natural Calamities.*
12. *Others/Specify*.....

15. What are the banks' agricultural loan recovery strategies?

1. *Lower interest on loans*
2. *Increase monitoring of farm business*
3. *Ensure Loans are used for loan Purposes*
4. *Ensure collection of scheduled payments by collection agents*

5. *Schedule loan repayment to suit farm business*
6. *Provide training to farmers to improve business income and loan repayment.*
7. *Demand Collateral for loans*
8. *Demand guarantors for loans as security*
9. *Other/Specify*.....
-
-
-

16. On a scale of 1-5, with 1=strongly agree, 2= agree. 3 Neutral, 4 Disagree, 5 strongly agree, To what extent do you agree with the effectiveness of the following recovery strategies?

Strategies	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)
<i>Lower interest on loans</i>					
<i>Increase monitoring of farm business</i>					
<i>Ensure Loans are used for loan Purposes</i>					
<i>Ensure collection of scheduled payments by collection agents</i>					
<i>Schedule loan repayment to suit farm business</i>					
<i>Provide training to farmers to improve business income and loan repayment</i>					
<i>Demand Collateral for loans</i>					
<i>Demand guarantors for loans as security</i>					
<i>Other/Specify</i>					

17. What is the cost of loan default to the Bank?

.....

.....

.....

18. How does agricultural Loan default impact the operations of the Bank?

1. *It leads to a lack of liquidity to pay demand depositors.*
2. *Sometimes staff of the bank are fired due to default by customers.*

3. The Bank may even collapse

4. It does not affect the bank due to the insurance we make on the loans

5. Some banks may cancel their entire Loan policy due to high default.

6. Other/Specify.....
.....
.....
.....
.....
.....
.....

19. How does the Bank minimize the impact of default on the performance of the Bank?

1. Insure Loans are delivered at the cost of the borrower

2. Proper Loan Appraisal

3. Clear cut Loan Policy implementation

4. Others/Specify.....
.....
.....

20. What factors encourage farmers to make repayments on a timely basis?

1. Good Loan terms

2. Proper Loan repayment schedule

3. Good yield and profitability

4. Proper training on timely Loan repayment

5. Monitoring

6. Others/Specify.....
.....
.....