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# DRIVERS AND DYNAMICS OF FINANCIAL INCLUSION IN GHANA

MICHEAL MAWULOLO GADZO

MASTER OF SCIENCE

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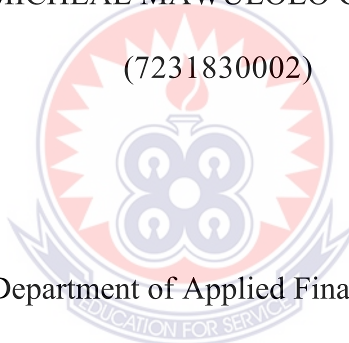

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# DECLARATION

## Student's Declaration

I, Micheal Mawulolo Gadzo, hereby declare that this dissertation, except for quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and that it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE ……………………… DATE …………………….

## Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation were done in accordance with the guidelines for supervision of dissertation laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: SAMUEL KOFI ASIAMAH

SIGNATURE:……………………………… DATE:………………………………

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# DEDICATION

To my lovely wife and the entire family.

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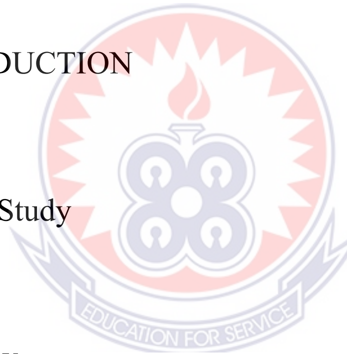

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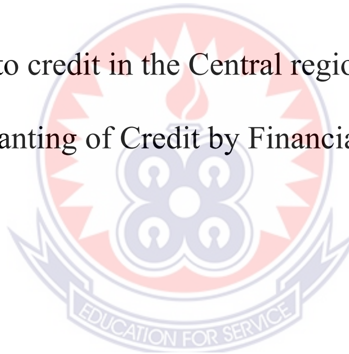

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## ABBREVIATIONS

| | |
|---|---|
| ADB | Agriculture Development Bank |
| BOG | Bank of Ghana |
| FI | Financial Inclusion |
| GCB | Ghana Commercial Bank |
| GDP | Gross Domestic Product |
| GIB | Ghana Investment Bank |
| GLSS 6 | Ghana Living Standards Survey Round Six |
| GSS | Ghana Statistical Service |
| ISSER | Institute of Statistical Social Economic Research |
| MFI | Microfinance Institutions |
| POS | Point of Sales |
| SSA | Sub- Saharan Africa |
| SSB | Social Security Bank |
| TPB | Theory of Planned Behavior |
| TRA | Theory of Reasoned Action |
| VAT | Value Added Tax |

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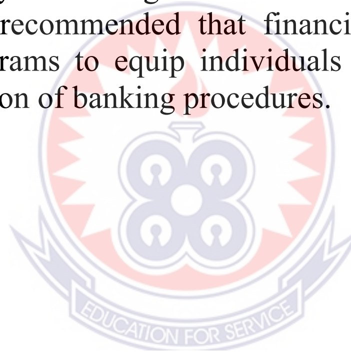
## ABSTRACT

The significance of financial sector development, encompassing capital markets and the banking sector, in emerging economies has been substantiated by a plethora of evidence. Nevertheless, access to financial services tends to be biased towards affluent individuals and those already financially stable while overlooking the impoverished and those residing in remote areas. By utilising data from the Ghana Living Standards Survey (GLSS) 7, this research employed an explanatory research design and applied the probit model to analyse the drivers and dynamics of financial inclusion in Ghana. The findings revealed that religious affiliation, educational attainment, age, marital status, gender, and hours worked substantially drove financial inclusion in Ghana. The study identified that most individuals excluded from the financial sector were marginalised due to poverty or financial constraints, with less than 2 per cent being involuntarily excluded from formal financial services. Furthermore, the study disclosed that most respondents access credit for entrepreneurial ventures, personal consumption, education, and agricultural activities. Additionally, many credit applications were turned down due to the inability to provide collateral, absence of a guarantor, low income, and inappropriate loan purposes. The study recommends that the Ministry of Finance should strive to promote the ownership of formal bank accounts by addressing issues related to gender, education, and income disparities. Finally, it is recommended that financial institutions should engage in community outreach programs to equip individuals with the requisite knowledge to enhance their comprehension of banking procedures.



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# CHAPTER ONE

# INTRODUCTION

## 1.0 Overview

Financial inclusion is crucial in promoting economic growth and reducing poverty levels in Ghana (Amoah, Korle, & Asiamah, 2020). Understanding the drivers and dynamics of financial inclusion in the country is essential for policymakers, financial institutions, and development partners. Ghana has made significant progress in expanding access to financial services through regulatory reforms and technological advancements (Tamilarasu, 2021). However, challenges like limited infrastructure in rural areas and low finances persist. This introduction sets the stage for exploring the key factors influencing financial inclusion in Ghana and analysing trends, challenges, and opportunities in the financial sector. By identifying and addressing these drivers, Ghana can enhance financial inclusion efforts, promote inclusive growth, and advance sustainable development goals.

## 1.1 Background to the study

Financial inclusion has garnered significant attention worldwide, capturing the interest of governments, financial institutions, and policymakers who seek a deeper understanding of its implications (Amoah, Korle, & Asiamah, 2020). The issue of financial exclusion has been recognised by both developed and developing nations as a pressing socio-economic challenge (Sarma & Pais, 2011). In line with this, the World Bank has included universal financial access as one of its key objectives in its 2023 targets (Demirguc-kunt, Klapper, Singer, Ansar, & Hess, 2018, WBG, 2018). This global focus on financial inclusion is further evidenced by over 50 countries' significant commitments to promote financial inclusion by the end of 2014 (Louis & Chartier, 2017; Demirguc-kunt, Klapper, Singer, Ansar, & Hess, 2018). Moreover, the World Bank Group (WBG) emphasised in 2017 that numerous countries are actively

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developing National Financial Inclusion Strategies (NFIS) to ensure the allocation of resources and implementation of measures necessary to achieve their financial inclusion goals.

Numerous studies have recognized the role of financial sector development in driving the economic advancement of nations (Khan, Qayyum, & Ghani, 2016). Despite the abundance of evidence highlighting the significance of financial sector development, which encompasses capital markets and the banking sector, in less developed countries, the utilization of financial services remains disproportionately skewed towards affluent individuals and those who are already well-off while neglecting the impoverished and those residing in remote areas (Classens, 2004; Singh & Tandon, 2012; Bold, 2017; Martinez & Mckay, 2018). According to Mpuga (2014), most African financial institutions are concentrated in urban areas. Financial inclusion has garnered increasing attention from researchers, academia, and other stakeholders (Chikalipah, 2017; Ravalion, 2014; World Bank, 2022). This growing attention signifies a deeper understanding of the importance of financial inclusion in driving a country's economic progress. Access to formal financial services is crucial in alleviating extreme poverty, promoting inclusive and sustainable development, and fostering shared prosperity (World Bank, 2022).

The literature extensively demonstrates the advantages that impoverished individuals can gain from participating in banking activities like savings, insurance, and payments. Without financial inclusion, individuals would have to rely on limited savings (e.g., World Bank, 2022; Dermiguc-Kunt et al., 2018; Nagayasu, 2012). Similarly, businesses must depend on modest profits for growth (Nagayasu, 2012). Numerous studies have explored the impact of financial inclusion on economic development (Dermiguc-Kunt et al., 2018; Ravalion, 2014). Furthermore, some studies

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have explained how financial inclusion and the lack of access to finance can lead to poverty (Barnejee & Newman, 2020).

An inclusive financial system offers numerous advantages. It promotes the effective allocation of productive resources, potentially reducing the cost of capital. Moreover, access to suitable financial services can significantly enhance the day-to-day management of finances. By providing avenues for secure and safe saving practices and facilitating a range of efficient financial services, an inclusive financial system can help diminish the growth of exploitative informal sources of credit, such as money lenders. Consequently, it enhances efficiency and welfare. The significance of an inclusive financial system is widely acknowledged in the policy sphere, and financial inclusion has recently emerged as a policy priority in many countries. Various initiatives for financial inclusion have been undertaken by financial regulators, governments, and the banking industry (Sarma and Pais, 2011). Conversely, financial exclusion refers to the inability of individuals, households, or groups to access formal financial products and services, as defined by Tamilarasu (2021).

Despite the numerous benefits associated with financial inclusion for individuals, organisations, and nations, a significant number of people remain unbanked, especially in Sub-Saharan Africa. According to Dermiguc-Kunt et al. (2018), the global number of bank accounts increased by 700 million between 2011 and 2014, reducing unbanked adults to 2 billion. Madden et al, (2021) also highlighted that over 80% of African adults do not have bank accounts. Furthermore, Dermiguc-Kunt et al. (2018) found that only 29% of adults in Sub-Saharan Africa have bank accounts. The lack of access to banking services is often due to distance, cost, and complicated documentation processes, leading to exclusion for many individuals. Additionally, Dermiguc-Kunt et al. (2018) noted that only a small percentage (34%) of businesses in less developed countries have access to bank loans.

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Agyapong (2015) highlighted the significant concentration of financial institutions in urban areas as a key factor contributing to the exclusion of a large portion of the population from banking services in Ghana. Bawumia, Owusu-Danso & McIntyre (2008) also noted that a considerable number of individuals are excluded from the formal banking sector in the country. Despite the fact that the Greater-Accra Region accounted for less than 13% of Ghana's population, more than 35% of banks in the country had their branches located in this region (ISSER, 2020). Domeher et al. (2022) argued that financial inclusion can improve households' access to resources, increase income generation, and enhance risk management capabilities. Financial inclusion refers to the accessibility of formal financial products by individuals and households. The United Nations (2022) defines an inclusive financial system as ensuring all bankable individuals and firms have access to financial services such as credit and savings. Financial services encompass a wide range of activities, including insurance, pensions, securities markets, deposit accounts, and more. The term "financial services" encompasses activities from both the insurance and banking sectors.

Ghana has made significant strides in expanding access to financial services in recent years, driven by regulatory reforms, technological advancements, and strategic partnerships. The government, in collaboration with the central bank and other stakeholders, has implemented policies and initiatives to promote financial inclusion and enhance the financial sector's resilience. In Ghana, the contribution of financial inclusion cannot be disregarded. Statistics from the Asiamah (2023) revealed that Ghana's GDP increased by 3.89% in 2022. The service sector recorded the highest growth rate of 5.8%, with a 22.9% contribution from insurance and banking (Assuming, 2022). Despite the benefits provided by financial inclusion to individuals and the nation, many Ghanaians lack the accessibility to financial products. These efforts have

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led to an increase in individuals and businesses accessing formal financial services, including savings, credit, insurance, and payment systems.

Despite these advancements, challenges persist in achieving universal financial inclusion in Ghana. Factors such as limited infrastructure in rural areas, low levels of financial literacy, and the prevalence of informal financial practices pose barriers to full inclusion. Additionally, issues related to gender disparities, income inequality, and regulatory constraints impact the effectiveness of financial inclusion initiatives and limit the reach of formal financial services to marginalised populations. Understanding the drivers and dynamics of financial inclusion in Ghana becomes crucial for policymakers, financial institutions, development partners, and other stakeholders. By identifying the key factors that influence the uptake of financial services, analysing the evolving trends in the financial sector, and exploring innovative approaches to expanding access to finance, Ghana can accelerate progress towards achieving comprehensive financial inclusion and sustainable economic growth. This exploration of the drivers and dynamics of financial inclusion in Ghana aims to shed light on its multifaceted nature and highlight the interconnected factors that shape the country's financial landscape.

## 1.2 Statement of the Problem

Financial inclusion plays a pivotal role in fostering economic development and reducing poverty levels in emerging economies like Ghana. The increasing rate of ongoing crisis in the banking sector across the globe, a lot of nations have started prioritizing stability through regulations, also trying to offset the needs of such policy with inclusive growth advancement, particularly in underprivileged nations (Aryeetey & Kanbur, 2022; Gockel & Akoena, 2021; Ayensu, 2017). While financial Inclusion has the essential advantage to the economic progress of a country, if policymakers are

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not meticulous in their journey to advance Financial Inclusion, they may likewise increase the rate of bank defaults, which will affect the banking sector in general. Reaching out to financial services without due perseverance may have serious adverse results on the financial soundness of the country. While there has been some advancement in bringing many people into the formal financial sector, most are still not included (Aryeteey & Kanbur, 2022; Adu-Asare et al 2014). Around 40% of people in Ghana own bank accounts, which shows that a greater part of the population is unbanked.

Dermiguc-Kunt et.al (2018) revealed that nearly 30% of bank accounts in developing countries are inactive. They also reported that over 6 million accounts were opened within four years in South Africa, and about five hundred were dormant. Opening a new account may not necessarily result in regular usage. Many studies have examined the factors that drive FI in Ghana and beyond (Chikalipah, 2017; Wale & Makina, 2017; Kaburu, 2012). Wale and Makina (2017) revealed that sex, income and educational level are major determinants of bank account ownership in 18 SSA countries. The drivers and dynamics of financial inclusion in Ghana are influenced by a myriad of factors, including regulatory reforms, technological advancements, social norms, and economic conditions. Also, studies conducted by Loius et al. (2017) revealed that a number of people in a household, sex, age, marital status, income and occupation are the main drivers of household participation in the banking sector.

Unlike Wale & Makina (2017), who further unravelled why individuals fail to participate in the financial sector, Loius et al. (2013) did not consider that in Ghana. While Ghana has made significant strides in expanding access to financial services, challenges such as limited infrastructure in rural areas, low levels of financial literacy, gender disparities, and regulatory constraints persist. Understanding these drivers and barriers is essential for policymakers, financial institutions, and development partners

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to design effective strategies that promote inclusive growth and sustainable development. By delving into the complexities of financial inclusion in Ghana, this study aims to identify key areas for improvement and enhance the effectiveness of financial inclusion initiatives in the country. However, limited studies have been done in Ghana to ascertain how religious affiliation and disability influence financial inclusion in Ghana. Hence, the decision to include these variables in the study. Therefore, the researcher believes that for any financial inclusion policy to be effective in Ghana, a study must be conducted in Ghana to find out why Ghanaians are still not included in banking services.

### 1.3 Purpose of the Study

The purpose of this study is to comprehensively investigate the drivers and dynamics of financial inclusion in Ghana, focusing on understanding the factors that influence the accessibility and affordability of financial services for all segments of society. Ultimately, the goal is to contribute to the advancement of inclusive growth, reduction of inequality, and promotion of sustainable economic development through improved access to financial services for all individuals and businesses in Ghana.

### 1.4 Objectives of the Study

The specific objectives of the study are to:

1. assess the factors that lead to reluctancy to the possession of bank accounts among people in the central region of Ghana.
2. evaluate the drivers of access to credit in the central region of Ghana.
3. examine the drivers of financial inclusion in the central region of Ghana.

### 1.5 Research questions

The research questions that guided the study are:

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1. What are the factors that lead to reluctance to the possession of bank accounts among people in the central region of Ghana?
2. What are the drivers of credit access in Ghana's central region?
3. What are the drivers of financial inclusion in in the central region of Ghana?

**1.6 Significance of the study**

The study on the drivers and dynamics of financial inclusion in Ghana holds significant importance for various stakeholders and the country's broader socio-economic landscape. Firstly, understanding the factors that influence financial inclusion is crucial for policymakers and regulatory authorities to design targeted interventions and policies that effectively address the barriers to access and affordability of financial services for marginalised populations. By identifying the key drivers of financial inclusion, this study can inform the development of strategies that promote inclusive growth and sustainable development in Ghana. Secondly, financial institutions and service providers can benefit from the insights generated by this study to tailor their products and services to better meet the needs of underserved populations. By understanding the dynamics of financial inclusion, these institutions can design innovative solutions that enhance access to financial services and promote financial literacy among diverse segments of society.

Moreover, the findings of this study can also be valuable for development partners and international organizations working towards advancing financial inclusion goals in Ghana. By gaining a deeper understanding of the drivers and barriers to financial inclusion, these stakeholders can align their initiatives and investments to support the country's efforts in expanding access to financial services and promoting inclusive economic growth. Another significant aspect of the study is that it will expose the elements that impact financial inclusion in Ghana. Likewise, the financial sector is

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burdened with credit default and this has even crumpled some domestic banks in Ghana. Because of information asymmetry, financial institutions are unfit to recognize what their clients genuinely utilise the credit allowed for. Most clients lie to the bank that the credit will be put into their business when approved. Be that as it may, many of them redirect the money into an alternate endeavour. This study will assist the bank with getting a thought on how people spend the credit or loan facility and will assist them with making judicious decisions on credit approvals. The capacity to pay back credit depends on how much credit was spent. Lastly, stakeholders can use this study to enhance their financial inclusion strategies.

### 1.7 Delimitation of the study

The study focused specifically on the drivers and dynamics of financial inclusion in Ghana and did not extend its analysis to other countries or regions. The findings and conclusions drawn from this research are limited to the context of Central region of Ghana and may not be directly applicable to other countries or regions. In addition, the study delimits its analysis to various population segments within Ghana, including urban and rural areas, different income groups, and diverse demographic profiles. While efforts are made to capture a broad population representation, the study may not delve deeply into specific subgroups or niche populations within the country. Finally, while technological advancements play a crucial role in shaping financial inclusion, this study delimits its focus to the impact of technology within the Ghanaian context. The study does not extensively cover global technological trends or developments that are not directly relevant to the drivers and dynamics of financial inclusion in Ghana.

### 1.8 Limitation of the study

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According to Saunders et al. (2009), research methodology is the backbone of a research study. The main purpose of quantitative research is to quantify data. It allows for generalizations to be made about the sample by measuring the views and responses of the sample. Quantitative research design sometimes leads to limited outcomes such that results cannot always represent the occurrence in a generalised form. This implies that, the findings and conclusions drawn from the study may not be in a generalised form. The study used secondary data to draw conclusions.

### 1.9 Organisation of the study

The study is organized in five chapters. Chapter One deals with the introductory part of the study grouped under the following headings: background to the study, statement of the problem, objective of the study, research questions, significance of the study, delimitation and limitation of the study and organisation of the study. Chapter Two focuses on reviewing of relevant literature relating to the study. It also includes the theoretical framework, conceptual base of the study and empirical review. Chapter Three focuses on the research methodology used in obtaining the necessary data for the study, which consists of the research design, population, sample and sampling procedures, data processing and analysis and chapter summary. Chapter Four presented the results of the data analysis and discussion of the findings to answer the questions raised in chapter one. The final chapter, Chapter Five, summarized the study and concluded it. Based on the conclusions reached, recommendations were made to help resolve the problems identified.

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# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Overview

This section reviews the literature on previous studies that have been done on factors that influence financial inclusion in Ghana and beyond. The section covers information such as banking overview in Ghana, the definition of key concepts, theoretical, empirical, and conceptual framework underpinnings of the study.

## 2.1 Theoretical Framework

This part of the study is a review of the relevant theories that have been developed by researchers. This study is guided by two theories that helped explain the drivers of financial inclusion. The theories adopted for the study are the theory of planned behaviour and the expected utility theory.

### *2.1.1 The Theory of Planned Behavior*

Several researchers have admitted that it is difficult to explain human behavior (Ajzen, 1998; Bernardus et al 2020). Concepts denoting behavioral dispositions such as personality traits and social attitudes have all contributed to the effort to envisage and elucidate human behavior (Ajzen, 1998). Several researchers have argued that personality traits and attitudes have an influence on explicit behaviors only incidentally via affecting some of the factors that are related to the behavior in question, in this context, account ownership (Brewer, 2008). There are a lot of theories that aim at predicting human behavior. The notable among is Azjen's theory of planned behavior (TPB) which was developed by Azjen (1998). TPB has been found to be crucial in predicting a varied range of human behavior (Saidin & Isa, 2013; Madden et.al. 2021).

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It is therefore important to assume that the TPB will enable us to investigate the main drivers of FI in Ghana.

TPB extends the theory of reasoned action by incorporating perceived behavioral control as a predictor of one's intention to engage in a behavior. Perceived behavioral control differentiates between the two theories. The two theories assume that individuals are rational beings and, as such, utilize the information available to them when making a decision.

The Theory of Planned Behavior examines the intention of an individual to engage in a behavior (Ajzen, 1998). Ajzen (1998) identified three factors that underline one’s intent to get involved in behavior. The first of these factors is the attitude of the person and opinion towards that behavior (Ajzen, 1998). Individual factors like a person’s ability, gender, and age all contribute to shaping a person’s attitude towards the behavior (Giluk & Postlethwaite, 2015). The second determinant of behavioral intentions according to the TPB (Ajzen, 1998) is the subjective norm (opinions of others about a behavior). Thus, other people's views and opinions influence a person's behaviour.According to the TPB, perceived behavior control is the third determinant of behavioral intention. The perceived behavioral control deals with the perception of the difficulty or ease with which the behavior can be executed or performed. It increases when the individual is more confident that he has the necessary skills to perform the behavior and decreases when the individual perceives that it is more difficult for the behavior to be performed (Ajzen, 1998).

Prediction of behavior and intentions has been possible by applying TPB. (Mathieson, 1991; Young et.al, 1993; Madden et.al, 2021). After extensive review, the researcher is yet to see a study found to have used TPB to explain the elements that predict FI in Ghana. Hence, the decision to adopt the theory for this study.

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***Theory of Planned Behavior in the Context of financial inclusion in Ghana***

The Theory of Planned Behavior (TPB) provides a valuable framework for understanding the drivers and dynamics of financial inclusion in Ghana by focusing on individuals' attitudes, subjective norms, and perceived behavioural control towards accessing and utilizing financial services. In the context of financial inclusion, the TPB can offer insights into the factors influencing individuals' decisions to engage with formal financial systems and the barriers they face in accessing these services. In relation to attitudes, according to the TPB, individuals' attitudes towards financial inclusion, including their perceptions of the benefits and risks associated with formal financial services, play a crucial role in shaping their behaviour. In Ghana, understanding the attitudes of different population segments towards financial inclusion can help identify strategies to promote positive perceptions and encourage greater participation in formal financial systems.

In Inadditiion, subjective norms refer to the influence of social factors, such as family, peers, and community, on individuals' decisions regarding financial behavior. In Ghana, cultural norms, social networks, and community practices can significantly impact individuals' attitudes towards financial inclusion. By considering subjective norms within the TPB framework, the study can explore how social influences shape financial inclusion dynamics in the country.The context of Perceived behavioural control reflects individuals' beliefs about their ability to access and use financial services effectively. In Ghana's financial inclusion context, factors such as financial literacy, access to technology, and regulatory barriers can influence individuals' perceived control over their financial decisions. By examining perceived behavioural

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control within the TPB framework, the study can identify key challenges and opportunities for enhancing financial inclusion in Ghana.

By applying the Theory of Planned Behavior to the study of financial inclusion in Ghana, the study can gain a deeper understanding of the psychological, social, and structural factors that drive individuals' engagement with formal financial services. This holistic approach can inform the development of targeted interventions, policies, and initiatives that promote inclusive financial practices, reduce barriers to access, and enhance the overall financial well-being of individuals and communities in Ghana.

### *2.1.2 The Expected Utility Theories*

The Expected Utility Theory (EUT), also known as the rational theory and standard economic theory, was developed by Bernoulli in 1938 under a price-gamble puzzle. The EUT identifies the choices individuals have to undertake among risky options by comparing the expected utility values attached to each option through weighted sums of the utility values of each anticipated effect (Neumann & Morgenstern, 1947; Roger, 2011; Schoemaker, 1982). The key assumption of EUT is that as individuals make choices and decisions, they only rely on probability values, thereby maximizing their expected monetary values (Dawes & Kagan, 1988; Hastie & Dawes, 2010). Availability of information is assumed critical for effective decision making (Dawes & Kagan, 1988; Roger, 2011). Arrow (1982) contested that the rational theory of choice assumes description invariance while (Hammond, 1988) argued that continuous consequentialist behaviour among individuals must maximize expected utility.

These propositions are critiqued in the subsequent discussion. EUT has been viewed as a positive theory of individual behaviour (Neumann & Morgenstern, 1944). The theory is simple yet powerful with robust analytical results of expected utility generally applicable in different contexts (Kahneman & Tversky, 1984; Tversky &

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Kahneman, 1992). EUT has also significantly contributed as the foundation of a vast range of economic and psychology theories that explain choice and decision making (Hausman, 1992; Hogarth, 1981; Mongin & d'Aspremont, 1998; Rabin, 1993; Schoemaker, 1982; Starmer, 2000; Tversky & Kahneman, 1992; Tversky, Sattath, & Slovic, 1988).

Despite the significance of EUT towards the choice and decision making research across disciplines, it has been extensively criticized. The criticism revolves around several arguments, for instance, inadequate descriptions of individual choice (Kahneman & Tversky, 1979; Machina, 1989; Tversky & Kahneman, 1986), as well as ambiguity of low probabilities affecting decisions (Tversky & Kahneman, 1992). A number of empirical studies (Camerer & Kunreuther, 1989; Fishburn, 1988; Fishburn, 2004; Kahneman & Tversky, 1979; Machina, 1987, 1989; Tversky & Kahneman, 1986) argued that as individuals make their choices and decisions based on irrational thinking and evaluation of risk and decision in terms of expected utility, the development of non-expected utility models is inevitable.

This is a clear contradiction and violation of the EU assumptions of rationality and linearity in decision making which the study challenges as well. EUT has subsequently been extended with psychology and behavioural financial economics models perceived as more realistic frames of reference (Camerer & Kunreuther, 1989; Fishburn, 1988; Fishburn, 2004; Machina, 1987, 1989). This study falls within the financial inclusion framework and contends that individuals' decision making is determined by other factors besides the standard economic desire to maximize expected utility. Personal and societal capabilities, for instance, like financial attitude, financial self-efficacy, financial literacy, social networks and subjective norms are important in framing the way choices are made and financial behaviour is shaped. These capabilities are perceived as fundamental to decision making, influencing financial behaviour and

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consequently FI. This presents a contrary perspective from the “static” assumptions of EUT of invariance and linearity of individual options that determine decision making. A case in point is O'Donoghue and Rabin (2001a)’s study which found that intuition and reasoning led to optimal choice. They described an individual as rational, considering a decision maker possesses a menu of options to choose from, given the awareness for self-control in the process. This confirms the notion that indeed other factors are fundamental in decision making, financial behaviour and consequently FI.

## 2.2 **Conceptual review of financial inclusion**

Financial inclusion is not very simple and straightforward (Abor et al 2018). Financial inclusion has been defined in several ways (Zins & Weill, 2016; Akpandjar et al, 2013; Demirguc-Kunt & Klapper, 2018). Tamilarasu, (2021), financial inclusion seeks to bring the “unbanked” into the banking sector so as to give them the chance to access banking activities such as insurance, payments, saving, and transfers to the credit. Zins & Weill, (2016) also defined financial inclusion as “the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost”. FI is a major problem in the less developed countries, particularly in Africa (Chikalipah, 2017). Adewunmi et al (2008) reported that most of the financial institutions in Africa are less inclusive relative to those in advanced countries.

The G20 reported in 2010 that financial inclusion promotes economic development (Zins & Weill, 2016) and this is mostly true for the vulnerable, including children and women. When people are giving financial services accessibility, their primary needs like shelter, health and education are able to be achieved (Berhane et al, 2014). World Bank (2022) reported that financial inclusion helps to reduce poverty and enhance economic development. Studies have illustrated that individuals that are

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included in banking are able to get finance for their investments, which results in alleviation of poverty and economic development (Berhane et al, 2014; Dermirguc-Kunt, 2018).

### *2.2.1Dimensions of Financial Inclusion*

Several nations have strengthened their decision to implement policies that will ensure that anybody who want to be financially included are not omitted or left out from the financial sector because of the benefits that countries gain from financial inclusion (Shehzad & Haan, 2009; Arya, 2014; Sharma, 2016; Dixit, Radhika & Ghosh, 2013). Financial inclusion is more of a multidimensional issue (Alliance for Financial Inclusion, 2012). They believe institutions and people can be classified into two, that is whether the organization or individual is excluded or not. World Bank (2021) provides a detailed description of FI indicators. There are three scopes to FI - access, quality, and usage (Amaral & Quintin, 2014). According to Aghion and Bolton (2014, p.15), access focuses on “the capability of banks to give financial services and products that are related to the regulatory market and technology environment”. To examine access to financial services, one needs to figure out the difficulties that these banks face in rendering their services. Indicators such as bank branches penetration, point of sales (POS) devices demonstrate access to it.

Quality refers to the possibility that these banks can meet their clients’ or customers’ expectations with their products or services. That is to say, it measures the degree to which these financial institutions are able to satisfy or match the expectation of their clients to the demands of their services. Indicators such as convenience, transparency, consumer protection, product fit, and safety demonstrate the quality of the product. Usage characterizes how clients utilize banking activities such as a number of electronic payments made, savings, and number of transactions per account. For one

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to utilize banking activities, one need to be given access to it. Be that as it may, it is imperative to take note of the fact that granting one access to banking activities does not imply that everybody will use it. Not every person who does not get involved in banking activities ought to be named barred. The G 20 FI indicators are demonstrated in Table 1 below.

**Table 1: The G 20 FI indicators**

| Category | Indicators | Dimension | Aspect |
|---|---|---|---|
| 1. Adult formally Banked | % of adults with an account at a formal financial institution<br>Number of deposit accounts per 1000 adults | Usage | Individuals |
| 2. Adult with credit at regulated institutions | % of adults with at least one loan outstanding from a regulated financial institution<br>Number of borrowers per 1000 adults | Usage | Individual |
| 3. Mobile transaction use | % of adults that use their mobile device to make a payment | Usage | Individuals |
| 4. Points of Service | Number of branches as per 100,000 adults<br>Number of ATMs per 1000 adults<br>Number of POS terminals as per 100, 000 inhabitants | Access | Physical point of service |
| 5. E-money Accounts | Number of e-money accounts for mobile payment | Access | Mobile points of service |
| 6. Financial Knowledge | Financial Knowledge score | Quality | Financial Literacy and Capabilities |
| 7. Financial Behavior | Sources of emergency funding | Quality | Financial Literacy and capabilities |
| 8. Cost of Usage | Average cost to open a basic current account<br>Average cost to maintain a bank account current account<br>Average cost of credit transfer | Quality | Barriers to use |

Source: Global Partnership for financial inclusion

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## 2.2 Empirical Review

### 2.3.1 Drivers of financial inclusion

Numerous or various studies have examined FI determination at country, household, and individual levels (Akpandjar et.al, 2013; Chikalipah, 2017; Wale & Makina, 2017). Akpandjar et.al (2013) explored the factors that drive partaking or utilization of financial products in urban and rural areas in Ghana. Employing Tobit analysis, the findings revealed that marital status, occupation, sex, household size, age, income, and remittances significantly influence household decisions to participate in the financial market. The findings revealed that exists a direct significant relationship between household head sex, household size, and demand for financial services. They found that male-headed households are expected to demand more financial services than female-headed households. The findings demonstrated that financial literacy has a bearing on financial services requests in Ghana. Also, the findings suggested that individuals that dwell in the rural parts are more likely to obtain financial assistance outside the formal banks than individuals that dwell in urban areas.

Chikalipah (2017) also explored the factors that determine FI in Sub-Saharan Africa. The study used World Bank data from 20 Sub-Saharan Africa countries. The findings revealed that financial inclusion in SSA is largely influenced or challenged by illiteracy. Total adults that owned formal bank account was used as a proxy for FI in the study. The study also controlled for variables such as literacy, GDP growth, infrastructure index, Gross National Income and Population density. Employing the Ordinary Least Square (OLS) method, the study revealed that literacy, GDP growth and GNI per capita can positively influence FI in SSA. Also, Wale and Makina (2017) also examined the effect of factors including income, sex, age, and education on the likelihood of owning bank account in 18 countries in SSA. The study employed the probit model. Two dependent variables were used in the study, namely ownership

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(where one indicates individual owns a bank account and zero otherwise) and use of accounts to save money (which was also a dummy with one indicating that within the past one year a person saved money in account and zero otherwise).

The independent variables accounted for in the study were gender, age, education, and income. A descriptive analysis from the study revealed that account ownership was higher in males relative to females. They also revealed that ownership and use of accounts for saving were largely amongst the mid-aged class. Employing the econometrics analysis, the findings demonstrated that males are more likely to have higher bank account ownership relative to females and were significant at 5%. Age was positively significantly related to the likelihood of owning a bank account and those with primary education are less likely to own a bank account. The results also demonstrated that at a particular age level, the chance of account ownership will decrease and it is depicted by the coefficient of age square.

Based on World Bank (2022) data, Banerjee & Newman (2016) reported that the likelihood of possessing a bank account is influenced by income, education, age, marital status, and employment. They found out that the likelihood of owning a bank account is higher for the highly educated, the richer, and those employed. Funcagova and Weill (2015) also revealed that the more educated, the richer and older men are more prospect to be included financially in China.

Lastly, Zins and Weill (2016) also explored the drivers of FI in Africa using data on 37 African countries. The findings from the study revealed that sex, age, education, and income can significantly influence FI in Africa. The likelihood of owning formal accounts, formal savings, and credit is higher in men relative females. Also, age has a positive impact on owning a bank account, savings, and credit. After an extensive review of the available literature, to the best of the researcher's knowledge, a study that has incorporated the disability status of individuals, individuals' religious

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affiliation, and the hours of work is yet to be seen in Ghana. Hence, the decision of the researcher to include these variables as a determinant of financial inclusion in Ghana. The researcher will therefore intend to fill a gap and add to knowledge by building on earlier studies by Akpandjar, et al, (2013) to incorporate disability, religion, and hours of work.

**2.3.2 Reasons for not owning a bank account**

Several studies have also examined why people do not own accounts with banks in spite of all efforts to bring them to the banking sector (see Financial Inclusion Insight Africa, 2015; Dermiguc-Kunt et.al, 2014). For instance, Financial Inclusion Insight (FII) Africa (2015) examined the demand for financial services, identified challenges in assessing financial services, and measured adoption and usage. In the case of Ghana, 3,002 Ghanaians aged 15 years and above were involved in the survey. They found that 34% had a bank account, 20% had registered for mobile money and 48% owned a financial account. Out of the 34 percent that owned bank account, 7% of them were inactive. The study further revealed that exactly 43% of the participants that did not have an account with a bank (n =2059) reported that they did not have enough money to save, 27% had an alternative mode of saving; 15% reported that bank charges were too high and 10% did not know the process or procedure to open a bank account and 5% gave other reasons.

The study further examined why an individual does not access loans from banks. Exactly 47% reported they have another source other than the bank that they can get a loan, 15% reported that the bank charges a higher interest rate, 12% preferred borrowing from relatives, 19% reported that the needed amount was not big to compel them to appear at the premises of the bank, and 7% also claimed higher bank charges.

Similarly, Dermiguc-kunt et.al (2018) also embarked on a study to figure investigate why people are not interested in possessing a bank account. The study revealed that 30

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percent of the respondents do not own a bank account because of insufficient money, 25 percent also stated that their relatives own bank account, hence their decision not to own one. Also, 20 per cent reported that owning an account is very expensive, an additional 20% cited distance to the bank's office as a major reason for not owning a bank account, and 2 and 3 per cent cited religion and loss of trust in the banks as a major reason for not owning a bank account.

Additionally, the study found that factors such as age, education, gender, and location also influenced financial inclusion greatly. For instance, the study revealed that 36 per cent of women in emergent countries own bank accounts relative to 46 per cent of their male counterparts. Exactly 22 and 27 percent of women and men also owned bank account respectively in SSA. Also, the study found that individuals that do not have any form of education were less likely to have an account with a bank than those who have completed tertiary education. From the above review, it is clear that people do not own bank account because of insufficient funds or money, followed by having other alternatives and bank charges too high.

**2.3.3 Financial attitude and financial inclusion**

Attitude towards behaviour refers to an individual's evaluative judgment of a behaviour in question (Ajzen, 1991). In addition, attitude involves an individual's judgment on whether the intended behaviour and consequently, the desired outcome is good or bad and also whether the individual is in favor of or against it (Leonard & Cronan, 2005). Generally individual behaviour is influenced mainly by knowledge and attitudes (Eagly & Chaiken, 1993; Godwin & Carroll, 1986; Hira, 2012). Attitude scholars and theorists, for instance, Armitage and Conner (2001), suggested that individuals' attitude are pronounced in terms of cognitive or evaluative aspects that provide information content depending on the specific anticipated outcome.

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The relationship between attitude and behaviour is elaborated in the theory of reasoned action articulated by Fishbein and Ajzen (1975) which assumes that individuals are rational decision makers. This implies that individuals consciously think through the reasons for their actions, taking into account the possible implications of such actions and act according to such reasoning (Orobia, 2013). Drawing from this assertion, when individuals evaluate a behaviour as favourable for attaining a certain anticipated outcome, it will lead to an individual's engagement in the behaviour that consequently influences their access and use of financial services, hence FI. This relationship has been investigated by a number of studies in different domains, however, in the finance domain, the majority of the studies have focused on the attitude – behaviour relationship in financial management.

Fishbein and Ajzen (2011) argued that the most fundamental assumption underlying the attitude concept is that attitudes guide, influence, direct, shape and predict actual behaviour. Therefore it is anticipated that through a deliberative process, financial consumers evaluate and judge whether undertaking the use of financial services is important towards improving their wellbeing or not. When they evaluate the processes and tasks favourable to achieving their intended outcomes, they are likely to engage and undertake them. It is then logical to contend that it is difficult to understand FI detached from the individual's attitude, especially among financial consumers who make critical financial choices and decisions from a variety of options.

This is supported by Kidwell and Turrisi (2003), who used the theory of planned behaviour to explain budgeting behaviour and financial management respectively, and established that positive attitudes are associated with actual financial behaviour. Several studies have demonstrated the application of the attitude concept to explain both individual and organizational behaviour (Andrianaivo. & Kpoda 2012; Ashraf et al 2006; Bagozzi, Baron & Kennedy 1986; Beck & Katz, 1996; Fishbein & Ajzen,

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1975) and performance. These studies have assessed whether the individual or organisational attitude influences behaviour directly or indirectly and findings vary from one context to another. Only a few studies have investigated the influence of financial attitude on behaviour (Bongomin et al, 2018; Demirguc-Kunt & Klapper, 2012; Diga et al, 2013; Domeher et al, 2022) and specifically not its influence on individual FI.

However, Gadzo et al (2019) indicated that attitude has a greater predictive power when it is domain specific. Therefore, attitude being anchored in the context of the finance domain is proposed as the financial attitude construct which is consequently examined to explain its influence on FI (Forson et al, 2021; Gadzo & Asiamah, 2018). Grimshaw (2015) argued that attitudes towards debt play an important role and are significantly related to motivations for using credit to the other options of financing. Similarly Gupta, (2022); Hair et al., (2006) found a positive significant relationship between individuals' attitudes towards financial behaviour, especially in the debt context. It was further argued that attitude and behaviour are necessary in making sound financial decisions and ultimately achieving individual financial well-being.

The more favourable the attitude towards performing a behaviour, the greater the perceived social approval, the easier the performance of the behaviour is perceived to be, the stronger the behaviour intention. Additionally, human action is influenced by beliefs about the likely outcomes of the behaviour which, in this context, is individual financial behaviour (Ajzen, 1985, 1991; Beck & Ajzen, 1991; Fishbein & Ajzen, 1975). Chau et al. (2004); Norvilitis & Mao, 2013) examined students' attitude to credit card use and found that those students who had favourable attitudes were more likely to have and use credit cards for their day-to-day transactions and also the intent to use innovative financial products was also predictive of use. Similarly, Davies and Lea

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(1995); Lachance (2012) revealed that students were propelled by their positive attitude to recognize both the advantages and risks associated with credit.

Therefore the attitudes towards credit are positively related to the number of credit cards held and knowledge of credit as well as other financial products and services, hence FI. Godwin and Carroll (1986) examined the influence of financial attitudes on financial management and found that a positive attitude towards financial planning was the greatest predictor of cash flow management. However in a similar study, Parrotta and Johnson (1998) hypothesised that financial knowledge as a moderator may strengthen the interaction and consequently the relationship between financial attitudes and financial management. Their study surprisingly found that financial attitudes eliminated the effect of financial knowledge when tested together for their relationship with financial management. Therefore, financial attitude independently was found to be a significant predictor of financial management.

## 2.4 Conceptual Framework

The conceptual framework was embraced by Akpandjar et. al (2013) and Wale and Makina (2017). This framework briefly describes the factors that determine FI in Ghana. Bank account ownership was used as proxy for FI. Based on previous studies, the researcher argues that factors such as education, occupation and household characteristics can determine financial inclusion.

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Figure 1: Conceptual framework for the study.

Source: Adapted from Empirical Literature, (2021)

**Summary of Chapter**

This chapter discussed relevant theories and models as well as the conceptual framework guiding the study. The chapter highlighted related theoretical approaches and models related to financial inclusion and the conceptual framework guiding the study. The theory of planned behaviour and the expected utility theory was reviewed in addition to the empirical review of all the research objectives if the study.

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# CHAPTER THREE

# METHODLOGY

## 3.0 Overview

This section discusses all the systematic steps and the procedures that the researcher followed to ensure that the objectives of the study are accomplished. The source of data, research design, empirical model specification, and description of variables were all information captured in this section.

## 3.1 Research Philosophy

Research philosophy refers to the set of fundamental beliefs and assumptions that underpin the researcher's approach to knowledge creation, reality interpretation, and research design. In this study, the positivist research philosophy guides the selection of research methods, data collection techniques, and analytical procedures. It underpins the systematic approach to inquiry, emphasizing the rigorous application of scientific principles to generate reliable and generalizable findings (Saunders et al, 2009). By adhering to the positivist research philosophy, the study aims to contribute to the advancement of knowledge in the field and facilitate evidence-based decision-making in practice. This research philosophy underscores the importance of objectivity, systematic observation, and empirical verification in scientific inquiry. It informs the researcher's approach to theory development, hypo dissertation testing, and data analysis, ensuring methodological rigor and validity in the research process.

## 3.2 Research Paradigm

Research paradigm is a world view about conducting research. The research paradigm guides the researcher in selecting appropriate methods and research design, ensuring that the methodology aligns with the research objectives, emphasizing that the choice of method should be driven by the research needs rather than the method dictating the research direction (Shannon-Baker, 2016). This study leveraged on

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positivism, the researcher focused on data collection and interpretation based on objectivity. The positivist paradigm aligns well with the quantitative method as it emphasizes objectivity and measurable outcomes (Kivunja & Kuyini, 2017). It focuses on establishing causal relationships and seeks to uncover general laws or patterns through the collection and analysis of numerical data. By adopting a positivist approach, the researcher can quantitatively measure the variables of financial inclusion.

### 3.3 Research Design

Research design represents the methods to be adopted for collecting the data and the techniques used in their analysis (Arvaniti et al., 2022). The study adopted the explanatory design. The explanatory design investigates cause-and-effect relationships between variables. This research design aims to determine whether changes in one variable (the independent variable) cause changes in another (the dependent variable). Explanatory designs allow researchers to conduct robust investigations using advanced statistical methods to explore associations and correlations between variables. This strengthens the credibility of the findings and enhances the confidence in the conclusions drawn. Also, the explanatory design emphasizes replicability, allowing researchers to conduct experiments under controlled conditions repeatedly (Wong et al., 2021). This increases the reliability and generalizability of the findings, as they can be replicated across different samples and contexts. Replication enhances the robustness of the research and contributes to the cumulative knowledge in the field. Furthermore, explanatory designs illuminate causal relationships between variables, enabling researchers to make informed decisions based on empirical evidence. Hence, the explanatory design provides practical insights to inform decision-making and policy development. Researchers can determine the effectiveness of interventions, strategies, or policies by identifying the causal relationships between variables. This knowledge

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can guide stakeholders, policymakers, and practitioners in making informed decisions and implementing evidence-based practices.

The explanatory design however has some drawbacks. The controlled nature of experimental conditions may not fully reflect real-world complexity, making it challenging to generalize findings to broader populations or settings (Moraffah et al., 2020). The highly controlled environment of an explanatory design may not fully capture the complexity of real-world situations. Moreover, explanatory designs typically focus on examining the effects of specific variables while controlling for others. This narrow focus may limit the ability to capture the full complexity of real-world phenomena, as many factors interact and influence outcomes simultaneously.

### 3.4 Research Approach

Quantitative research focuses on systematically collecting and analyzing numerical data to understand and describe phenomena, relationships, patterns, and trends in a structured and measurable manner (Taguchi, 2018). This approach aims to quantify variables, generate statistical models, and test hypotheses to draw objective and generalizable conclusions about the research subject. To achieve the study objectives, the study employed the quantitative approach. According to Mohajan (2020), the primary purpose of quantitative research is to collect numerical data to characterize a specific occurrence. The quantitative approach involves gathering data subjecting to various statistical tests and analysing it from the researcher's point of view (Dzwigol, 2020). The quantitative technique must be employed when it is important to deduce statistical inferences and relationship among different variables. Therefore, a considerable segment of the population can be assumed when making generalization on the conclusions drawn. The quantitative approach applies to this study given that the study seeks to investigate drivers of financial inclusion.

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### 3.5 Population of the Study

The population of a study is the total or an entire number of units studied. The targeted population of the study focuses on only households captured during the Ghana Living Standard Survey version 7 (GLSS 7) by Ghana Statistical Service in the central region.

### 3.6 Sampling

In research, sampling made it possible to limit the study to a relatively small portion of the population called a sample. The number of households included in the sample made it possible to have a representative sample of the entire population, which is accepted in any scientific study. After determining the sample, the study proceeds to apply a sampling technique. The study employed census sampling techniques. Census sampling was used because the GLSS 7 has the data available. Against this backdrop, a sample of 72,372 was used for the study.

### 3.7 Source of Data

The study used secondary data, specifically GLSS 7 data acquired from the Ghana Statistical Service. The database covers information on Ghanaian households enumerated in the central region. Information on household features, Health, Education, Migration, housing conditions, Employment, agriculture, Tourism, income, and financial services accessibility were all obtained from the data.

### 3.8 Model Specification

In order to investigate the determinants of financial inclusion in Ghana, the researcher employed the probit regression estimation model. The probit regression model is a non-linear model used to analyze the relationship of response/dependent variable with several predictor/independent variables where the response variable is qualitative data dichotomy that is 0 and 1. As cited in Agypong (2015), the study adopt probit model

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because the dependent variable is dummy, as "1" denoting that a person has a bank account whiles "0" otherwise. The probit model assumes an S-shaped response curve such that in each tail of the curve, the dependent variable [Pr(Y= 1)], response slowly to changes in the independent variables while towards the middle of the curve, [i.e. towards the point where Pr(Y= 1) is closest to 0.5], the dependent variable responds more swiftly to changes in the independent variable. The other alternative binary regression estimation technique is the logit model. However, the probit model was most preferred because of its interpretation, that is if an independent variable makes an individual less or more likely to own a bank account. The probit model assumes that while we only observe the values of 0 and 1 for the variable Y, there is latent, unobserved continuous variable Y* that determines the value of Y. That is from Nagler (1994) the general probit regression equation

$$P_r\left(y = 1 \mid x_i\right) \tag{1}$$

Where y represents bank account ownership and x is a vector of explanatory variables that capture socioeconomic factors that influence an individual's decision to own a bank account.

The estimated bank account ownership model is specified as:

$$P_r\left(y = 1 \mid x_i\right) = F\left(\alpha + \beta_i X_i + \phi_i Z_i + \theta_i H_i + e_i\right) \tag{2}$$

where Xi, Zi, Hi denotes a vector of variables such as gender, age, marital status, religion, disability etc.; α is a constant term and β, ϕ, and θ are parameters of different groups of variables that capture the extent of influence of these variables on bank account ownership; F is a function using values strictly between 0 and 1; whiles e indicate the error term having mean zero and variance. The model is specified as:

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$$\Pr(Y = 1 | x_i) = F(a_0 + b_1 * Male_i + b_2 * Age_i + b_3 * Age^{\wedge}2_i + b_4 * Married_i + b_5 * Religion_i + b_6 * EDUC_i + b_7 * Hrswkd_i + b_8 * HHSIZE_i + b_9 * HHsizesq_i + b_{10} Disability_i + e_i) \quad (3)$$

Where Y represent financial inclusion variable and i also indicate given individual. The other variables in the model represent the independent variables and are explained in the next section. The also represents the error term. The error term accounts for all variables that can potentially influence financial inclusion but will not include in the study. The analysis will be conducted with the help of STATA (Version 14). First data will be extracted from the GLSS database.

### 3.9 Study Variables

**Dependent Variables**

There are several indicators that can be used as a proxy for FI. However, following Wale and Makina (2017), this study used bank account ownership as a proxy for FI, as coded as "1" if the person has an account with a bank and "0" if the person does not have an account with a bank.

**Independent variable**

Household and demographic characteristics such as age, sex, number of people in a household and marital status were included as explanatory variables. Sex is a binary variable coded as "0" if individual is female and "1" if individual is male. Marital status is categorical coded with "0" if individual is single or widowed and "1" if individual is married or cohabitating. Household size is a continuous variable that represent the number of people in a household. Age is also a continuous variable representing individuals' age. Age squared was also introduced in the model to cater for a possible non-linear relationship between age and FI.

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The highest educational qualification is also a categorical variable reflecting the educational status of an individual. The variable is coded 0 if an individual has no qualification, 1 if an individual has not completed tertiary education, and 2 if an individual has completed tertiary. Religious affiliation is also categorically coded with 0 if an individual is a Muslim and 1 if an individual is non-Muslim. Hours of Work is a continuous variable indicating the number of hours individuals work in a week. Disability is also a dummy variable coded as one if an individual is disabled and 0 otherwise and nature of work is also categorically coded with 1 if the individual work in a public sector and 0 if otherwise.

Table 2 below briefly describes the variables used in the study.

**Table 2: Description of Variables**

| Variables | Description |
|---|---|
| OUTCOME VARIABLE | |
| Account ownership | =1 if the person possesses bank account<br>=0 if otherwise |
| COVARIATES | |
| 1. Household size | Number of household members |
| 2. Square of household size | "Log of household size squared" |
| 3. Disability | =1 if a person has a serious disability<br>=0 if otherwise |
| 4. Educational qualification | = "1 if individual has completed tertiary"<br>= "0 if otherwise" |
| 5. Marital Status | = "1 if individual Married"<br>= "0 if otherwise" |
| 6. "Age" | Age of the person |
| 7. "Age squared" | Age squared of person |
| 8. "Sex" | 1 = Male; 0 = Female |
| 9. "Hours worked" | Number of hours worked |
| 10. Religion | 1 = Non-Muslims; 0 = Muslims |
| 11. Nature of work | 1 = Public sectors; 0 = if otherwise |

Source: Fieldwork, 2024

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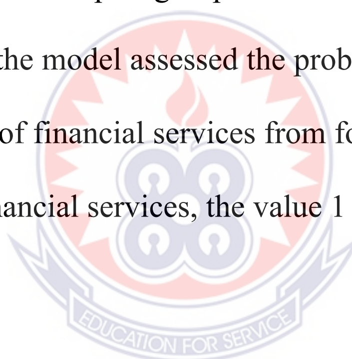
### 3.10 Method of Data Analysis

In this study, the intention is to investigate the factors responsible for financial inclusion. Therefore, to achieve this objective, once the data is collected, coded, entered and cleaned; it goes through quantitative binary logistic regression analysis. Binary logistic regression analysis is a specialized form of regression that is formulated to predict and explain a binary (two groups) categorical variable rather than a metric-dependent measure. Therefore, when the dependent variable is categorical (binary) and the independent variables are metric or non-metric, binary logistic regression is appropriate (Hair et al., 2010). Logistic regression represents the two groups of interest as binary variables with values of zero and one. In this study, the intention is to identify the independent variables that impact group membership in the dependent variable (i.e., financial inclusion), and the model assessed the probability of being either included or excluded from the usage of financial services from formal financial institutions. When the individual is using financial services, the value 1 is assigned and zero if not.



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# CHAPTER FOUR

# RESULTS AND DISCUSSION

## 4.0 Overview

This study investigates the determinants of financial inclusion in Ghana using GLSS (7) data obtained from the Ghana Statistical Service. This section presents the findings in three folds. Firstly, the study presents information on the demographic characteristics including age, sex, and others. The second aspect provides analysis on account ownership based on gender, age group, education, and religious affiliation. The last aspect also provides results on the determinants of bank account ownership in Ghana.

## 4.1 Profile of Respondents

This section presents an analysis of the profile of respondents in the survey. This enables the researcher to have a fair idea of the respondents in the study. Table 3 presents the profile of respondents considered in the study. The findings revealed that 51.56% of the respondents were females. Approximately, 13.24% of the respondents were between the ages of 0-4 years, 33.68% were between the ages of 5-17 years, 37.18% were aged 18 to 45 years, 9.49% had the age from 46 to 60 years whiles 60 years and above constituted 6.41%. Exactly 41.1% of the respondents were married, 42.10% single and 5.82% were divorced. Furthermore, 26.82% of the respondents were Muslims and 73.18% were non-Muslims. In terms of the highest educational qualification, only 4.16 percent had the tertiary qualification and 0.78% had no qualification.

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**Table 3: Profile of respondents**

| Variable | Frequency | Percentages |
|---|---|---|
| **Sex** | | |
| Male | 35,055 | 48.44 |
| Female | 37,317 | 51.56 |
| **Age-group** | | |
| 0-4 years | 9,583 | 13.24 |
| 5-17 years | 24,372 | 33.68 |
| 18-45 years | 26,908 | 37.18 |
| 46-60 years | 6,870 | 9.49 |
| 60+ | 4,639 | 6.41 |
| **Marital Status** | | |
| Married | 20,171 | 41.10 |
| Consensual Union | 3,064 | 6.24 |
| Separated | 918 | 1.87 |
| Divorced | 1,410 | 2.87 |
| Widowed | 2,855 | 5.82 |
| Never Married | 20,660 | 42.10 |
| **Religious Affiliation** | | |
| Muslims | 19,396 | 26.82 |
| Non-Muslims | 52,914 | 73.18 |
| **Educational Qualification** | | |
| None | 396 | 0.78 |
| Non-Tertiary | 48,060 | 95.06 |
| Tertiary | 2,102 | 4.16 |

Source: Fieldwork (2024) GLSS (7)

### 4.2 Bank Account Ownership and Loan Application analysis based on demographic factors.

This section presents results on bank account ownership and loan application based on gender, age group, marital status, religion and educational qualification. Comparison based on gender revealed that more females own bank account than men, they apply for loan more than men and they are mostly refused more than males (Figure 2). The

result shows that 5,643 males own bank account whiles 6,098 females own account. With respect to loan application, 1,187 females applied for loans.

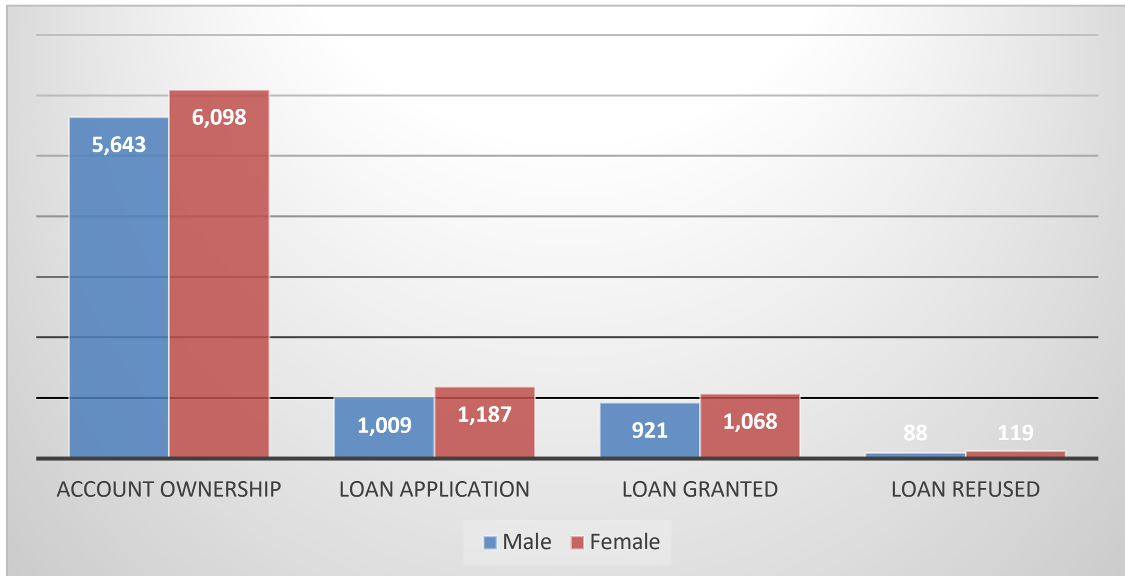


Figure 2 Bank Account Ownership and Loan Application analysis based on gender

Source: Fieldwork (2024)

Figure 3 depicts bank account ownership according to age group. The result shows that 39.09% of bank accounts are owned by children below 15 years, 19.12% are between the ages of 15-24 years. This implies more than 50% of the accounts were owned by children and young adults. This is also in tandem with Wale and Makina (2017) who also found out that young ones dominate when it comes to bank account ownership in Sub-Saharan Africa. The findings clearly show that the young and children are not excluded from the banking sector.

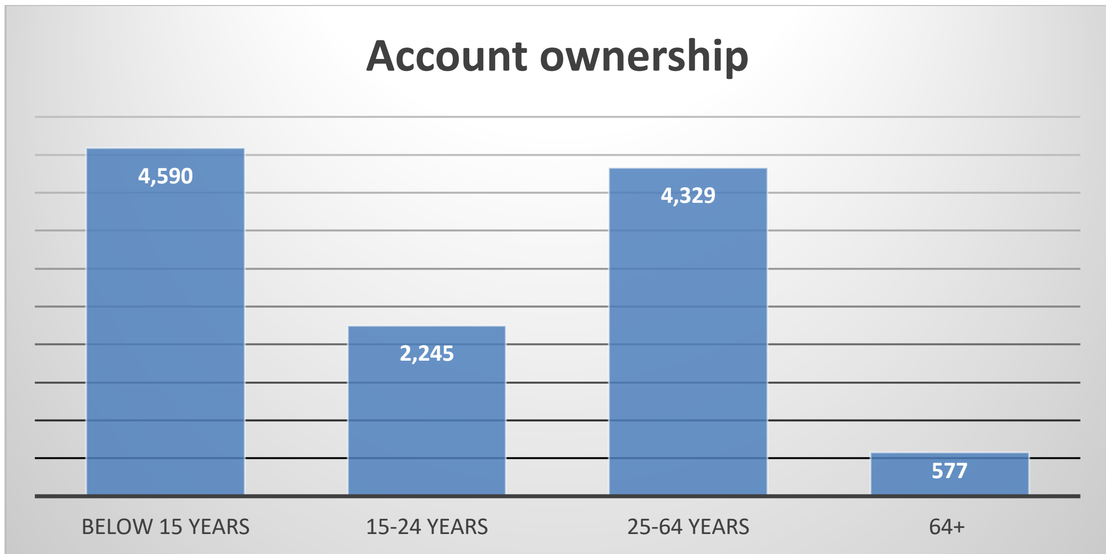


Figure 3: Bank Account Ownership based on Age group

Source: Fieldwork (2024)

Figure 4 also revealed that Non-Muslims own bank account more than Muslims. Also, the majority of the respondents that had ever attended school own bank account more than those who have never attended school. The findings clearly show that education has a greater influence on financial inclusion in Ghana.

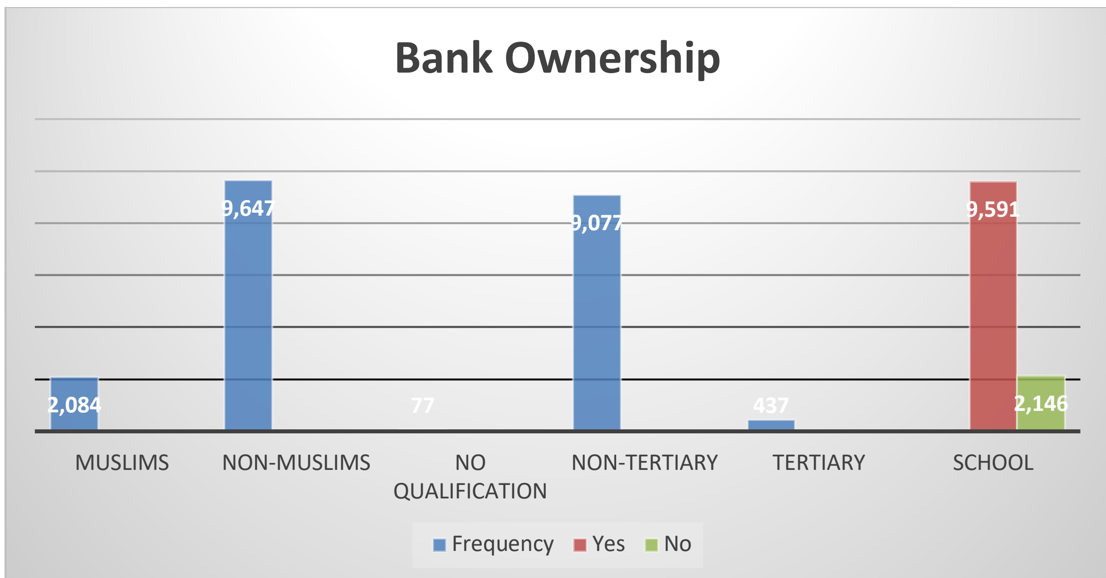


Figure 4: Bank Account Ownership based on Religion, Educational qualification and School.

Source: Fieldwork (2024)

### 4.3 Objective 1: Factors that lead to reluctancy to possess bank accounts in central region

The first objective of the study is to investigate why people fail to have account with banks in Ghana. In the GLSS data, the respondents were asked whether they have bank account or not, as well as the main reason for not owning a bank account. Out of the 61, 323 respondents, only 19.15% owned bank account. Majority (80.85%) of the respondents did not own a bank account. This finding depicts why this study is really important. Per the findings, a lot of Ghanaians are unbanked.

Out of the 49,582 individuals that did not have accounts with banks, 45.62% reported that they do not have account with bank because they do not have enough money, 29.33% are also excluded because they do not have regular income, 18.37% reported they were not interested, 2.41% were unaware of bank account, 0.79% also reported the process for owning bank account was cumbersome, 1.54% reported that the distance to the financial institutions was too far and 1.95% also gave different reasons for not having account with bank. Figure 5 presents a graph that demonstrates why individuals do not own bank account in Ghana. From figure 5, it can clearly be seen that most people are not included in the banking sector as a result of poverty. This is because almost 75% of the respondents were excluded due to financial reasons (not enough money and irregular income). The findings from the study implies that only few people were involuntarily excluded from the banking sector. The finding is consistent with Wale and Makina (2017) who also revealed that majority of Sub-Saharan African Countries do not own bank account because of insufficient funds or money. Similarly, Dermiguc-kunt et.al (2014) also revealed through their study that most people do not own bank account because of insufficient funds in Africa.

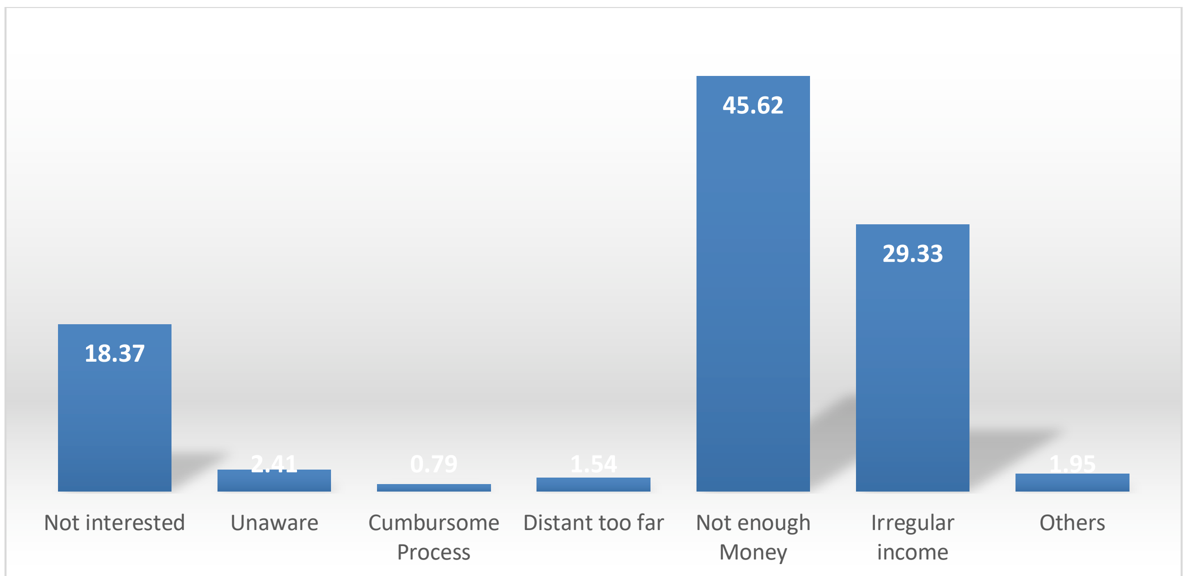


Figure 5: Factors that lead to reluctancy to possess bank accounts in central region

Source: Fieldwork (2024)

**4.4 Objective 2: Drivers of access to credit in the Central region of Ghana**

This study also sought to unravel intentions or reasons for applying for loans in Ghana. This provides answers to research objective 2. The study revealed that only 2,198 respondents had applied for loans from financial institutions. Out of this number, 90.49% of the loans were approved or granted. This implies that a lot of people who applies for loan gets approval in Ghana. The study revealed that people apply for loans for various reasons. This study classified the purpose of loan application into seven main expenditure, namely, consumption, social events, housing and assets, education, agriculture farm inputs and business activities. Out of the 1,990 respondents that responded to this question, 20.65% applied for loan for consumption, 1.06% applied for social events expenditure and 11.81% applied to cater for housing and assets expenditure.

Also, 13.97% applied to cater for educational expenditure, 14.22% and 36.83% applied to cater for agriculture farm inputs and business expenditure respectively. Exactly 1.46% of the respondent applied for other reasons. The findings imply that about half

of the respondents are applying for the loan to invest in a venture that will help them to reap profits. Figure 6 depicts the purpose for applying loans

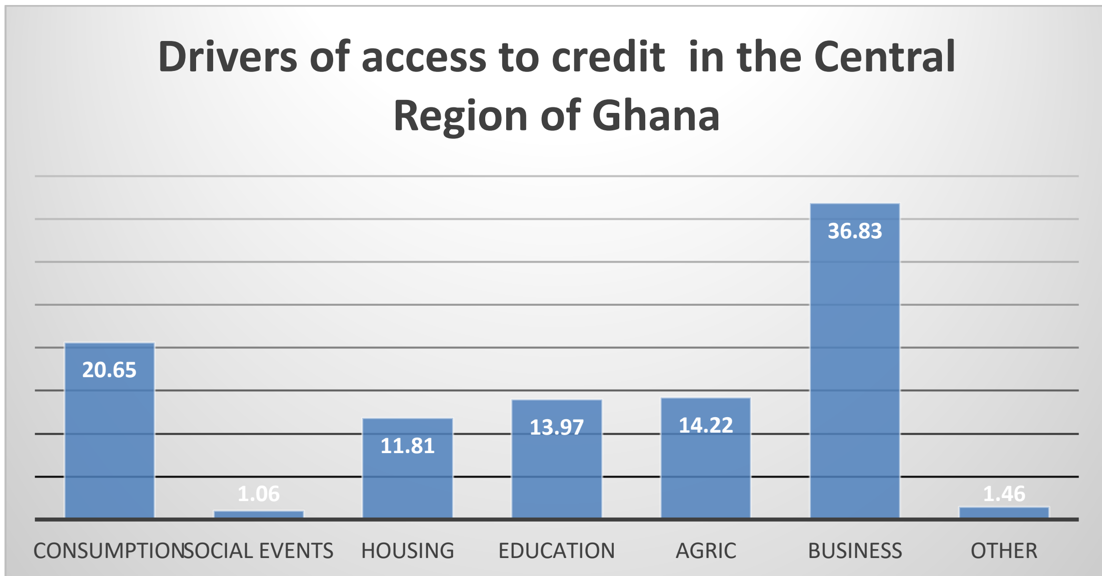


**Figure 6: Drivers of access to credit in the Central region of Ghana**

Source: Fieldwork (2024)

As stated earlier in the previous section, only a few people were refused the loan. This study went further to unravel the rationale behind the refusal of loans. This finding also corresponds to research objective 2. Out of the 207 respondents that were refused the loan, 28.78% reported they were unable to provide collateral security, 13.17% were denied because their salary was too low and 7.32% were denied because the amount applied were too high. Exactly 3.90% were denied because of previous debt problems and 6.83% were rejected on the basis of inappropriate purpose of the loan. Figure 7 depicts why banks fail to grant loans to individuals.

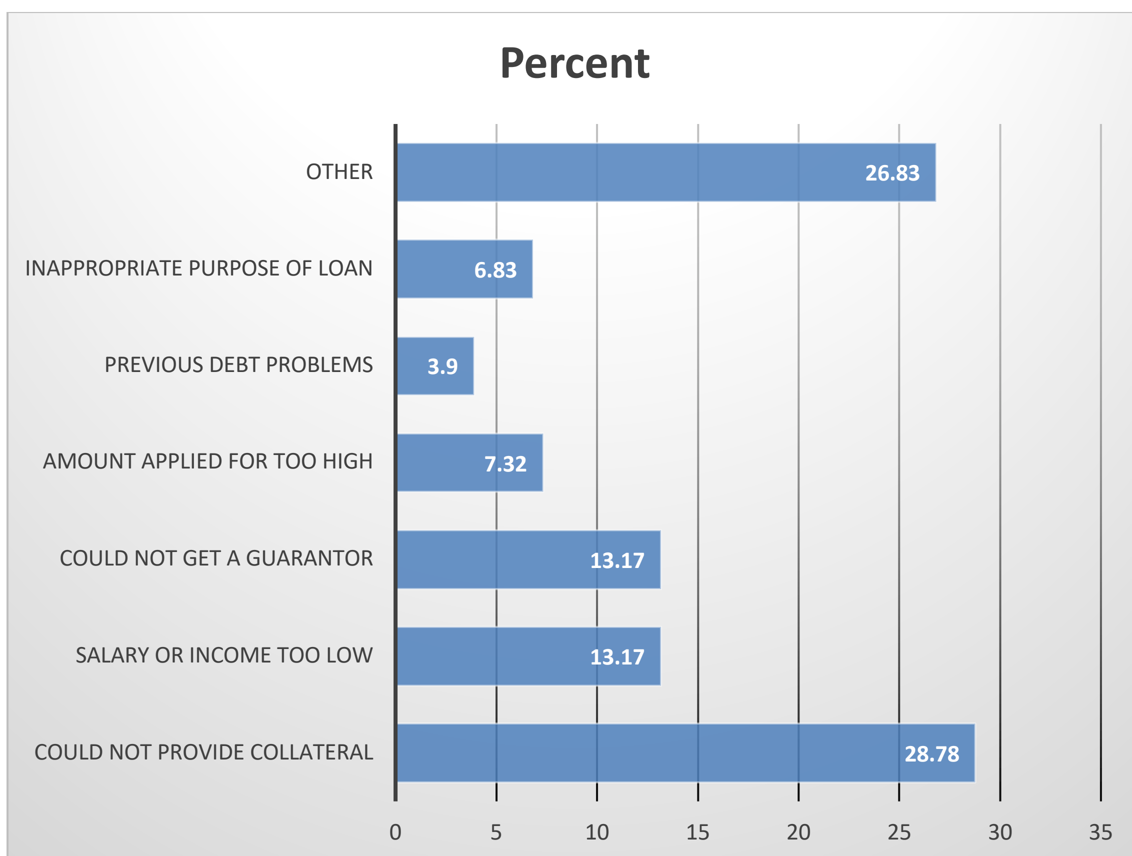


Figure 7: Drivers of non-granting of credit by financial institutions

Source: Fieldwork (2024)

**4.5 Objective 3 Drivers of Financial Inclusion in Ghana**

This aspect presents results upon the ultimate aim of this study. The main aim of this study is to investigate the socio-economic factors that determine financial inclusion in Ghana. In this study, ownership of a bank account was used as a representative for FI. An individual is said to be financially included if the person owns a bank account, otherwise, the person is financially excluded.

Probit model was used to evaluate the effect of independent variables on bank account ownership in Ghana. The model contained 10 independent variables (sex, age, age square, marital status, religion, education, hours worked in a week, household size, household size square, and disability). The model is a good model because it was statistically significant (Prob>Chi2 =0.0000) depicting the model is able to explain

variations in bank account ownership. As presented in Table 4, only six of the independent variables (age, sex, marital status, religion, education, and hours worked in a week) were statistically significant in determining financial inclusion in Ghana. There are two possible ways of reporting the probit regression; that is, either to report the coefficient (1) or the marginal effect (2). Several studies have shown that reporting the change in Pr(Y=1) or the marginal effect is superior means of reporting the relationship between the dependent and the independent variable, hence the decision to report the marginal effects instead of the coefficient.

**Table 4: Drivers of Financial inclusion in Ghana**

| Variables | Co-efficient | Marginal effect |
|---|---|---|
| | (1) | (2) |
| 1. Male | .007172*** | .0019855*** |
| | (.0212232) | (.0058806) |
| 2. Age (years) | .039393 *** | .014998 *** |
| | (.0030035) | (.0008533) |
| 3. Age square | -.0000403 | -.0000152 |
| | (.0000331) | (9.39e-06) |
| 4. Marital Status | | |
| Married | -.0392195 ** | -.0154943 ** |
| | (.0495435) | (.0078415) |
| 5. Non-Muslims | .1734886 *** | .0487251 *** |
| | (.0492585) | (.0077734) |
| 6. Educational qualification | | |
| Tertiary | .0913989** | .0337977 ** |
| | (.2203792) | (.030096) |
| 7. Hours worked | .0046921 *** | .0012947 *** |
| | (.000844) | (.0001327) |
| 8. Household size | -.0090916 | -.0014371 |
| | (.0169843) | (.0026846) |
| 9. Household size squared | .000414 | .0000654 |
| | (.0010617) | (.0001678) |
| 10. Disability | -.046412 | -.0073363 |
| | (.1376234) | (.0217538) |
| 11. Constant | -2.284686 *** | |
| | (.2526439) | |
| LR chi2 (10) | 150.54 | |
| Prob>chi2 | 0.0000 | |
| Pseudo R2 | 0.0085 | |

***** p<0.001 ** p<0.05 * P<0.1**

**Source: Fieldwork (2024)**

The result shows that age has a coefficient of .039393; and an additional increase in the age of an individual will result in an increased probability of owning a bank account by 0.015, holding all other variables constant at 1%. A plausible reason for this is that when one grows up, he is more likely to get a job that will earn him income. The likelihood that the person will save is high when he earns income and a person can only save when he owns an account with a financial institution, hence the positive effect of age on financial inclusion.

This finding is consistent with that of Wale and Makina (2017) who found that the aged are more likely to own a bank account. Also, the study is consistent with that of Zins and Weill (2016), Fungacova and Weill (2015), Allen et al. (2016) who all found that the coefficient of age has a positive effect on the likelihood of having an account with a bank. For instance, Fungacova and Weill (2015) reported that a unit increase in age increases the probability of owning account by 1.7% in China.

The negative coefficient of age square depicts that after a certain age, the probability of owning a bank account declines. This finding is not surprising because as one grows old, you lose strength, hence the likelihood of getting a job that will fetch one income decreases and this leads to a reduction in the likelihood of owning a bank account. The negative coefficient of age square is in tandem with the Life-Cycle Hypothesis (LCH) of savings and consumption propounded by Modigliani and Brumberg (1954). The LCH can be extended to people's intention to own a bank account in the formal sector even though it focuses on the amount people save.

With respect to sex, the result shows a coefficient of 0.007172 and the likelihood of having an account with a bank is 0.19% more likely in males relative to females, holding all other variables constant. This finding was not surprising because men control most of the income-generating activities in Ghana and are more likely to earn income than women. The result is also not surprising because males have comparative

advantages in the labour market compared to their women counterpart in Ghana. This finding is consistent with that of Shihadeh (2018), Zins and Weill (2016), and Fungacova and Weill (2015) who all found that the likelihood of having an account with a bank is higher in males relative to females. For instance, Fungacova and Weill (2015) found out that probability of owning a bank account in China is 4.5% less likely for women. Wale and Makina (2017) also reported that females are 4.7% less likely to own a bank account in Sub-Saharan Africa.

With respect to educational qualification, tertiary had a coefficient of .0913989, and also the likelihood of having an account with a bank was 3.3% higher for those who have tertiary education relative to those who do not have tertiary education and was significant at 5%. This shows that educated people are more likely to be financially included. The findings did not come as a surprise because educated people are more likely to land on a good job with better remuneration, which will lead to higher chances of having an account and higher chances of savings. Furthermore, it is much easier for an educated person to deal with documents, read and appreciate the financial rules and regulations. Another plausible reason for this finding is that most of the educated people work in the formal sector which demands that the opening of a bank account through which their monthly salary will be paid into. The result is also in tandem with Shihadeh (2018) and Zins and Weill (2016) who all found that the educated ones are more likely to own a bank account than those who are not educated.

With respect to religious affiliation, the result shows a coefficient of .1734886 and the likelihood of having an account with a bank is 4.9% higher in non-Muslims relative to Muslims and was significant at 1%. This does not come as a surprise since most Muslims that are religiously inclined are usually excluded from conventional banking because they believe it is a sin (haram) to take interest in savings, hence majority are excluded from taking part in formal banking. Additionally, the coefficient of hours of

work in a week depicts that an additional increase in the hours of work in a week increases the probability of owning a bank account by 0.129%. This finding also does not come as a surprise because when the number of hours the person works in a week increases, it enables the person to earn more income. Hence, the person is able to save with a bank. The marginal effect of the independent variables was also estimated for the prioritization of policy programs. As depicted in Table 4 (2), marital status, religion and education have the highest marginal effects on bank account ownership whereas the marginal effects of age and hours of work were small. This implies that to close the FI gap, more and resilient efforts should be made to target the Muslims, those with a low level of education, and the married ones.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.0 Overview

In this study, the researcher investigated the determinants of financial inclusion in the central region using the Ghana Living Standard Survey Round seven database. This section presents a summary, conclusion, and recommendations of the study.

## 5.1 Summary of Key Findings

The study used the GLSS (7) data to investigate the determinants of FI in Central region. The probit model was selected as the appropriate econometric model for predicting financial inclusion in Ghana. The study focused on three main research objectives. The first objectives also focused on why household Ghanaians are reluctant to have an account with a bank and why household Ghanaians apply for credit from banks respectively. The second objective also focused on drivers to access credit, and the third objective investigated the drivers of financial inclusion in the Central region.

For the first objective, findings revealed that a significant majority of respondents, 80.85%, did not own a bank account. The primary reasons cited for not having a bank account included insufficient funds (45.62%), irregular income (29.33%), lack of interest (18.37%), and distance to financial institutions (1.54%). The study highlighted the prevalence of financial exclusion in Ghana, with a large portion of the population being unbanked due to financial constraints. These results align with previous research in Sub-Saharan Africa, emphasizing the impact of insufficient funds on bank account ownership.

This objective focused on understanding the drivers of access to credit in the central region of Ghana. The study revealed that a significant number of individuals applied for loans, with a high approval rate of 90.49%. Reasons for loan applications varied, including consumption (20.65%), social events (1.06%), housing and assets (11.81%), education (13.97%), agriculture (14.22%), business activities (36.83%), and other purposes (1.46%). The findings indicated a strong demand for credit for various expenditures, highlighting the importance of access to financial services for economic activities in Ghana.

The results of the third objective revealed that certain independent variables had a significant impact on bank account ownership in Ghana. Factors such as age, sex, and marital status were found to have notable effects on financial inclusion, with age and marital status showing higher marginal effects compared to other variables. Specifically, marital status, religion, and education were identified as having the highest marginal effects on bank account ownership, suggesting that targeted efforts towards specific demographic groups, such as Muslims, individuals with lower education levels, and married individuals, could help bridge the financial inclusion gap in Ghana.

## 5.2 Conclusions

The investigation into the reluctancy of individuals in the central region of Ghana to possess bank accounts concludes that significant barriers to financial inclusion faced by a large portion of the population. The findings underscore the prevalence of financial exclusion, with the majority of respondents not owning bank accounts primarily due to financial constraints such as insufficient funds and irregular income. This highlights the urgent need for targeted interventions to address these barriers and promote greater access to banking services in Ghana. By understanding the reasons behind the reluctancy to possess bank accounts, policymakers and financial institutions can

develop tailored strategies to enhance financial inclusion and empower individuals to participate more actively in the formal financial system.

For the second objective, the exploration of the drivers of access to credit in the central region of Ghana has revealed valuable insights into the loan application behavior and approval rates among individuals. The high approval rate of loan applications indicates a strong demand for credit for various purposes, including consumption, housing, education, agriculture, and business activities. This underscores the importance of credit access in supporting economic activities and improving livelihoods in Ghana. By identifying the reasons for applying for loans, policymakers and financial institutions can design appropriate financial products and services to meet the diverse needs of borrowers, thereby fostering economic growth and development in the region.

Finally, the investigation into the drivers of financial inclusion in Ghana has provided a comprehensive understanding of the socio-economic factors influencing bank account ownership. The significant impact of variables such as age, sex, marital status, religion, and education on financial inclusion highlights the need for targeted interventions to promote greater access to banking services among specific demographic groups. By prioritizing efforts towards addressing the barriers faced by marginalized populations, such as Muslims, individuals with lower education levels, and married individuals, policymakers can work towards closing the financial inclusion gap and fostering a more inclusive financial system in Ghana. This study underscores the importance of considering demographic characteristics in financial inclusion initiatives to ensure equitable access to financial services for all segments of the population.

## 5.3 Recommendations

In respect of the findings of this study, the following recommendations are put forward;

i. Based on the findings regarding the reluctancy of individuals in the central region of Ghana to possess bank accounts, it is recommended that targeted financial

literacy programs and awareness campaigns be implemented to educate the population on the benefits of banking services. These initiatives should focus on addressing misconceptions about banking, promoting savings habits, and providing information on the various financial products available. Additionally, efforts should be made to improve access to banking services in rural areas by expanding the reach of financial institutions and mobile banking services. By enhancing financial literacy and increasing access to banking services, more individuals in Ghana can be encouraged to open bank accounts and participate in the formal financial system.

ii. To further support access to credit in the central region of Ghana, it is recommended that financial institutions streamline their loan application processes and offer tailored financial products to meet the diverse needs of borrowers. Enhancing transparency in lending practices and providing clear information on loan requirements can help individuals make informed decisions when applying for credit. Moreover, collaboration between financial institutions and government agencies can facilitate the development of credit scoring systems to assess borrowers' creditworthiness accurately.

iii. By improving the efficiency and inclusivity of the credit market, more individuals in Ghana can access the financing they need to support their economic activities and improve their livelihoods. In light of the socio-economic factors influencing financial inclusion in Ghana, it is recommended that policymakers and stakeholders prioritize initiatives that target specific demographic groups identified as being at higher risk of financial exclusion. Strategies should focus on providing tailored financial education programs, promoting gender equality in access to banking services, and offering incentives to encourage bank account ownership among marginalized populations. Additionally, efforts should be made

to address structural barriers, such as limited access to banking infrastructure in rural areas, to ensure equitable access to financial services across the country. By implementing targeted interventions and addressing the unique needs of different demographic groups, Ghana can make significant strides towards enhancing financial inclusion and promoting economic empowerment for all its citizens.

## 5.4 Suggestion for Further Research

The study focused on the determination of financial inclusion within the Central region. It is suggested that a similar study be conducted for the entire country to expand coverage of the study to draw a convincing conclusion.

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