



FINANCIAL INCLUSION AND DETERMINANT FACTORS IN  
GURAGHE ZONE

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ABEBE BERKIT

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WOLKITE, ETHIOPIA

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FINANCIAL INCLUSION AND DETERMINANT FACTORS IN  
GURAGHE ZONE

ABEBE BERKIT MENJIYE

ADVISER: - MITIKU MELLES (AS.PRO)

CO.DESTA

THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING  
AND FINANCE, COLLEGE OF BUSINES AND ECONOMICS,  
SCHOOL OF GRADUATE STUDIES WOLKITE  
UNIVERSITYWOLKITE, ETHIOPIA

MAY, 2023

**Declaration**

I the under signed, declare that this thesis is my original work and has not been presented for degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

Name \_\_\_\_\_

Signature \_\_\_\_\_

Department \_\_\_\_\_

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Name of External examiner: Dawit G/Medhin (Ph.D)Signature  Date 27/06/23

Name of Internal Examiner -----Signature-----Date -----

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## **List of Acronyms**

FI:-financial inclusion

$\beta_1$ :- $\beta_{15}$  denote the regression coefficients of the model,

EDU:-Educational status of the individual (respondent),

GEN:-Gender of the respondent,

AGE:-Age of the respondent,

INCM:-Average monthly income of the respondent,

AWR:-Awareness level of the respondent,

ACSB:-Accessibility of financial institutions,

INT:-deposit interest rate of financial institutions,

INFR:-Infrastructure,

DOCM:-Documentation requirement,

FAMSIZ:-Total family size

RESID:-Residence

FILITERACY:-Financial literacy

AVAL:-Availability of the required financial service

UI:-Error-term.

## **ABSTRACT**

*The role of financial inclusion in the economic and financial discourse has gained a lot of interest both among academia and practitioners. The discussion has further received attention from development partners such as the World Bank, International Monetary Fund, G20 and AFDB among others. The objective of the current study is to evaluate determinants of financial inclusion in Ethiopian focusing on gurage zone. The study used an explanatory research design and quantitative research methods. The research was conducted in four woredas and two town administrations in the gurage zone. A sample of 384 respondents was selected using multistage sampling techniques. 384 questionnaires were distributed, 371(97%) were fully completed, and 13(3%), were returned incomplete. therefore the current study used the full response only to analyze the data (i.e. 97percent) of the respondents who participated in the study. The responses were evaluated with descriptive statistics and probit regression analysis using stata12. The study revealed that except for occupation, all variables had a statistically significant impact on financial inclusion. Age, education, income, place of residence, financial literacy, marital status, and trust in financial institutions are positive and significant factors in financial inclusion, whereas Gender, distance, documentation, and religion have a negative and significant effect. Finally, all variables with a negative sign reduce financial inclusion in the research area. As a result, the researcher recommended that policymakers, governments, financial institutions, and development organizations take into account the aforementioned financial inclusion elements in their attempts to address the problem of financial exclusion and combat poverty among certain segments of the population.*

**Keywords:** *Financial inclusion, Demand-side, financial institution, Binary logit and Probit, gurage zone Ethiopia.*

# Chapter One

## Introduction

### 1.1. Background of the study

Financial inclusion is a broad concept. A review of literature indicated that there is no universally accepted definition of financial inclusion. Its definition varies across countries depending on their level of social, economic and financial development. For example, as defined by The International Monetary Fund (IMF) (2015:4) defined financial inclusion as the access to and use of formal financial services by households and firms. Financial inclusion has also been described as individuals and businesses having access to useful and affordable financial products and services, including transactions, savings, payments, credit and insurance, that meet their needs and that are delivered in a responsible and sustainable way (World Bank, 2014; 2017a; ADB, 2013, Cámara & Tuesta, 2014) .

Financial inclusion is a key component of poverty reduction and economic progress, with digital financial services being essential for participation in the new digital economy. Financial inclusion issues have gained more attention around the world. Financial inclusion is a critical socioeconomic issue that requires international institutions, governments, central banks, financial institutions, researchers, and policymakers to take into account (World Bank, 2017). Financial inclusion has been a hot issue among governments, financial institutions, and legislators around the world, with a growing interest in learning more about it (Mhlanga et al., 2020). Many developed and developing countries have acknowledged the existence of financial exclusion as one of the socio-economic concerns on the agenda (David & Varaidzo, 2020).

The study by [Popescu \(2019\)](#) found that financial inclusion is an important engine of economic development by delivering very significant benefits to the poor and marginalized society. As [Swamy's \(2015\)](#) finding reveals providing access to finance particularly for the poor is considered a prerequisite for poverty reduction, inclusive growth, and economic development. In line with the listed activities, they have played significant roles in the economic growth, development, and industrialization of developing countries in general.

However, despite the implication of financial inclusion, how to build inclusive financial systems is a challenging subject on the agendas of researchers, policymakers, regulators and

financial institutions. This is particularly important in developing countries and emerging markets, where banking penetration rates are relatively low. This is mainly due to the traditional factors such as being a woman, living in a rural area or having a low income and low educational level (Clamara, Peña and Tuesta, 2014). Meanwhile the causes of low levels of FI in Africa can be categorized into demand and supply factors (AfDB, 2013). Demand factors refer to the characteristics of individuals or entities that influence them in terms of accessing financial products and facilities. These characteristics involve levels of income, education and religion, to mention just a few. Supply-side factors refer to the characteristics of financial service suppliers that hinder individuals from accessing their products and services. These barriers include high bank charges, travel distance and too much paperwork and onerous requirements for accessibility or provision.

The absence of accessible and affordable bank accounts in a financial system can result in obstinate income disparity, poverty and sluggish economic growth (Honohan & King, 2013; Sarma & Pais, 2015; Mihasonirina & Kangni, 2017; Hussain & Chakraborty, 2018; Rama & Pal, 2018). Low levels of financial inclusion in an economy lead to increased disparity between the poor and rich, as the population is characterized by inequitable growth. Low levels of FI also lead to inefficient allocation of funds in the economy (World Bank, 2013). Meanwhile A low FI level exacerbates poverty, and many researchers have found a negative relationship between the two. This is because FI bridges the gap between the source of finance and the needy through the issue of loans, and therefore FI becomes a boost for low-income households. An absence of formal accounts at individual level may hinder formal savings, hence, a lack of access to affordable credit facilities. Individuals can also find that some informal financial services are risky and expensive. The impact of financial inclusion is not only on the financial aspect and on funding, but also on the aspect of society economic development, local and national, which is now being concerned by the local or national government. It is supported by the arguments and empirical findings. According to (Shyni, and Mavoothu, 2014) Financial inclusion does not only influence an individual, but also effect the family and neighbors, as well as the surrounding environment .It has also been linked to social exclusion, which signifies economic, social, and political inequality and associated effects on human rights (Caplan, Birkenmaier, & Bae, 2021). Meanwhile Financial exclusion creates social instability and worsens income inequality (Wang & Guan, 2017).

By looking above mention problems the study focused to investigate the determinant factors that affect the financial inclusion in gurage zone Ethiopia. Moreover, the study also will offer a

brief introspection to the current situation of financial inclusion in Ethiopia, primarily focusing on the gurage zone. In doing so, the study delimited to gurage zone.

## **1.2. Statement of the problem**

The current study on financial inclusion is justified because finance is the lifeblood of the modern economic unit (Sharma et al., 2013). Financial Inclusion facilitates the inclusive participation of all sections of society in the financial sector. The need to understand the relationship between Financial Inclusion and other factors also motivated the current study. According to Franklin, Demirguç-Kunt, Klapper and Peria (2013) and Sharma et al. (2014), there are many objectives for the need of Financial Inclusion among all segments of the population. There are economic objectives that are mainly useful for equitable growth in all segments of the society for the reduction of disparities. The reduction of differences amongst the population may serve as catalyst for the growth of underdeveloped and developing communities. The provision of banking facilities to marginalized sections can enhance the mobilization of savings in the economy. Money usually kept at home could be effectively mobilized for capital formation, expenditure and economic development. The growth in Financial Inclusion levels improves the development of the financial sector. The larger the financial sector, the more the financial players and participants.

The empirical and theoretical literature has concentrated on the function of a well-organized monetary structure as a prerequisite for an open and robust economic system (Adeoye, 2015; Adeoye & Sangosanya, 2015; Adeoye & Saibu, 2014; Mirdala, 2013; Demetriades & Andrianova, 2014; Godhart, 2014). The study on Financial Inclusion is justified, as the majority of individuals on the African continent do not have accounts with formal financial institutions (World Bank, 2020). Advances in ICT and the lowering of the costs related to financial services offer more people the chance to use them, particularly the poor and those that are financially excluded (AfDB, 2017:3). Currently, many low-income people on the continent depend on informal financial services. The absence of official financial regulation can put people in a vulnerable position, for example, they may lose their money or be exposed to moneylenders applying huge interests.

One important objective of Financial Inclusion is to reduce poverty in a society. There are high levels of poverty across the African continent. Financial Inclusion bridges the gap between the source of finance and the needy (weaker section) through the issue of loans (Sarma & Pais, 2015). Those in need can get loans to start their own businesses or finance their education to

sustain their livelihoods. In such cases, Financial Inclusion becomes a boost for low-income households. Financial Inclusion has also been widely accepted as a promoter of seven out of the 17 Sustainable Development Goals that were set up in 2015 by the United Nations General Assembly (World Bank, 2017c). Financial Inclusion makes political intentions or goals achievable. As the lower strata benefit, certain political objectives are achieved, and an effective direction is given to government policies and programs. With the global environment changing, access to formal financial services has been found to be vital (Demirguc-Kunt & Levine, 2008; World Bank, 2018, 2020).

Recently, financial inclusion has gained strong momentum globally, and Ethiopia has adopted it as one pillar of its financial system development. However, the largest share of the global adult population (about 1.7 billion) does not yet have access to the financial account (Demirguc-Kunt et al. 2018). The issues of inclusive financial systems are a cause for concern, as more than half of the world's adult population is financially excluded (World Bank, 2014, 2017a). The World Bank (2019) reported that only 34% of adults in Sub-Saharan Africa are financially included. A significant proportion of adults across Africa fall outside the formal financial system because of poverty, costs, travel distance, low confidence in the banking sectors and lack of financial education. Worldwide, only 44% of youngsters are part of the formal financial systems, and about 1.3 billion women are financially excluded (Global Findex, 2019). Global Findex (2019) also reports that about 23% of the adult populations earning less than USD2 daily are financially included. Reports also show that Africa has 66% of the adult population that fall outside the formal financial system (World Bank, 2019). As a result, policymakers shifted their emphasis from financial development to financial inclusion to reach the unbanked and low-income society (Johnson and Arnold 2012). Ethiopia is a developing nation with majority of unbanked population. Therefore, studying about financial inclusion is relevant for Ethiopian development agenda. The study identified that Ethiopian financial sector consisting of 19 banks with 3093 branches, 35 microfinance institutions with 1593 branches (721 main and 872 sub branches), 17 insurance companies with 377 branches and 5 capital goods lease companies (operated through five core microfinance institutions in the jurisdiction) (as of December 2015). Although Ethiopia has reformed its financial sector in the last couple of decades, the financial sector still remains immature, even relative to the averages of sub-Saharan African economies and many other low income economies found in various regions of the world. An indicator for this is there is large gap in financial inclusion, the share of adult of age greater than 15 years who have an account at financial institutions or mobile

money account is 22.79 percent and almost 0 percent respectively, in 2014 (world bank, 2014a). In average in the sub-Saharan Africa countries these number are 28.9 percent and 11.5 percent respectively, in 2014. In low income countries the number are 22.3 percent and 10 percent respectively, in 2014(world bank, 2014a).Ethiopia lags significantly behind the other sub-Saharan Africa countries in all measures of financial access, including number of bank branches and ATMs per 100000 adults as well as depositors and creditors per 1000 adults were 1.3;0.241;136.13; and 2.09 respectively, in 2012 (IMF,2014).while the data on all these indicators of sub-Saharan Africa were above all these indicators of Ethiopia.

The limited reach of the financial sector constrains the opportunities for young firms and saving products for the poor, subjecting them to vulnerabilities in the events of shocks. The structure and regulation of Ethiopia's financial system contribute to these limitations (IMF,2013).The heavily directed lending to public enterprises mainly by commercial bank of Ethiopia became a stumbling block for this credit inclusion. In addition to reach of financial sectors, bureaucratic and financial obstacles also challenge individuals and firms from accessing and using financial services in Ethiopia. The above-mentioned problems in the financial system of the Ethiopia are partly attributable to the low level of branch outreach, the limited saving products for the poor and low access to finance, especially for credit services.

Empirical studies on the financial inclusion are not well found and the existing studies varied in the use of data and units of analysis. A study by Dsalegn and Yemataw (2017) attempted to investigate the determinants and barriers of financial inclusion using the Ethiopian socio-economic survey data (ESS 2015). Their finding revealed that better education, gender, and age are associated with greater level of financial inclusion. They also found that both involuntary (distance to financial center), and voluntary barriers (Lack of money and lack of trust) are common barriers to access financial accounts in Ethiopia. Similarly, Abdu and Adem (2021) studied the determinants of financial inclusion in Afar region Ethiopia using a cross-sectional data collected from households in afar region. The finding of their study revealed that about 68% of households are excluded from the financial sector, and while age positively associated with financial inclusion, income negatively affects financial inclusion. Besides, lack of trust on the financial institutions, lack of money, and lack of access to bank branches and ATM machines were reported as the major barriers to household financial inclusion. Alemu (2014) explored the link among financial inclusion regulation, and growth. His study witnessed that financial inclusion is very low in Ethiopia but it progresses seen in the last 10 years. By looking different literatures the researcher list out the following gaps

1. Although there have been a number of studies on financial inclusion and related issues in the other parts of the world, no available research has been made so far and to the best of the researcher's knowledge in gurage zone, or financial inclusion seem to be sparse and lacking in literature in study area.
2. Moreover, those available studies those have been done in Ethiopia vary by geography, temporal span, financial inclusion indicators, and data sources while because of many factors influencing financial inclusion, the concept is more complicated that what it seems to be

### **1.3. Objective of the study**

#### **1.3.1. General objective of the study**

The general objective of this study is to examine financial inclusion and determinant factors from financial institution and other populations living in gurage zone

#### **1.3.1. Specific objective of the study**

Based on general objective stated above, the study addressed the following specific objective:

- To investigate access to financial service in gurage zone
- To examine the effect of socioeconomic and demographic variables on financial inclusion.
- To investigate understanding of financial products and services (Financial literacy) of individuals has a significant effect on financial inclusion.
- To test whether Trust in financial institutions has a significant effect on financial inclusion.
- To test whether Documentation required by financial institutions has a significant effect on financial inclusion.

### **1.4. Hypotheses Formulation**

To achieve the objectives of the study, the following hypotheses were tested regarding the determinants of financial inclusion relying on different empirical research and theoretical review. Accordingly, there were twelve alternative hypotheses stated:

**H1:** Gender has a statistically significant and negative effect on financial inclusion.

**H2:** Age has a statistically significant and positive effect on financial inclusion.

**H3:** Income has a statistically significant and positive effect on financial inclusion.

**H4:** Educational level of the individual has a statistically significant and positive effect on financial inclusion

**H5:** Distance from financial institutions has a statistically significant and negative effect on financial inclusion.

**H6:** Financial literacy has a statistically significant and positive effect on financial inclusion.

**H7:** Occupation has a statistically significant and positive effect on financial inclusion.

**H8:** Trust in financial institutions has a statistically significant and positive effect on financial inclusion.

**H9:** Documentation required by financial institutions has a statistically significant and negative effect on financial inclusion.

**H10;** Religion has a statistically significant and negative effect on financial inclusion.

**H11;** place of Residence has a statistically significant and positive effect on financial inclusion.

**H12;** Marital status has a statistically significant and positive effect on financial inclusion.

### **1.5. Significance of the study**

On this study government of Ethiopia greatly benefited from the findings of this study in a number of ways. With an understanding of factors that have impeded financial inclusion in Ethiopia specifically in gurage zone. Foundations for the development of appropriate policies to promote financial inclusion of Ethiopia the study has the potential to help the government and other policy makers — such as the national bank of Ethiopian a better understanding of variables that have contributed to the current levels of financial exclusion.

National bank of Ethiopia so benefit from the findings of this study, in that it can shape the regulatory frame work of the central bank regarding the promotion of financial inclusivity in the country. The findings of this study indicated obstacles to financial inclusivity that in turn informed monetary policies in the country. National bank of Ethiopia can gained a deeper knowledge regarding financial inclusivity. There were not many empirical reports on financial inclusion in Ethiopia

Furthermore, it contributed to the provision of information that aid regional and national policymakers, researchers, and financial institutions, particularly banks, microfinance, and SACCOs, in developing policies that intentionally affect expanding awareness about the current status of financial inclusion in the research area. Promoting access to financial institution operations necessitates addressing market failure issues such as moral hazard and information asymmetry, which cause individuals to be suspicious of the financial sector. It also entails providing services that meet or exceed client expectations. Client expectations can only be met when authorities are unaware of their behavior or their concerns about such activity. Financial companies frequently make changes for their customers without knowing how they would react. Therefore this study is very useful to determine why many Ethiopians are still barred from financial institutions. This will assist stakeholders in developing policies that will attract the majority of those who are currently excluded from financial institutions. It will also help financial organizations understand the challenges that their customers experience and why do not use financial services and products from formal financial sectors. Scholars and researchers will profit from this study if they plan to use the findings as a foundation for current and future research on the topic. Furthermore, the empirical study concentrating on the determining aspects that influence financial inclusion at the individual level rather than the company level, according to researchers, benefited academic scholars interested in examining individual financial inclusion status in the country.

## **1.6. Scope of the study**

The main objective of this study is to examine the financial inclusion and determinants of financial inclusion in Ethiopia by using evidence from the gurage Zone. The scope of this study is limited to examining the association between demand side determinants and financial inclusion in Ethiopia by using evidence from the gurage zone. Specifically, the researcher measured financial inclusion in the three financial institutions namely, banks, microfinance, and saving and credit cooperatives (SACCOs) accounts. Further, this study examines the effect of demand-side determinants like gender, age, income, educational level, financial literacy, occupation, marital status, place of residence, and distance from financial institution branch, documentation required by a financial institution, trust, and religion on financial inclusion. This study is also limited In the gurage zone, there are 16 woredas and 6 town administrations and

they were considered as the target population of this study of which 4 woredas and 2 town administrations (384 sample respondents) were taken as samples for the study.

### **1.7. Limitation of the study**

The study was concerned with determinants of financial inclusion in Ethiopia; evidence from the gurage zone and therefore did not consider another area of Ethiopia. The study was limited in geographical location. Financial inclusion is generally determined by both the demand and supply side where as the current study can only focus on demand-side data and does not consider supply-side data that affect financial inclusion statuses such as outreach, penetration, technology, ATM, and many other variables. The current study relied on cross-sectional data that provided a picture of a certain period. Person behavior and perception change over time and in different environments, necessitating a long term inquiry to gain a deeper grasp of financial behavior skills.

### **1.8. Organization of the paper**

This paper has four chapters. It includes in chapter one background of the study, Statement of the problem, objective of the study, hypothesis Formulation, Scope of the study and Limitation of the study. Chapter two includes review of related literature with the study research, chapter III Methodology which includes Data presentation and analysis and Chapter IV Data analysis, finally chapter V presented summary, conclusion and recommendation.

## **Chapter two**

### **2. Review literature**

#### **2.1 Introduction**

This chapter highlights the theoretical foundations and empirical foundation of financial inclusion. The chapter also reviews the evidence from countries that have implemented financial inclusion strategies. Section one of the chapter discusses the various definitions and theories of financial inclusion, Section two of the chapter discusses the empirical literature of the study, Section three of the chapter discusses Literature gap and finally assess concepts of financial inclusion.

##### **2.1.1 Definitions of financial inclusion**

There is various definition of financial inclusion. According to the Bank of Indonesia (2014), it is all the efforts to improve the access of the people to the financial services by removing all the barriers, both price and non-price. Hannig and Jansen (2018), proposes that financial inclusion is the efforts to include un-bankable society to the formal financial system so that they have the access to services, such as savings, payment, and transfer. Besides, according to Sarma (2012), it is a process of assuring the easy access, availability, and benefits of the formal system to all actors of economy. Thus, it can be concluded that the inclusion is the effort to improve the access for the society, especially the un-bankable, by lessening the barriers. Financial inclusion is the easiness on the access to services or formal financial system by all stakeholders of economy.

Indian Government defines financial inclusion as a process to access financial services in appropriate time and credit availability needed by marginalized groups, such as those who have low income (Tamilarasu, 2014). It has general goal (economic goal), which is the growth, money mobilization, and expansion of financial service markets), and specific goal (social and politics), which is to eradicate poverty, sustainable development, expansive inclusion, and government program effectiveness (Shyni and Mavoothu, 2014). An all-inclusive definition of financial inclusive is given by Chakravarty and Pal (2013) described as a process of promoting or ensuring access to appropriate financial products and services needed by all sections of the society and the vulnerable groups such as the lower income groups. Chakravarty and Pal (2013)

viewed an inclusive financial sector as one that ensures access to credit for all bankable people and firms.

In this study, financial inclusion is viewed as all actions, policies and programs that seek to ensure easy and affordable access to financial services and products, especially with regard to the marginalized sections of society. This study argues that promoting the financial inclusion of exclusive groups will naturally and eventually lead to the financial inclusion of the majority in view of the linkages and integration between exclusive groups and the rest of society. This study, therefore, is based on the premise that exclusive groups' financial inclusion is a framework that developing countries may use to attack poverty and increase financial access across greater society (Centre for Financial Inclusion, 2013)

### **2.1.2. Theory of financial inclusion**

There are various theories or sets of guiding principles that are fundamental to Financial Inclusion practice, and that can assist in achieving an understanding of Financial Inclusion as a pro-development initiative in the economics and finance discipline.

There is need for a framework or a set of principles to help us understand what Financial Inclusion is, how it is achieved and who benefits from Financial Inclusion. The extant literature has many idealistic interpretations of how to achieve Financial Inclusion. The literature mostly focus on the link between Financial Inclusion , poverty levels and income inequality, as well as the effect of Financial Inclusion on the economy (Sarma & Pais, 2015; Cull, Demirguc-Kunt & Lyman, 2014; Demirguc-Kunt et al., 2013; Morgan & Pontines, 2014). Theories explain why different ideas exist regarding what the Financial Inclusion objectives should be, and how to raise the levels of Financial Inclusion. Theories also explain the current observations in Financial Inclusion practice and abnormal deviations that exist. This enables a clear and comprehensive system of principles for the development of Financial Inclusion. The set of theories discussed in this section provides a structure of ideas that clarify Financial Inclusion goals, practices and results

#### **2.1.2.1 Banking Theory**

The discussion of the three banking theories in this section may help to provide insight into the nature and benefits of Financial Inclusion.

### **2.1.2.1.1 The banking system**

The literature commonly refers to three separate and independent banking theories. The Credit Creation Theory, which postulates that banking institutions are capable of creating money ‘from naught’ when extending credit from accounting procedures. The Fractional Reserve Theory, which affirms that it is the sole function of the entire banking system to create money, whereas every bank becomes a sheer financial intermediary, receiving deposits and issuing loans. The Financial Intermediation Theory states that banking institutions are financial intermediaries, individually and severally, making them inseparable in terms of their role from other non-bank financial institutions, particularly regarding deposit and loan businesses (Werner, 2016). These theories vary in their loan accounting procedures and policy implications. The theories also have their critiques and advocates.

### **2.1.2.1.2 Financial Intermediation Theory**

The currently overriding Monetary Intermediation Model maintains that banking institutions are not in any way separate from non-bank corporations that attract deposits and issue loans. By lending long and borrowing short, banking institutions create liquidity (Dewatripont, Rochet & Tirole, 2010). Literature shows several studies in support of this theory (Sealey & Lindley, 1977; Kashyap, Rajan, & Stein, 2002; Diamond & Dybvig, 1983; Diamond 1984, 1991, 1997; Eatwell, Milgate, & Newman, 1989; Bencivenga & Smith, 1991; Bernanke & Gertler, 1990; Rajan 1998, Tobin, 1963, 1969; Myers & Rajan, 1998; Allen & Gale, 2004a, 2004b; Baltensperger, 1980; Gorton & Pennacchi, 1990; Allen & Santomero, 2001; Diamond & Rajan, 2001; Matthews & Thompson, 2005; Casu & Girardone, 2006; Dewatripont et al., 2010; Keynes, 1936; Gurley & Shaw, 1955; Gertler & Kiyotaki, 2011; Stein, 2014].

### **2.1.2.1.3 The Fractional Reserve Theory**

The Fractional Reserve Theory postulates that each bank plays a financial intermediary role. Conversely, this theory differs with the Financial Intermediation Theory in that it affirms that collectively, the banking system creates money by multiple deposit extension. In summary, the Fractional Reserve Theory has the following weakness: too much weight on debt, which leaves nations, exposed, governments with inadequate resources, and people beset with mortgages and overdrafts. The recent global financial crisis is attributed to monetary scarcity and insolvency (Hulsmann, 2013). There is a lack of a balanced view that includes savings mobilization that is

also vital for investments in the productive sector to be possible. There is no mention of adequacy of loanable funds and efficiency of the system. There is no mention of the determinants of loan availability from the demand or supply side.

#### **2.1.2.1.4 The Credit Creation Theory**

The Credit Creation Theory differs from the Financial Intermediary and Fractional Reserve Theories by arguing that banks are not financial intermediaries individually or aggregately. The theory postulates that each bank produces loans and money out of naught every time it affects a credit facility contract or purchases an asset. Banks need not to accumulate deposits first or reserves to extent credit. According to other theories, bank lending creates new loan and deposit funds, such that the upsurge in aggregate balances transpires without a matching drop somewhere else. However, the Credit Creation Theory affirms that the bank's statement of financial position and system of money supply are likely to reveal an upward trend when the remaining bank loan facilities expand. This contradicts the Monetary Intermediation Model, where the prevailing buying influence is reallocated, with the money supply not changing. In summary, the Credit Creation Theory has been criticized by economists, such as Edwin Cannon and Walter Leaf, who concluded that banks cannot loan out more than the deposits received (Somashekar, 2013:15; Muraleedharan, 2015). One critique is that the initiative in the credit creation does not lie with banks, as postulated in this model, but with the depositors (savings) as bankers are merely intermediaries between lenders and borrowers. As loans are issued, the customer's account is credited with the same figure but the customer can withdraw the loan amount at any time. If cash is withdrawn from the bank, the cash reserve is reduced, meaning that the banker cannot grant loans beyond the cash deposited by customers. The bank is able to give loans because customers do not withdraw all their funds at once, and the funds that remain are lent out. The Credit Creation Theory also fell short in the following aspects: a) No discussion of the determinants of deposits, which is the guarantee for loanable funds; and b) Some countries have high levels of financial exclusion, which makes the theory inapplicable. The three theories have been criticized based on independency, that is, in reality, the three are undistinguishable and their definitions are misleading. .

### **2.1.2.2 Theories of saving and consumption behavior**

The financial intermediary's role is to mobilize savings and create capital (loans) for the productive sector. In the formation of policies to enhance Financial Inclusion levels, it is important to consider the savings aspects that also include different investment vehicles. There are three main theories of saving and consumption behavior that have been developed:

- (1) The Relative Income Hypothesis (Dusenberry, 1949);
- (2) The Permanent Income Hypothesis (Friedman, 1957); and
- (3) The Life-Cycle Theory (LCT) (Ando & Modigliani, 1963; Modigliani & Ando, 1957; Modigliani & Brumberg, 1954).

#### **2.1.2.2.1 Life-Cycle Theory**

This theory was employed to analyze the savings and retirement activities of the ageing population. The LCT acknowledges the differences in consumption requirements and income at various stages in an individual's life. Younger people have a tendency to consume more than their income, with their needs mainly being accommodation and schooling, which emanate from little savings. In middle age, income commonly increases and people pay off debts incurred earlier, and as such, savings accumulate. In retirement, income declines as the individuals utilize their accumulated savings. Many studies have established proof of an arch-shaped curve of savings which resonates with the Life-Cycle Assumption (Setterfield, 2017; Cynamon & Fazzari, 2018; Asteriou & Hall, 2017).

#### **2.1.2.2 .2. The Permanent Income and Relative Income Hypothesis**

Is The Permanent Income and Life-Cycle Theory (LCT) are closely linked in that they use the same assumption that an individual attempts to maximize utility or welfare by matching a lifetime pattern of consumption with the period of constant earnings. However, it differs from Duesenberry's Relative Income Hypothesis that conjectured that an individual is less concerned with their absolute level of consumption than their relative level. Age plays a crucial role in influencing FI levels, as savings and consumption patterns differ in a lifetime in line with the LCT. To understand the forces driving FI, there is need to know the determinants and implications of national savings rates. As policy-makers strive for target rates both in

developed and developing economies, there is a huge variance between these two worlds (Gersovitz, 1988; Yannick, 2020).

### **2.1.2.3 Poverty reduction Theory**

The theories of Financial Inclusion and poverty are linked to different policies to improve comprehension. It is imperative to note the differences in the literature regarding the remedies, explanations, conceptions and measurements of the problem.

Any poverty reduction policy should include a clear description of the causes of poverty. However, explanations of poverty and impoverishment possess an implied recommendation and formulation that contain an implicit account of the occurrence. The following poverty theories are discussed in the below section: The Minority Group Theory, Orthodox Economic Theory, Classical Theory, and Functionalist Approach.

#### **2.1.2.3 .1. The Minority Group Theory**

The Minority Group Theory that emanated from the early studies represents an attempt to find the features of particular categories of impoverished individuals in those studies. In his study, Rowntree did not attempt to find the eventual determinants of lack, but instead outlined the instantaneous reasons for destitution. Rowntree also did not discuss how poverty could be reduced. The causes of poverty mentioned are as follows: size of family; death of head of family; unemployed wage earner; incapacity of head of family; sickness or old age; irregularity of work and low wages (Gordon, 2006:34; Rowntree, 1901:119). Rowntree acknowledged the vicious cycle of poverty that applied to children, old people and young partners with children. These, he identified as having the highest risk of plunging into poverty. The classification used by Rowntree epitomized an important advance, and influenced policies related to the provisional wellbeing for those with the least income, and for the vulnerable such as the sick, unemployed and aged. It was important to indicate the causes of poverty and identify the different categories. The advocates of the minority theory maintained that the notion of groups has an essential place in the development of theory, and the definition of the smaller segments was the chief purpose of the study (Grogger, 2009; Bane, 2009; Pantazis, Gordon & Levitas, 2006). One weakness of the Minority Group Theory is that it did not go further in identifying the possible remedies for high poverty levels. A gap exists in terms of the role of an all-encompassing financial structure to reduce or eliminate impoverishment. In addition, there is a

gap regarding the use of latest communication technologies or social platforms to enhance inclusive growth in a country.

### **2.1.2.3.2 Classical Theory**

In the last few decades, the occurrence of lack was introduced in theoretical economics. In the Classical Theory, the focus was on the total distribution of incomes, wages and rent (Grogger, 2009; Narayan et al., 2009). For example, Ricardo identified the following as the major challenges of economic science: the distribution of the global harvest classified as the proprietor of the land, the stockholder, funds important for farming, and the workers in the sector. A more thorough challenge to classical theory emerged in the 1930s and 1940s through the work of John Maynard Keynes. Keynes thought that free-market economies tended toward under-consumption and under-spending. He called this the crucial economic problem and used it to criticize high-interest rates and individual preferences for saving.

### **2.1.2.4.3 Orthodox Economic Theory**

Orthodox economists believed that a balanced budget was the key to economic growth. The Orthodox Economic Theory has been criticized for not paying attention to and explaining the sharing of private earnings and the association of individual earnings and total portions of wages, rentals and profits (Gordon, 2006; Grogger, 2009). Lately, the focus has been on the disparity of earnings' distribution. Economists and scholars preferred to focus on the factors influencing individual earnings in family incomes in the explanation of disparity. Earlier studies concentrated on identifying the form of distribution or shape of the curve, and the three conceptions developed include the normal, the lognormal and Pareto (Rose, 1972:13; Webb, 1926:177). Pareto argued that the disparity in the income distribution in different countries and historical phases was remarkably similar. There are noteworthy differences in theorists' perspectives regarding the application of the Orthodox Economic Theory to poverty and income distribution. The theorists assumed perfect competition and market equilibrium to be those that emanate from the market practices of progressive capitalist economies to demonstrate a robust association between marginal productivity and wages. As postulated by Thurow (1969, 1981), a person's earnings are insufficient when the yield is not enough. In other words, if productivity goes up, so does income. The weakness of this school of thought is that the ingredients of productivity were limited to education, skill and experience.

There was no mention of entrepreneurship, nor the sources of finance or an inclusive financial system, which are vital ingredients to income levels. Posner (1973) criticized this theory as having no basis in economics for the argument of economic justice that was put forward. However, the Orthodox Economic Theory was built on the typical hypothesis of supply and demand by allowing an explanation of the productivity features of the labor provided. The determination of major economic philosophers can gain from a broader view approach. Working on the supposition that problems related to the explanation of inequalities in income and asset distribution, which is in monetary terms, is the preserve of economic theory, sociologists concentrated on disparities in wages or occupational status and focused less on power. Income and occupational status also contribute to financial or social inclusion or exclusion (Trivelli, 2013; Pantazis et al., 2006; Schorr, 1964). However, there are still gaps in the literature, as theoretical and empirical work has diverted from complementing the first work on the concept of economic class by Marx and continued with excessively common and vague studies. There are many studies on economic classes but little is discussed on the emancipation of poverty or promoting the poor, and the use of communication technologies for the amelioration of information asymmetry in advancing financial and social inclusion. For example, the background philosophies of Marx and Weber are of ongoing significance, albeit limited to explaining the degrees of inequality in a society.

#### **2.1.2.3.4 The Functionalist Approach**

In explaining issues to do with poverty and inequality, some sociologists have used the 'Functionalist' Approach which agrees in philosophy and universal expectations with the Conventional Economic theoreticians. The approach also reveals the assumptions put forward in political deliberations by elites about worth and deserts. The approach is grounded on variances conjectured in the practical significance of diverse professions. The scholars, Talcott Parsons, Kingsley Davis and W.E. Moore advanced the philosophy from 1940 to 1945, where after Levy and Barber further developed the philosophy. The theory begins by indicating the existence of different social positions or statuses in all societies. The positions and status differ in difficulty and pleasantness, as well as their functional importance for society. For all positions to be filled, certain rewards need to be linked with them, and inequality ensures that all positions are filled (Davis & Moore, 1945). The central idea of this theory is motivation. More substantial rewards and greater status are important to encourage people to try to occupy

certain positions. The use of the Functionalist perspective to penury permits one to learn some common lessons. Gans (1972) listed some purposes of poverty following Merton's recommendation that things in society can be dysfunctional for some (see Gans, 1972:3). Gans notes that society does not appreciate the resultant opportunities brought by impoverishment. In contrast to the Functionalist Approach, contemporary economists argue that poverty should be eliminated to ensure equitable and sustainable distribution of resources in society (UNDP, 2014; IMF, 2015; World Bank, 2017c). Financial Inclusion and sector enhancement have a huge effect on an individual's welfare and the economic activity of a country (World Bank, 2014, 2015). However, the theories do not go further to investigate the determinants of their status, for example, that can help in explanations of their social status and financial inclusion or exclusion. Inequality is reduced by ensuring the inclusion of all segments of the society, particularly the poor or low-income earners. Marx is criticized for his non-observance of the rise of diverse social classes or the decrease of the dominant fundamentals of the waged people, and the stressing of discordant production instead of consumption (Lydall, 1968). In addition, Marx does not discuss the following: (1) How poor individuals can raise their income and their status in the society; (2) How inclusive growth or financial systems can enhance individuals' welfare; and (3) How to reduce the difference between the different classes (inequality).

#### **2.1.2.4 Beneficiary Theories of financial inclusion**

Conflicting ideas or perspectives exist on who benefits from financial inclusion outcomes. Some studies argue that poor people are the ultimate beneficiaries of financial inclusion (Bhandari, 2018), others think that women are the beneficiaries of financial inclusion outcomes (Ghosh and Vinod, 2017; Demirguc-Kunt et al, 2013b; Swamy, 2014) while some think that the economy and the financial system are beneficiaries of financial inclusion (Mehrotra and Yetman, 2015; Kim et al, 2018; Swamy, 2014; Ozili, 2018). Apart from women and poor people, there are other potential beneficiaries of financial inclusion that have been ignored to a large extent in the literature such as young people, elderly people, institutionalized and ill people, disabled people, and individuals who have been previously expelled from the financial sector for various reasons such as committing criminal offenses. Below are four theories that explain who benefits from financial inclusion.

### **2.1.2.5.1 Public good theory of financial inclusion**

The public good theory of financial inclusion argues that the (i) delivery of formal financial services to the entire population and (ii) ensuring that there is unrestricted access to finance for everyone, should be treated as a public good for the benefit of all members of the population. As a public good, individuals cannot be excluded from using formal financial services and individuals cannot be excluded from gaining access to financial services. All individuals will enjoy basic financial services without paying for it.

### **2.1.2.4.2. Dissatisfaction theory of financial inclusion**

The dissatisfaction theory of financial inclusion argues that financial inclusion activities and programs in a country should first be targeted to all individuals who were previously on-boarded into the formal financial sector but left the formal financial sector because they were dissatisfied with the rules of engagement in the formal financial sector, or had other unfavorable personal experiences from dealing with firms and agents in the formal financial sector. This theory suggests that it is easier to bring back people who left the formal financial sector because they were dissatisfied if the areas of dissatisfaction in the formal financial sectors have been completely resolved. It is easier to bring back this group of individuals into the formal financial sector through persuasion than to bring in those who have never been in the formal financial sector. The implication of this theory is that the members of the population that left the formal financial sector should be the first target of financial inclusion before extending financial inclusion policies and programs to other members of the population who have never been on-boarded into the formal financial sector. Previously on-boarded individuals may become dissatisfied for several reasons such as when they are victims of financial fraud, debit/credit card fraud, financial theft, long waiting hours before depositors are able to withdraw funds, taking too long before payments are cleared, high transaction costs, excessive bank charges, etc.

### **2.1.2.4.3 Vulnerable group theory of financial inclusion**

The vulnerable group theory of financial inclusion argues that financial inclusion activities or programs in a country should be targeted to the vulnerable members of society such as poor people, young people, women, and elderly people who suffer the most from economic hardship and crises.

#### **2.1.2.4.4 Systems theory of financial inclusion**

The systems theory of financial inclusion states that financial inclusion outcomes are achieved through the existing sub-systems (whether economic, social or financial systems) which financial inclusion rely on, and as a result, greater financial inclusion will have positive benefits for the systems it relies on. A significant change in a sub-system (one part of the system) can significantly affect the expected financial inclusion outcomes, for instance, imposing regulations on economic agents and suppliers of financial services who are a part of the economic and financial system – can align their interests with that of the users of basic financial services which can compel economic agents and suppliers of financial services to offer affordable and quality financial services to users within defined rules that protect users of financial services from exploitation and price discrimination.

#### **2.1.2.5. Community echelon theory of financial inclusion**

Community echelon theory states that financial inclusion should be delivered to the financially-excluded population through their communal leaders. The community echelon theory argues that community leaders are influential in their communities and can use their influence to encourage or persuade community members to participate in the formal financial sector. Community plays an important role in shaping the values of its leaders and members. Community members trust their leaders and believe their leaders would make decisions that are beneficial to them while community leaders ensure that the decisions they make reflect the values and ethos held by members of the community.

##### **2.1.2.5.1. Public Service theory of financial inclusion**

Public service theory of financial inclusion states that financial inclusion is a public responsibility which the governments owe its citizens, and the citizens expect the government to promote financial inclusion for its citizens. This theory argues that financial inclusion should be delivered to all citizens including the financially-excluded population by the government through public institutions. Under this theory, only the government is instrumental in achieving financial inclusion that brings all members of the population into the formal financial sector so that each member of the population can have access to formal financial products and services.

### **2.1.2.5.2 Special agent theory of financial inclusion**

The special agent theory of financial inclusion argues that the delivery of financial inclusion to the excluded population can be hampered by complex issues and technicalities relating to the nature of the community, its people or the geography; therefore, there is need for specialized agents to deliver financial inclusion to members of the excluded communities. Under this theory, the special agent is expected to be: (i) a highly skilled and specialized agent, (ii) understand the peculiarities of the excluded population, (iii) understand the existing informal financial system in the communities where the excluded members of the population reside, (iv) identify areas for improvement through innovation, and (v) devise a means of integrating the local financial system into the formal financial sector.

### **2.1.2.5.3 Collaborative intervention theory of financial inclusion**

Collaborative intervention theory states that financial inclusion should be achieved through collaborative intervention from multiple stakeholders. The theory suggests that joint effort from multiple stakeholders is needed to bring the excluded population into the formal financial services. This theory has some merits. One, it encourages a multi-stakeholder approach to achieve financial inclusion. Secondly, the collaborating stakeholders have a sense of satisfaction for being a significant contributor to a public project. The collaborative intervention theory has some demerits. One, it is difficult to determine the optimal number of collaborators needed to achieve the financial inclusion objective. Secondly, some collaborators may become inactive leaving the task for few active collaborators to do. Thirdly, having higher number of collaborators does not guarantee higher probability of achieving financial inclusion.

### **2.1.2.5.4 Financial literacy theory of financial inclusion**

Financial literacy theory of financial inclusion states that financial inclusion should be achieved through education that increases the financial literacy of citizens. This theory argues that financial literacy will increase people's willingness to participate in the formal financial sector. The financial literacy theory has some merits. One, financial literacy can make people aware of financial products and services that are available to them. When they become aware of existing financial products and services that can improve their welfare, they will be willing to participate in the formal financial sector by owning a bank account. Secondly, through increased financial literacy, people can take advantage of other benefits in the formal financial

sector such as investment and mortgage products. Thirdly, financial literacy can also help people become self-sufficient and can help them have some stability in their personal finance by helping them distinguish between needs and wants, helping them to create and manage a budget, teaching them to save so that they can pay bills when due, and to plan for retirement. Finally, governments that have limited public funds or limited tax revenue to fund financial inclusion activities may prefer to use financial literacy as a national financial inclusion strategy since it does not require much public funds to educate the population on the use of financial services. The demerits of the financial literacy theory include the following. One, it addresses the ‘willingness’ not ‘capacity’ to participate in the formal financial sector. Financial literacy through education can improve the willingness of people to participate in the formal financial sector but it does not necessarily improve ‘capacity’ to participate in the formal financial sector where capacity is measured as having money which can be used to perform one or more transactions. This means that people who do not have money (that is, ‘capacity’) cannot actively participate in the financial sector even if they become financially-literate.

#### **2.1.2.6 Theories of financial inclusion funding**

The question: who should fund financial inclusion expenditure for the people – is an important question. Some think public money (tax-payers) should fund financial inclusion programs and activities (Marshall, 2004). Others feel that the capitalists in the private-sector should fund financial inclusion because they contributed to widen the income inequality gap between the poor and the rich (Mohiuddin, 2015). There are also ideas suggesting that financial inclusion should be jointly funded by the public and private sectors (Dashi et al, 2013; Cobb et al, 2016). Below are some theories of financial inclusion funding.

##### **2.1.2.6 .1 Private money theory of financial inclusion**

Private money theory of financial inclusion states that financial inclusion activities should be funded using private money because private funders will require accountability from the users of their funds, and will ensure that private funds are utilized efficiently and ensure that financial products and services are delivered to the intended financially excluded members of the population.

### **2.1.2.6 .2 Public money theory of financial inclusion**

Public money theory of financial inclusion states that financial inclusion programs and activities should be funded using public money. This theory argues that financial inclusion programs and activities should be funded from government budgets. There is evidence that public funding for financial inclusion is growing faster than private funding (see Dashie et al, 2013). Some merits of the public money theory include the following. One, the government can tax the rich to generate funds for financial inclusion projects for the benefit of all, and this would lead to the redistribution of wealth and reduce income inequality for the benefit of the poor and excluded population. Secondly, the cost of raising public funds to fund financial inclusion projects is low or negligible. Thirdly, funding financial inclusion objectives using public money can prevent unscrupulous individuals from hijacking the financial inclusion agenda for their own selfish benefit.

### **2.1.2.6 .3. Intervention fund theory of financial inclusion**

The intervention fund theory of financial inclusion argues that financial inclusion activities and programs can be funded by special interventions from diverse related and unrelated funders rather than using taxpayers' money. It argues that many 'special funders' exist in the world such as philanthropists, non- governmental organizations and foreign governments, and these special funders tend to support inclusive finance for the global population. In some economies, cross-border funding has the largest share of financial inclusion funding and much of these funding have been allocated to microfinance institutions (El-Zoghbi et al, 2013). Special funders can voluntarily and selectively choose the financial inclusion projects they wish to fund to completion and will provide the 'intervention fund' required to achieve the desired financial inclusion objectives. The goal of intervention funding for financial inclusion is to ensure that poor people and the financially-excluded population have access to formal financial services.

### **2.1.2.7 Complications in Selecting the Most Appropriate Theory**

There is no agreement in literature regarding the best FI theory that is appropriate for the heterogeneous nature of economies. This is in line with the findings of Kodan- Kablana and Chhikara (2013) who noted that the need for financial products differs from nation to nation

and from person to person. A proper FI theory includes the following aspects: (1) The financial products' availability aspects; (2) Affordability; (3) Convenience; (4) Adequacy; (5) Appropriateness; (6) Accessibility; and (7) Impact. Furthermore, Mader (2017) noted that it is difficult for a single theory to explain all aspects of FI, as new ideologies, theories and expectations are constantly emerging. Tuesta, Sorensen, Haring and Cámara (2015), and Olaniyi and Adeoye (2016) summed it up by claiming that there is no agreement yet in literature regarding the theoretical framework on factors influencing financial inclusion. In other words, there is no established set of variables mentioned or referred to as the true determinants of financial inclusion levels. The demand and supply factors of financial inclusion require different approaches to the insightful investigation of financial inclusion (Osei-Assibey, 2013). The changes, dynamics and wide aspects of financial inclusion make it difficult to refer to a single theory.

## **2.2. Empirical Literature**

This section gives a discussion of the studies that have been done locally and globally in relation to determinants of financial inclusion. These studies have been explored by various scholars, using different approaches such as research design, nature of the population, sampling techniques, nature of data and type of analysis. The basis of these studies is to guide the researcher on the appropriate approach to adopt for this study and establish important gaps.

Due to financial inclusion gaining in importance in several countries across the world, studies have been evaluating its determinants, measurements and effects. There is a need to investigate the factors influencing financial inclusion in an area, be it at district, regional or country level. The reason for this step is that the formulation and implementation of a policy requires the availability of adequate information to allow for an informed decision.

### **2.2.1. Global context**

Financial inclusion or the access to an official financial system is influenced by different factors. Demand-side factors are those that play a role in influencing consumers to use financial services, or that affect their ability to make effective, informed financial decisions (Paramasivan & Ganeshkumar, 2013). Supply-side factors are related to the method and function of the monetary system and its design, which results in consumers being financially excluded or included (Kumar, 2013). The supply factors can further be broken into structural

and policy-related factors (Evans & Adeoye, 2016). Structural factors influence the financial services' costs and strategy which is linked to features permitting conditions for financial inclusion.

There is no consensus on the determinants of financial inclusion in literature. The literature has affirmed that unintentional monetary marginalization and intentional monetary marginalization can be found (De Koker & Jentzsch, 2013; World Bank, 2011).

A study by Ghatak (2013) that aimed to ascertain the demand-side factors of financial inclusion in India, using factor analysis, found that several factors influenced financial inclusion. The factors include Culture, Properties, Accessibility and Income. Using correlation analysis in the study, Accessibility had the highest correlation to demand for financial inclusion, followed by Literacy, Income, Culture, and lastly, Properties. However, after running a multiple regression analysis, the Properties factor was the least important of the five in driving financial inclusion. Ghatak further asserted that there is empirical substantiation indicating that robust growth rate is positively correlated with financial inclusion. He stated that the economic buoyancy experienced by India was financed predominately by domestic savings. In this study, Ghatak (2013) suggested that as the development of India relies on financial inclusion, the more people are aware and availed of financial services, the greater the potential for capital formation. However, the weaknesses of this study includes that the sample of 500 used in the study is insufficient to draw an inference in a populous nation such as India. The study also was done in a small part of the country leaving out other areas that could have produced different results.

Several studies have shown education has an effect on levels of financial inclusion (Allen, Demirquc- Kunt, Klapper & Peria, 2012; Ghatak, 2013; Clamara, Pena & Tuesta, 2014; Zins & Weiss, 2016). In a study to find factors influencing financial inclusion, Park and Mercado (2015:14), found an educational level at primary school level and lower reading/writing level had no influence on financial inclusion levels in developing Asia.

In the same study, per capita income was found to have an influence on financial inclusion. The study advocates the idea of raising income to reduce impoverishment rates. Better financial accessibility is related with lower income disparity, though the approximations are substantial only for some stipulations. On the contrary, in a cross-country study for 160 countries, Honohan (2018) found a correlation between poverty and financial access but not clearly causal.

In a study to ascertain the factors influencing access to bank loans in Bolivia, the scholars, Altunbas, Thornton and Kara (2015) found that the following factors influenced credit provision: gender, citizenship status, income, formal employment, age of family head, size of family, and level of education. Using the same data, focusing on borrowing households, Altunbas et al. (2015) estimated the probability of getting credit from a formal financial organization. The study used the Probit Model to examine borrower characteristics that led to credit exclusion from formal financial firms. The findings showed that females and indigenous borrowers are likely to be excluded from the formal loan supplying institutions and pushed to informal credit mechanisms. The results also showed that the higher the level of education, the more the probability of accessing bank credit. In addition, the study showed that those employed in the public sector have high a probability of gaining access to the formal credit market. However, location (urban or rural) did not appear to affect the likelihood of accessing the formal credit market. The finding that location had no effect seems to be inconsistent with the factors affecting financial inclusion in Africa, as the institutions consider collateral and costs of monitoring, among others. The demerit of this study is the narrow focus on one product, which is credit.

### **2.2.2. African context**

According to King (2014), the unbanked population showed the following characteristics in Nigeria: lack of documentation, lower incomes, lower financial literacy levels, lower education, not possessing a mobile phone, and are more likely to be female. The aim of King's research was to investigate the extent and determinants of demand and supply barriers influencing financial inclusion in Nigeria. On the supply side, the number of ATMs (automated teller machines), GDP per capita, and access to branches, societal trust and levels of informality had an influence on financial inclusion. For example, in the rural areas, individuals found that the distance from a branch was a hindrance to financial access. However, the literature shows that the effect of costs associated with distance can be reduced by applying technology, mobile banking and mobile money agents (Ouma, Odongo & Were, 2017; Lal & Sachidev, 2015; Donovan, 2016).

In a study to find whether the distances between bank customers and bank institutions have increased in a decade, Brevoort and Wolken (2018) found that distance plays a role in the accessibility, provision and delivery of banking services. Costs of transaction are directly

related to the number of transactions and the distance between the customer and service providers. ATMs and online banking reduce the costs of service provision and transaction costs for suppliers and customers, respectively. Brevoort and Wolken argue that although ATMs serve as alternatives for bank tellers, the same is not essentially true for bank branches. For example, for loan transactions, in person interactions are unavoidable and costs for loan monitoring in case of commercial loans are imminent. The use of credit bureaus for hard information on individuals' credit history and automated credit scoring systems for pre-screening, loan originations and loan monitoring decrease the information costs incurred by lenders. The study also found a common tendency towards less personal contact between the bank and the customer.

Brevoort and Wolken conclude that distance is still of importance to a subgroup of customers and suppliers. This study has two major weaknesses, which are: (1) The data set used in the study focuses on small businesses and service providers, and (2) The study focused on one developed country with an advanced financial structure. Therefore, the findings cannot be generalized for all countries, particularly those in Africa other studies pointed out that transportation costs between the financial institution and the borrower and alternative financial institutions affect the costs of services and products (Degryse & Ongena, 2015; Degryse, Laeven & Ongena, 2016).

Martinez et al. (2013:14) argue that although the factor of distance is vital at a global level, in Mexico, that barrier is being overcome due to technological developments. What then is the role of distance in the consumer's choice of an institution, services or products? The weakness of the existing literature on distance is that the majority of the studies used data on small businesses and not individuals. The variables that affect businesses do not necessarily influence individuals in the same way. The significance of the contribution of distance to financial inclusion may differ among individuals, financial institutions and countries.

Study by Njau (2021) in Tanzania that used a probit model and was titled Empirical Investigation into Demand-Side Determinants of Financial Inclusion in Tanzania found that income, gender, age, place of residence, formal employment, income, and education were

Using the Global Finding database, Zins and Weiss (2016) investigated the causes of financial inclusion in 37 African countries. Using probit estimations, they found that education, gender, income and age influenced financial inclusion. The strength of the study is that it cuts across 37

countries making it easier for cross-country comparison; however, the limitation of the methodology is the absence of country-level analysis. The analysis of the factors was not exhaustive, as it did not include variables such as financial advice. Only three dimensions were used in the study, limiting the scope of financial inclusion. The analysis was on a continental scale, and not country-specific, considering that countries have different development levels and cultures (Adewale & Afolabi, 2013:7; Demirguc-Kunt & Detragiache, 2015:26).

Allen et al. (2014) examined the individual traits and country features related to the utilization of formal accounts. The study investigated factors influencing financial inclusion across individuals and countries. The study found that the richer, the more educated and the older had a greater possibility of operating an account with an official financial firm. In addition, married, employed and separated individuals were more likely to be financially excluded. The potency of the exploration was that it covered 124 000 individuals from 123 countries. One of the weaknesses of the study is the lack of country analysis, as there are differences in culture and economic policies between countries.

Bending et al. (2019:26) found that income levels in rural Ghana influence credit demand, insurance purchase and savings behavior. The research also established that higher education level, more assets and formal job status boost formal financial product use. The findings confirm the notion that the poorer the household, the more likely it is to be financially excluded. The study also stated that a female-headed family was more likely to be excluded than a male-headed family.

The scholars, Soumare, Tchana and Kengne (2016) studied the factors of financial inclusion in West and Central African nations using data from Global Findex. Their study established that financial inclusion in the region was driven by gender, marital status, income, employment status, education, residence area, family size, age, and level of confidence in financial organizations. The West and Central African region differ from other parts of Africa in that being male and/or married were positively correlated to financial inclusion. Earnings were weighty in West African nations and the entire continent. It was also reported that household size is negatively correlated to account use in West Africa but not significant in Central African nations. Financial inclusion indicators such as saving, usage and borrowing were significant for Africa, although in Central Africa or West Africa they differed on the levels of significance. The findings were in line with other studies on the factors influencing financial inclusion that

used the Global Finding database (see Klapper & Singer, 2013; Allen et al., 2013; Demirguc-Kunt et al., 2013; Anson et al., 2013; Allen et al., 2014; Demirguc-Kunt & Klapper, 2014). One demerit of the study is that of using a single proxy for financial inclusion, limiting the scope of financial inclusion, instead of using different proxies.

In a study to analyze the socioeconomic, terrestrial, and population features of individuals in Kenya, Johnson and Arnold (2014) found the following factors strongly linked to bank access: age, employment, gender, education and location (urban/rural). The results concur with the results of other studies done around the globe (see Martinez et al., 2013; Clamara et al., 2014; Tuesta et al., 2015). Johnson and Arnold (2014:2) argue that technology users in lower transaction costs, as it is one of the major barriers to financial access. The study also reported the impact of M-PESA, a mobile phone-linked transaction service. Although the study covered a number of dimensional aspects of financial inclusion in Kenya, Johnson and Arnold (2014) did not include the investigation of factors such as financial advice and internet access. Financial literacy levels undoubtedly have a great influence on financial inclusion levels, and the factors affecting the former have an influence on the latter. Financial education is a vital skill for people entrenched in intricate financial environments. The majority of people in the African region suffer from financial illiteracy, and improvements to that aspect on the continent will go a long way towards rectifying the problem (Atkinson & Messy, 2014, 2013; World Bank, 2014).

In a study to investigate the influence of belonging to the Islamic religion on the use of formal saving, loan and accounts, Demirguc-Kunt et al. (2013) found that Muslims were less probable to utilize formal financial services than those from other religions. The study used a sample of 65 000 people from 64 nations. Religion may influence financial inclusion (Zins & Weill, 2016; Demirguc-Kunt et al., 2013). For example, in a study done in Norway, Brekke (2018) reported that there are real possibilities that religious norms against conventional banking influence financial inclusion. However, the research did not focus on the actual use of conventional banks. The study by Brekke has several weaknesses that include too small a sample of 707 respondents in a country of more than 5 million, and the study was qualitative and the results do not allow for a meaningful analysis. Furthermore, research done in Europe is likely to produce different results than would be obtained from an African country.

A study by Naceur Barajas and Massara (2015:25) that aimed to find out if Islamic banking can increase financial inclusion, found that in Muslim countries, there are significantly more religious reasons for financial exclusion than found in other countries. However, the usage of services did not increase as quickly, although geographic financial accessibility had increased swiftly within the Organization of Islamic Cooperation (OIC) nations. Furthermore, regression analysis affirmed a positive correlation to credit for borrowers in financing investment, but the empirical association was tentative and quite weak. Therefore, there is still need to investigate the influence of religion in African selected countries.

In a study to find whether the distances between bank customers and bank institutions have increased in a decade, Brevoort and Wolken (2018) found that distance plays a role in the accessibility, provision and delivery of banking services. Costs of transaction are directly related to the number of transactions and the distance between the customer and service providers. ATMs and online banking reduce the costs of service provision and transaction costs for suppliers and customers, respectively. Brevoort and Wolken argue that although ATMs serve as alternatives for bank tellers, the same is not essentially true for bank branches. For example, for loan transactions, in person interactions are unavoidable and costs for loan monitoring in case of commercial loans are imminent. The use of credit bureaus for hard information on individuals' credit history and automated credit scoring systems for pre-screening, loan originations and loan monitoring decrease the information costs incurred by lenders. The study also found a common tendency towards less personal contact between the bank and the customer. Brevoort and Wolken conclude that distance is still of importance to a subgroup of customers and suppliers. This study has two major weaknesses, which are: (1) The data set used in the study focuses on small businesses and service providers, and (2) The study focused on one developed country with an advanced financial structure. Therefore, the findings cannot be generalized for all countries, particularly those in Africa other studies pointed out that transportation costs between the financial institution and the borrower and alternative financial institutions affect the costs of services and products (Degryse & Ongena, 2015; Degryse, Laeven & Ongena, 2016). Martinez et al. (2013:14) argue that although the factor of distance is vital at a global level, in Mexico, that barrier is being overcome due to technological developments. What then is the role of distance in the consumer's choice of an institution, services or products? The weakness of the existing literature on distance is that the majority of the studies used data on small businesses and not individuals. The variables that affect

businesses do not necessarily influence individuals in the same way. The significance of the contribution of distance to financial inclusion may differ among individuals, financial institutions and countries.

Uddin et al. (2017) investigated the determinants of financial inclusion in Bangladesh during the period 2005–2014. The study employed the generalized method of moments and the quintile regression approach. The study distinguished between the supply side and demand side determinants of financial inclusion. The study established size of a bank, efficiency, and the interest rates as supply side determinants, while literacy rate and age dependency ratio were demand factors. Siddik et al. (2016) studied the determinants of financial inclusion in Bangladesh using multi-dimensional index. The study established that rural population, household size, and literacy rate were significant variables among the socio-geographic variables. The deposit penetration in the banking sector was found to be the significant determinants of financial inclusion. Nandru et al. (2015) examined the factors that increase financial inclusion in Pondicherry region. The study employed factor analysis and multiple regression methods to understand the relationship between usage and frequency of banking services and other independent variables. The study established that easiness in accessing bank products and purpose of opening bank account have significant influence on usage frequency of banking services.

Tuesta et al. (2015) studied the factors affecting financial inclusion in Argentina. The study adopted three dimensions of financial inclusion: Supply side factors, individual factors and factors affecting perception. The factors those are significant in affecting financial inclusion from an individual perspective were a person's level of education, income and age. Income and age were the factors affecting the perception of different barriers of involuntary exclusion. Musa et al. (2015) investigated the drivers of financial inclusion and its gender gap in Nigeria using The Global Findex 2011 dataset. The study used the Binary Probit Model and Fairlie decomposition methodology. The study established that financial inclusion in Nigeria was driven by youthful age, better education and high income. The study also found that old age, female and low income reduce the likelihoods for households to be financially included. The decomposition results confirm the existence of gender gap in financial inclusion in favor of male households. Commercial banks have also been found to have a role in improving the financial access (MP& Pavithran, 2014) through being involved in financial literacy, credit counseling, branch expansion and mobile banking among other measures. Therefore, the more

branches of commercial banks we have in an economy the higher the level of financial inclusion. Financial institutions should have access points closer to the customers. Financial institutions normally open branches so as to bring financial services closer to the people. When there are many branches closer to the people, then the financial services can easily be accessed. This will increase financial inclusion to the people near the financial institution branches. Branch density is a determinant of financial inclusion (Kumar, 2016).

Jackson Oyaró Ong'eta(2019) intended to establish the determinants of financial inclusion by reviewing the empirical literature. The study reviewed eighteen empirical studies on the factors that determine financial inclusion. The paper found that there are a number of factors that determine financial inclusion. The factors that determine financial inclusion is both demand related factors and others are supply related factors. The demand related factors include; income of individuals or households, education, collateral, being in employment guarantee scheme, income inequality, age, financial literacy, savings and gender. The supply related factors that determine financial inclusion includes high interest rates (affordable credit), innovation (agent banking and mobile banking), ICT, bank branches, urbanization, sensitization of financial products, advice on money management and debt counseling. The other factors include; urbanization and enabling environment. Other study by Zuzana et al. (2014), based on his finding the determinant factor of financial inclusion are: Income, education, age, and gender. The determinant factor of the main indicator of financial inclusion is formal account, formal saving, and formal credit. From the findings, Bank account is related to an individual income; education is positively related to the ownership of formal bank account; age and Age<sup>2</sup> has significant positive and negative relation. There is non- linear relation between age and financial inclusion. Individual characteristic can explain the use of formal financial services. According to Noelia and Tuesta (2014) there is significant relation between the characteristic social economy and the use of financial inclusion both for family and small enterprise. There is a significant elation between the characteristic of economy social and the use of financial inclusion, both by family and by small enterprise. Traditionally, marginal groups (women, villagers, and youth) have bigger obstacles in accessing the system of formal finance. The products of banking include loans and mortgages are the best drivers for the inclusion, compared to saving products. For the company, formality and education are not significant factor in financial inclusion. For the individuals, age, gender, education, and income are the key factors in impeding the access to financial inclusion. Individual characteristics, as well as social

and personal aspects can influence the performance of financial inclusion. Social and personal factors contribute to the financial exclusion and become the key factors in financial inclusion (Cnaan et al., 2012). Zibei and Jin (2017) found that formal credit use is very low. Individuals oftentimes use informal credit. Formal credit is more accessible to socially and economically more advantaged individuals. The poor and the disadvantaged have limited access and use formal credits. The main impediments are an insufficient supply of bank credit in financial markets and households' low financial literacy; particularly low levels of knowledge about formal borrowing.

A study (Sahoo, 2017) found that household income, education, possession of private land and being in employment guarantee scheme are significant determinants of financial inclusion. The individuals with household income will have tendency to have bank accounts and hence use them to access financial services. Education was also found to enable individuals to access financial services through being able to open and operate bank accounts. The possession of private land enabled individuals to access bank loans since they can use the land as a security. Chithra and Selvam (2013) undertook a study on inter-state variations in the access to finance, using a composite financial Inclusion Index. The study identified that financial inclusion was determined by socio-economic factors, income, literacy, population, depositn and credit penetration.

Soumaré et al. (2016) studied the factors determining financial inclusion in Central and West Africa. The study employed the Global Financial Inclusion database (Global Findex). The authors found that financial inclusions was driven by gender, education, age, income, residence area, employment status, marital status, household size and degree of trust in financial institutions. The results imply that financial inclusion is mostly affected by the individual attributes in the Central and West African countries. The study identified that there were some differences between Central Africa and West Africa. Gender was a positive significant determinant of financial inclusion in Central Africa while income was significant in West Africa. Olaniyi and Adeoye (2016) also studied the factors affecting financial inclusion in Africa during the period 2005–2014. The study employed the dynamic panel data approach to establish the determinants of financial inclusion. The study found that financial inclusion was driven by per capita income, broad money as a percentage of GDP, literacy rate, internet access and presence of Islamic banking activities.

Zins and Weill (2016) investigated the determinants of financial inclusion in Africa using the World Bank's Global Findex data base on 37 African countries. The study employed the probit estimation method and found that financial inclusion was determined by gender, age and educational levels with a higher influence of education and income.

Soumaré et al. (2016) studied the factors determining financial inclusion in Central and West Africa. The study employed the Global Financial Inclusion database (Global Findex). The authors found that financial inclusion was driven by gender, education, age, income, residence area, employment status, marital status, household size and degree of trust in financial institutions. The results imply that financial inclusion is mostly affected by the individual attributes in the Central and West African countries. The study identified that there were some differences between Central Africa and West Africa. Gender was a positive significant determinant of financial inclusion in Central Africa while income was significant in West Africa. Zins and Weill (2016) studied the determinants of financial inclusion in Africa using the World Bank 2014 Findex database. The finding revealed that gender, age, income, and education are strongly associated with financial inclusion. While being female is negatively and significantly associated with access to formal financial accounts, formal savings, and credit use, being educated and wealthier increases the probability of being financially included. Age has a non-linear effect on financial inclusion. Financial inclusion is higher among adults and it is lower among the old age groups. Looking at the marginal effect of their probit estimation, the main factors that affect financial inclusion are education and income.

Musa et al. (2015) investigated the drivers of financial inclusion and its gender gap in Nigeria using The Global Findex 2011 dataset. The study used the Binary Probit Model and Fairlie decomposition methodology. The study established that financial inclusion in Nigeria was driven by youthful age, better education and high income. The study also found that old age, female and low income reduce the likelihoods for households to be financially included. The decomposition results confirm the existence of gender gap in financial inclusion in favor of male households.

Asuming et al. (2019) conducted a comparative analysis of financial inclusion in 31 sub-Saharan African countries. Their finding contended that age, education, gender, wealth and presence of financial institutions and GDP growth rate predict financial inclusion in Africa. Their finding posited that females are 4% less likely to have accounts and 2% less likely to

have accounts with financial institutions compared to their counterparts. The existing gender gap in financial account ownership is because females are excluded from the formal job market. Consistent with other researchers, their study result also identified that younger groups of individuals are less likely to own and use financial accounts because it is harder to find jobs for these groups in SSA.

Olaniyi and Adeoye (2016) also studied the factors affecting financial inclusion in Africa during the period 2005–2014. The study employed the dynamic panel data approach to establish the determinants of financial inclusion. The study found that financial inclusion was driven by per capita income, broad money as a percentage of GDP, literacy rate, internet access and presence of Islamic banking activities.

Mamudu (2013) conducted a study on the determinants of financial inclusion in Western Africa: insights from Ghana. The results show that only two in five adults are included in the formal financial sector of Ghana. Age of individuals, literacy levels, wealth class, distance to financial institutions, lack of documentation, lack of trust for formal financial institutions, money poverty and social networks as reflected in family relations are the significant determinants of financial inclusion in Ghana. The implication of this for policy is that there is the need for governments in Western Africa, particularly Ghana, and their development partners to formulate a holistic financial framework that seeks to mitigate the negative determinants of financial inclusion and sustained the positive ones. It is recommended that such a policy framework should be politically neutral, economically viable, gender sensitive, socially stable and financially feasible so as to make it sustainable.

Oji (2015) identified the supply- and demand-side challenges of financial inclusion in Africa. Accordingly, low levels of financial literacy, underdevelopment of existing financial systems, lack of credit-reporting institutions, limited capacity of businesses and inadequate infrastructure are constraints for financial inclusion.

Akudugu (2013) studied drivers of financial inclusion in Ghana. The study established that only 40% of adult in Ghana were involved in the formal financial institutions. The study found that financial inclusion was determined by the age of individuals, literacy levels, wealth class, distance to nearby financial institutions, lack of documentation, lack of trust for formal financial institutions, money poverty and social networks as reflected in family relations.

### **2.2.2. Empirical Literature in Ethiopian context**

Desalegn and Yemataw (2017) conducted a study on Financial Inclusion in Ethiopia. The result shows that better education, financial literacy, gender, age, living in an urban area, living in the capital city, and preference for formal financial services are associated with a greater level of financial inclusion in Ethiopia. Furthermore, the study found that involuntary and voluntary exclusions are higher in Ethiopia. Researchers recommend policies that could narrow down gender, religious, and urban-rural gaps and foster financial inclusion in Ethiopia.

Mekuanint et al. (2019) did study on financial inclusion and its determinants among households in Jima zone of Oromia regional state, Ethiopia. According to the result age, education, financial literacy, and income are positively related to financial inclusion and distance to the nearest provider of financial services negatively impact financial inclusion. It is possible to reduce determinants of financial inclusion by regulating the financial system, creating healthy competition and building better enabling environment. Identifying and segregating the root causes and addressing it appear to be removing the distance, services charge, and credit barriers. On the other hand, the market for financial services failures and behavioral problems related to customer tends to be addressed through designing of appropriate financial products. Removing those challenges and expanding financial inclusion tend to be possible with the promise of the latest technologies.

Esmael & Mohammmd (2021). Investigate the factors that influence financial inclusion in the Afar region. The binary logistic regression model was used to evaluate primary data, and they discovered that age, use, financial literacy, and mobile banking are all positively and significantly connected to financial inclusion. Barriers and income, on the other hand, have a negative and considerable impact on financial inclusion. According to the experts, the government and financial institutions should encourage financial service providers by offering fiscal incentives or requesting that financial institutions serve the poor and low-income.

Andualem and Sambasiva Rao (2017) did a study on financial inclusion in Ethiopia and found that in Ethiopia 33.86% of adults have accounts at formal financial institution in the year 2016. They use their account to keep money safe, send and receive payments, and to get credit services and foreign exchange services. Using the data on the supply side of financial inclusion in Ethiopia as of December 2015, they found that the branch per capita and branch density of

5.54 and 3.09 respectively. Additionally, barriers to financial inclusion such as lack of money, distance, fixed cost, and documentations are important obstacles in Ethiopia. A study (Ahmed & Jianguo, 2014) found that collateral and high interest rates were the major factors hindering access to financial access. They also found that financial inclusion may be facilitated by the telecommunications which has led to increase in the use of MPESA services. They also cited challenges facing financial inclusion as lack of education, low technology, high cost of financial services and regulatory requirements.

Andrés et al. (2020) used a sample of over 80,000 companies commenced by a sole entrepreneur and examine the entrepreneur's financial inclusion using three indicators, i.e., demand for credit, credit approval ratio, and credit performance. Their study finds that female entrepreneurs are less likely to apply for a loan and if they use it, their likelihood of obtaining the loan is by far lower than male entrepreneurs who apply for a loan. However, those who get the credit are less likely to default. Demirguc-Kunt et al. (2013) also confirmed the existence of gender gap in formal account ownership, formal saving and access to formal credit. Women are more likely to be excluded from using financial tools because of lack of enough collateral, low level of financial literacy, bad credit history of husbands, and low or lack of business experience.

Theoretical and empirical studies have indicated the importance of financial inclusion. Yoshino and Morgan (2016), for example, indicate that greater financial inclusion assists the poor who are generally cost constrained. In order to access financial services, an efficient financial system that is inclusive should be able to assist poor households, who receive social benefits. It can be deduced, thus, that when poor people are able to manage their limited financial resources, the result will be the reduction of absolute poverty. This can be achieved only if banks help poor people to manage their finances by with the benefits in mind, Demirguc-Kunt and Klapper (2013) highlighted that the yield on financially oriented exclusive groups is higher. Furthermore, if banks were to assist this sector, owners would be able to move up the social ladder.

Mekuanint et al.(2019). Using primary data and both logit and probit econometrics model to analyze the results, they conducted a study on financial inclusion and its drivers among families in the Jima zone of Oromia regional state, Ethiopia. The findings show that financial inclusion

is positively correlated with age, education, financial literacy, and income, whereas financial inclusion is adversely correlated with distance to the nearest supplier of financial services.

In East Gojjam, Ethiopia, Beza et al. (2020), did a study on Determinants of Financial Inclusion. The results were analyzed using primary data and a binary logistic regression model. Income, residency, financial literacy, paperwork, trust, knowledge, accessibility, and availability all have a substantial impact on financial inclusion, according to the findings. Documentation, trust, awareness, and accessibility are the most important. Sex, age, education, occupation, family size, infrastructure, and deposit rate, on the other hand, have no bearing on financial inclusion.

Yoshino and Morgan (2016) allude that greater financial inclusion reduces income inequalities by raising the incomes of the poorest members of society. Cognizant of this, banks could diversify their products and services there by promoting financial stability as well as income distribution. In the process, banks will also boost their deposit base, which resultantly leads to financial deep. Abdu and Adem (2021) studied the determinants of financial inclusion in the Afar region, Ethiopia using cross-sectional household data collected through administered questionnaire. Their finding showed that age, use, financial literacy, and having mobile banking have a positive and significant relationship with financial inclusion in the region. Strikingly their study shows the negative and significant effect of income on financial inclusion.

### **2.3. Literature gap**

Based on the researcher's empirical examination of the literature, it is feasible to conclude that, in general, many studies on the determinants of financial inclusion were undertaken from various perspectives. However, a review of the literature reveals that financial inclusion is influenced by several demand and supply factors. At a macro level, a country's level of development, gross domestic product, income inequalities, adult literacy, and urbanization can influence financial inclusion; at a micro level, demand and supply factors. On the demand side such as socioeconomic and demographic characteristics of individuals (age, gender, education level, income, and religion), and the supply-side factors such as outreach, technology, penetration, etc. can influence financial inclusion. Based on the theoretical and empirical review the major gap among variables and scopes are critical, for example gender and age variables are studied by many researchers as determinants of financial inclusion at the demand

side or micro variables for example (David & varaidzo, 2020; Toukam et al., 2020; Yashwant et al., 2020; Patrick et al., 2018; Issouf Soumaré et al., 2016; Florence Barugahara, 2021; Njau et al., 2021; Esmael & Mohamm, 2021; Mekuanint et al., 2019;) and (Beza et al.,2020), most of the researchers should be concluded that gender is negative and significant impacts on financial inclusion, but the study did by (Beza et al., 2020), is seen as the variables gender and age is no significant effect on financial inclusion, so on this variables, it is inconsistency (contradiction) of results between the researchers, as well as the gender and age variables, are missed to (Yashwant et al., 2020), and also by Ethiopian researchers that studied financial inclusion for example (Esmael & Mohamm, 2021), and (Mekuanint et al., 2019), missed gender variables.

The income variables are studied by many researchers as determinants of financial inclusion on the demand-side or individual characteristics variables for example, (David & Varaidzo, 2020; Toukam et al., 2020; Yashwant et al., 2020; Patrick et al., 2018; Issouf et al., 2016; Florence, 2021; Njau et al., 2021; Esmael & Mohammed, 2021; Mekuanint et al., 2019;) and (Beza et al., 2020), most the researchers should be concluded that income is positive and has a significant impact on financial inclusion, but the study conducted by, (Esmael & Mohamm, 2021), is seen as an unusual result which is the variables income is a negative and significant effect on financial inclusion, therefore inconsistency (contradiction) of results between the result of researchers. The Distance variable is also studied by some of the above researchers, but the results are still contradicted by the researcher's example (Toukam et al., 2020; Esmael & Mohamm, 2021; Beza et al., 2020), and (Mekuanint et al., 2019), results show distance from financial institution branch is a negative and significant effect on financial inclusion; while the researchers like, (Njau et al., 2021), is the opposite result on this variables, and the variable is omitted by some researchers for examples (David & Varaidzo, 2020; Patrick et al., 2018), and (Barugahara, 2021). The trust variables are also one of the variables that can be studied in the current study but this variable is omitted by the researchers, (David & Varaidzo, 2020; Patrick et al., 2018; Issouf Soumaré et al., 2016; Esmael & Mohammed, 2021), and (Mekuanint et al., 2019), and the result of these variables are inconsistency between the researchers for examples, (Yashwant et al., 2020), show trust is a positive impact on financial inclusion, while the finding of (Barugahara, 2021), revealed that there's a negative relationship between trust and financial inclusion. Religion is the other variable that is studied in the current study. this variable is missed by many researchers such as (David & Varaidzo, 2020; Toukam et al., 2020; Patrick,

2018; Issouf, 2016; Barugahara, 2021; Esmael & Mohamm, 2021) and Mekuanint et al. (2019) and the result of these variables are also contradicted by the researcher, for example (Yashwant, 2020), found that religion is positive and significant effects on financial inclusion, but the result of (Gashaw and Gebe, 2017), show that religion is a negative and significant effect on financial inclusion. The variable Documentation is also studied by Barugahara (2021), and (Beza et al., 2020). But the results of these two researchers are also inconsistent. The other variables that determine financial inclusion on other hand are Distance, marital status, and occupation which significantly affect the financial inclusion but those variables are omitted too many researchers (Esmael & Mohamm, 2021; Mekuanint et al., 2019; David & Varaidzo, 2020; Toukam et al., 2020; Patrick et al., 2018; Issouf et al., 2016; Njau et al., 2021) and (Mekuanint et al., 2019). In Ethiopia the study on financial inclusion is very few and limited in the scope for example (Desalegn, 2021) is limited to small and medium enterprises firms, but fail to individuals as well as households, the other researchers. Mekuanint et al (2019), are limited to the Jimma zone Oromia, Esmael & Mohamm (2021), limited to the Afar region and Beza et al., 2020), is limited to East Gojjam, Ethiopia. Other than the above very few research and scope limitations some variables such as Distance, Occupation, and religion that determine financial inclusion are missed or not studied by the above Ethiopian researcher.

Finally, more of the above researchers also used only bank accounts as a proxy of financial inclusion and fail to address other financial institutions such as microfinance and SACCOS that broadly serve the rural areas of the society. A look at the current situation in Ethiopia backs up the claim those financial inclusion constraints are consistent on the demand side As a result, by using demand-side data, this study addressed the gap that Determinants of financial inclusion in Ethiopia Evidence from gurage zone.

## **2.4. Conceptual Framework**

The factors that determine financial inclusion can be divided into two categories: demand and supply. The demand for finance is based on the consumers' need for it, and as a result, they attempt to obtain it. They may be looking for money to meet social commitments or to start and run a business. The supplier's related factors, on the other hand, are what financial institutions undertake to enable customers to access finance. Based on the above theoretical and empirical as well as knowledge gap the current study developed the following hypothesis that focuses on

demand-side data and discussed below the factor that determines financial inclusion on the demand side.

#### **2.4.1.1. Gender and financial inclusion**

Gender plays a role in financial inclusion since the males control the finances in the family and they are in most families the income earners. Due to cultural factors, women are financially disadvantaged. Allen et al. (2016); Aterido et al. (2013); Demirguc-Kunt et al. (2017); Ghosh & Vinod (2017) Find that women are less likely to be financially included. The same authors in a study of selected Sub-Saharan African nations, and Aterido et al. (2013) discovered that females are less likely than males to use formal financial services. Similarly, Ghosh & Vinod (2017) found that, on average, female-headed households are 8% less likely than male-headed households to have official accounts; they also discovered that female-headed households take out 20% fewer cash loans than male-headed households. Thus, the hypothesis stands.

*H1: Gender has a significant and negative effect on financial inclusion.*

#### **2.4.1.2. Age and financial inclusion**

According to the literature, age is also a significant determinant in gaining access to and using financial services. Fungáčová and Laurent (2015) used the Global Findex 2014 to investigate FI in China and discovered that wealthier, more educated, and older men are more likely to be financially included. While the elderly are more likely to be financially included in Africa (Zins et al, 2016), the likelihood of being financially included reduces at a certain age. Younger individuals have less access to financial services, according to the findings (Fungáčová et al., 2015 and Allen et al., 2016) in explaining financial inclusion, age is found to interact with other factors such as income or wealth, as well as education. Thus, it is hypothesized that:

*H2: Age has a positive and significant effect on financial inclusion.*

### **2.4.1.3. Income and Financial Inclusion**

According to the World Bank (2014), income is the most important factor in determining whether or not a person has a bank account, and it is one of the main reasons for the poor's inability to keep a bank account. Income has long been a major determinant of financial inclusion or exclusion. Because they are unaware of policies and regulations, low-income people believe that they are not eligible for financial services because they lack capital. (Sarma & Pais, 2011), Assessed the impact of income, inequality, urbanization, and infrastructure on financial inclusion and related national development to financial inclusion. - 34 - According to a study by Devlin (2009), high-income earners were less likely to be excluded than low-income groups. However, as government efforts to promote inclusion have grown, various steps have been taken to integrate low-income people into the financial system as well. Lower-income inequalities lead to greater inclusion in developing countries, whereas lack of equality leads to lower inclusion (Kempson et al., 2004). Perhaps income is no longer as important as it once was, as data suggests that low-income families can save as well (Hogarth & O'Donnell, 2000). In this study, income was measured as average monthly income. Thus, the hypothesis stands.

*H3: Income has a positive and significant effect on financial inclusion.*

### **2.4.1.4. Education and financial inclusion**

WentzeL et al. (2016) Discovered that an educational degree was the most significant factor related to financial exclusion; additionally, a higher level of education improves the likelihood of an individual being banked. Sanderson et al (2018) Claim that educated people may easily grasp the many financial products available on the market. As a result, they are more likely to participate in the official financial market. Well-educated people have an easier time understanding various financial products, which boosts their chances of engaging in the financial market. People who are educated are better equipped to comprehend the numerous financial products on the market and make informed judgments, hence increasing their access to these goods. According to Adigun (2013), education is a method of assessing awareness, skillsets, and the ability to make judgments informal financial markets, resulting in a favorable association between financial inclusion and formal education. Thus, it is hypothesized that:

*H4: Educational level of the individual has a positive and significant effect on financial inclusion*

#### **2.4.1.5. Distance and financial inclusion**

In his research, Akudugu (2013) discovered that the distance to financial firms is a significant driver of financial inclusion. As a result, the further people are from locations that supply financial services and products, the less financially integrated they will be. People's ability to access financial products is hampered by distance. People should be able to easily access financial products so that they can receive any benefit from them. According to Bhuvana and - 35 - Vasantha (2016) Distance of the bank branch to reach the rural people is a common barrier the supply-driven factors. The greatest barrier to financial inclusion to reach rural areas is the distance from the bank. Distance continues to be a major issue since Business Correspondent provides doorstep financial services to the outreach areas. A reasonable distance from the bank branch should be 3-4 kilometers. Opening a bank account in the rural people distance and traveling from the bank branch to the remote areas is considered the greatest challenge for the financial institutions. This means that financial product access is determined by the distance between the financial product service provider and the financial product's end-user. Thus, it is hypothesized that:

*H5: Distance has a negative and significant effect on financial inclusion.*

#### **2.4.1.6. Financial Literacy and Financial Inclusion**

The degree to which families and people are informed or aware of the knowledge required to make informed financial decisions is referred to as financial literacy. Financial literacy is a deciding factor between inclusion and exclusion, according to (Kabakova & Plaksenkov, 2018), however (Fischer, 2011) determined that usage is more significant. Individuals with higher levels of literacy are also more likely to be financially included. Because they can open bank accounts and use financial services, this is the case. The level of financial literacy is determined by financial attitude, financial behavior, and financial knowledge, which helps define financial inclusion (Rastogi & Ragabiruntha, 2018; Rai et al., 2019; Shankar, 2013).

*H6: Financial literacy has a positive and significant effect on financial inclusion.*

#### **2.4.1.7. Occupation and Financial Inclusion**

The type of job also determines the likelihood of an individual accessing an official financial facility or not. There is a greater chance of someone who is formally employed using official

financial facilities (Clamara et al., 2014). There are low chances for a household with nobody with formal employment to be financially included. In some developed countries, it is more probable for those without a job or in informal jobs to be out of the official financial system than those formally employed (Carbo & Rodriguez, 2014). As a result, it is proposed that;

***H7: Occupation has a positive and significant effect on financial inclusion.***

#### **2.4.1.8. Trust and Financial Inclusion**

Trust is one of the biggest barriers to inclusion due to a lack of knowledge leading to people, lack of trust in a formal bank or financial institution channel (Garg & Agarwal, 2014). Related financial inclusion or exclusion to human aspects like religion and trust (Shankar, 2013), suggested that lack of trust leads to financial exclusion. Thus, we can say that trust is an important aspect when talking about finances and financial inclusion (Deb & Agrawal, 2017), related attitude and trust to India's potential for financial inclusion as a result of the adoption of mobile banking. Hence it is hypothesized that:

***H8: Trust in financial institutions has a positive and significant relationship with financial inclusion.***

#### **2.4.1.9. Documentation and Financial Inclusion**

Any person wishing to access official financial organizations' facilities is required to submit several documents, which include identity documents and address validation (WBG, October 1, 2018 ed). The proof of residence requirements has played varying roles in influencing FI, particularly in developing countries with no formal documentation for rented accommodation. People from rural areas may also face similar harrowing experiences, as formal proof of residence is hard to come by. In the UK, lack of proof of address is a huge obstacle in opening a current account that enables employers to pay salaries (European Commission, 2008). The vital documents have to be original and authentic. The commonly used documents are as follows: water bills, electricity bills, lease contracts, council rent cards, and mortgage reports. These documents are regarded as credible documents in many countries (World Bank, 2018). For the current study, proof of residence was incorporated as an indicator variable for people possessing the necessary official papers. Thus it is hypothesized that:

***H9: documentation has a negative and significant effect on financial inclusion.***

#### **2.4.1.10. Religion and financial inclusion**

To summarize, religious reasons, as well as socio-economic inequalities, may play important roles in determining financial exclusion in a society in the event of voluntary financial exclusion. Because Islamic law, Sharia, does not support financial services and transactions, it is unlikely that religious faith will play a significant role in financial exclusion in Islamic countries. As a result, social inequality and religious variables, as well as well-known aspects like economic growth factors, should be included when determining financial inclusion determinants. (Dai-Won - 37 - et al.,2018). Religious characteristics influence financial inclusion, according to the study. Every analytical result reveals that financial inclusion is lower when countries are OIC countries or have a large Muslim population; on the other hand, financial inclusion is higher when religious diversity is more prevalent in a country. In this regard, it is clear why the OIC countries are lagging in terms of financial inclusion. Thus, it is hypothesized that:

***H10; Religion has a negative and significant effect on financial inclusion.***

#### **2.4.1.11. Place of residence and financial inclusion**

According to Njanike (2021), the location of a service provider has a significant impact on the financial availability of that service. Individuals living in urban areas and those living in rural areas have different financial accessibility. Other research has found that people's geographic location has a different impact on their access to formal financial services (Beck and Brown, 2011). According to studies conducted in the United Kingdom, financial institutions are geographically concentrated due to an uneven supply of financial services and facilities (European Commission, 2008). The other researchers Gashaw and Gebe (2017) did study Financial Inclusion in Ethiopia and found that Financial inclusion is determined by place of residence, i.e. whether individual lives in an urban or a rural area, and regional disparities are also observed. Living in a rural area reduces the likelihood of owning an account compared to living in an urban area. So the current study included location as an indicator variable in the predicted model, which focused on whether a person lives in a rural or an urban and hypothesized that.

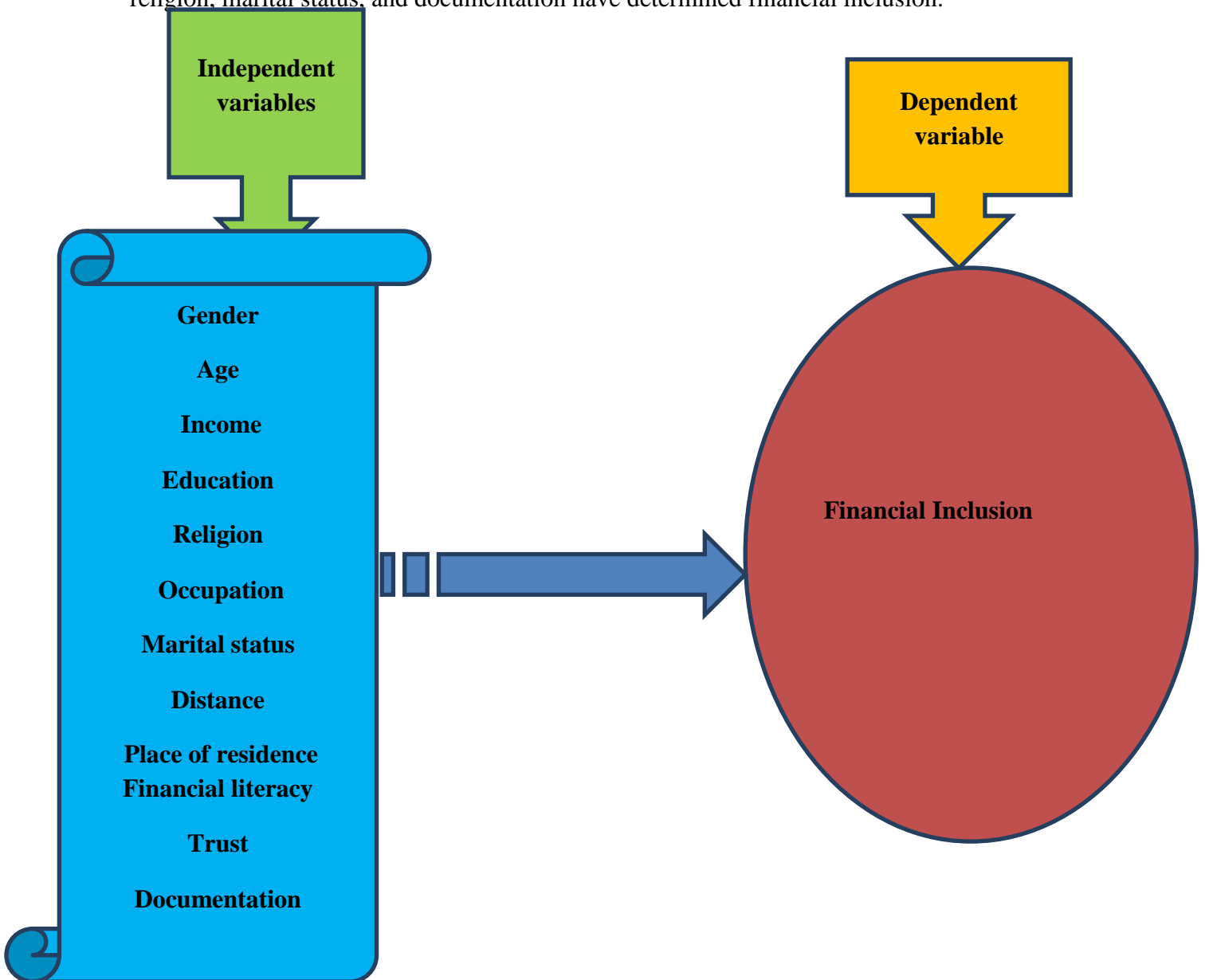
***H11; place of residence has a positive and significant effect on financial inclusion.***

#### **2.4.1.12. Marital status and financial inclusion**

Access to formal finance is mainly driven by marital status (Soumare et al., 2016). Karp and Nash-Stacey (2015) find that marital status has the highest correlation with financial inclusion. The marital status of an individual is crucial in defining their FI status (Martinez et al, 2013). In most circumstances, joint accounts will be used, allowing both partners to participate financially. According to several studies, a single person is not motivated to register an account because he or she lives hand to mouth. Cano et al. (2013) Found that marriage enhanced the likelihood of individuals using government financial facilities in a Columbia. Thus, it is hypothesized that: *H12; marital status has a positive and significant effect on financial inclusion.*

## 2.5. Conceptual Framework graphically

Based on the above theoretical and empirical Literature review the researchers develop the following conceptual framework. This framework briefly describes the factors that determine financial inclusion. Financial institution account ownership was used as a proxy for financial inclusion. Based on previous studies, the researcher argues that factors such as age, gender, income, education, and financial literacy, place of residence, distance, occupation, trust, religion, marital status, and documentation have determined financial inclusion.



Source: Researcher own model, 2023 **Figure 2.1 conceptual framework**

# **Chapter Three**

## **Research Methodology**

### **3.1. Introduction**

This chapter introduced the methodology to be applied in this study. Research methodology is a process in which the researcher uses tools and procedures to collect and analyses data. This chapter focuses on the description of the techniques adopted in this research work. It aims to highlight the overall methodological considerations of the paper, which includes the research design, target population, sampling technique, and data collection instruments and procedures and data analysis.

### **3.2. Research design**

The techniques for collecting, evaluating, interpreting, and reporting information in research projects are referred to as a research design (Creswell & Plano, 2007) It's a universal schematic that connects conceptual research challenges to relevant and feasible empirical research. To put it another way, the study design entails the data collection and analysis techniques to be used, as well as how all of this will respond to the research question. There are three possible types of research design, according to Robson (2002): exploratory, descriptive, and explanatory. Because each plan serves a particular give-up objective, his classification system is based on the research region's motivation.

The major objective of the current study was to examine the determinants of financial inclusion in Ethiopia, Evidence from gurage zone. Hence, to examine determinants of financial inclusion therefore this study used an explanatory research design due to the fact Explanatory research appears for causes, effects and reasons and provides proof to help or refute an explanation or prediction.

### **3.3. Research approach**

Widely talking, there are 3 approaches or techniques to carrying out research: qualitative method, quantitative method, and mixed-method (Creswell , 2009; Creswell & Plano, 2007).Hence, to examine the determinants of financial inclusion in Ethiopia. Evidence from gurage zone, the researcher used a quantitative research approach.

According to Creswell & Plano (2007), Describes a quantitative look is a research approach to explaining phenomena by collecting numerical information which is analyzed by the use of statistical techniques. It's far an approach wherein the investigator employs strategies of inquiry such as experiments and surveys and collects data on predetermined instruments that yield statistical records. The greatest power associated with quantitative research is that its strategies produce reliable and quantifiable information which could doubtlessly be generalized to a massive population. similarly, it is suitable to test and validate already built theories about how and why phenomena arise by trying out hypotheses that can be constructed earlier than the facts are collected to broaden knowledge of motive and effect thinking, discount specific variables and questions, use dimension and commentary, employee strategies of inquiry such as experiments and surveys (Creswell , 2009).

### **3.4. Population**

Population is a set of elements having similar traits defined by the sampling criteria adopted by the researcher. This involves target and accessible population. Target population constitutes a whole group of people/object that the researcher seek to generalize the finding of the study while accessible population is a population that the researcher is reasonable access, it might be a sub set of the target population Mugenda, (2013). The target population of the study included all individuals above the age of 18 who live in 16 woredas and 6 town administrations in gurage zone. As a result, the current study is based on data collected from 4 woredas and 2 town administrations namely (Cheha, Ezha, Enemore and Gumer woreda), and two city administrations (Wolkite and Butagira town) were chosen purposively at the first stage because different types of financial institutions are concentrated in the woredas compared to others, and better infrastructure such as road and transportation access is available, allowing the researcher to collect data more easily. In the second stage, two kebeles In Two Administration And Four Kebele In WOreda were randomly chosen from each woreda and town administration, and at the final or the third stage respondents over the age of 18 were selected for this study from each selected kebele using a simple random sample selection technique.

### **3.5. Sampling Unit**

As noted above, the target population of the study included all individuals above the age of 18 who live in 16 woredas and 6 town administrations in the study area. The current study is based on

data collected from 4 woredas and 2 town administrations namely (Cheha, Ezha, Enemore and Gumer woreda), and two city administrations (Wolkite and Butagira town) were chosen purposively at the first stage because different types of financial institutions are concentrated in the woredas compared to others, and better infrastructure such as road and transportation access is available, allowing the researcher to collect data more easily. In the second stage, two kebeles were randomly chosen from each woreda and town administration, and at the final or the third stage respondents over the age of 18 were selected for this study.

### **3.6. Sampling technique**

The sampling technique for this study is probability sampling particularly stratified sampling which involves dividing the population into homogeneous sub-groups called strata based on the geographical location, income level, gender, educational level and age of populations and then select samples from each sub-group using simple random or systematic procedures to ensure that an adequate number of samples are selected from the different sub-groups.

### **3.7. Sample Size**

The sample size used by the current study is the 384 respondents selected from 4 woredas and two town administrations in the gurage zone. According to Cochran (1997), a sample size of about 384 is a sufficient sample size at the 95% confidence level with a 5% margin of error when the size of the population is large or infinite. The following formula given by Cochran was adopted. Cochran developed a formula to calculate a representative sample as we want the most favorable sample size for an infinite population and we shall take the value of  $p = 0.5$  and  $q = 0.5$ . We can determine the sample size as under

$$n = \frac{z^2 * p * q}{e^2}$$

Where;  $n$  = is the sample size,

$z$  = is the selected critical value of desired confidence level ( $z = 1.96$  as per table of area under normal curve for the given confidence level of 95%).

$p$  = is the estimated proportion of an attribute that is present in the population,  $q = p - 1$  and

$e$  = marginal error  $\pm 5\%$  ;- is the desired level of precision Assuming the maximum variability, which is equal to 50% ( $p = 0.5$ ) and taking 95% confidence level with  $\pm 5\%$  precision, the calculation for required sample size were as follows:

$$p = 0.5 \text{ and hence } q = 1 - 0.5 = 0.5; e = 0.05; z = 1.96$$

Therefore; Sample,  $n = ((1.96)^2 * (0.5) * (0.5)) / (0.05)^2 = 384$ .

These 384 sample sizes are distributed to each selected woreda and city administration based on their population size to meet the overall goals of the current investigations. Finally, data is collected through face-to-face interviews with persons from the designated woredas and the town administration by using questionnaires.

**Table 3.1; Summary of sample collection from each woreda and town administration**

No	Name of selected woredas and town administration from gurage zone	Selected kebele from each woreda and town administration	No of the selected respondents from each woreda and town administration
1	Cheha worda	Yewoze, Yedebe, Yeferzeye and gerare kebele	71
2	Enemore worda	Kossede, Ebaragne, wottera and terehogne kebele	67
3	Ezha woreda	Gedeb, ketana, keratemo and wadeye	70
4	Gumere woreda	Jmboro, bade burcher and jemboro	63
5	Wolkite town	Gubere and bekure	58
6	Butagera town	01 and 02 kebele	55

Source: Researcher's compilation, 2023

### 3.8. Sources of Data and Method of Collection

Both primary as well as secondary sources of data were used. In this study secondary data obtained from surveys conducted at different periods and the latest available data from these countries used. In addition to this related published journals, online articles, books and

international conference papers for the purpose of literature review used. On the other hand, primary data was collected by administering well- structured questionnaire/ schedule to the target respondents. The questionnaire is include both closed ended and open ended questions, however, majority of the questions are closed ended

### **3.9. Method of Data Analysis**

For this study to achieve the research objectives and provide a convincing answer to the research question, as well as for the survey results to be simply understood, data analysis is required. The survey data was investigated using quantitative methods in this study. The responses were, categorized, coded, and tabulated after receiving questionnaires from the sample respondents to investigate quantitative data using a statistical tool stata12. The empirical analysis of the study would be conducted using both descriptive statistics and an econometric regression model. Descriptive statistics discussion was made by using measures like percentages, tables, and graphs for categorical and dummy variables, whereas a minimum, maximum, mean, and standard deviation is used for continuous variables. Finally, the econometric regression model was applied for analyzing the data based on the probit model, which deals with financial inclusion in total explanatory variables included in this study. In this case, the value of the dichotomous dependent (financial inclusion) variable is 0 and 1. One stands for respondents those owners of accounts in formal financial institutions and Zero for otherwise.

### **3.10. Model Specification**

The outcome variable is dichotomous, this is both a respondent has a financial institution account or isn't always represented through a zero or one, respectively. The outcome variable is generated from the query which became asking questions about whether or not a respondent owns a financial institution account individually, together, or not. Those who owned financial institution accounts individually or together had been seemed as owners of financial institution accounts. As a result, the logit model is used in this study. According to Brooks (2008), the common models that had been used for estimations of the qualitative reaction variables are the Linear Probability Model (LPM), Probit Regression, and Logistic Regression model. However, there are issues connected to using LPM that include:

- Non-success of  $0 \leq E(YX) \leq 1$ .

- Heteroscedastic variations of disorders.
- The disturbances aren't normally distributed.
- The value of R2 is an unreliable degree of goodness of fit.
- The assumption is that  $P_i = E(Y=1|X)$ , that is, the incremental impact of X is constant throughout. In any other phrase, the linear probability model produces doubtful chance; it could be much less than 0 or more than one which is unrealistic due to the fact chance needs to lie among 0 and one. The mistake time period usually suffers from the problem of heteroscedasticity and they're non-normal. Marginal consequences will usually be steady irrespective of the value of Xi of the dummy variable (Gujarati, 2009; Cameron & Trivedi, 1986). This is specifically as it assumes a linear relationship between the outcome variable and the explanatory variable. Due to the above weaknesses, the linear probability model is not used for this study; The Logit and Probit models largely solve a number of these problems. As a result, the choice to be had is the logit model or the probit model. However, the researchers used the logit model due to its benefits over the probit model. One of the benefits of the logit model is that it's far rather easy to calculate for the first-order situations and is the asymptotic distribution (Rao and Statistiker, 1973). Also, Maddala et al. (2001) found that the logit model is easy to compute and interpret compared to the probity version. In Ethiopia, for example, Mekuanint et al. (2019), Esmael & Mohammmd (2021), and Beza et al. (2020) is used a binary logit model for examining the determinants of financial inclusion. The Logit model was used for the estimation of financial inclusion in the case of this research is specified as follows;

$$p_i (F_i) = \text{Ln} \left( \frac{p_i}{1-p_i} \right) = B_0 + B_i \sum_{i=1} x_i + u_i$$

All the independent variables used in the study with the final model being specified as;-

Where

P is the probability of a respondent's financial inclusion,

1-p is the probability of a respondent's financial exclusion.

FI is the dependent variable (financial inclusion),

$\beta_0$  is the constant term of the model,

$\beta_1 - \beta_{12}$  denotes the regression coefficients of the model,

GEN=Gender of the respondent,

AGE=Age of the respondent,

INC=Average monthly income of the respondent,

EDU=Educational status of the individual (respondent),

DIS= Distance from financial institution branch,

FL= financial literacy (knowledge about financial service and product) of the respondent,

OCC= occupation of the respondent

TRU= Trust of the respondent in financial institutions,

DOC=Documentation required by the financial institution

REL=Religion of the respondent □ RES= place of residence

MRS=marital status

$u_i$  =is the error term.

### **3.11. Assumptions of Logistic Regression**

According to Hosmer and Lemeshow (1989) In Logistic regression distinctive assumptions have been must remember for the effective use of logistic regression the subsequent points:- □ In a binary logistic equation, the dependent variable should be binary.

Logistic regression accepts expressive coding of the variables. Logistic coefficients were difficult to understand if not coded expressively. The covenant for binomial logistic regression is to code the outcome class of interest as one and the other class as zero.

Larger samples are needed than for linear regression because maximum likelihood coefficients are large sample estimates.

The logit regression equation should have a linear relationship with the logit form of the dependent variable.

Logistic regression does not assume a linear relationship between the outcome and explanatory variables.

The model needs to have very little multicollinearity, this means that the unbiased variables need to be unrelated to one another.

### **3.12. Definition and Justification of the Variable**

#### **3.12.1. Dependent variable**

In this study, Financial Inclusion (FI) is the dependent variable and it refers to the usage of a single or multiple financial products and services explained by account ownership from each financial institution (Bank, MFI, or SACCOS) because the account owner is the first and major proxy of financial inclusion. For most people a formal account serves as an entry point into the formal financial sector, having a formal account facilitates the transfer of wages, remittances, and government payments, it can also encourage formal saving and open access to credit. Accounts are also a simple and consistent metric that facilitates the measurement of financial inclusion across countries (Demirguc-Kunt & Klapper, 2013). And it is dichotomous, that is either an individual has an account from a financial institution or is not represented by a 0 or 1 respectively.

#### **3.12.2. Independent variables**

The variables investigated in this study are those that are consistent with previous scholarly work. A list of all the independent variables included in the models is provided below.

**Gender (GED);** refers to the sex of the individual it's a dummy variable with the dichotomous responses of 1 and 0, 1 if the respondent was female and 0 if the respondent was male. Many of the empirical results suggest that being a female is an obstacle to availing and utilizing various financial services, thus respondent's gender is hypothesized to have a negative impact on the respondent's financial inclusion status.

**Age (AG);** is a continuous variable that explains the number of years the individual has. Older people use more financial services; it can be attributed to having stable incomes after a certain age and the intention to save for old age needs, marriage expenditures, and other expenditures

on children and their education (Demirguc-Kunt & Klapper, 2013). Thus Age is hypothesized to have a positive impact on financial inclusion.

**Income (INC);** is also continuous and it refers to the average monthly income of the individual measured in birr. It is hypothesized that income is a statistically positive and significant effect on financial inclusion. As people's income increases financial inclusion also increases. (David & Varaidzo, 2020).

**Education level (EDU);** - It represents a respondent's highest level of education measured by using a categorical scale. The probability of being financially included increases with an increase in the education level of an individual (Gashaw and Gebe, 2017). Fungáčová et al. (2015), showed that better education is correlated with higher usage of formal accounts and formal credit. Thus, it is expected that it will have a positive impact on financial inclusion.

**Distance (DIS);** -It refers to the respondent's place of living from financial institution branches in Kilometers by using a continuous scale. Distance or physical accessibility is one factor that has a great influence on the decision to open an account, the more time it takes, or the longer the journey to the banking outlet, the lower the probability of financial inclusion (Njanike, 2021). Hence this variable is expected a negative sign.

**Financial literacy (FL);** -It refers to the respondent's level of literacy/knowledge about financial products and services (dummy variable with the dichotomous response of 1 and 0, 1= yes (literate) and 0= No (illiterate). According to Njanike (2021), a lack of financial knowledge keeps people out of the official financial structure, and at any level, people need both financial knowledge and skills to be financially included. Thus, this variable may have been expected to be a positive sign.

**Occupation (OCC);** - It refers to the respondents 'nature of the job as well as / her employment status at the time of data collection measured by the categorical scale. There is a greater chance of someone who is formally employed to be using official financial facilities and inversely low chances for individuals with nobody with no formal employment to be financially included (Clamara et al, 2014). So that we expected to hypothesize that this variable can positively affect financial inclusion.

**Trust (TRU);** - Refers to how customers trust or rely on different financial institutions. Dummy variable with the dichotomous response of 1 and 0

1 :- if respondents trust or rely on the financial institution and 0 otherwise. Trust is one of the biggest barriers to inclusion due to lack of knowledge leading to people, lack of trust in a formal bank or financial institution channel (Garg & Agarwal, 2014). Therefore positive coefficient is expected.

**Documentation (DOC);** - It refers to the simplicity of documentation requirements by financial institutions during service provision to open an account in the financial institutions. (Dummy variable with dichotomous response of 1 and 0, 1= yes (simple) and 0= No (difficult / not simple). Anyone intending to use the services of formal financial institutions must provide several documents, including identification and residence verification (WBG, October 1, 2018 ed). Thus, it is hypothesized that documentation has a negative and significant effect on financial inclusion.

**Religion (REL);** - It represents the religion of the respondents. Dummy variable with the dichotomous response of 1 and 0 1 if the respondents are Muslim and 0 otherwise. In Muslim countries, religion plays an important role and traditional banking products are not appealing (popular) in that area of the world (Dai-Won et al.,2018). Therefore, for this variable Negative effect is expected.

**Marital status (MRS);** indicates whether the respondent is married or unmarried, Unmarried indicates whether a respondent is divorced, separated, or has never been married (Dummy variable with the dichotomous response of 1 and 0, 1= Married and 0= unmarried). A married person has a bigger chance of being financially included than someone single (Soumare et al., 2016). Therefore it is hypothesized that marital status is a statistically positive and significant effect on financial inclusion.

<b>Variable</b>	<b>Description</b>	<b>Source</b>	<b>Expected sign with DV</b>
<b>Gender</b>	<i>Whether male or female, measured by a nominal scale(dummy)</i>	(David & Varaidzo, 2020; Toukam et al., 2020; Patrick et al.,2018) And (Barugahara, 2021).	<i>Negative (-)</i>
<b>Age</b>	<i>Impact of age on FI, measured by age of respondents with a continuous scale</i>	(Njau et al., 2021; Mekuanint et al., 2019; Barugahara, 2021) And (David & Varaidzo, 2020).	<i>Positive (+)</i>
<b>Income</b>	<i>Average monthly income of the individual, measured by the continuous scale.</i>	(Toukam et al., 2020; Yashwant et.al., 2020) And (Patrick et al., 2018).	<i>Positive (+)</i>
<b>Education level</b>	<i>It represents a respondent's highest level of education, measured by the categorical scale</i>	(Mekuanint et al., 2019; Issouf et al., 2016) and (Barugahara, 2021).	<i>Positive (+)</i>
<b>Distance</b>	<i>Distance from the next available formal financial institution, measured by the continuous scale</i>	(Njanike, 2021), (Bhuvana M, 2016) <b>and</b> (Gashaw and Gebe, 2017).	<i>Negative (-)</i>
<b>Financial literacy</b>	<i>Knowledge about financial products and services. Dummy variable</i>	(Yashwant et al., 2020; Esmael & Mohammd, 2021) and (Beza et al.,2020).	<i>Positive (+)</i>
<b>Occupation</b>	<i>Nature of job as well as his / her employment status, categorical scale</i>	(Clamara et al., 2014) And (Njanike, 2021).	<i>Positive (+)</i>
<b>Trust</b>	<i>It refers to how customers trust. Measured by the dichotomous response( dummy)</i>	(Yashwant et al.,2020) <b>And</b> (Beza et al. 2020).	<i>positive (+)</i>
<b>Documentation</b>	<i>The possession of proper documents is required to open a financial institution account. Measured by a dummy.</i>	(Andualem & Rao, 2017), (Njanike, 2021) <b>and</b> (WBG, October 1, 2018 ed)	<i>negative(-)</i>
<b>Religion</b>	<i>It represents the religion of respondents. The dichotomous response was measured by a dummy</i>	(Yashwant et al.,2020; Beza et al.,2020) And (Mekuanint et al., 2019).	<i>Negative (-)</i>
<b>Residence</b>	<i>Whether in urban or rural areas. The dichotomous response is measured by a dummy.</i>	(Issouf et al., 2016; Njau et al., 2021) and (Esmael & Mohammd, 2021).	<i>Positive (+)</i>
<b>Marital status</b>	<i>Whether married/not married. The dichotomous response was measured by a dummy</i>	(David & Varaidzo, 2020), (Njanike, 2021) <b>and</b> (Gashaw and Gebe, 2017)	<i>Positive (+)</i>

Source: Researcher's compilation, 2023

Table 3.2; Summary of independent variables and their source

### **3.10. Reliability and Validity**

When using primary data to make key economic decisions, it is critical to demonstrate the data's reliability and validity (Saunders et al., 2012). An evaluation technique must be performed to validate the accuracy and authenticity of data. Examine the data collector, the purpose, the time, the collection technique, the kind, and the relationship to other data when using primary data (Dahl, 2008).

Reliability refers to an evaluation instrument's capacity to consistently measure what it is supposed to quantify (Njanike, 2021). The level at which a quantifying instrument measures and does what it was supposed to do is known as validity (Wilson, J, 2010).

As a result, while reliability and validity are closely related, validity is more significant than the former. To put it another way, what is true is also true. As a result, for validation, this study used primary data that was acquired directly from accessible respondents in the study area by using structured questionnaires. The questionnaire was identically adapted to the one used in earlier research studies.

### **2.7. Ethical consideration**

Ethics is concerned with what is wrong vs. what is right, or, to put it another way, what divides acceptable from unacceptable behavior. Set standards, particularly those relating to respondents' independence, confidentiality, and the researcher's honesty, are critical in the research area. While conducting research or collecting data, the researcher and data collectors took into account ethical considerations such as Participants' privacy, Voluntary participation (No individuals were forced to participate in the study, and they were free to leave at any time), No physical or psychological injury to participants (The researchers ensured that the study caused no physical or psychological harm to the participants), Anonymity and confidentiality (All information gathered throughout the study was managed confidentially, and participants' permission to disseminate all material publicly was secured), And not fooling the subjects (Participants were told about the study's goal, purpose, and procedures and were not deceived in any way).

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

This chapter presents the analysis and findings of the study as set out in the research methodology. The major aim of the current study was to explore the determinants of financial inclusion in Gurage zone. This chapter reports and interprets the outcomes obtained from the selected econometric estimation techniques consistent with the purpose of the study. The data was gathered exclusively through a questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. The discussion begins with the questionnaire's response rate followed by both the descriptive statistics and econometrics analysis of the responses related to the questions.

#### **4.1. Questionnaires response rate**

Data were collected and analyzed in response to all research objectives and to address the hypothetical relationship between independent and dependent variables. The findings are based on the responses of those selected samples with the help of a questionnaire. Therefore 384 questionnaires were distributed, 371(96.6%) were returned dully filled, and 13(3.4%) were returned incomplete. A section of respondents was uncomfortable with the information that put them in bad light or their view was private and confidential. This category of respondents, for instance, skipped questions on Do you know about financial services and products, usage of accounts, and average monthly income.

Altogether the 96.6% response rate is within the acceptable threshold, of course even though there seems to be a lack of consensus across disciplines on the question of acceptable response rate in research. According to Mugenda (2000) lies within reasonable margins, although not inside the brackets of what would be considered as good 80% or excellent 90%. However going by the acceptable thresholds provided by (Mugenda and Mugenda, 2003), the above-given response rate of 96.6% lies with excellent margins (90 and above).

## 4.2. Descriptive statistics of dependent and independent variables

### 4.2.1. Descriptive statistics for dependent variables

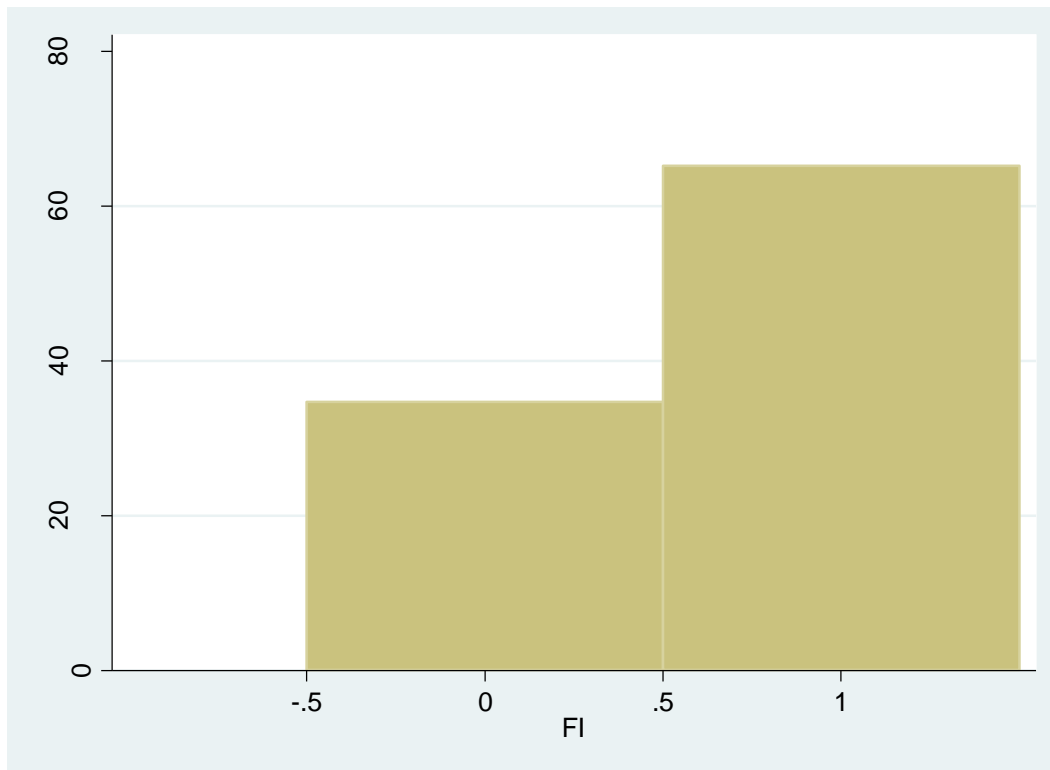
#### 4.2.1.1. Overall financial inclusion status

Table 4.1 Overall financial inclusion status

<b>Variables</b>	<b>Category</b>	<b>frequency</b>	<b>Percent</b>	<b>Cumulative percent</b>
Do you, either by yourself or together with someone else, currently have an account at a bank, micro finance or SACCOS?	Yes(included)	242	65.23	65.33
	No (excluded	129	34.77	100.00
	Total	371	100	
]				

Source:-from the questioner's survey 2023

Table4.1 financial inclusion statuses

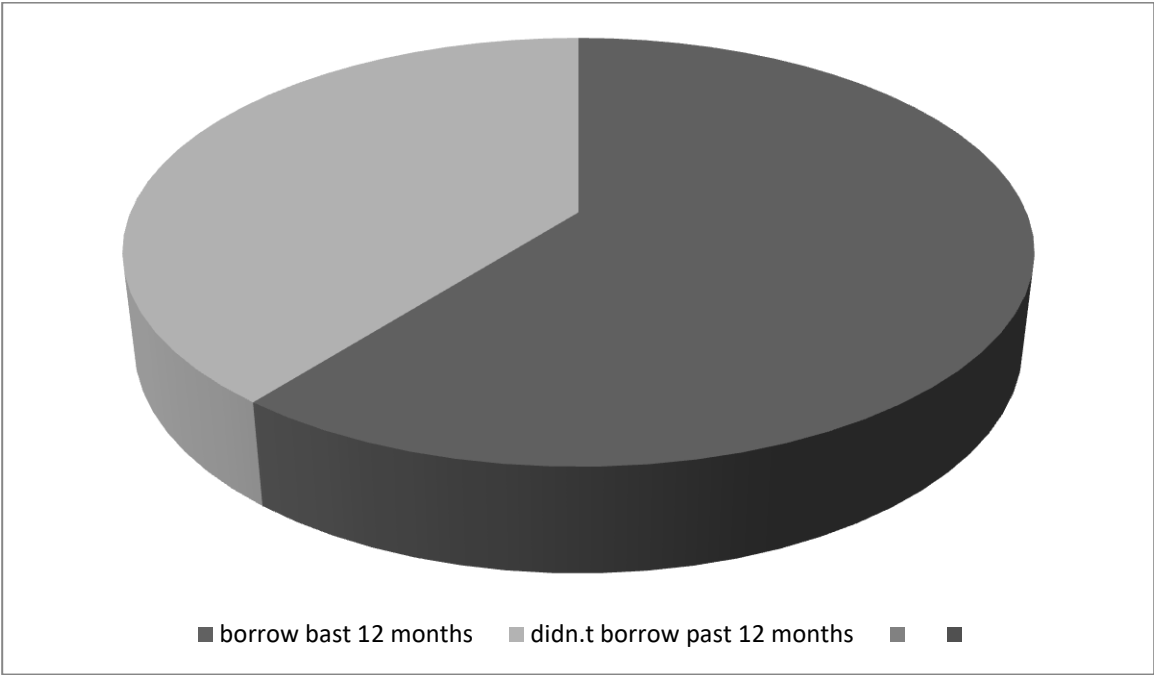


Figur4.1 financial inclusion statuses

To know the financial inclusion status of the respondents, they were to indicate in the questionnaire that having of account, either by an individual or together with someone else, currently at a bank, microfinance, or SACCOS. The Global Findex 2017 database defines account ownership as having an individual or-owned account with a financial institution or through a mobile money provider. The first category includes accounts with a bank or other type of formal institution, regulated financial institution, such as a credit union, cooperative, or microfinance institution. Formal accounts provide a safe way to store money and build savings for the future. They also make it easier to pay bills, access credit, make purchases, and send or receive remittances. Having an account is therefore used by the World Bank and others as an indicator of financial inclusion. Therefore the current study also focused on three financial institutions' formal accounts as measurements of financial inclusion which are Bank, Microfinance, and SACCOS. the fact that the individual has an account at a formal financial institution; which is a binary outcome in which case 0 represents no ownership of account from a financial institution and 1 owner of an account on the financial institution.

Table 4.1 indicated that out of the 371 respondents 129(34.77%) where there is no account in a financial institution, (financially excluded) while the remaining 242(65.33%) were having an account in a financial institution (financially included). This shows that currently around 37.7% of working-age adults in the gurage zone are still financially excluded or they do not have to use financial service and products from a formal financial institution.

**4.2.1.2. Financial inclusion by usage of loan**



**Figure 4.2. Financial inclusion by loan**

Source; - compiled from the questionnaire, 2023

Tabl4.2 Financial Included respondents by usage of loan

Source; - compiled from the questionnaire, 2023

<b>Variables</b>	<b>Category</b>	<b>frequency</b>	<b>percent</b>	<b>Cumu.percent</b>
Financial Included respondents by usage of loan	I borrow from financial institution in past 12 months	225	60.6%	51.6%
	I didn't borrow from financial institution in past 12 months	146	39.4%	100%
<b>Total</b>		371	100%	

Table 4.2 show that among financially included respondents the majority 225(60.6%) of the respondents were borrow from financial institution in last 12 months 146(39.4 %) were have not been borrow from the financial institution in past 12 months .The implication is that currently around 39.4% of working-age adults in the gurage zone are still financially excluded or they do not have to use financial service and products from a formal financial institution.

**4.2.1.3. Usage of financial institution's account**

<b>Variables</b>	<b>Category</b>	<b>Frequency</b>	<b>percent</b>	<b>Cumulative percent</b>
Usage of financial institution account	In past 12 month your account can be used to save money,	96	39.7%	39.7%
	In the PAST 12 MONTHS, has money ever taken out from your account	98	40.5%	80.2%
	In the PAST 12 MONTHS, has given or sent money to any other by using FIs accounts	23	9.5%	89.7%
	RECEIVED money from a relative or friend living in a different city or area through a bank, micro finance or SACCOS	22	9.1%	98.7%
	personally, made regular payments for electricity, water, OR any other utility, through a bank, micro finance or SACCOS	3	1.3%	100%
<b>Total</b>		242		

Source; compiled from the questionnaire, 2023

**Table 4.3; financially included respondents by the usage of accounts**

Table 4.3. Indicate that in the last twelve months, the majority of financially included respondents 96(39.7%) and 98(40.5%) used their accounts for saving and withdrawing money, respectively, and 23(9.5%) of respondents used their accounts to personally give or send money to a relative or friend living in a different city or area and sent money through a bank, microfinance, or SACCOs. According to this table 22 (9.1%) of the respondents have only received money, through a bank, microfinance, or SACCOs, from a relative or friend living in a different city or area. This does not include money received in the form of wage or salary, or any payment for doing something. Finally, only 3 (1.3%) of respondents used their accounts to make regular payments for electric, water, or any other utility through a bank, microfinance, or SACCOs. The implication of this result indicates that in the study area more account owner used their accounts to save money and take out that money for different consumption and very few account used for other purposes.

#### 4.2.1.4. Respondent's Reasons for not having a Formal Account

<b>Variables</b>	<b>Category</b>	<b>Frequency</b>	<b>percent</b>	<b>Cumulative percent</b>
<b>Respondents reasons for not having formal account on financial institution</b>	Because financial institutions are too far away	27	20.9%	20.9%
	Because you don't have the necessary documentation (identity card, etc)	20	15.5%	36.4%
	Because you don't trust financial institutions	16	12.4%	48.8%
	Because of religious restriction	26	20.2%	69%
	Because you don't have enough money to use financial institutions	23	17.8%	86.8%
	Because someone else in the family already has an account	11	8.6%	95.4%
	Because you have no need for financial services at a formal institution	6	4.6%	100%
<b>Total</b>		129	<b>100%</b>	

Source; - Compiled from the questionnaire, 2023

Table.4.4. Respondent's reasons that for not having a formal account in a financial institution.

The survey includes eight possible perceived reasons that individuals gave for their decision not to have a formal account., some of these answers can be considered voluntary exclusion (*no need for financial services at a formal institution, someone else in the family already has an account* and “*lack of trust*”) while others can be categorized as involuntary exclusion (*religious reasons, lack of money, too far away, lack of documentation, and “too expensive*).

Table 4.4 summarizes the different barriers to account ownership that are perceived by individuals. A first look at the data reveals that *the distance* is the most often cited reason for not having a formal account in gurage zone 27(20.9%), is one of the main barriers to respondents. This reason is an instance of involuntary exclusion of individuals from the formal financial sector. 26(20.2%) ,20(15.5%) ,16(12.4%) ,23(17.8%) ,11(8.6%) ,6(4.6%) and 6(4.3%) Because religious restriction, you don’t have the necessary documentation (identity card, etc) Because you don’t trust financial institutions Because you don’t have enough money to use financial institutions Because someone else in the family already has an account and Because you have no need for financial services at a formal institution .

The *documentation is* most frequently cited reason for not having an account in the gurage zone which is also involuntary exclusion. Additionally, documentation as a barrier to having an account is more likely to affect the characteristics of being female, being young, and living Urban and less likely to affect the character of a government employee.

Lack of money is also the other most common reason for not having an account in the gurage zone the respondent 23(17.8%) conclude that not having an account is *Because of don’t have enough money to use formal financial institutions* this barrier was considered as a significantly been affected by the individual characteristics of being young, being female, and unemployed. The reasons behind that have no formal account for the financial institution from respondents in the gurage zone were *because religious restriction* 26(20.2%) as important reasons in explaining financial exclusion in the study area. This is one of the main barriers to rural residents, as a barrier to financial inclusion. Inversely living in an urban and being financially capable are less likely to be cited as barriers to account ownership.

The other reason perceived as a barrier to financial exclusion in sample respondents was *because I don't trust financial institutions* 16(12.4%). *Because I have no need for financial services at a formal institution* is also the other less cited reason 6(4.5%). This is more likely to be cited as a barrier to individual's characteristics like Muslim, being female, being uneducated, and living in rural, while this is less likely to be the case for individuals living in urban and educated.

Both voluntary and involuntary reasons contribute to the financial exclusion of respondents in the study area (gurage zone). However, involuntary exclusion such as religious restriction, lack of necessary documentation, and lack of enough money are the major obstacles in the gurage zone.

#### 4.2.2. Descriptive statics for independent variables

According to this study respondents Socioeconomic and Demographic Characteristics are considered as independent variables. Among the characteristics discussed include Gender of the respondent, Age of the respondent, Educational level of the respondent, Income of the respondent, Marital status of the respondent, Occupation of the respondent, Place of Residence, Financial literacy, Trust in Financial Inclusion, Documentation required by a financial institution, Distance from financial institution branch and Religion of the respondent.

Therefore the results obtained from socio-economic and demographic information of the questionnaires were presented through frequency and valid percentage presentation is as shown in table 4.4

Variable	Category	Frequency	Percentage	Cumulative percent
<b>Gender</b>	Male	211	68.2	56.87
	Female	159	31.8	100.0
	Total	371	100%	
<b>Level of Education</b>	No formal education	94	25.34	25.34
	Primary school	160	43.13	68.48
	Secondary school	60	16.17	84.64
	Diploma and above	57	15.36	100.0
	Total	371	100%	

<b>Occupation</b>	Government employ	51	14.82	14.82
	Employed in private business	67	18.08	32.88
	Farmers	212	57.14	90.03
	Unemployed	31	8.36	98.38
	Retired	6	1.62	100.0
	Total	371	100%	
<b>Marital status</b>	Unmarried	130	35.04	35.04
	Married	241	64.96	100.0
	Total	371	100%	
<b>Place of residence</b>	Urban	155	41.78	41.78
	Rural	216	58.22	100.0
	Total	371	100%	
<b>Financial literacy</b>	NO(illiterate)	146	40.16	40.16
	YES(literate)	222	59.84	100.0
	Total	371	100%	
<b>Trust</b>	NO(not trust)	129	34.77	34.0
	YES(trust)	242	65.23	100.
	Total	371	100%	
<b>Documentation</b>	NO (not difficult)	143	38.54	38.54
	YES (difficult)	228	61.46	100.0
	Total	371	100%	
<b>Religion</b>	Others	231	62.26	62.26
	Muslim	140	37.74	100.0
	Total	371	100%	

Source; - Compiled from questionnaire 2023

**Table 4.5; Descriptive statistics for categorical variables**

Table 4.5 showed the distribution of respondents according to socioeconomic and demographic characteristics. The table indicated that the majority 211(68.2%) of the respondents were males and 159(31.8 %) were females. The implication is that males are dominated the sampled respondent in the study. The majority 160(43.13%) of the respondents were in primary school, 94(25.34%) of respondents were no formal education, 60(16.17%) respondents are secondary school and 57(15.36%) of the respondents have a diploma and above respectively.

As stated in the above table, Majority 212 (57.14%) of the respondents are farmers, 67(18.08%) of the respondents were employed in private business, 51(14.82%) of the respondent were government employees, 31 (8.36%) of the respondent were unemployed and 6(1.62%) of the respondent were retired.

According to the literature, there is a greater chance of someone who is formally employed to be using official financial facilities and there are low chances for an individual with nobody with formal employment to be financially included (Clamara et al., 2014).

Table 4.5 also revealed that the majority 241(64.96%) of the respondents were married and 130(35.04%) unmarried (Single). According to a previous study, A married person has a bigger chance of being financially included than someone single (Soumare et al., 2016) and (Cano et al., 2013) maintained that marriage increased the possibility of an individual using official financial facilities. Table 4.6 also showed that the majority 216(58.22) of the respondents were residing in rural areas, while 155(41.78%) were located in urban areas. There are variances in the financial accessibility of individuals staying in urban areas and those in rural areas. The previous study conducted by (Beck and Brown, 2011), revealed differing impacts of the geographic location of individuals related to formal financial services. The table also revealed that 222(59.84%) of the respondents were knowledgeable about financial services and products, while 146(40.16%) were not knowledgeable about financial services and products. Shankar (2013) asserted that financial capability comprises the capacity to decide (information, motivation, composure, and skills) and the expectation to act (having accessibility to banking services and other facilities) and also established that a lack of financial knowledge keeps people out of the official financial structure and that at any level people need both financial knowledge and skills to be financially included. Besides, the majority of 242(65.23%) of the respondents were trusting or assured in the financial institutions, while 129(34.77%) did not trust or have confidence in the financial institutions. Trust in the financial institutions is increase the ability to the usage of financial services and products or financial inclusion status. As people increase their trust in the financial services provider there increase also their uptake of the same service (Mekuanint et al., 2019).

Table 4.5 revealed that the majority 228(61.46%) of the respondents were not easily accessed to get the documentation required that have needed to open financial institution accounts such as ID cards and 143(38.54%) of the respondents were easily access documentation required that have needed to opening financial institution account such as ID card. the previous study done by DAS (2015) found that many and not easy to provide documentation requirements and structural procedural formalities are among the main obstacles to financial inclusion. Similarly, Beza et al. (2020) on their empirical evidence prove that the main factor that contributes to financial exclusion is too many documentation requirements.

Finally, table 4.6 shows that the Minority 140(37.74%) of respondents are Muslim, while 231(62.26%) of the respondents follow other religion.

**Figure 4.3.Descriptive statistics for continuous variable.**

. sum Age income Distance

Variable	Obs	Mean	Std. Dev.	Min	Max
Age	371	42.00809	16.00819	19	65
income	371	4644.547	3753.672	600	13000
Distance	371	3.800539	3.20862	0	13

Source; Stata 12

N Minimum Maximum Mean Std. Deviation for:-

Age 371 19 65 42.00809 16.00819

Income 371 600 13000 4644.547 3753.672

Distance 371 0 13 3.800539 3.20862

AsFigure 4.3 minimum age observed was 19 while the maximum was 65 years. The mean age of the sample respondents was 42.00809 with a standard deviation of 16.00819 years. The implication is that Adults dominated the sampled respondents in the study and according to literature; this Age category is economically active.

The minimum average monthly income observed was 600 while the maximum was 1300 Ethiopian birr. The mean average monthly income of the sample respondents was 4644.547 with a standard deviation of 3753.672.

According to the World Bank (2014), income is the most important factor in determining whether or not a person has a bank account, and it is one of the main reasons for the poor's inability to keep a bank account. The study conducted by Devlin (2009), is also revealed that high-income earners were less likely to be financially excluded than low-income groups.

Figure 4.3 also shows that the minimum distance from financial institution branches observed was 0 (0 values indicates that less than 0.5 kilometers) while the maximum was 13 kilometers. The mean distance from the financial institution branch of the sample respondents was 3.8 with a standard deviation of 3.2

### 4.3. Financial Inclusion Status by Each explanatory Variable

In the above section of the study, Tables showing frequencies and percentages graphic presentations, as well as minimum, maximum, mean, and standard deviation, were employed to condense the data in a manner that displays the overall patterns of the sampled respondents. Since these cannot help us to compare financial inclusion and exclusion groups by measuring account ownership from a financial institution in terms of each explanatory variable.

Table 4.6 Financial Inclusion by Gender of the Respondents.

Gender * Financial inclusion Cross tabulation					
Your Gender			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
Gender	male	Count	80	132	212
		% of total	21.56%	35.58%	57.14%
	female	Count	58	101	159
		% of total	15.63%	27.22%	42.86%
Total		Count	138	233	371
		% of total	37.20%	62.80%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.6. Show that of financially included respondents, 132(35.58%) were male, and only 101(27.22%) were female. Similarly, among financially excluded respondents 80(21.56%) and 58(15.63%) were male and female respondents respectively. Unbanked women account for a disproportionately big proportion of the global population, women have lower salaries due to gender inequities in employment and earnings, rendering them less able to open accounts in formal financial institutions (RAO, 2015).

Table 4.7. Financial Inclusion by Age of Respondent

Age * financial inclusion Cross tabulation						
Age			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		Total	
			No	Yes		
Age	18-30years	Count	62	65	127	
		% of total	16.71%	17.52%	34.23%	
	31-43 years	Count	35	101	136	
		% of total	9.43%	27.22%	36.65%	
	44-56 years	Count	25	51	76	
		% of total	6.74	13.75	20.49	
	Above 56 years	Count	17	15	32	
		% of total	4.58	4.04	8.62	
	Total		Count	139	232	371
			% of total	37.47%	62.53%	100%

Source; - Compiled from the questionnaire (2023).

Investigation into the financial inclusion status of each age, the bracket was carried out and the results are as follows. As the table data indicated that the respondents of age groups 31-43 years, 18-30 years, 44-56 years, and above 56 years of age each with a financial inclusion status of 17.52%, 27.22%, 13.75% and also 4.04% respectively. Since there were concluded that the best financial inclusion age category is 31-43(27.22%) and 18-30(17.52%) when we compared to other age category 44-56(13.75%) and above age 56(4.04%) only. At the same time, from excluded respondents, 16.71% have under age category of 18-30, 9.43% have under age category of 31-43, 6.74% have under age category of 44-56 and 4.58% have above 56 ages not respectively. The implications show as people grow, they tend to understand the importance of financial products and services compared to the young; this was leading them to use more of these services and products but until some threshold or in retired age the probability of financial inclusion is decline. This was supported by several studies (David & Varaidzo, 2020; Esmael & Mohammmd, 2021).

Table 4.8. Financial Inclusion by Educational level of Respondent

Educational level * Financial Inclusion Cross tabulation					
Educational level			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
Educational level	No formal education	Count	86	30	116
		% of total	23.18%	8.09%	31.27%
	Primary school	Count	39	133	172
		% of total	10,51%	35.85%	46.36%
	Secondary school	Count	10	28	38
		% of total	2.69	7.55	10.24
	Diploma and above	Count	3	42	45
		% of total	0.81	11.32	12.13

Total	Count	138	233	371
	% of total	37.20%	62.80%	100%

Source; - Compiled from the questionnaire (2023).

According to the level of Education, table 4.8 indicates that financially included respondents were 30(8.09%) with no formal education, 133(35.85%) with primary school, 28(7.55%) with secondary school, and 42 (11.32%) with Diploma and above. Similarly, among the financially excluded respondents, 86(23.18 percent) had no formal education, 39(10.51%) had a primary school, 10 (2.69%) had secondary school, and 3 (0.81%) had a diploma or higher this could indicate that those who are well-educated have an easier time understanding various financial products, increasing their chances of being financially involved.

Table 4.9.Financial Inclusion by Occupation of Respondent

Occupation * financial inclusion Cross tabulation					
Your occupation?			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
Occupation	Government employ	Count	0	53	53
		% of total	23.18%	14.28%	14.28%
	Employed in private business	Count	30	32	62
		% of total	8.09%	8.62%	16.71%
	Farmers	Count	89	127	216
		% of total	23.80	34.23	58.22
	Unemployed	Count	21	14	35
		% of total	5.66	3.77	9.44
	Retired	Count	1	4	5
		% of total	0.27	1.08	1.35

		total			
Total		Count	141	230	371
		% of total	38.01%	61.99%	100%

Source; - Compiled from the questionnaire (2023).

As stated in table 4.9. Of financially included respondents, 127(34.23%) were the farmer's respondents, 53(14.28 %) were government employee respondents, 32(8.62%) were Employed in private business, 14(3.77%) were unemployed and 4(1.08%) were retired. Similarly, among financially excluded respondents 89(23.80%), 30(8.09 %), 21(5.66%), and 1(0.27%) were farmers, Employed in private business, unemployed, and retired.

Table 4.10. Financial Inclusion by Average monthly Income of Respondent

Income * financial inclusion Cross tabulation						
Your average monthly income in Birr?			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?			
			No	Yes	Total	
income	Br 5012000	Count	81	31	112	
		% of total	21.83%	8.35%	30.18%	
	Br 2001-3500	Count	37	63	100	
		% of total	9.97%	16.98%	26.95%	
	Br 35015000	Count	5	74	79	
		% of total	1.35	19.95	21.29	
	>5000Br	Count	15	65	35	
		% of total	4.04	17.52	9.43	
	Total		Count	138	233	371
			% of total	37.20%	62.80%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.10 revealed that among financially included respondents, 74(19.95%) of the respondents were having average monthly income between 3501-5000, 65(17.52%) were having an average monthly income is greater than Br 5000, 63(16.98%) were having an average monthly income between Br 2001-3500 and 31(8.35%) were having average monthly Income of Br 501- 2000. Whereas within financially excluded respondents 81(21.83%), 37(9.97%), 15(4.04%) and 5(1.35%) were having average monthly income between 501-2000, 2001- 3500, greater than Br 5000 and 3501-5000. The implication is that a lower-income level reduces the likelihood of being financially included while a higher income level increases the chances of being financially included.

Table 4.11. Table 4.8; Financial Inclusion by marital status of Respondent

Marital status * Financial Inclusion Cross tabulation					
Your marital status			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
marital status	Unmarried	Count	55	20	75
		% of total	14.82%	5.39%	30.18%
	Married	Count	86	210	296
		% of total	23.18%	56.60%	26.95%
Total		Count	141	230	371
		% of total	38.01%	61.99%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.11. Gives an overview of Financial Inclusion and Marital status

According to the table comparing the married and single, notably, 210(56.60%) financial included is married respondents, and only 20(5.39%) financially included respondent is unmarried. Similarly, among financially excluded respondents 86(23.18%) and 55(14.82%) were married and single respondents respectively. This implies that the married respondents are better at financial inclusion than the single respondent. The married have more access to information and resources and hence higher financial capacity. The fact that marriage increases the chance of account ownership may be explained on the ground that married people have increased financial responsibility which leads to a higher demand for financial services (Gashaw and Gebe, 2017)

Table 4.12. Financial Inclusion by place of Residence

Place of Residence * Financial inclusion Cross tabulation					
Your place of Residence?			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
place of Residence	Urban	Count	40	104	144
		% of total	10.78%	28.03%	30.18%
	Rural	Count	101	126	227
		% of total	27.22%	33.96%	26.95%
Total		Count	141	230	371
		% of total	38.01%	61.99%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.12 shows the association between place of residence and financial inclusion. Among financially included respondents, 126(33.96%) were the respondents that have resides in rural, and 104(28.03%) were the respondents that have resides in urban areas. Similarly, among financially excluded respondents 40(10.78%) were the respondents that have resided in urban and 101(27.22%) were the respondents that have resided in rural areas. It is so right to submit that there is association between Financial Inclusion and place of residence.

Table 4.13.Financial Inclusion by Financial Literacy

Financial Literacy * Financial Inclusion Cross tabulation					
Do you know about financial services and products?			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
Financial literacy	NO(illiterate)	Count	123	52	175
		% of total	33.15%	14.02%	47.17%
	YES(literate)	Count	15	181	227
		% of total	4.04%	48.79%	61.18%
Total		Count	138	233	371
		% of total	37.20%	62.80%	100%

Source; - Compiled from the questionnaire (2023).

As stated in table 4.13 above among financially excluded respondents 123(33.15%) were the respondents that have no knowledge about financial services and products (illiterate) and 15(4.04%) were the respondents that know financial services and products (literate). Among financially included respondents 181(48.79%) were the respondents that have knowledge about financial services and products (literate) and 52(14.02%) were the respondents that have no knowledge about financial services and products (illiterate). This implies that those people who are financially literate can understand the advantages and disadvantages of the various financial services and products to ensure the ability to make the best use of their money.

Table 4.14. Financial Inclusion by respondent's trust in the financial institution

Trust * Financial Inclusion Cross tabulation					
Do you trust or are confident in the financial institution?			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
trust	NO(not trust)	Count	94	30	124
		% of total	25.34%	8.09%	33.42%
	YES(trust)	Count	44	203	247
		% of total	11.86%	54.72%	66.58%
Total		Count	138	233	371
		% of total	37.20%	62.80%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.11 indicate that, of the financially included respondent, 203(54.72%) were trusted or confident in a financial institution, and only 30(8.09%) were the respondents that have not trust or confident in a financial institution. On the other hand, among financially excluded respondents 94(25.34%) were the respondents that have no trust or confidence in the financial institution and 44(11.86%) were the respondents that have trust or confidence in a financial institution. The result revealed that as people increase their trust in the financial institution the probability of using financial services and products from financial inclusion can be increased.

Table 4.15. Financial Inclusion by respondents Distance from financial institution branch

Distance category * Financial Inclusion Cross tabulation		
Distance from financial		
Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		

institution branch.			No	Yes	Total
Distance category	Near	Count	56	114	170
		% of total	15.09%	30.73%	45.82%
	Average	Count	35	74	109
		% of total	9.43%	19.95%	29.38%
		Count	50	42	92
		% of total	13.48	11.32	24.80
Total		Count	141	230	371
		% of total	38.01%	61.99%	100%

Source; - Compiled from the questionnaire (2023).

As stated in table 4.15 among financially excluded respondents 56(15.09%) were the respondents that have near financial institution branches, 35(9.43%) were respondents' average distance from a financial institution and 50(13.48%) were the respondents living far away from financial institution branch. On the other hand financial included respondents 114(30.73%) were the respondents that have near financial institution branch, 74(19.95%) were respondents average distance from a financial institutions branch and 42(11.32%) were the respondents living far away from financial institution branch.

Table 4.16. Financial Inclusion by documentation

Documentation * Financial Inclusion Cross tabulation					
Is Documentation required such as an ID card etc., to open a financial institution account is difficult for you?			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
Documentation	NO (not difficult)	Count	38	91	129
		% of	10.24%	24.53%	34.77%

		total			
	YES (difficult)	Count	103	139	247
		% of total	27.76%	37.47%	66.58%
Total		Count	141	230	371
		% of total	38.01%	61.99%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.16 revealed that among Financial Included respondents, 139(37.47%) has difficulty accessing sufficient documentation but the remaining 91(24.53%) easily access sufficient documentation that is enough to be required by the financial institution. Similarly, among financially excluded respondents, 103(27.76%) it's difficult to provide documentation and 38(10.24%) have easily provided the required documentation.

Table 4.17. Financial Inclusion by the religion of respondents

Religion * Financial inclusion Cross tabulation					
Your religion			Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance or SACCOS?		
			No	Yes	Total
religion	Others	Count	136	95	231
		% of total	36.66%	25.61%	62.26%
	Muslim	Count	5	135	140
		% of total	1.35%	36.39%	37.74%
Total		Count	141	230	371
		% of total	38.01%	61.99%	100%

Source; - Compiled from the questionnaire (2023).

Table 4.16 compares the Muslims and, others, 135(36.39%) financial included is Muslim respondents, and 95(25.61%) financially included respondents are other than Muslims. Similarly, among financially excluded respondents 136(36.66%) and 5(1.35%) were Muslim and other religion follower respondents respectively. It is so right to submit that there is a association between Financial Inclusion and religion.

## 4.2 Econometric Analysis

At this point we present our main empirical findings by discussing determinants of financial inclusion indicators. We also present findings on the determinants of barriers to financial inclusion.

### 4.2.1. Correlation Coefficient Analysis

Figure 4.4 Pearson correlation analyses Pearson correlation coefficient analysis is to measures of the direction and degree of relationship between two variables. The coefficient of this analysis can range from -1 to +1. Coefficient approaches to +1 indicate that stronger relationship between two variables and -1 indicate that weaker relationship between two variables .A negative correlation means that an increase in the value of one variable and the value of other variable will be decrease. A positive correlation means that the value of two variables will increase or decrease together.

	FI	Age	income	Religion	marital	reside-e	literacy
FI	1.0000						
Age	0.3080	1.0000					
income	0.4840	0.1117	1.0000				
Religion	-0.6942	-0.3155	-0.3254	1.0000			
marital	0.4071	0.2834	0.0912	-0.3563	1.0000		
residence	0.4893	0.0656	0.3691	-0.2958	0.1029	1.0000	
literacy	0.1848	0.0114	-0.1098	-0.0906	0.3892	0.0336	1.0000
Trust	0.5738	0.1028	0.3019	-0.4661	0.2138	0.3169	0.0488
Distance	-0.7726	-0.2420	-0.5267	0.5404	-0.2391	-0.3990	-0.0898
Documentetion	-0.2881	0.0864	0.0117	0.1125	0.0406	-0.3245	0.1081
occupation	0.0160	-0.0617	0.0466	-0.0441	0.0274	-0.0189	-0.0200
gendere	-0.4748	-0.1081	-0.4831	0.3163	-0.0486	-0.3309	0.0030
edu	0.4588	0.1754	0.1060	-0.3562	0.2665	0.2467	0.2190

	Trust	Distance	Docmen~n	occupa~n	gendere	edu
Trust	1.0000					
Distance	-0.5202	1.0000				
Documentetion	-0.1060	0.1083	1.0000			
occupation	0.0811	-0.0595	0.0701	1.0000		
gendere	-0.3156	0.4884	-0.0250	0.0108	1.0000	
edu	0.3835	-0.3263	-0.0650	-0.0676	-0.2570	1.0000

**Figure 4.4 Pearson correlation analyses**

### 4.2.2 Test of the regression out put

Multicollinearity problem refers the existence of relationship among explanatory variables that can affect the result. When there is a Multicollinearity problem, a small change in the data products wide range in parameters;

The reciprocal of the tolerance is known as the Variance Inflation Factor (VIF). The VIF shows us how much the variance of the coefficient estimate is being inflated by Multicollinearity. Using VIF as an indicator of Multicollinearity, some authors stated that the larger the value of VIF the more collinear the variable. As a rule of thumb, if the VIF of a variable exceeds 10, which will happen if R<sup>2</sup> exceeds 0.90, that variable is said be highly collinear.

From the Multicollinearity test of the model, the mean VIF = 1.48 and the reciprocal VIF for most explanatory variables is above 0.5 which indicates that independent variables have less relationship with each other. Hence, it is possible to conclude that the Multicollinearity is not a threat for the model. As it is shown on table 4.5 the VIF of the output is less than 5, so it fit the model.

Generally, The VIF (Variance Inflation Factor) measures how much the variance of an estimated regression coefficient increases if independent variables are correlated. The collinearity test revealed that the mean VIF was 1.48 which is less than 5 and as such, there was no need to drop any variable.

. vif

Variable	VIF	1/VIF
Distance	2.18	0.459086
Religion	1.74	0.573832
income	1.69	0.591898
Trust	1.59	0.627727
gendere	1.54	0.648225
residence	1.47	0.679903
marital	1.44	0.692954
edu	1.37	0.731491
literacy	1.30	0.770136
Documentetion	1.23	0.814301
Age	1.23	0.815010
occupation	1.04	0.962441
Mean VIF	1.48	

Source: computed from own survey, 2023

**Table 4.5 variance of inflation factor**

### 4.3 Reliability Analysis

In order to measure internal consistency or reliability of questionnaire or survey that is made up of multiple likert type scales and in mostly cronbach alpha used . Reliability analysis has been employed in prior IA researches those adopt likert-scale questionnaire (Mihret, 2010) and (George, 2015). A reliability analysis value ( $\alpha$ ) greater than 0.600 is acceptable according to (Cronbach's, 1951, pp. 297-334), the minimally acceptable value of alpha in reliability analysis is 0.70; in practice, though, for high-stakes questionnaires, aim for greater than 0.90. Therefore, Cronbach's alpha in my model is 0.6637 that implies consistent and reliable survey. According to (Cronbach's, 1951) the coefficient of alpha should be at minimum 0.70 or more which applied for research purpose.

Reliability refers to the confidence we can place on the measuring instrument to give us the same numeric value when the measurement is repeated on the same object. If the measurement generates the same answer in repeated attempts, it is reliable (Gujarati, 1995). In this research, the researcher use Cronbach's Alpha to test the internal consistency. Through this test, researcher can explain and interpret the reliability among the variable. According to (Cronbach's, 1951) the Cronbach's Alpha reliability coefficient which is smaller than 0.60 is indicated poor reliability and the coefficient from 0.60 to 0.70 is indicated as fair reliability, and the coefficient from 0.70 to 0.80 is indicated as good reliability. The coefficient that is 0.6637 is considered as good reliability.

Test scale = mean(unstandardized items)

Reversed items: Religion Distance Documentetion genere

Average interitem covariance:	.2483857
Number of items in the scale:	13
Scale reliability coefficient:	0.6637

Figure 4.9 Reliability Analysis

#### 4.4 Determinants of Financial Inclusion Indicators

**Test for omitted variables:** Ramsey RESET test using the powers of the fitted values of dependent variable is used to detect whether there is an omitted variable in the regression model. The result shows that  $F(12, 358) = 668.81$  and  $\text{Prob} > F = 0.0000$  which means that, the model has no omitted variables which accept the null hypothesis ( $H_0$ : model has no omitted variables) by rejecting the alternative one. The model statically significant

**Goodness to fit:** the regression output of the model indicates that ( $R^2 = 0.8171$ ) the model statistically significant since  $\text{Prob} > F = 0.0000$ . Following the model tests, the relationship of predictor variables and the predicted variable could be discussed with t-test significance. ( $R^2 = 0.8171$ ) indicates that 81% of the model explained by the explanatory variables and remaining only 19% explained by residual.

The suggested model is applied to estimate the relationship between financial inclusion and the explanatory variables in Gurage zone. The regression coefficient provides the expected change in the dependent variable. A negative coefficient indicates a negative relationship. As The estimated Probit and regression models for using primary data are presented below.

```
. reg FI Age income Religion marital residence literacy Trust Distance Documentetion occupation genere edu
```

Source	SS	df	MS	Number of obs = 371		
Model	68.7512757	12	5.72927298	F( 12, 358) =	133.24	
Residual	15.3942768	358	.043000773	Prob > F =	0.0000	
				R-squared =	0.8171	
				Adj R-squared =	0.8109	
Total	84.1455526	370	.227420412	Root MSE =	.20737	

FI	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Age	.0208815	.0068875	3.03	0.003	.0073364	.0344265
income	.025672	.007387	3.48	0.001	.0111446	.0401994
Religion	-.2309566	.0284243	-8.13	0.000	-.2868563	-.175057
marital	.1166549	.0260761	4.47	0.000	.0653734	.1679365
residence	.0636825	.026726	2.38	0.018	.0111229	.1162422
literacy	.0870125	.0248742	3.50	0.001	.0380946	.1359304
Trust	.100211	.0284314	3.52	0.000	.0442974	.1561245
Distance	-.0528374	.0049025	-10.78	0.000	-.0624788	-.0431961
Documentetion	-.201561	.0241902	-8.33	0.000	-.2491338	-.1539882
occupation	-.0010628	.0077485	-0.14	0.891	-.0163011	.0141754
genere	-.0845736	.0268044	-3.16	0.002	-.1372875	-.0318596
edu	.0226044	.0068184	3.32	0.001	.0091952	.0360136
_cons	.7080417	.0658381	10.75	0.000	.5785638	.8375197

Figure 4.6. Regression model result

As regression and Probit model result above table the age variable is significant and is firmly linked to financial inclusion in Gurage zone. This implies that as age rises, the likelihood of one

using an official financial facility increases. A person's age is a vital element affecting their financial statutes.

The results show that gender is relevant with a negative relationship. A male individual is more likely to be financially included than a female. The outcomes show that gender is a determinant of financial inclusion in the rural zone.

Marital status is significant and is positively correlated to financial inclusion. This indicates that if an individual is married, it is more probable that he/she will be using official financial facilities compared to an unmarried individual. The outcomes show that marital status is a significant factor in influencing financial inclusion.

Distance is significant and is negatively correlated to financial inclusion. An individual that has a lower distance from the financial institution is more likely to be financially included. The results show that distance is an important factor in the determination of the financial inclusion status of an individual.

Residence influenced financial inclusion with a positive association. An individual living in town was more likely to be using a facility with an official financial firm than an individual living in a rural area. The results show that people from the countryside are less likely to have facilities with official financial firms as there may not be infrastructure or suppliers in those areas.

Education influences financial inclusion with a positive link. A more educated individual is more likely to be financially included than someone who is less educated. The results show that when a person is educated, s/he is likely to better appreciate the significance of having a formal account than a person who is less educated.

Financial literacy is significant and is positively linked to financial inclusion. Someone who has access to financial advice is more likely to be financially included than a person who does not have access to financial advice. The empirical results demonstrate that financial advice is a vital factor in the distribution of financial services, as the individual will be equipped with the requisite information to make a positive decision.

Income affects financial inclusion with a positive link. A greater income level, the individual is likely to have more disposable income for savings, investment, and so on, increasing the chances of being financially included.

As regression and probit model results indicated that occupations have negative correlation and insignificant to financial inclusion.

## 4.5. Summary of econometrics

Figure 4.7 being a woman decreases the probability of being financially included in the past 12 months by 8.46 percent. As one becomes older, this increases the probability of having an account by 2.88 percent. The variables with the strongest impact on the probability of being financially included are education and income. Being better educated increases the probability of financially included 2.26 percent and increasing individual income does raise the probability of being included by 2.57 percent. Marital status and trust are the variables that increase the probability financially included 11.67 percent and 10.02 percent respectively. Religion and distance both have a negative and significant impact; however they decrease the probability of financially excluded by 23.1 percent and 5.28 percent respectively.

```
. margin, dydx(*)

Average marginal effects          Number of obs   =           371
Model VCE      : OLS

Expression      : Linear prediction, predict()
dy/dx w.r.t.   : Age income Religion marital residence literacy Trust Distance
                  Documentation occupation genere edu
```

	dy/dx	Delta-method Std. Err.	z	P> z	[95% Conf. Interval]	
Age	.0208815	.0068875	3.03	0.002	.0073822	.0343807
income	.025672	.007387	3.48	0.001	.0111937	.0401503
Religion	-.2309566	.0284243	-8.13	0.000	-.2866673	-.1752459
marital	.1166549	.0260761	4.47	0.000	.0655468	.1677631
residence	.0636825	.026726	2.38	0.017	.0113006	.1160645
literacy	.0870125	.0248742	3.50	0.000	.03826	.135765
Trust	.100211	.0284314	3.52	0.000	.0444864	.1559355
Distance	-.0528374	.0049025	-10.78	0.000	-.0624462	-.0432287
Documentation	-.201561	.0241902	-8.33	0.000	-.248973	-.1541491
occupation	-.0010628	.0077485	-0.14	0.891	-.0162495	.0141239
genere	-.0845736	.0268044	-3.16	0.002	-.1371093	-.0320378
edu	.0226044	.0068184	3.32	0.001	.0092406	.0359683

**Figure 4.7 Probit tests of marginal effect**

**4.5. Hypothesis test and discussion of the binary logistic regression result.** As shown in the table above tests of explanatory variables, probit test of marginal effect the whole model with all predictors was statistically significant. As mentioned above, eleven of the twelve independent variables had a statistically significant contribution to the model (Gender, Age, Education, Income, Marital status, Place of residence, financial literacy, Trust, Distance, Documentation, and Religion), with only one variable, occupation, being insignificant. As a result, the impact of each significant explanatory variable is discussed below, supported by empirical evidence and related theories.

#### **Gender**

$H_0$  Gender of respondents has statistically no significant effect on financial inclusion;  
 $H_1$  Gender has a statistical negative and significant effect on financial inclusion Gender had a negative and significant effect on financial inclusion, as shown in table 4.5. the inference is that female respondents are 8.46 % less likely to be financially included than male respondents, or that male respondents are 8.46% more likely to be financially included than female respondents. Furthermore, the negative gender indicator signified that women are less access to financial services and products. This is because males handle the family finances and are the primary revenue earners in most households, due to cultural factors, like as both formal and financial education, like as less access to technology as well as females, are less likely to work in formal positions or labor in low paying and/or undervalued jobs that require them to keep accounts than their male counterparts.

Moreover, most of the women in the study area are dominated by informal financial sectors such as Equb and Idr, while banks microfinance institutions and SACCOs focus on the formal economy. Another cause is that women contribute a greater proportion of their income to household consumption than men. Women, on the other hand, are more likely to engage in high frequency transactions and to handle daily costs and household financial risks. Women face events such as child birth and divorce that disrupt their saving patterns and decrease their propensity to save, thereby their accounts become sedentary.

Gashaw and Gebe (2017), discovered that females in Ethiopia are less likely than males to use financial products and services. These findings are also in line with those of David & Varaidzo (2020) and Patrick et al. (2018), who found comparable results for South Africa and Sub-Saharan Africa, respectively. Furthermore, the current result is supported by the vulnerable group theory of financial inclusion. According to this theory, a country's financial inclusion activities or initiatives should focus on the most vulnerable members of society, such as the poor, young people, women, and the elderly, who are disproportionately affected by economic hardship and disasters. It makes sense to bring vulnerable people into the official financial sector because financial crises and economic recessions disproportionately affect them (Ozili, 2020). So, this finding implies that the null hypothesis ( $H_0$ ) stating *Gender of respondents has no statistically significant effect on financial inclusion is rejected*. However, these findings contradict those of (Beza et al.,2020) who found no significant impact of gender on financial inclusion in their study Determinants of Financial Inclusion in East Gojjam, Ethiopia.

### **Age**

**$H_{02}$**  *Age of respondents has no statistically significant association with financial inclusion*

**$H_2$**  *Age has a statistically significant and positive effect on financial inclusion*

Age is the next variable in the model, and the results show that it has a positive significant impact on financial inclusion status, it is interpreted as those respondents who have a higher age had 20.88% more likely to be financially included or the probability of respondents being included in financial services increases by a factor of approximately 20.88% as the age of individuals increases by one year keeping the other variables constant.

This means that as people get older, they become more financially included. Because as people get older, they gain a better understanding of financial services and begin to use them, high employment rate and economic stability, and they become more responsible for protecting themselves from various crises. As a result, their ability to save money and use various financial institutions may protect them from crises. Inversely young respondents are more financially excluded because of higher unemployment and lower financial independence levels. The result is supported by the Vulnerable Group Theory of Financial Inclusion (Ozili, 2020). The theory revealed that as the age of individuals increase the probability of being financially included is increase, therefore financial disadvantageous group such as the young, poor, women, and elders are financially excluded more than their counterparts. This result is also in line with several previous researchers such as (Mekuanint et al., 2019; Gashaw and Gebe, 2017; Patrick et al., 2018) and (David & Varaidzo, 2020).

Accordingly, the null hypothesis ( $H_{02}$ ) stating that *Age of respondents has no statistically significant association with financial inclusion is rejected*. But this result is inconsistent with the result of (Beza et al., 2020) who found that age is no significant effect on financial inclusion.

### **Income**

*H<sub>03</sub> Income has not significantly associated with financial inclusion*

*H<sub>03</sub> Income has a statistically significant and positive effect on financial inclusion*

Respondents' income had a statistically significant positive impact on financial inclusion, according to the findings, interpreted as those respondents who have a higher income had 2.57% more likely to be financially included. The meaning of these results was that a one-unit change in the income of a respondent is associated with an approximately 2.57% increase in the probability of demand for financial inclusion. As a result, those with a high income have enough money to create bank accounts and face fewer hurdles to financial inclusion.

According to the study, the primary reason for not having accounts is a lack of funds. As a result, the wealthiest people face fewer financial constraints, as many business operations necessitate the opening of accounts. Vulnerable Group Theory of Financial Inclusion has supported this result this theory revealed that poor people, young people, women, and the elderly were less likely to use financial services and products (Ozili, 2020).

This indicates that the respondent's more level of income is more likely to be financially included than their counterparts. A study by Ong'eta (2019) indicates that one of the factors that determine financial inclusion is the income of the individuals or households and also states that when the respondents have a regular income they will be able to operate bank accounts. The income becomes a way of accessing and using formal bank accounts for respondents. Respondents with more income may have more formal bank accounts and be able to use them regularly than those who have less and irregular income. The result is also supported by the previous study such as Beza et al. (2020); Gashaw and Gebe (2017), and Mekuanint et al. (2019) who found that having a low-level income reduce the likelihood of being included in the formal financial system. Thus the null hypothesis ( $H_{03}$ ) *state Income has not significantly associated with financial inclusion is rejected*. But the result is inconsistent with the previous researchers (Esmael & Mohammad, 2021) who found a negative relationship between the income of households and financial inclusion.

### **Education**

$H_{04}$  *Educational level has not been significantly associated with financial inclusion ;*

$H_{04}$  *Educational level has a statistically significant and positive effect on financial inclusion.*

The results show a positive and significant relationship between Educational level and financial inclusion. The coefficient educational level was significant at all levels with a significant value of less than 5% for all. No formal education is the reference category. Among the four levels of education, Diploma/Degree and above had a higher probability of demand for financial products compared to no formal education, primary and secondary school.

The demand for financial products such as having a financial institution account is 2.26% higher for respondents who have a Diploma/Degree and above when we compare to no formal education, primary and secondary school. According to Sanderson et al., (2018), educated people can quickly comprehend the various financial products on the market. This increases their likelihood of participating in the formal financial market. As the study was done by Ong'eta (2019) also found that gender, age, income, and education influenced financial inclusion in Africa. They also noted that education and income had a higher influence than the other factors. This finding is also supported by (Gashaw and Gebe, 2017; Mekuanint et al., 2019; Patrick, 2018) and (David & Varaidzo, 2020). Therefore according to the above result, the null hypothesis ( $H_{04}$ ) *stating that the Educational level of the respondents has not been significantly associated with financial inclusion is rejected*.

## **Distance**

*H<sub>05</sub> Distance from financial institutions branch has not been significantly associated with financial inclusion.*

*H<sub>05</sub> Distance from financial institutions branch has a statistically significant and negative effect on financial inclusion.*

The results also showed that distance from the financial institution branches had a statistically negative and significant impact on financial inclusion. This implies that as respondents far by one kilometer the respondent's financial inclusion status may decrease by 5.28%, on the other hand, the higher the level of distance from the financial institution branch the lower will be their financial service usage practice. This finding implies that most of the respondents living far from financial institutions are financially excluded. Because of the high traveling cost, lack of financial literacy, and a lack of trust. When dealing with financial institutions that are located inside a physical structure, it was trusting gives people more confidence. The result is in line with the current finding Gashaw and Gebe (2017) in their study on financial inclusion and its determinants among households found that the greater the distance away from centers that provide financial services and products the less the people will be financially included. People's ability to access financial products is hampered by distance. People should be able to easily access financial products so that they can receive any benefit from them. Similarly, Bhuvana (2016) in their empirical evidence proves that the greatest barrier to financial inclusion to reach rural areas is the distance from the financial institution. *As a result, the null hypothesis (H<sub>05</sub>) state Distance from financial institutions branches has not been significantly associated with financial inclusion is rejected.*

## **Financial literacy**

*H<sub>06</sub> Financial literacy has not been significantly associated with financial inclusion*

*H<sub>6</sub> Financial literacy has a statistically significant and positive effect on financial inclusion*

According to table 4.5, financial literacy is a statistically significant effect with a ratio of 8.7 the marginal effect result on the influence of financial literacy on financial inclusion revealed that it had a positive significant impact on financial inclusion. The implication is that when respondents are financially literate or has knowledge about financial services and products provided by financial institutions, their chances of being financially included are 8.7% thighter than when they are illiterate. As a result, financially literate respondents can comprehend the benefits and drawbacks of various financial services, allowing the poor to make the greatest use of their money. The result is also in line with the Financial Literacy Theory of Financial Inclusion.

According to this theory, knowledge about financial services and products of respondents increases participation in the formal financial system (Ozili, 2020). Other earlier studies that observed the impact of financial literacy on financial inclusion came up with similar results. For example, Gashaw and Gebe (2017) on his study found that financial inclusion indicators are also higher among financially literate adults who are aware of financial services provided by the formal financial sector in Ethiopia.

Mekuanint et al. (2019), in their study also prove that there is a positive and significant relationship between financial inclusion and financial literacy in the Jimma zone, Ethiopia. *This implies that the null hypothesis ( H<sub>06</sub>) stating financial literacy has not been significantly associated with financial inclusion is rejected.*

## **Occupation**

*H<sub>07</sub> Occupation has statistically no significant effect on financial inclusion*

*H<sub>7</sub> Occupation has a statistically significant and positive effect on financial inclusion*

The impact of occupation is also included in the model and the result revealed that occupation is no significant impact on respondents' financial inclusion status at all levels. Therefore the null hypothesis (H<sub>07</sub> ) states that *Occupation has statistically no significant effect on financial inclusion is Accepted.*

## **Trust**

*H<sub>08</sub> Trust in financial institutions has not been significantly associated with financial inclusion*

*H<sub>8</sub> Trust in financial institutions has a statistically significant and positive effect on financial inclusion*

The study results also show that trust in financial services providers has a positive and significant relationship with financial inclusion in of 10.02 percent. The interpretation is that when respondents have confidence or trust in financial institutions, their chances of becoming financially included are 10.02% higher than when they don't, or that those who had trust in financial institutions were 10.02% times more likely to become financially included than their counterparts. This result is in line with the dissatisfaction theory of financial inclusion.

This theory contends that some respondents who are even near the formal financial sector are not financially included because they were dissatisfied with the formal financial sector's rules of engagement or had other negative personal experiences such as financial fraud, debit/credit card fraud, financial theft, long waiting hours before depositors can withdraw funds, payments taking too long to clear, high transaction costs, excessive bank charges, and so on (Ozili, 2020). In addition, the result was also supported by previous researchers such as (Beza et al., 2020; Esmael & Mohammad, 2021). *Therefore the null hypothesis ( H<sub>08</sub>) state that Trust in financial institutions has not been significantly associated with financial inclusion is rejected.* While the result is contradicted by the result of Barugahara (2021).who did study Financial Inclusion in Zimbabwe: Determinants, Challenges, and Opportunities.

## **Documentation**

*H<sub>09</sub> Documentation required by financial institutions has no statistically significant effect on financial inclusion*

*H<sub>9</sub> Documentation required by financial institutions has a statistically significant and negative effect on financial inclusion.*

Another variable in the model output is documentation. This shows that it had a negative significant impact on financial inclusion status, in 20.16 percent. This means that when the documentation required by the financial institutions is not simple or difficult, respondents are 20.16% less likely to be financially included, probability of being financially included are 7.8% less when the documentation needed is not simple than when it is simple. On the other side, it means that respondents are 20.16% times more likely to be financially included when the documentation required for opening a financial institution account by a financial institution is simple. The theories that support this result are System theory of financial inclusion. According to this theory, the success or failure of a financial inclusion agenda will be determined by the efficiency and effectiveness of the sub-systems (Ozili, 2020). The result is also consistent with the previous researchers Andualem & Rao (2017) who found that documentation required by financial institutions is a major obstacle in Ethiopia. Beza et al (2020), also found that when the documentation requirement is simple respondents had more likely to become financially included than when the documentation requirement is difficult. *So that the null hypothesis ( $H_{09}$ ) stating Documentation required by financial institutions has no statistically significant effect on financial inclusion is rejected.*

### **Religion**

*$H_{010}$  Religion has not significantly associated with financial inclusion*

*$H_{10}$  Religion has a statistically significant and negative effect on financial inclusion*

The other independent variable in table 4.5 on marginal effect results is religion. Concerning this explanatory variable, the result indicated that it had a negative and significant impact on financial inclusion in of 23.1percent. This implies that when the respondents are Muslim decrease the likelihood of financial inclusion by 23.1 percent when we compared to following other religions. Non-Muslim respondents have a higher likelihood of demand for financial products and services compared to respondents who have Muslims. Because Islamic law (Sharia) does not support interest-based financial services and transactions, and it is also the problem of unavailability or shortage of interest-free financial institutions is the cause of this negative sign between Muslims and financial inclusion.

According to Dai-Won et al., (2018) Religious characteristics influence financial inclusion, and every analytical result reveals that financial inclusion is lower when countries are OIC(organization of Islamic corporation) countries or have a large Muslim population; on the other hand, financial inclusion is higher when religious diversity is more prevalent in a country. Muslims are linked to a 3% reduction in the likelihood of holding a formal account. This disparity is bigger than the gender gap, and it is essentially equivalent to an exogenous move from the third to the first (lowest) income quintile (A Demirguc-Kunt et al., 2014). Gashaw and Gebe (2017), in their study of financial inclusion in Ethiopia, also prove that financial inclusions are higher among Christians than Muslims. In addition to this Angelo (2010) indicates that Muslims who strictly adhere to their religious dictum do not want to use conventional banks even if they issue interest-free products. *Therefore, the null hypothesis ( $H_{010}$ ) state Religion has not been significantly associated with financial inclusion is rejected.* But still, this result is also contradicted by the results of (Yashwant et al., 2020).

### **Place of Residence**

*$H_{011}$  Place of Residence has no statistically significant effect on financial inclusion*

*$H_{11}$  Place of Residence has a statistically significant and positive effect on financial inclusion*

The study also showed that financial inclusion is determined by place of residence, the current study revealed that place of residence had a statistically positive and significant effect on in 6.37% percent.

This implies that Living in an urban area increases the likelihood of financial inclusion by 6.37percent compared to living in a rural area. This is due to a lack of financial institution availability and accessibility in rural areas compared to urban areas, as well as poor infrastructures such as transportation, internet access, and other technology, and also a lack of financial literacy, economic power, and long travel times, which make physical access to conventional financial services difficult and costly for rural communities. These results are consistent with that obtained by other studies, among others Njau et al. (2021) and Gashaw and Gebe (2017), in Tanzania and Ethiopia respectively. In addition to this the special agent theory of financial inclusion shows that delivering financial inclusion to the excluded population can be hampered and more complex issues for rural society than the urban, therefore, specialized agents are needed to deliver financial inclusion to members of excluded communities (Ozili, 2020). So that the null hypothesis ( $H_{011}$  ) state that *place of Residence has no statistically significant effect on financial inclusion is rejected*. While the result is inconsistent with the results of Beza et al. (2020) and Toukam (2020), that found the place of residence is a negative and significant impact on financial inclusion, in their study Determinants of Financial Inclusion in East Gojjam, Ethiopia, and socio-economic and geographical determinants of financial inclusion in Cameroon.

### **Marital status**

$H_{012}$  *Marital status has not significantly associated with financial inclusion*

$H_{12}$  *Marital status has a statistically significant and positive effect on financial inclusion*

The impact of marital status is also included in the model and the result revealed that it had a positive significant impact on respondent's financial inclusion status 11.67%. This implies that the probability of demand for financial products like a financial institution account is 11.67% higher for married respondents compared to those who are not married. Married people have a higher likelihood of demand for financial products and services compared to respondents who are not married. Because a single person is not motivated to open a financial institution account he or she lives hand to mouth, as well as in most situations, joint accounts will be used, when the respondents are married allowing both partners, as a result, both have become financially included. According to Gashaw and Gebe (2017), Married people are found to have a greater chance (4.4%) to open an account in a formal financial service while no similar effect is observed for those who are single or divorced. The fact that marriage increases the chance of account ownership may be explained on the ground that married people have increased financial responsibility which leads to a higher demand for financial services (Cámara and

Tuesta, 2014). The result is also supported by other prior studies David & Varaidzo, (2020). Therefore, the null hypothesis ( $H_{012}$ ) that *marital status has not been significantly associated with financial inclusion is rejected*

**Table 4.8 Summary of hypotheses test and actual result of variables.**

<b>Research Hypotheses</b>	<b>Code</b>	<b>Expected sign effect</b>	<b>Actual effect</b>	<b>Hypothesis status</b>
<i>Gender has a statistically significant and negative effect on financial inclusion.</i>	<b>H1:</b>	<i>Negative</i>	<i>Negative</i>	<i>Accepted</i>
<i>Age has a statistically significant and positive effect on financial inclusion.</i>	<b>H2:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>
<i>Income has a statistically significant and positive effect on financial inclusion.</i>	<b>H3:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>
<i>The educational level of the respondents has a statistically significant and positive effect on financial inclusion</i>	<b>H4:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>
<i>Distance from financial institutions has a statistically significant and negative effect on financial inclusion.</i>	<b>H5:</b>	<i>Negative</i>	<i>Negative</i>	<i>Accepted</i>
<i>Financial literacy has a statistically significant and positive effect on financial inclusion.</i>	<b>H6:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>
<i>Occupation has a statistically significant and positive effect on financial inclusion.</i>	<b>H7:</b>	<i>Positive</i>	<i>Insignificant</i>	<i>Rejected</i>
<i>Trust in financial institutions has a statistically significant and positive effect on financial inclusion.</i>	<b>H8:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>
<i>Documentation required by financial institutions has a statistically significant and negative effect on financial inclusion.</i>	<b>H9:</b>	<i>Negative</i>	<i>Negative</i>	<i>Accepted</i>
<i>Religion has a statistically significant and negative effect on financial inclusion.</i>	<b>H10:</b>	<i>Negative</i>	<i>Negative</i>	<i>Accepted</i>
<i>Place of Residence has a statistically</i>	<b>H11:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>

<i>significant and positive effect on financial inclusion.</i>				
<i>Marital status has a statistically significant and positive effect on financial inclusion.</i>	<b>H12:</b>	<i>Positive</i>	<i>Positive</i>	<i>Accepted</i>

**Source:** *Compiled by research from the finding of the study*

**NB;** - Statistical significance of the variables is at a 5% significant

## **CHAPTER FIVE 5**

### **SUMMARY, CONCLUSION, AND RECOMMENDATION**

This chapter contains a summary of findings, conclusions, recommendations, and directions for prospective studies, based on the analysis made in the previous chapter.

#### **5.1. Summary of findings**

Financial inclusion increases the availability of economic resources and encourages impoverished people to save. Financial inclusion is a critical step toward more equitable growth. It contributes to the poor population's overall economic development and poverty reduction. Due to the fact the major objective of this study is to examine the determinants of financial inclusion in Ethiopia by using evidence from the gurage zone. Based on the finding of the study overall financial inclusion status of the respondents in the study area is 65.2%. While around 34.8% of respondents are financially excluded or there is no used financial service and products from formal financial institutions. The descriptive statics result also revealed that among financially included respondents 51.6%, 19%, 9.5%, and 14.9% the respondents were having accounts in Banks, microfinance institutions, SACCOs, and both financial institutions, respectively.

The study Indicate that in the last twelve months, the majority of financially included respondents 39.7% and 40.5% used their accounts for saving and withdrawing money respectively, and 4.1%, 5%, and 1.3% of respondents used their accounts to receive or send money, to borrow money and to make regular payments for utilities through a financial institution, respectively. According to the binary logistic regression output, except for occupation, all the explanatory variables have a significant effect on financial inclusion. Among the explanatory variables Age, Educational level, Income, Financial literacy, Residence, Trust in financial institutions and marital status has a positive and significant effect on financial inclusion. Gender, Distance from Financial institution branch, Documentation, and Religion is a negative and significant effect on financial inclusion. Accordingly, the individual effect of each explanatory variable in financial inclusion is summarized as follows. Gender has a negative and significant effect on financial inclusion at 4.9 percent. The inference is those female respondents are 4.9 % less likely to be financially included than male respondents. Age has a positive significant impact on financial inclusion, at 2.2 percent. The probability of

respondents being included in financial services increases by 2.2% as the age of individuals increases by one year keeping the other variables constant.

The results show a positive and significant relationship between Educational level and financial inclusion. The coefficient educational level was significant at all levels with a significant value of less than 5% for all. This means that the more educated individual is more likely to become financially included when compared to uneducated individuals. Based on the study findings Respondents' income had a statistically significant positive impact on financial inclusion, at 0,002 percent. The meaning of these results was that a one-unit change in the income of a respondent is associated with an approximately 0,002% increase in the probability of financial inclusion. The result revealed marital status had a positive significant impact on respondent's financial inclusion status at 12.48 percent.

This implies that the probability of demand for financial products is 12.48 percent higher for married respondents compared to those who are not married. Place of residence had a statistically positive and significant effect on financial inclusion status at 3.9 percent. This implies that Living in an urban area increases the likelihood of financial inclusion by 3.9% compared to living in a rural area. Financial literacy is a statistically positive and significant effect on financial inclusion In 9.48% Meaning when respondents have financially literate; their chances of being financially included are 9.48% higher than when they are illiterate. The study results also show that trust in financial services providers has a positive and significant relationship with financial inclusion at 19.13%. The implication is when respondents have confidence or trust in financial institutions; their chances of becoming financially included are 19.13% higher than when they do not. Distance from the financial institution branches had a statistically negative and significant impact on financial inclusion at 5.66. This implies that as the respondents are far from the financial institution branch by one kilometer the respondent's financial inclusion status may decrease by 5.66 percent. The documentation had a negative significant impact on financial inclusion status, 7.8%. This means that when the documentation required by the financial institutions are difficult, respondents are 7.8% less likely to be financially included than the respondents who have easily accessible documentation. The study finding indicated that religion had a negative and significant impact on financial inclusion at 6.8%. This implies that when the respondents are Muslim decrease the likelihood of financial inclusion by 6.8%.when we compared to following other religions. Finally, the study discovered that both voluntary and involuntary exclusion are more common in the gurage zone.

## 5.2. Conclusion

People who are financially included are better able to manage their money on a day-to-day basis, such as making payments, investing, saving, and obtaining loans and other financial services. With low levels of financial inclusion across the country, recognizing the determinants can help policy makers and financial players better understand how to promote it. The current investigation offers a novel and significant strategy for addressing financial inclusion in the studied area. The study's initial purpose was to investigate the financial inclusion and determinants of financial inclusion in Ethiopia using data from the gurage zone. The current study is attached on theories of financial inclusion beneficiaries, theories of financial inclusion funding, and theories of financial inclusion delivery or categorized into demand-side theories and supply-side theories from an economic perspective. The study used an explanatory research design and quantitative research methods. Primary data was collected from a sample of 384 respondents was selected using multistage sampling techniques. The responses were evaluated with descriptive statistics and Probit analysis using stata12 software. To confirm the statistical validity of the binary logistic model, the current study has tested and marginal effect used for test efficiency of variables. Based on the discussion of study findings the researcher came to the following classic conclusion.

The findings of this study demonstrate that financial inclusion is relatively a good condition in the studied areas when we compare to overall all country's financial inclusion status, but that use of microfinance and SACCOs is still low and that respondent' accounts do not allow them to switch to modern banking services. Based on the findings the researcher concludes that females are less likely to be financially included in the study area. The major findings on age show that people's chances of being financially included rise as they get older. However, each group has its own set of specifications and characteristics. The study also decided that unmarried people reduce financial inclusion levels. Because a single person is not motivated to open a financial institution account he or she lives hand to mouth. Those with more income earners are more likely to have formal bank accounts and be able to use them regularly than those with less and irregular income.

They also concluded more educated a person is, the more likely he or she is to be financially involved, implying that someone with higher education may appreciate the importance of having a formal account better than someone with lower education. Based on the findings the study concluded that distance from financial institution branches is reduced respondent's financial inclusion status.

The researcher also concludes that financial literacy is improving the level of financial inclusion. The current study also decides that Trust in a financial institution increases the probability of people being more financially included. The study also concludes that the difficulty of documentation is diminishing financial inclusion. Also, the researcher concludes that Muslim respondents, and who reside in rural areas are decreased financial inclusion levels. Finally, the study concludes that Religious restrictions, a lack of documentation, and a lack of sufficient funds are the key reasons why respondents do not have accounts with financial institutions in the study area.

### **5.1. Recommendation of the study**

Governments, development partners, financial institutions, and other stakeholders all have a role to play in promoting the country's financial inclusion. Because finance is the life blood of the modern economy, financial inclusion is a term that refers to the inclusion of people from all walks of life in financial activity. The study's overall goal is to determine the factors that influence financial inclusion in Ethiopia utilizing data from gurage Zone.

Therefore For each explanatory variable, the researcher makes the following recommendations for policymakers, governments, financial institutions, and development organizations, based on the studied data and the research purpose. Women continue to lag behind males in formal financial industries across the study area. There is a need to design policies that focus on women's financial empowerment to increase their financial inclusion. Governments, in partnership with some pressure groups, should create forums for women to communicate their concerns, such as the cultural impact of their husband's potential obstacles.

Governments should assist women-focused institutions such as Women's Banks by offering appropriate savings, investment, and borrowing products. Furthermore, most women live in rural areas and have less general and financial understanding. Introducing and expanding agent banking in rural Ethiopia will assist women, and increasing the income of the women is very important because financial participation is highly linked to income-generating ability.

The younger generation is more financially disadvantaged than their elders. As a result, the researcher urges that financial education programs begin in primary school and that kids have access to structured and integrated programs that include personal finance management training. Financial inclusion will become a component of the curriculum after teachers are trained in money management. Financial education can begin as early as the child's birth. This can help enhance confidence and increase financial product understanding. Education should be enhanced to increase financial inclusion. The more a person understands financial matters, the higher their educational level. As a result, governments and other interested parties should attempt to improve education standards for the entire population in countries, particularly those with low literacy rates. Financial literacy and inclusion can be improved by adding financial education into the curriculum and employing additional tools such as the media. Financial services and products can be directly associated with the individual income capacity. Government programs should be in place and maintained to improve financial capabilities, particularly for women, young people, and the elderly, by creating jobs for those vulnerable groups of society. Married people are more financially involved than unmarried people. As a result, policies and initiatives encouraging financial inclusion should focus more on unmarried groups, such as young people, by establishing jobs and improving financial capacities as well as an understanding of financial products and services. When compared to respondents in urban areas, respondents in rural areas are still behind when it comes to financial inclusion. The researcher suggested that governments should provide appropriate financial and other forms of infrastructure, such as electric power, telecommunications, mobile banking, and agent banking, to improve financial inclusion in rural areas; the number and branches of microfinance institutions, SACCOs, and banks could be increased in rural areas. Furthermore, the government should prioritize improving laws that support or grow microfinance and SACCOs, which serve the vast rural population. Financial inclusion is influenced by knowledge of financial services and products. The government's provision of internet services and/or infrastructure will go a long way toward encouraging or enhancing financial inclusion at the individual level, hence improving people's financial literacy. Making certain financial information available online to attract internet users is a fantastic idea. Governments can publish financial information online as part of their financial literacy effort. Providing financial advice via social media and the internet allows for immediate feedback. Financial institutions and bodies representing all financial sectors can provide information distribution platforms, resulting in increased use of financial services and products, such as high-interest savings accounts. The researcher also suggests that a society financial inclusion advice Bureau should be established to provide financial advice and help to people living in rural areas. The greater the respondents' Trust in a financial institution, the greater

their financial inclusion status; trust is a major issue in financial inclusion. Many people are more likely to trust a local financial counselor who speaks their native language than someone they have never met. This legislation, according to the researcher, should also apply to those who speak their original tongue in government and other interested bodies, interpret for them, or explain difficulties to them. Distance from the financial institution's branch is also a major obstacle to financial inclusion. As a result, researchers believe that promoting mobile banking and agent banking services in addition to traditional banking services, as well as increasing the number of microfinance branches and SACCOs, at a lower distance from each society would be more helpful to increase the financial inclusion status of the society. Another factor to financial inclusion, according to this report, is the difficulty in getting the documentation required by financial institutions when opening a financial institution account or another service. As a result, adequate procedures must be established to prevent people who lack the requisite papers from opening an account from being excluded. Possessing the government's support, a national ID should be adequate for opening a lawful financial institution account, and the government can adopt a regulation that forbids banks from refusing to offer accounts to anyone with a national ID. Moreover, the government can solve the bureaucracy behind getting documentation such as national ID and other required by the financial institutions. Religion has also the other factors of financial inclusion. This negative link between Muslims and financial inclusion may occur because Islamic law (Sharia) prohibits interest-based financial services and transactions, as well as the unavailability of interest-free financial institutions. As a result, the researcher proposed that the government and any other relevant entity develop and spread products and services that conform to Islamic finance, such as banking and microfinance.

## **5.2. Direction for prospective studies**

This thesis has attempted to provide a better understanding of the relationships between financial inclusion, and different demand-side determinants of financial inclusion by relying on different parametrical techniques to offer robust results that have a wide range of policy implications for policymakers, financial institutions, and governments. However, this research is not without its limitation, and they have been discussed in this section along with some of the prospects for future research.

- This thesis is likewise spatially restricted to the gurage zone. Due to time and resource restrictions, therefore researchers believe to those studies in all parts of the country is yielded more results.

- In addition, the current study is unable to address macro determinants that influence financial inclusion at the country levels such as a country's level of development, GDP, income inequalities, inflation, and urbanization.
- This thesis is only focused on individual-level financial inclusion status; therefore the interested future researcher may address firm-level financial inclusion status by using other proxy of financial inclusion such as availability and accessibility.

## References

- Ahmed, M. S., & Jianguo, W. (2014). Financial inclusion and challenges in Tanzania. *Research Journal of Finance and Accounting*, 5(21), 1–9.
- Arun, T., & Kamath, R. (2015). Financial inclusion: Policies and practices. *IIMB Management Review*, 27(4), 267–287. <http://doi.org/10.1016/j.iimb.2015.09.004>
- Bhuvana, M., & Vasantha, S. (2016). Dimensions for measuring financial inclusion in the rural areas of Tamil Nadu. *Indian Journal of Science and Technology*, 9(32), 1–8. <http://doi.org/10.17485/ijst/2016/v9i32/98663>
- Buku, M. W., Meredith, M. W., Buku, M. W., & Meredith, M. W. (2013). Safaricom and M-PESA in Kenya: Financial inclusion and financial integrity. *Washington Joournal of Law, Technology & Arts*, 8(3), 375–400.
- Ene, E. E., & Inemesit, U. A. (2015). Impact of microfinance in promoting financial inclusion in. *Journal of Business theory and Practice*, 3(2), 139–158.
- Government of Kenya. (2007). Kenya vision 2030 republic of Kenya July - August, 2007. *International Journal of Social Sciences and Information Technology*
- Kumar, N. (2016). Financial inclusion and its determinants: Evidence from India. *Journal of Financial Economic Policy*, 5(1), 4–19. <http://doi.org/10.1108/17576381311317754>
- Lapukeni, A. F. (2015). Financial inclusion and the impact of ICT: An overview. *American Journal of Economics*, 5(5), 495–500. <http://doi.org/10.5923/j.economics.20150505.09>
- MP, R., & Pavithran, K. B. (2014). Role of commercial banks in the financial inclusion programme. *Journal of Business Management & Social Sciences Research*, 3(5), 75–81.
- Mukhopadhyay, B., & Rath, S. (2011). Role of MFIs in financial inclusion, 3(3), 243–286. <http://doi.org/10.1177/097492921100300304>
- Okello, G., Bongomin, C., Ntayi, J. M., Munene, J. C., Okello, G., Bongomin, C., ... John, C. (2016). Financial inclusion in rural Uganda: Testing interaction effect of financial literacy and networks. *Journal of African Business*, 17(1), 106–128. <http://doi.org/10.1080/15228916.2016.1117382>

- Sahoo, A. K. (2017). Determinants of financial Inclusion in tribal districts of Odisha: An empirical investigation. *Social Change*, 47(1), 45–64. <http://doi.org/10.1177/0049085716683072>
- Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of International Development*, 628(May 2010), 613–628. <http://doi.org/10.1002/jid>
- Shah, P., & Dubhashi, M. (2015). Review paper on financial inclusion – The means of inclusive growth towards financial inclusion. *Chanakya International Journal of Business Research*, 1(March), 37–48.
- Singh, B., & Singh, S. (2015). Financial inclusion: A tool for socio- economic development. *Journal of Management and Science*, 5(3), 39–47.
- Vashisht, A., & Wadhwa, B. (2015). Financial inclusion and social change. *Arabian Journal of Business and Management Review*, 5(5), 1–4. <http://doi.org/10.4172/2223-5833.1000144>
- Wang, X. H., & Shihadeh, F. H. (2015). Financial Inclusion: Policies, status, and challenges in Palestine. *International Journal of Economics and Finance*, 7(8), 196–207. <http://doi.org/10.5539/ijef.v7n8p196>
- Yawe, B. L., & Prabhu, J. (2017). Innovation and financial inclusion: A review of the literature. *Journal of Payments Strategy & Systems*, 9(3), 215–228.
- Zins, A., & Weill, L. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance*, 6, 46–

## **Appendix**

### **ENGLISH QUESTIONNAIRE**

#### **WOLKITE UNIVERSITY**

#### **COLLEGE OF BUSINESS AND ECONOMICS**

#### **DEPARTMENT OF ACCOUNTING AND FINANCE**

#### **Research Questionnaire**

Dear participant/respondents: I am an ABEBE BERKIT MENJIYE postgraduate student in the Department of Accounting and Finance, at Wolkite University. The purpose of this questionnaire is to collect information on financial inclusion and determinants factors in Ethiopia (Evidence from Gurage Zone) the information that you share with me will be kept confidential and only used for academic purposes and cannot affect you in any case. So, your genuine, honest, and timely response is vital for the accomplishment of this study on time. Therefore, I kindly ask you to give your response to each item/question carefully.

Your honest and thoughtful response is valuable!!

Thank you in advance for your support and participation

With best regards,

ABEBE BERKIT

## General Instruction

- Please no need of writing your name
- For each question please indicate (√) sign in the appropriate block.
- Name of woradas/town \_\_\_\_\_
- Name of Kebele \_\_\_\_\_
- Date of interview \_\_\_\_\_
- Questioner number \_\_\_\_\_

Part-I: Socioeconomic and Demographic Characteristics of Respondents	
Q1. Your Gender	
0. Male <input type="checkbox"/>	1. Female <input type="checkbox"/>
Q2. Age	
1. Age category 18-30 <input type="checkbox"/>	2. 31-43 <input type="checkbox"/> 3. 44-56 <input type="checkbox"/> 4. > 56 <input type="checkbox"/>
Q3. Your level of Educational qualification:	
0. No formal education <input type="checkbox"/>	1. Primary <input type="checkbox"/>
2. High School <input type="checkbox"/>	3. Diploma/Degree and above <input type="checkbox"/>
Q4. Your occupation	
1. Government employee <input type="checkbox"/>	2. Employed in private business <input type="checkbox"/>
3. Farmers <input type="checkbox"/>	4. Unemployed <input type="checkbox"/> 5. Retired <input type="checkbox"/>
Q5. Your average income per month in Ethiopian birr?	
1. Income category Br.501-2000 <input type="checkbox"/>	2. Br. 2001-3500 <input type="checkbox"/>
3. Br. 3501-5000 <input type="checkbox"/>	4. > Br. 5000 <input type="checkbox"/>
Q6. You're Religion.	
0. Others <input type="checkbox"/>	1. Muslim <input type="checkbox"/>
Q7. Your marital status	
0. Unmarried <input type="checkbox"/>	1. Married <input type="checkbox"/>
Q8. Your place of residence	
0. Rural <input type="checkbox"/>	1. Urban <input type="checkbox"/>

**PART II; - Financial inclusion(dependent variable related question)**

This next section is about banks, microfinance, or saving or credit cooperative society (SACCOS).

These are trying to understand how respondents use financial institutions and how available they are to people. Please remember that all information you provide is completely confidential.

Q9. Do you, either by yourself or together with someone else, currently have an account at a bank, microfinance, or SACCOS?

0. No

1. Yes


If your answer is yes; for question Q9 please indicates (√) sign in the appropriate block for the following question (two or more answer is possible).


1. Which of the following financial institution you are have an account with?

 **Bank**

 **Microfinance institution**

 **SACCOS**

 **Both of them**

 **If others specify** \_\_\_\_\_

2. In the past 12 months,s your account can be used to save money, to make or receive payments, or to receive wages or financial help.

3. In the PAST 12 MONTHS, has money ever been DEPOSITED into your account(s)? This includes cash or electronic deposits, or any time money is put into your account(s) by yourself, an employer, or another person or institution.

3. In the PAST 12 MONTHS, has money ever been DEPOSITED into your account(s)? This includes cash or electronic deposits, or any time money is put into your account(s) by yourself, an employer, or another person or institution.

4. In the PAST 12 MONTHS, has money ever been TAKEN OUT of your account(s)? This includes cash withdrawals you make in person, using your ATM or mobile phone, electronic payments or purchases, checks, or any other time money is removed from your account(s) by yourself or by another person or institution.

5. In the PAST 12 MONTHS, have you, personally, saved or set aside any money to start, operate, or grow a business or farm?

6. Do you, by yourself or together with someone else, currently have a loan you took out from a bank, microfinance, or SACCOS to purchase a home, land, or to start, operate, or grow a business or farm for

any other reason?
7. In the PAST 12 MONTHS, have you, personally, GIVEN or SENT money to a relative or friend living in a different city or area and You sent money through a bank, microfinance, or SACCOS? (This can be money given or sent for any reason) <input type="checkbox"/>
8. In the PAST 12 MONTHS, have you, personally, RECEIVED money from a relative or friend living in a different city or area through a bank, microfinance or SACCOS <input type="checkbox"/>
9. . In the PAST 12 MONTHS, have you, personally, made regular payments for electricity, water, OR any other utility, through a bank, microfinance, or SACCOS? <input type="checkbox"/>
10. In the PAST 12 MONTHS, have you received money for the sale of agricultural products, crops, produce, or livestock in any of an account at a bank, microfinance, or SACCOS? <input type="checkbox"/>
11. If others specify_____
If your answer is NO; for question Q9 please indicates (√) sign in the appropriate block for the following question (two or more answer is possible)
Please tell me whether each of the following is A REASON why you DO NOT have an account at a bank, financial institution, or SACCOS?
1. Because financial institutions are too far away <input type="checkbox"/>
2. Because financial services are too expensive <input type="checkbox"/>
3. Because you don't have the necessary documentation (identity card, etc.) <input type="checkbox"/>
4. Because you don't trust financial institutions <input type="checkbox"/>
5. Because of religious restriction <input type="checkbox"/>
6. Because you don't have enough money to use financial institutions <input type="checkbox"/>
7. Because someone else in the family already has an account <input type="checkbox"/>
8. Because you have no need for financial services at a formal institution <input type="checkbox"/>
9. If others specify_____
<b>PART III; Independent Variable Related Question</b>
<b>➤ Financial literacy</b>
Q10. Do you know about financial services and products?
1. Yes <input type="checkbox"/> 0. No <input type="checkbox"/>
.If your answer is yes to question number Q10.which of the following knowledge do you have? Please

indicate (√) sign in the appropriate block. (two or more answer is possible)
1. There is adequate awareness about all financial products and services provided by the financial institutions. <input type="checkbox"/>
2. There is adequate awareness about the interest rates charged and provided by the financial institution <input type="checkbox"/>
3. Do you know the time value of money <input type="checkbox"/>
4. Borrowing means bringing future resources into the present through credit <input type="checkbox"/>
5. Investing means saving present resources for future use through the use of saving accounts in a financial institution <input type="checkbox"/>
6. High inflation means that the cost of living is increasing rapidly <input type="checkbox"/>
7. Money-saving is necessary for me and my family for our future consumption <input type="checkbox"/>
8. Instead of money-saving, buying property or livestock will give me a good future for my family <input type="checkbox"/>
9. I set long term financial goals and strive to achieve them <input type="checkbox"/>
10. I am confident that I am doing a good job of making financial plans for my retirement <input type="checkbox"/>
11. When I save money I check which financial institution pays a better interest <input type="checkbox"/>
12. In borrowing money I check which financial institution costs me less <input type="checkbox"/>
13. I want to compare different financial products but looked around and limited choice <input type="checkbox"/>
14. If others specify _____
<b>➤ Trust</b>
Q11. Do you trust or have confidence in the financial institutions
1. Yes <input type="checkbox"/> 0. No <input type="checkbox"/>
If your answer is yes for Q11 please let's know whether you are agreeing on the following statement (two or more answer is possible).
1. I trust a financial institution with my money and money is safe in the financial institution. <input type="checkbox"/>
2. Financial institutions are reliable for availing financial services and product <input type="checkbox"/>
3. Suggestions from financial institutions are trustworthy. <input type="checkbox"/>
4. I feel safe when using financial institution services. <input type="checkbox"/>
5. If others specify _____
<b>➤ Distance</b>
Q12. Distance of financial institution Branch from your home in kilometre _____
12.1. Do you believe that the distance of a financial institution branch from your home is?

1. From my home place, the financial institution branch is too far away <input type="checkbox"/>
2. From my home place, the financial institution branch is average <input type="checkbox"/>
3. From my home place, the financial institution branch is Near <input type="checkbox"/>
<b>➤ Documentation</b>
Q13. Is Documentation required such as an ID card etc., to open a financial institution account is difficult for you?
1. Yes <input type="checkbox"/> 0. No <input type="checkbox"/>
<b>➤ Religion</b>
Q14. Answer this question if only your religion is Muslim(two or more answer is possible)
1. Financial institutions provide interest-based loans, which are forbidden in Muslim <input type="checkbox"/>
2. It is a problem for me that interest-free financial institution is not available in my place <input type="checkbox"/>
3. I have searched actively for the interest-free financial institution <input type="checkbox"/>
4. The interest-free financial institution is the most important element of Islamic law <input type="checkbox"/>
5. Demand for interest-free financial institutions is becoming better for Muslims <input type="checkbox"/>
6. The interest-free financial institution is not the most important issue for Muslims <input type="checkbox"/>
7. If the interest-free financial institutions were available near my place, I would use them even if they cost more than a conventional bank's <input type="checkbox"/>
8. If others specify_____

**Thank You for Your Responses!!!**

