



**SCHOOL OF POST GRADUATE STUDIES**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

***DETERMINANTS OF FINANCIAL INCLUSION IN GURAGE ZONE***

**A THESIS SUBMITTED TO THE DEPARTMENT OF  
ACCOUNTING AND FINANCE, IN PARTIAL FULFILLMENT OF  
THE REQUIREMENT FOR THE DEGREE OF MASTER SCIENCE  
IN ACCOUNTING AND FINANCE**

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## **Declaration**

I, Hana Abebe, declared that this thesis entitled Determinants of Financial Inclusion in Gurage zone is my original work, prepared under the guidance of Chernet Biraro (PhD) and Idris Ali (M.sc). All resources used in the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution to earn any degree.

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## **List of Acronyms and Abbreviation**

ADLI-Agricultural Development Led Industrialization

AEMFI - Association of Ethiopian Microfinance Institutions

ASCI- Amhara Saving and Credit Institution

BRAC - Bangladesh Rural Advancement Committee

CSA - Central Statistical Authority

CSD- Centre for help Development

CSD- Centre for help Development

DECSI - Debit Credit and Saving Institution

EPRDF - Ethiopian People's Revolutionary Democratic Front

FSL- Finance Sudan Limited

MFI - Microfinance Institutions

MIS - Management Information System

NBE - National Bank of Ethiopia

OCSSCO- Oromia Credit and Saving Share Company

ROSCAs- Rotating Savings and Credit Association

SFPI- Specialized financial and promotional institution

WMFI- Wisdom Micro Financing Institution

WWF- Working women's forum

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## ***Abstract***

*The main objective of this study is to investigate the determinants of financial inclusion in Gurage zone of Ethiopia. The research design for this study is explanatory with inferential study with collected primary data. Subsequent review of previous works a thorough review of previous empirical studies, a research questionnaire was also developed by the researcher is developed as a means of data collection. Necessary data for this study has been collected from a total of 422 respondent of Gurage zone .Available data analysis was analyzed using Binary Logistic Regression and the finding implies that residence, financial literacy, awareness, accessibility, availability, employment status, interest rate, and gender have significant influence on financial inclusion. On the basis of this study finding the study has also crucial recommendation. It is enhanced to corporate with other responsible bodies have to develop comfortable financial inclusion of the society.*

**Keywords: Financial Inclusion, Logistic Regression, Inferential Analysis, Gurage, Ethiopia.**

# CHAPTER ONE

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## INTRODUCTION

### 1.1. Background of the Study

Financial inclusion refers to all initiatives that make formal financial services available, accessible, and affordable to all segments of the population. Financial inclusions played and continue to play significant roles in the economic growth, development, and industrialization of developing countries with no exception in Ethiopia. In fact, financial inclusion related issues might be a subject of growing interest and one of the major socioeconomic challenges. Therefore, there is a desire need to study the nature, extent prevalence and impact of financial inclusion to have effective policies to achieve inclusive growth. Financial inclusion refers that individuals and businesses access to useful and affordable financial products and services that meet their needs through transactions, payments, savings, credit and insurance. Access to financial products and services provide, global leaders and many national governments start taking action program(Linhetal,2019). Internationally, heads of government and governors of central bank from several countries over the entire world to alleviate financial inclusion which is beneficial for all nations and individuals.

According to World Bank (2017)determinants of financial inclusion can be demand or supply driven. The demand side factors include the socio-economic characteristics such as income, education, age and gender from the demand side. On the other hand, supply side factors include individual attitudes and perceptions which influence the decision to use financial services. It also highlights that apart from socio economic factors, financial decisions can be influenced by attitude and behavioral personalities.

In recent decades, there are a number of studies that have focused on the determinants of financial inclusion in Africa (Demir&Aziakpon,2017;Güç-Kunt and Klapper,2013;Joachim,2017)which have been done at either country level or regional level with separation in the results. For instance, not having enough money is documented to be the most cited obstacle to not holding a formal bank account in Sub-Saharan Africa. Associated costs for running the formal account are a common barrier in Eastern and Southern Africa. Additionally, the effects of financial perceptions and attitudes on the use of basic bank account in South Africa.

International Monetary Fund (2018)Confirmed right of entry to finance is necessitated for the middle and low income community and considered as a public amenity, which is basic as access to clean water, free education, telecommunication and electricity. An equitable growth promotes economic growth, increases the standard of living, reduces poverty, promotes agricultural growth rate, and provides new work opportunities. Ethiopia's financial sector has not expanded in terms of the type of recognized financial service delivery. Financial sector policies which provide the right incentives to individuals, help them to overcome access barriers, are crucial not only to stability but also to growth, poverty reduction and equitable distribution of economic resource.

In the context of Ethiopia, Financial inclusion goes beyond improved access to credit to encompass enhanced access to savings and products, a well-functioning financial infrastructure that all rights. As one of the emerging financial institutions, Ethiopian institutions have a delinquent of financial inclusion. It is believed that plays a multifaceted role such as enhancing cooperation, revolution, as well as the development of human capital and the creation of a financial system (Nega and Hussien,2016).Additionally, the other requirement of the case in point inclusion is to ensure economic growth performance.

. Regardless of the fact that the literature on financial inclusion is ample with studies carried out mostly in the developed countries while the reverse is true in most developing countries like Ethiopia. In the context of this study financial inclusion mentions to the agreement of financial services on condition that by banks, microfinance institutions and saving and credit cooperatives only but financial services related to insurance companies are deliberately disregarded at disaggregate level of Ethiopia in SNNPR with no exclusion Gurage zone. Consequently, this study engagement is to investigate the major factors affecting financial inclusion in Gurage zone of Ethiopia.

## **1.2. Statement of the Problem**

As United Nation Development Program(2018)about 2 billion people across the globe are financially excluded and an inquiry is still prerequisite on approaches that enhance financial inclusion. Even though the contribution of the financial sector to economic growth, development and employment creation, the growth and expansion of financial institution in Ethiopia has remained constrained and limited. Nevertheless, the fact that the financial sector presents much-needed opportunities for the Ethiopian population, it endures to chance meeting several challenges that are obstacles to a smooth transition and growth into better managed and formal financial institutions.

Accordance Global Index Data base (2020)financial inclusion in African countries still Miniature. The reflections indicated only about 34% of adults in sub Saharan Africa have an account at a forma financial institution. Although 62% of Ethiopians reported saving money in the past year, only 26% saved formally at financial institution, while 38% saved with a person's outside of a family or at informal saving activities. Further to that, There are currently over 110 million Ethiopians distributed across 1.2 million square kilometers of land, 80 percent of which

are living in the rural areas. Financial institutions have not been able to reach a majority of those people as the financial institution service center. Moreover, the concept and adoption of financial institution service is at an infant stage in Ethiopia in terms of the employees, end users and customers. As a result, despite to the service of financial institution in Ethiopia has remained constrained and limited, why the study of financial inclusion is limited to only some small microfinance enterprises and aggregate level is the rationale behind this investigation. For the case in point, it is appropriate and needs to carry out local research in order to understand the real problem of the constraints(NBE, 2017).Theoretical and empirical Studies around the globe reflected as opposite side of financial inclusion is financial exclusion. Financial exclusion can be viewed from two angles. For example, Among those studies(Rao,2017;Akudugu,2013;Tmilarasu,2014).They classified as voluntary and involuntary and the concern of these study is those who would like to use the financial services but are unable to do so because of some and the same conclusion was also given by the most the recent study of world Bank Group((WB, 2020).There are a numbers of previous studies that have focused on the determinants of financial inclusion in Africa(Zins and Weill, 2016; Musa t al., 2015).they did at either country level or regional level with difference in the results. Ethiopia financial sector has not diversified in terms of the type of institutional delivering the service and the types of bank product has been being delivered.

In Ethiopian, some studies were carried out empirically with certain shortcomings. For instance, studies of(Getnet et al,2014;Abaynesh,2020;Degife,2018).at aggregate level with specification to small and micro enterprises and some are investigated in relation to credit services respectively. Likewise, there were other studies carried out in northern part of Ethiopia and south west part of Ethiopia(Zewdu,2014;Mekuanint et al,2019).Uniformly, this both studies are ignored the

potential factors affecting financial inclusion such as employment status of households, infrastructures, social security services. Further, most of the study just mentioned above are suffered from low power of test meaning the probability to reject false null hypothesis is high with high sample proportion(See at Gujarati,2004).In the context of this study financial inclusion refers to the usage of financial services provided by banks, microfinance institutions and saving and credit cooperatives are included while the availability of diversified insurance company is limited to Wokitta town which is the capital of the specified study area.

To the conceivable understanding of researcher, there is no related studies were carried at South part of Ethiopia specifically still questionable issue particularly at Gurage zone of SNPPR is what are the major contributing socio economic factors affecting financial inclusion. To this end, the public problems were the lack of knowledge on the financial organization and the costs of to join bank account and its costs. For some people these possessions were still well-thought-out to be quite troublesome. Besides, other issues on process of borrowing and lack of sufficient information on banking products and financial services. While, the problems in the financial institutions were including the limitation of the coverage area and expanding the office to peoples the lack of information about consumer's finance.

Henceforward, by in view of the above research breach, this study focus is fundamentally on the Determinants of Financial Inclusion in Gurage Zone of Ethiopia.

To knowledge of a researcher, no recognized study has been carrying out to examine the Determinants of Financial Inclusion in Ethiopia. Furthermore, for particular people these belongings were still considered to be quite worrying. Besides, other problems in the progression of borrowing was in the satisfaction of necessities on recognized permissible aspects of occupational maintained, lack of evidence on banking products or products that do not

appropriate the needs. While, the difficulties in the financial institutions were together with the restriction of the coverage area and expanding the office network, and the lack of figures about consumer's finance. Therefore, this study strived to investigate the major determinants financial inclusion the case of Gurage Zone by incorporating most important factors with powerful statistical and econometrics techniques.

### **1.3. Research question**

- ✓ Dose demographic factor affects the financial inclusion in guragea zone?
- ✓ Dose trust affects the financial inclusion in guragea zone?
- ✓ Does service availability affect the financial inclusion in guragea zone?
- ✓ Does infrastructure affect the financial inclusion in guragea zone?
- ✓ Does documentation affect the financial inclusion in guragea zone?

### **1.4. Objectives of the Study**

#### **1.4.1. General Objective**

The objective of this study is to investigate the determinants of financial inclusion in Gurage Zone of Ethiopia.

#### **1.4.2. Specific Objectives**

In line with the above general objectives of the study, the following specific objectives are set:

- To determine influence of demographic factor (such; age, gender, residence, income, employment status and educational level) on financial inclusion.
- To determine influence of infrastructure on financial inclusion.
- To determine the effect of documentation on financial inclusion
- To determine influence of trust on financial inclusion.
- To determine the effect service availability on financial inclusion.

## **1.6. Significance of the Study**

From the very beginning, the development of an economy is conditioned with the finance. Further, the most convenient approach to finance has also been the center of attention for the development of an economy and the dimensions of financial inclusion; the most important is in time provision of financial service to everybody interested in finance at the affordable cost. Proper financial resources will make sure to the disadvantaged group to get benefit through credit, savings, payment, transaction and insurance facilities. Moreover, it helps them out in establishing finance for investing in business dynamics their consumption. Take an example, in the agriculture field, the individuals can launch their investment in the uplifting of land, irrigation level, high-productive seeds and mineral fertilizers. At the same time, the individual out of the agriculture field can give a boost to their businesses.

This sort of financial backup or loan on short-term is also utilized in the other areas of human development like education, housing, and health. The provision of finance has been admitted as a central key to empowering the society so as to shift its potential in business activities. In development economics, getting rid of the poverty has been the focus of the government and policy-makers.

Availability of financial inclusion empowers the organization and individuals to utilize the finance in entrepreneur's plans, production as well as face the untoward downfall of business and other critical situation. For all that, its scope with reference to the availability of finance that could ultimately give the boost to growth and minimize the poverty.

The extension of present literature on financial inclusion across the country will be the center of attention in our study. Contribution to existing literature; - besides researcher will find this study useful if they wish to use the findings as a basis for current and further research on the subject.

## **1.7. Scope of the Study**

The study was conducted to investigate the determinant factor for the financial inclusion in Guraga zone. This study is not cover all woredas found in Guraga zone because of difficult to include all woredas rather some woredas has been selected purposively based on their seniority, population size and nearness with other woredas.

This study is conducted to investigate the determinant factors for the financial inclusion in specified study area. Therefore, the researcher delimits this study to only Gurage zone of South National Nationalities and Peoples.

## **1.8. Structure of the thesis**

This thesis consists of five chapters the remaining part of this study is organized as follows. The next section (chapter two) presents an overview of the theoretical and empirical kinds of literature conducted on determinants of financial inclusion all over the world. Chapter three provides the research design and method of data collection of the study; Chapter four discusses the data analysis and interpretation of the study, based on collected data on the issue of the study area. Finally, the last chapter (five) consists of summaries of major findings, conclusions, and recommendations for possible solutions to the problem.

## CHAPTER TWO

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### REVIEW OF RELATED LITERATURE

#### 2. INTRODUCTION

The primary purpose of this chapter was to get a hold of the theoretical and empirical understanding of the concept of the determinants of financial inclusion. This chapter focuses on explaining the concept of financial inclusion in line with definition; different theories going to be summarized. In doing this, the overall concept with the origin and meaning of the determinants of financial inclusion is briefly stated and the over reliance of companies on financial measures is criticized. Then, the chapter briefly introduces of the determinants of financial inclusion and what it takes to implement it. In the second parts of the chapter empirical literature which is reviewed in connection with the determinants of financial inclusion are stated. It is helpful to provide the reader with relevant theories and previous studies related to the study area

#### 2.1. Theoretical literature review

##### 2.1.1. Defining Financial Inclusion

Due to the increasing efforts to promote FI, the debate in literature has shifted to include the Demand side factors that in fact significantly influence financial inclusion, such as financial literacy (Anzoategui et al., 2014; Atkinson & Messy, 2011; Lusardi et al., 2010; Sarma&Pais, 2011; Stango&Zinman, 2007; Struwig, Roberts, & Gordon, 2013), personal income (Allen et al., 2012; Kempson&Whyley, 1999; Leyshon& Thrift, 1995; Sarma&Pais, 2011), age (Allen et al., 2012; Martínez et al., 2013), gender (Demirgüç-Kunt&Klapper, 2012; S. Johnson, 2004; Martínez et al., 2013), social capital (Balogun& Yusuf, 2011; Jones & Volpe, 2011); (Kamukama, Ahiauzu, &Ntayi, 2010) and culture (Dittus& Klein, 2011; Kempson, Atkinson, &Pilley, 2004). The definition of financial inclusion has also taken various angles on what it

means or entails and is being defined by different policy makers and advocate. Modifications have been made to the FI definitions over time to include the demand side, hence extending earlier definitions that were greatly inclined to a single dimension - access. For instance, Ardic et al., (2011b); Demirgüç-Kunt and Klapper (2012); Leyshon& Thrift, (1995) defined FI as simply the access to the basic financial services. Sarma and Pais (2011) modified the definition of FI as the process that ensures the ease of access, availability and usage of the formal financial system for all members of the economy.

These definitions do not emphasize the importance of other dimensions of FI, for instance, usage and quality which is consistent with Gupte et al., (2012); Ssonko, (2010). Various scholars view FI by drawing on earlier contributions towards the discourse and have attempted to define FI and in the absence of FI. Drawing on earlier contributions, the World Bank and Centre for Financial Inclusion at Accion (CFI), 2013, have attempted to standardize the definition.

The definition which is in agreement with the majority of the definitions earlier developed and used in various studies is one developed by The Centre for Financial Inclusion at Accion (CFI), 2013. CFI, (2013, p.3.) referred to FI as “a state in which all people who can use financial services have access to a full suite of quality services, provided at affordable prices, in a convenient manner, and with dignity for the clients.” This particular definition attributes great importance to sustaining the true concept of FI presently and in future research.

The definition therefore, regardless of the indicator, further highlights the FI discourse focusing also on the importance of the financial services to the user/ financial consumer. Various definitions have developed over time but there is no universally accepted definition extending towards all the dimensions that are used to comprehensively define FI. Since FI not only affects future economic conditions, through supply oriented efforts, it also makes better a routine life of

an individual who is referred to in this study as the financial consumer. Other scholars have defined FI in terms of social exclusion (Carbo, Gardener, & Molyneux, 2007; Connolly & Hajaj, 2001; Mohan, 2006; Rathod & Arelli, 2013), financial exclusion (Conroy, 2005; Leyshon & Thrift, 1995). The differences in definition emanate from the context in which it is used, geographical location and probably the state of economic development of the area in Question, among others.

### **2.1.2. Dimensions of Financial Inclusion**

Massara and Mialou (2014) postulated that the notion of FI be advanced through its three dimensions: access, usage and quality of financial services.

Accordingly, Hannig and Jansen (2010); Serrao, Sequeira, and Hans (2012) opine that measurement of FI should be able to monitor levels of FI and secondly, deepen understanding about factors that associate with FI that enables the testing of hypotheses between FI and other variables.

These studies argued that FI is often measured through the three dimensions; the access dimension, which measures the physical and breadth of financial services, and individuals' ability to use the available financial products and services at a service point. They further state that shortage of financial service points is predominant in the rural locations compared to those individuals in the urban locations. Secondly is the usage dimension, which measures an individual's ability to derive permanent purpose and utility from a particular financial product or service.

Thirdly, is the quality dimension which measures the relevance of the financial products or services in the day-to-day needs of the financial consumer? These measures were similarly adopted in demand side studies by Hannig and Jansen (2010) Camara, Peña and Tuesta (2014); Demirgüç-Kunt and Klapper (2013); Sarma and Pais (2011) to measure financial inclusion from a

demand side perspective similar to this study. The World Bank Global Financial Development Report (2014), identifies the adoption of a multidimensional approach to define FI. This is vital because it helps to overcome the often mistaken supposition that FI will only be achieved by simply offering enough access points savings products. To address this anomaly towards achieving complete inclusion, issues of frequency of use by individuals, and quality of financial services towards effectively meeting their needs should give better results and perspectives. Therefore, including usage and quality in the definition and measurement of FI besides simple access is believed to prove more useful for analytical explanation to FI. FI enables the transformation of the lives of the low income segments in developing countries like Uganda. However, as Sarma and Pais (2011) observed, for an individual to realize benefits of financial services, the products should be accessed easily, should be of quality, and relevant to individual needs.

Access and usage of formal financial services like; credit, savings, insurance, payment facilities are tenets to enhancing household and individual consumption, investment against uncertainties and adversities that the low income segment experience (King, 2013). A number of studies have laid emphasis on credit as the most important product to improve access to finance. However, it is imperative to note that a broader concept of FI should incorporate savings, remittances (Anzoategui, Demirgüç-Kunt, & MartínezPería, 2014) and insurance (Dittus & Klein, 2011).

In addition, even for those individuals who supposedly have access to financial services, there is a variation in the distribution, with some people accessing only a bank account that may in fact be used infrequently.

The Financial Inclusion 2020 Project defines financial inclusion as: "Full financial inclusion was a state in which all people who can use them (including disabled, poor and rural populations),

have access to a suite of quality financial services provided at affordable prices, in a convenient manner, and with dignity for the clients. Financial services were delivered by a range of providers; most of them are private, to a financially literate and capable market". Financial inclusion was not merely a target but more than the equalization of inclusive growth. The achievement of financial inclusion was when people get the welfare from the economic growth. The significance of financial inclusion was to provide appropriate financial services for individuals, to give insight and access to financial services.

World Bank Annual report (2017) financial inclusion provides space for the work of financial intermediation including the payment transactions, financial products that meet the financial capacity of poor households, money transfer facilities, micro-credit and other financial services including insurance. Financial inclusion refers to ensuring access to tailored financial products and services needed by low income individuals in particular and society in general at fair, transparent and equitable mode. Financial inclusion is important for lack of access to basic financial service can create crippling financial problem for people. They may have no way to receive certain payments, have to pay higher accounts of basic services such as electricity and are prevented from making purchase due to having no easy means of summiting payments. For example, consider how much of modern commerce is conducted online-then think about how an individual with no bank account or credit card could go about ordering something online-like amazone.com.

Having access to financial service is important to both individual and companies, as it provides a means of storing money, managing payment and cash flow, accumulating savings accessing credit and making investment. Such access is also key acquiring asset and building financial securities. Providing greater financial inclusion to small business is important because it can help

to create more jobs and improve the standard of living in a community. The financial inclusion in most simple term is having an account at financial institutions.

### **2.1.3. Finance Institutions**

The financial institution could be bank, microfinance institutions or other regulated financial institution. Access to financial services can be achieved through offering appropriate financial products for low income individuals in particular and society in general. The tailored saving products as well as saving institute expansion can enhance saving of low income people. The credit inclusion can be enhanced through designing appropriate products, credit information and low collateral requirements. Access and availability were to measure community access to formal financial institutions(Uddin et al,2017).This included the supply of financial services such as credit, savings, payment and clearance systems and so on. Then to evaluate the access and availability, the potential constraints such as geographical and infrastructure can be identified. To determine the level of accessibility, the main determinant was estimated as a proportion of the number of people who can access financial services. The quality factor becomes services relevance variable or financial products to maintain the needs of society(Zins and Weill, 2011)The indicators of the quality factor were the choice of consumer and financial literacy of the option, while the benefit factor was the actual frequency and the depth in the use of financial products all the time, and the impact factor and satisfaction can be seen from the impact of the financial inclusion on the development of human qualities. Sarma(2012)investigated the relationship between financial inclusion and development. By using financial inclusion index, this study aims to identify the factors that significantly affect the financial inclusion. The level of human development and financial inclusion has a great correlation. So, the importance of other factors was such as inequality, literacy and urbanization.

#### **2.1.4. Theoretical Literature Review**

Financial inclusion is that individuals and business have access to useful and affordable financial product and service that meets their needs transaction, payment, saving, credit and insurance delivered in a responsible and sustainable way. Financial inclusion depicts unbanked population on limited access to the formal financial system whether in saving activities, payment, credit and insurance and other. Hence, policies designed to eliminate obstacles to access finance was needed(Hannig and Jansen, 2010).While the Financial Inclusion 2020 Project defines financial inclusion as: "Full financial inclusion was a state in which all people who can use them (including disabled, poor and rural populations), have access to a suite of quality financial services provided at affordable prices, in a convenient manner, and with dignity for the clients. Financial services were delivered by a range of providers; most of them are private, to a financially literate and capable market". Financial inclusion was not merely a target but more than the equalization of inclusive growth. The achievement of financial inclusion was when people get the welfare from the economic growth. The significance of financial inclusion was to provide appropriate financial services for individuals, to give insight and access to financial services. World Bank Annual report (2017)financial inclusion provides space for the work of financial intermediation including the payment transactions, financial products that meet the financial capacity of poor households, money transfer facilities, micro-credit and other financial services including insurance.

Financial inclusion refers to ensuring access to tailored financial products and services needed by low income individuals in particular and society in general at fair, transparent and equitable mode. Financial inclusion is important for lack of access to basic financial service can create crippling financial problem for people. They may have no way to receive certain payments, have

to pay higher accounts of basic services such as electricity and are prevented from making purchase due to having no easy means of summiting payments. For example, consider how much of modern commerce is conducted online-then think about how an individual with no bank account or credit card could go about ordering something online-like amazone.com. Having access to financial service is important to both individual and companies, as it provides a means of storing money, managing payment and cash flow, accumulating savings accessing credit and making investment. Such access is also key to acquiring asset and building financial securities. Providing greater financial inclusion to small business is important because it can help to create more jobs and improve the standard of living in a community. The financial inclusion in most simple term is having an account at financial institutions.

#### **2.1.5. Behavioral Finance**

Behavioral finance, as a branch of behavioral and financial economics, has developed due to the shortcomings in the prior theoretical and empirical literature. Behavioral finance is intended to further the understanding of financial behavior by incorporating aspects of human nature into financial and economic models that were not extensively discussed in earlier models (Barberis, 2012; Shefrin, 2002;). Ritter (2003) contends that behavioral finance drops the traditional maximization of expected utility among rational investors within efficient markets. It instead focuses on the way individuals think despite the limits to arbitrage when markets are seemingly inefficient. This argument is divergent from the traditional assumption of expected utility maximization which considers only efficient and linear situations. This is unrealistic and does not effectively define the financial system and financial behavior in this particular context. Behavioral finance allows for more realistic thinking which defines decision makers (Ricciardi&

Simon, 2000). Ricciardi and Simon (2000) also argued that behavioral finance attempts to explain the what, the why and the how of finance and investment from a human perspective.

It integrates many different schools of thought, drawing from psychology, marketing, finance, technology, and management, among others. The majority of studies (Bali, Cakici, & Whitelaw, 2011; Barberis&Thaler, 2003; Benartzi&Thaler, 2007; Conrad, Dittmar, &Hameed, 2011; De Giorgi, Hens, & Levy, 2011; Loughran& Ritter, 2002; Ritter, 2003; Shefrin, 2002) are up until now, confined within the stock market space, hence limiting their scope of applicability. This is an improvement to the EUT and non-expected utility maximizing models that have separately applied descriptive and normative approaches to decision making. The field of behavioral finance that is described as an interaction of psychology with the financial actions and performance is still developing and is being refined (Shefrin, 2002). This study developed a more predictive and normative approach which explains the financial consumer's 2728 personal and societal capabilities that are fundamental in determining choice, decision making and, specifically, financial behavior in the financial inclusion context.

#### **2.1.6. Conceptualization and Definition of Financial Inclusion**

As stated earlier, financial inclusion (FI), the access and use of financial products and services, has become a priority to policy makers globally in recent years (Ardic et al., 2011b; Demirguc Kunt&Klapper, 2012a; AFI, 2012). FI or exclusion also considered in the absence of FI was initially applied in the early 1990s to draw attention to the limited access to formal financial services (Kempson&Whyley, 1999; Leyshon& Thrift, 1994, 1995). "FI is an intervention strategy that seeks to overcome the market friction hindering the markets from operating in favor of the poor and underprivileged," (Aduda&Kalunda, 2012, p. 96). FI can be operational in different contexts among individuals, households, firms and at country level. In this study, the

discussion is limited to the individual level. At the individual level, focus is on analyzing behavior and level of usage of financial services among households relative to the level of provision or supply of financial services by the financial intermediaries. FE extends beyond physical access caused by the inadequacies of the financial service providers but also includes the users of the financial services. Financial inclusion plays a critical role in economic development by facilitating economic growth and reducing inequality (Gupte, Venkataramani, & Gupta, 2012). Therefore an all-inclusive financial system is likely to fulfill this role and benefit the excluded segments. This is only possible when an economy utilizes a “balanced mediation effect” between the demand-side and supply-side, that is, the financial service providers as well as the financial service consumer (Agrawal, 2008; Kumar & Mohanty, 2011).

Peachey and Roe (2004) argued that there is a strong correlation between access and per-capita GDP across economies. It is therefore assumed that actually, the bigger and deeper banking systems go hand in hand with more advanced economic development.

Hence there is a need to create enabling conditions for economic growth through either a “supply leading” strategy that spurs growth or “demand following” strategy that spurs growth through generating demand for financial products and services (Mohan, 2006). FI is significant in economically and socially empowering the vulnerable and poor and may help them come out of poverty (Ardic et al., 2011b; Demirguc-Kunt & Klapper, 2012b; Peachey & Roe, 2004).

FI not only positively affects the future economic and social status but also makes the routine financial life of an individual or firm better. For the poor to actually realize the benefits of the financial services, the financial products and services should be of quality, and relevant to their needs (Thorsten Beck & Demirgüç-Kunt, 2008; Thorat, 2010). A number of scholars have indicated that some of the reasons individuals do not access formal financial services is either

due to involuntary or voluntary self-exclusion and other socioeconomic reasons (Thorsten Beck et al., 2009, p. 122) or lack trust in formal financial institutions (Dittus & Klein, 2011, p. 4). Additionally some consumers face barriers, such as affordability (Dupas, 2013; Kempson & Whyley, 1999), information asymmetry (Agarwal, 2010), lack of sufficient income financial literacy (Lusardi, 2008a, 2008b; Lusardi, Mitchell, & Curto, 2010; Van Rooij, Lusardi, & Alessie, 2007), insufficient documentation (Ellis, Lemma, & Rud, 2010), inappropriate products and inability to meet eligibility criteria in the case of credit among other financial services (Sarma, 2008), which leads to their marginalization and denial of opportunity to grow and prosper (Mohan, 2006). According to Kempson and Whyley (1999), there is no clear congruity among researchers that many people across the globe are excluded from mainstream banking but the reasons for exclusion differ from one individual to another. Therefore a vibrant financial sector that includes the formal and semi-formal financial institutions can augment FI but not substitute for it.

The financial system has hence been recognized as a policy priority in a number of economies. The significance of a broadly inclusive financial system is driven by the realization of the role of finance as one of the critical components that influence growth and development through its role of risk mitigation, mobilization and resource allocation function (Demirguc-Kunt & Klapper, 2012b; Peachey & Roe, 2004; Rajan & Zingales, 2003). The acknowledgment of the role with the assumption that exclusive growth is not sustainable with financial development has sparked off the revolution of FI among a number of scholars and policy makers among various stakeholders (Agarwal, 2010). With the realization of the significant benefits of offering savings, credit, insurance and payment services, some scholars have proposed that FI become a public good to address financial exclusion (Agarwal, 2010; Agrawal, 2008; Peachey & Roe, 2004;

Rajan&Zingales, 2003). This proposition would be sustainable in economies with more stable or efficient financial systems which is nearly nonexistent among developing economies.

FI has remained low in developing countries like Uganda despite the significant efforts by government, and financial service providers, among other stakeholders. Some of these FI strategic and policy efforts in Uganda include; the rural financial services strategies, Bank of Uganda FI project, the Uganda financial services inclusion program under the Department of International Development (DFID) are all working towards financial deepening by increasing access to financial services, especially in the rural areas, which are predominately excluded from the formal financial system. Additionally, financial institutions, especially the banks and MFIs, have shown admirable interest in actively developing products for the poor in rural areas though at a low rate which requires scaling up.

In the same regard as perceived by these initiatives, financial sector deepening has been perceived as a means to improve economic growth, reduce poverty and consequently, improve social inclusion (Aduda&Kalunda, 2012; Thorsten Beck et al., 2009; De Koker&Jentsch, 2013; Dittus& Klein, 2011). Empirical studies have shown individuals greatly benefit from FI through the ability to have a safe place to keep their money in the form of savings, safer and a relatively cheaper and reliable access to remittances and other payments services, loans or insurance payments to cover health or education expenses, and other uncertainties, often from one financial services provider (Pearce, 2011). Ellis et al. (2010) argued that a number of individuals are propelled to save and borrow money from financial service providers for household consumption, investment purposes and to minimize exposure to any eventualities that may affect them. This propels them to devote considerable effort to finding workable solutions using the financial service providers' options available to them. The Middle East and Northern Africa

(MENA) region, after several years of slow growth, has seen several people of all income categories, embrace and explore the use of financial services across distinct providers.

This has been driven by higher efficiency levels experienced by using formal services, to improve their welfare and social positioning, especially the women who are prone to exclusion (Pearce, 2011). In the same regard, Sarma and Pais (2011), in an effort to develop a financial inclusion index though focusing on mainly the access dimension, found that FI had a relatively positive and significant relationship with human development in a specific country context. These findings are consistent with other scholars, for instance, Aduda&Kalunda (2012); Dupas et al. (2013); Ssonko (2010) who found that there was highly significant positive influence of savings on poverty eradication and individual welfare among people in Kenya and Uganda respectively.

They continue to argue that if people actually understand how to use these financial services, individuals are able to derive more benefits from such utilization. However, Swamy (2014) found that despite this positive influence of savings as a major financial product, FI was perceived to threaten the financial sustainability and stability of financial service providers, especially if there is no sufficient financial information provided to the users of these products, especially credit facilities. The study by Aduda and Kalunda (2012) revealed the importance of credit information before issuing of credit facilities. Further findings by Pande and Burgess (2005) indicate that FI for instance in the rural locations of India was enhanced by opening more bank branches through policies influenced by the state. These were seen to radically respond to poverty reduction in the rural locations despite that the focus was only on the access dimension, ignoring the importance of usage and quality towards FI. Contrary to Dupas et al. (2013), in their demand side studies, argued that there is a need to ensure quality, affordability of financial

services and trust among the users besides simply expanding accessibility through bank branches in order to achieve complete FI.

According to Kempson and Whyley (1999), there is clear congruity among researchers that many people across the globe are excluded from mainstream banking but the reasons for exclusion differ from one individual to another. In addition, studies undertaken in SSA have mainly focused on defining FI as mere ownership of a bank account disregarding the focus of other financial products and their actual usage. While this is a very important component of FI, the use of insurance, credit, payments are also vital for determining an holistic picture of FI at both individual and macro level. It is particularly important to reach out to populations in the informal markets because all households, no matter how poor they may be, are said to engage in some form(s) of economic activity as well as financial strategies to build assets, plan for social events, emergencies and meet their daily transactions to survive (Cohen & Sebstad, 2005). Findings indicate that the majority engage in a number of non-financial means of saving, for instance, accumulation of livestock, jewelry, staple foods - in Northern Uganda mainly millet - which are believed to have spiritual and cultural significance (Stuart, 2000). Additionally, rural households engage in informal financial relationships among themselves which may not be guaranteed as safe and reliable. In the same regard, Schindler (2010) argued that there is a need to integrate the informal and formal financial markets because the volume of informal activity is far greater than that of organized financial institutions. Perhaps this integration can inherently improve the involvement and consequently wellbeing of such rural segments by providing them a wider array of efficient, safe and reliable financial services to improve their financial strategies and wellbeing at large. However, this integration cannot be completely done without examining the behavioral attributes that individuals possess which enable, not only their transition from

informal to formal systems, but also to actually confidently appreciate the formal institutional models. In order to gauge whether the formal financial institutions are effective vehicles of FI, it is thus important to understand the individual attributes or capabilities of the different segments.

This is within the diversity of an economy like Uganda that may enable them embrace the financial products and services they purportedly need to use to improve their welfare and enjoy the benefits that emanate from being financially included.

### **2.1.7. Social Exclusion and Financial Exclusion**

From the previous discussion, it is evident that a growing body of empirical research has contested that FI and equally, financial sector development has a “*knock on effect*” that promotes growth among the poor and reduces inequality among societies. This is an indication of a broader challenge of social exclusion (Kempson&Whyley, 1999; Kempson, Whyley, Caskey, & Collard, 2000). The people who lack access to financial services are commonly perceived to be excluded in other ways.

### **2.1.8. Different theories on financials**

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. Access to financial services to one individual does not reduce its availability to others which means that all members of the population can be brought into the formal financial sector and everyone will be better off. Under this theory, all members of the population are beneficiaries of financial inclusion and

nobody is left out. Under the public good theory, any individual or small business that open a formal bank account can be offered free debit cards, they can also use the Automated Teller Machines (ATM) to perform transactions without being charged a transaction fee.

Also, the suppliers of financial services such as financial institutions will bear the cost of offering financial services as a sunk-cost of doing banking business. The government may grant subsidy to financial institutions to help them cope with any resulting cost problems that may arise from offering free financial services.

This means that individuals who cannot pay their debts and who cannot meet their basic needs will stand a chance to be economically empowered when financial inclusion is viewed as a public good. This theory has two merits. Firstly, the public good theory suggests that everyone will benefit from financial inclusion regardless of status, income level or demographic differences. This means that the rich and the poor, the financially-included citizens and the financially-excluded citizens will enjoy the benefits of financial inclusion. Secondly, as a public good, achieving financial inclusion would require public funding rather than private funding. Thirdly, as a public good, it gives the government an opportunity to take responsibility for promoting financial inclusion. Finally, the public good theory of financial inclusion does not recognize private-sector agents as promoters of financial inclusion.

The public good theory has four demerits. Firstly, treating financial inclusion as a public good does not address the real cause of financial exclusion.

Secondly, treating financial inclusion as a public good which requires public funding can divert public funds away from other important public projects in order to fund financial inclusion projects. Thirdly, the public good theory assumes that financial inclusion as a 'public good' is free-of-charge and has no cost to users of formal financial services. When financial inclusion is

treated as a public good, the level of financial inclusion may not be sustainable in the long-term even when supported with public funding if it comes at no cost to end-users.

Four, the public good theory of financial inclusion may have little relevance for developing and emerging economies because financial institutions operating in developing countries and emerging economies are mostly funded using private capital rather than public money; for this reason, it may be difficult to make financial inclusion a public good in such countries.

### **2.1.9. 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.

Vulnerable people are often the most affected by financial crises and economic recession, therefore, it makes sense to bring these vulnerable people into the formal financial sector. One way to achieve this is through government to-person (G2P) social cash transfers into the formal account of vulnerable people. Making G2P social cash transfer payments into the formal account of poor people, young people, women, and elderly people may encourage other poor people, young people, women, and elderly people to join the formal financial sector to own a formal account to take advantage of the G2P social cash transfer benefits, thereby, increasing the rate of financial inclusion for vulnerable groups.

Also, when social cash transfer is working, and other tools for achieving financial inclusion are provided to vulnerable people in society, it can make vulnerable people feel that they are being compensated for the existing income inequality that affect them, which gives them an opportunity to catch up with other segments of society. The implication of theory is that it

identifies some members of the population to be vulnerable, and suggest that financial inclusion efforts should be the targeted to the vulnerable people in society. The vulnerable group theory of financial inclusion has some merits.

Firstly, the theory makes an attempt to reduce the financial exclusion problem by targeting vulnerable groups for financial inclusion and to bring them into the formal financial sector. Secondly, under this theory, it is easy to identify the financially excluded members of the population. The vulnerable members of the population can be identified by their degree of vulnerability, income level, gender, age, and other demographic characteristics. Thirdly, it may be cost-effective to target only the vulnerable members of the population for financial inclusion compared to achieving financial inclusion for the entire population(Tuesta et al., 2015).

The vulnerable group theory has some demerits. Firstly, the theory does not prioritize financial inclusion for everybody in the population. Secondly, it ignores non-vulnerable people outside the formal financial sector. Non-vulnerable people also need access to the formal financial sector too! Thirdly, it assumes that women are a vulnerable group, which implies that men are not a vulnerable group. This idea is critical because in modern societies women and men compete for equal opportunities, therefore labeling women as vulnerable groups to the exclusion of men may have unintended consequences for financial and social inclusion. It could lead to societal resentment among the men towards women(Chithra and Selvam,2013).

Finally, achieving financial inclusion by targeting vulnerable people may lead to increasing social inequality when social policies are designed to favor vulnerable people over others, and it may also lead to income inequality if vulnerable people receive better access to financial services than others.

### **2.1.10. Public Service Theory of Financial Inclusion**

Public service theory of financial inclusion states that financial inclusion is a public responsibility which the government owes 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. The public service theory has some merits. One, the theory suggest that financial inclusion can be achieved when the government takes responsibility for financial inclusion. Secondly, the government has control over the financial system, economic and social structures in the country which the government can use to achieve its financial inclusion objectives. For example, the government can create public banks in the most remote areas of the country to reach the excluded members of the population. Thirdly, there is increased public confidence when the government assumes full responsibility for financial inclusion through public institutions. Members of the population are confident that all financial inclusion activities and programs will work for the greater good of everyone when the government takes full responsibility for financial inclusion. Some demerits of the public service theory include the following.

One, it does not consider private-sector participation in promoting financial inclusion(Musa et al.,2015;Akudugu, 2013).Secondly, it assumes financial inclusion will be funded with taxpayers' money. Tax revenue may be insufficient to fund large financial inclusion programs. Thirdly, under the public service theory where the State is responsible for financial inclusion through its

public institutions, one disadvantage is that the State can use political power as a means of control over society.

## **2.2. Empirical Literature**

The empirical literature on the determinants of financial inclusion is available but limited. A number of studies have examined the determinants of financial inclusion (Uddin et al., 2017; Zins and Weill 2016; Soumaré et al. 2016; Olaniyi and Adeoye 2016; Siddik; Uddin et al. (2017)). They 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. 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. The study also 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.

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.

Siddik et al. (2015) 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 infrastructure variables which were found to be significant in determining financial inclusion were paved road networks and internet. The deposit penetration in the banking sector was found to be the significant determinants of financial inclusion.

Tuesta et al. (2015) he 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 that 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.

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, and deposit and credit penetration. 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.

Sanderson et al. (2018) examined the determinants of financial inclusion in Africa. Using the World Bank's Global Findex database on 37 African countries the study found out that being a man who is rich with more education and older improves financial inclusion. The study also discovered that education and income had a higher influence on financial inclusion and that the determinants of informal finance were different from those of formal finance. Some of the findings were supported by Sanderson et al. (2018) who investigated the determinants of financial inclusion in Zimbabwe discovered that age, education level, financial literacy, income and internet connectivity were the factors positively related to financial inclusion while documentation required to open a bank account and distance to the nearest access point were negatively related to financial inclusion.

Kaur et al., (2020) also examined the determinants of accessing institutional and non-institutional finance across male and female-headed households in rural India. Using the multinomial logistic

regression, the study also discovered that education level is one of the important factors influencing financial inclusion.

Other factors that were discovered were monthly household consumption expenditure, land size holding, access to irrigation land and the levels of scheduled penetration of commercial banks influenced financial inclusion. Dar et al.,(2020) also sought to investigate the determinants and barriers of financial inclusion in India. Using the Global Findex Database (Findex) of 2017, the study found out that gender, age, education and income influence financial inclusion with a significant influence on the informal saving and borrowing. Some of the results by were supported by Mhlanga and Dunga (2020). Gebrehiwot et al, (2019) also examined the determinants of financial inclusion across 27 Africa countries using the GMM dynamic panel data analysis. The study discovered that the lagged value of GDP per capita and mobile infrastructure positively influences financial inclusion while government borrowing had a negative influence on financial inclusion in South Africa Wentzel et al. (2016) investigated the factors impacting financial exclusion at the bottom of the pyramid in South Africa. The study found out that, South Africa suffers from high levels of financial exclusion, disproportionately at the bottom of the pyramid. The study showed that the most significant factors associated with being financially excluded at the bottom of the pyramid in South Africa were educational level, the primary source of income, age, home language and number of dependents. The study further found that gender, relationship status and homeownership were not associated with being financially excluded. An interesting finding was that living in a rural area as opposed to an urban area was not significantly associated with being excluded.

Mekuanent et al (2019) the study has established that financial inclusion determined by age, education, financial literacy, distance, and income. Based on these results, age, education, financial literacy, and income are directly related to financial inclusion.

It is possible to reduce determinates of financial inclusion with regulating well the financial system, creating healthy competition and building a better enabling environment. Identifying and segregating the root causes and addressing it properly appear to be removing the distance, services charge, and credit barriers.

On the other hand, market for financial services failures and behavioral problems related to customer tend to be addressed through designing of appropriate financial products. Removing those challenges and expanding financial inclusion tend to be possible with the promise of latest technologies. For instance, mobile payment, mobile banking, agency banking and use of biometric devices can lessen cost, speed up transfers and increase household transaction security.

### **2.3. Identified Literature gap**

The empirical analysis of literature reviewed by the researcher, it is possible to conclude that; generally different studies were conducted on a different perspective in financial inclusion. It can be observed that the empirical research on financial inclusion is somewhat limited and far from complete. Nevertheless, the richness of the financial inclusion literature highlights the importance of the issue and further research in the area is clearly warranted. A review of the current levels in Ethiopia provides certainty to the claim those barriers to financial inclusion are consistent among developed and developing countries. The studies conducted by different scholars in Ethiopia them shows different implication about determinant of financial inclusion but in the area of study area. Financial inclusion has become an interesting topic in recent years.

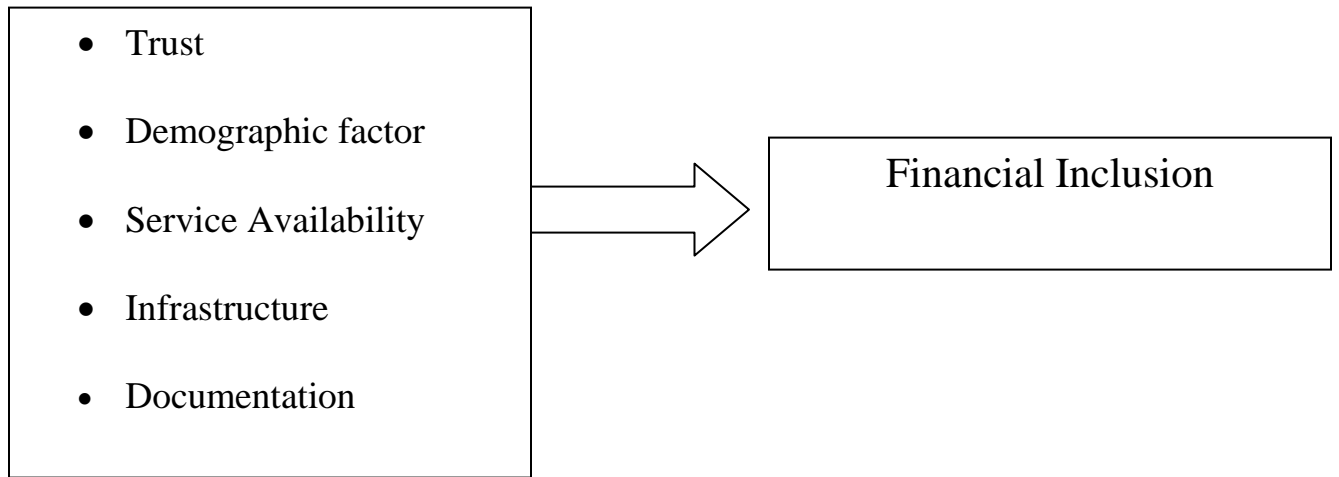
Although the number of saving accounts in the World was greater than the total world population, but 2.5 billion people, or half of the adult communities still do not have savings or unbanked (Chaia, 2010). In the macro level, financial development was to measure the depth of financial services such as the proportion of private sector credit to the Gross Domestic Product (GDP). Therefore, financial inclusion was directly related to equitable development and poverty reduction. Financial inclusion also has a vital role to the development of human qualities.

Financial services help people to save and gain the profit interest in order to be productive capital and later it will implicate the overall financial stability while at the micro level, helping people on financial services could mitigate the risk during the economic shocks that can be catastrophic.

#### **2.4. Conceptual Framework of the Study**

As a result of the empirical review and theoretical assumptions; the study has developed the following schematic representation of the conceptual framework. Conceptual framework includes one or more formal theories (in part or whole) as well as other concepts and empirical findings from the literature. It is used to show relationships among these ideas and how they relate to the research study. Conceptual framework illustrates what we expect to find through your research. It defines the relevant variables for your study and maps out how they might relate to each other.

**Figure 1 Conceptual framework**



**Source: Owen design, 2021**

# CHAPTER THREE

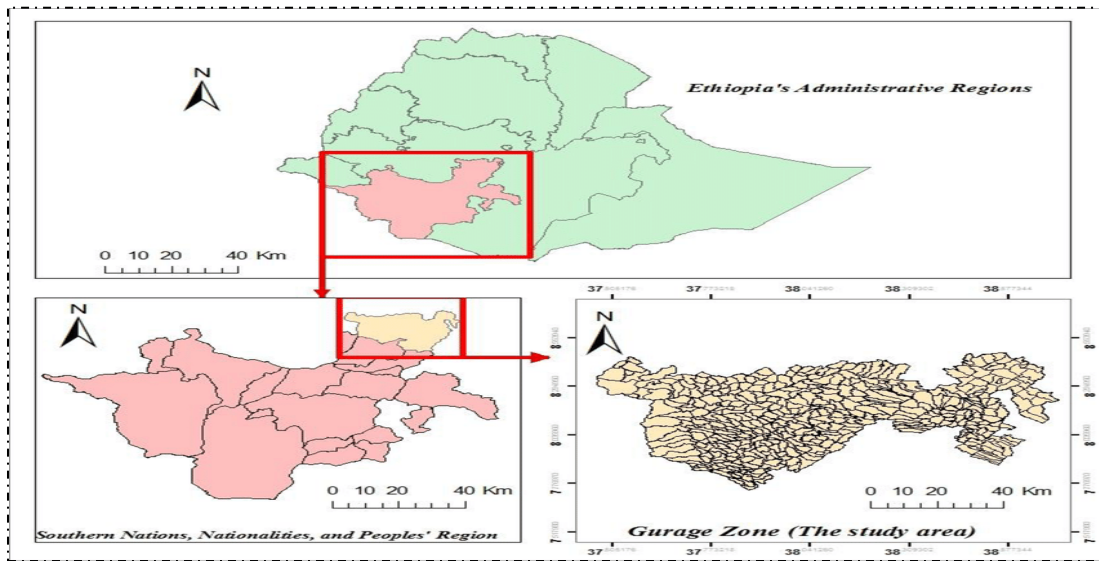
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## **RESEARCH METHODOLOGY**

This chapter provides the reader with an overview of the methodological considerations and assumptions underlying the research process. It describes the methods and procedures that the researcher used to achieve the research objectives. The chapter covers the research approach used in the study, research design, target population, sample size, source of data and data collection, and finally how the data is analyzed.

### **3.1. Description of the study Area**

Gurage zone is one of Ethiopian Southern Nations, Nationalities and people's region (SNNPR). This zone is simply named by the Gurage People, whose homeland lies in this zone. The border of the zone is on south east by Hadiya and Yem special Woreda, on the west, north and east by the Oromia regional state and on the southeast by silte. Wolkittie is an administrative center of the zones; Butajira is the largest city of the zone and served as former administrative center of zones. Other Gurage Town includes Endibir, and Enseno. The map of Gurage zone is provided as follows:



Source: Socio-economic profile of Gurage zone, SNNPR, Ethiopia

**Figure 3.1:** Map of Gurage zone, SNNPR

### 3.2. Research Approach

In this study, the researcher used mixed research approach; which includes both qualitative and quantitative research approaches. The use of this method is helpful to ensure that the data collected will effectively be interpreted and analyzed using the descriptive statements. According to (Creswell,2003)there are three types of research approach which are familiar to social science studies, namely qualitative, quantitative, and mixed approach. Qualitative approach used mostly when the researcher needs to develop a complex, holistic picture, analyzes words, reports, detailed view of informants, and conducts the study in a natural setting and involves studies that do not attempt to quantify their results through statistical summary or analysis(Creswell,2009). The rational reason for the adoption of a quantitative approach includes: to develop knowledge of cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories, employee strategies of inquiry such as experiments and surveys(Creswell, 2009). The quantitative approach uses surveys of cross-

sectional or longitudinal using self-administered semi-structured questionnaires with the intent of generalizing from a sample to a population. So well designed and implemented quantitative research approach has the advantage of generalizing to a wider population from the sample. The mixed research approach is a means to collect both qualitative and quantitative data and analyses together to answer the research questions. In other words, it involves the collecting and “mixing” or integration of both quantitative and qualitative data in a study.

### **3.3. Research Design**

Research design presents the method and procedures which are used in gathering information required to answer the research questions. This study used an explanatory research design to identify determinant factors that influence financial inclusion among Guraga zone.

Explanatory research seeks to explain the phenomena being studied(Kothari,2004). Therefore, the research design for this study is cross sectional study with inferential analysis.

### **3.4. Target Population**

According to Kombo and Tromp (2009)population is a group of individuals, objects, or items from which samples will be taken for measurement or it is an entire group of persons or elements that have at least one thing in common. The target for the survey questionnaire was includes urban and rural users and non-users of the services of financial institutions (Bank, Micro finance and saving and Credit Corporation) in the study area.

From a total population seven woredas and 1 city administration was selected purposively based on their seniority, population size and nearness with other woredas out of 16 woredas was and 4 city administrations that located in Gurage was considered as sampling unit for this study. To accommodate the heterogeneity of the population the researcher was selected by purposive sampling techniques and select samples among population. It was includes; Gummer,Geta,Cheha

,Kenbena, Abeshgy, Eza, Sodo and Wolkittie city administration and then samples kebeles was used to select the sample size for this study. Furthermore, Ethiopian Commercial Banks, saving and credit unions and microfinance institutions are included in the target population of the study.

### **3.5. Sample Size Determination**

A sample with the smallest sampling error was considered a good representative of the population. On the other hand, smaller samples may be easier to manage and have less non-sampling error. Handling of bigger samples is more expensive than smaller ones. The non-sampling error increases with the increase in sample size.

According to Catherine Dawson (2009:54), the correct sample size in a study is dependent on the nature of the population and the purpose of the study. Although there are no general rules, the sample size usually depends on the population to be sampled.

The sample size is therefore directly proportional to the desired confidence level of the estimates ( $z$ ) and to the variability of the phenomenon being investigated, and it is inversely proportional to the error that the researcher is willing to accept (Corbetta, 2003). When the size of the population is large and previous researches are unavailable to determine the variability of an estimate over all possible samples, thus the sample size is calculated for the favorable case  $p = q = 0.5$  (Corbetta, 2003). Krejcie and Morgan (1970) also recommended that for a population having more than 1,000,000 target groups a sample size of 384 is acceptable. According to the theory the above mentioned sample size is obtained from the following formula;

$$n = \frac{z^2pq}{e^2} ; n = \frac{(1.96)(1.96)*0.05*0.05}{0.05*0.05} = 384$$

$n$  = required sample size

$z$  = degree of confidence (i.e. 1.96)

$p$  = probability of positive response (0.5)

$q$  = probability of negative response (0.5)

$e$  = tolerable error (0.05)

According with (Kothari,2004)in this case the sample size is assumed to be maximum which means the required sample ( $n=384$ ). In this regard, designed Questionnaires were distributed to the customer in above mentioned districts and town administration during the service delivery of the financial institutions.

### **3.6. Sampling Techniques**

Because the sampling frame for this research is unknown, then the probabilistic two-stage stratified sampling method is ideal when it is impossible or impractical to complete a list of elements composing the population. Thus the sampling technique for this study was probability sampling particularly two stages stratified sampling which involves dividing the population into homogeneous sub-groups called strata which used to access desired data of unit of the study. The reason behind the selection of probabilistic two stages stratified sampling technique is that it gives each element in the population an equal probability of getting into the sample, and all the choices are independent of one another (Corbetta, 2003).

### **3.7. Source and Type of Data**

Both primary as well as secondary sources of data were used. In this study secondary data was obtained from related published journals, online articles and books for the purpose of literature review. On the other hand, primary data was collected by administering well- structured questionnaire/ schedule to the target respondents. The questionnaire include both closed ended and open ended questions, however, majority of the questions are closed ended.

### **3.8. Data Collection Instrument**

This study used the survey method to collect the required cross-sectional data. A self-administered questionnaire was developed based on preliminary semi structured interview with selected financial institution employees and extensive literature review to identify the factors responsible for financial inclusion exclusion. Accordingly, most of the items in the questionnaire were adopted from previous works with significant modification(Kothari,2004).

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

In this study, the intention is to investigate the factors responsible for financial inclusion in the study area. Therefore, to achieve this objective, once the data is collected, coded, entered and cleaned; it goes through quantitative **binary logistic regression** analysis. **Binary logistic regression analysis** is a specialized form of regression that is formulated to predict and explain a binary (two group) categorical variable rather than a metric dependent measure. Therefore, when the dependent variable is categorical (binary) and the independent variables are metric or non-metric, binary logistic regression is appropriate(Hair et al,2010).Logistic regression represents the two groups of interest as binary variables with values of zero and one.

In this study the intention is to identify the independent variables that impact group membership in the dependent variable (i.e., financial inclusion) and the model was assess the probability of being either included or excluded from the usage of financial services from formal financial institutions. When the individual is using financial services, the value 1 is assigned and zero if not. Finally, the analysis process of the collected data was carried out with latest version of powerful statistical packages **Stata-15** and **SPSS-25** before the result presented both descriptively and inferentially.



$Y_i$  is the observed response for the  $i^{\text{th}}$  individual adult who is either formally financially included or not included.

$X_i$  is a set of independent socioeconomic and demographic variables such as age, gender, level of education, distance to the nearest bank or cost of accessing financial services among others. This distance is measured as qualitatively takes 1 if there is far unless otherwise 0  $Y_i$  will equal one when an individual is financially included and zero otherwise. This means that:  $Y_i=1$  if  $X_i$  is greater than or equal to critical value,  $X^*$  and  $Y_i=0$  if  $X_i \leq$  critical value,

$$P\left(\text{FinInc} = \frac{1}{X}\right) = \beta_0 + \beta_1(\text{GEND}) + \beta_2(\text{EDUL}) + \beta_3(\text{INC}) + \beta_4(\text{EMPS}) + \beta_5(\text{RES}) + \beta_6(\text{ACC}) + \beta_7(\text{FLIT}) + \beta_8(\text{INT}) + \beta_9(\text{INFR}) + \beta_{10}(\text{DOC}) + \beta_{11}(\text{AVIA}) + \beta_{12}(\text{AWA}) + \epsilon_i$$

Where the dependent variable  $P(\text{FinInc}=1/X)$  is the probability that an household head will seek formal financial services given the vector of observable socio-demographic, economic and institutional characteristics. In this regard, probability of success is 1 while probability of failure is 0 for financial inclusion according to the survey is defined as those adults who have financial products and or services. FI is the dependent variable (financial inclusion),  $\beta_0$  is the constant term of the model,  $\beta_1$ - $\beta_{12}$  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, ACSB=Accessibility of financial institutions, INT= interest rate of financial institutions, INFR=Infrastructure, DOCM=Documentation requirement, RESID= Residence of the respondent, AVAL=Availability of the required financial service and  $\epsilon_i$  is the error term.

### 3.11. Definition of Variables Included in the Model

**Gender:** It refers to gender / sex of the individual (dummy variable with dichotomous response of 1 and 0, 1= male and 0= female).

**Educational level:** It represents a respondent's highest level of education at the time of survey measured using categorical scale

**Income:** It refers to the average monthly income of the individual measured in birr (continuous variable).

**Employment status:** it refers to the respondents' nature of job as well as his / her employment status at the time of data collection measured using categorical scale.

**Residence:** it refers to the respondents place of living (dummy variable with dichotomous response of 1 and 0, 1= urban and 0= rural.

**Accessibility:** It refers to the accessibility or outreach of financial institutions for individuals / target groups at the time of data collection (dummy variable with dichotomous response of 1 and 0, 1= yes (accessible) and 0= No (Not accessible).

**Interest rate:** It refers to the attractiveness of deposit rate of financial institutions for depositors (dummy variable with dichotomous response of 1 and 0, 1= yes (attractive) and 0= No (Not attractive).

**Financial literacy:** It refers to the respondents level of literacy / knowledge about financial products and services such as savings and credit services (dummy variable with dichotomous response of 1 and 0, 1= yes (literate) and 0= No (illiterate).

**Infrastructure:** It refers to the availability of physical and telecommunication infrastructure to enhance the services of financial institutions (dummy variable with dichotomous response of 1 and 0, 1= yes (no problem) and 0= No (problem).

**Documentation:** It refers to the simplicity of documentation requirement by financial institutions during service provision like to open bank account and to get loan (dummy variable with dichotomous response of 1 and 0, 1= yes (simple) and 0= No (difficult / not simple).

**Availability:** It refers to availability of the required financial services from financial institutions depending on the need of the individual (dummy variable with dichotomous response of 1 and 0, 1= yes (available) and 0= No (Not available).

**Employment Status:** it is to indicate weather household or employed in government/public institutions or self-employed (if Government employees 1 other wise assume 0)

**Financial Inclusion:** It refers to the usage or patronage of a single financial product or multiple financial products (dummy variable with dichotomous response of 1 and 0, 1= included and 0= not included).

### **3.12. Ethical Consideration**

The respondents assured that their response was remaining confidential. The information they provide is confidential and was used for academic purpose only. The researcher obtained approval prior to any research activity at these selected organization. Cover letters explain the purpose of the questionnaire and the right to accept or refuse to participate in the research activities is given to the respondents of this study. No personal identifiable information was collected from respondents and their participation was based on voluntary basis.

# CHAPTER FOUR

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## RESULT AND DISCUSSION

### 4. Introduction

This chapter deals with the descriptive statistics of the data collected, employing of the study model specified in the previous chapter three and different necessary diagnostic tests, and other important assumptions that are discussed to see if the model is viable.

In the preceding chapters, important literature that gives understanding about the topic was reviewed and used to identify the knowledge gap in the area of the study. In line with reviewed literature; the research problem, research objectives, research hypotheses & the research design used for this study were also discussed. This chapter deals with the descriptive statistics of the data collected and other important assumptions that are discussed to see if the model is viable.

### 4.1. Descriptive analysis of the study

To achieve the objective of the study; the researcher was used probabilistic simple random sampling method; to select a sample of respondents from the total population, So that the data collected through a questionnaire distributed to respondents were analyzed and discussed. The questionnaire was prepared and distributed to the respondents; each variable was represented by proxy questions; the independent variable selected for the study was Gender, Income, Residence ,Accessibility ,Interest rate ,Financial literacy ,Infrastructure: ,Documentation: ,Availability ,Employment Status, and Trust.

The data collected were analyzed through latest version of powerful statistical packages **Stata-15** and **SPSS-25** version. Finally, the data considered as filled and returned are 422. In this chapter of the study, the researcher has discussed the data collected from the population based on

different tools. To identify the relationship between dependent and independent variables the researcher has used correlation analysis.

#### 4.1.1. Age of Respondents

In the table obtainable below the information was requested for every of the variables is summarized as follows. From 422 respondents, the range of ages 18 up to 24 is 29.15 %, from 25-35 is 39.09%, from 36-45 is 24.17% and greater than 45 (7.58%).

Table.4.1: age of the respondent in the study

|       |       | Frequency | Cumulative freq | Percent |
|-------|-------|-----------|-----------------|---------|
| Valid | 18-24 | 123       | 123             | 29.15   |
|       | 25-35 | 165       | 288             | 39.09   |
|       | 36-50 | 102       | 267             | 24.17   |
|       | >50   | 32        | 134             | 7.58    |
|       | Total | 422       |                 | 100     |

Source: Author's own computation from field data (2021).

From the above table 4.1, this **research** examines how the quality of obtained data because measures of the financial service might be varying with the **age** results.

#### 4.1.2. Marital Status Respondents.

As can be seen from **table 4.2** 302(71.56%) of the sample responded that they were married. The remaining was without partners. Out of the remaining 111(26.3%), were singles who had never married, the other 9(2.14%) who are divorced for one reason or the other. The data below shows that women who were married access to WMFI Credit and saving service since they are stable when compare to single and divorced women and marginalized land less women were excluded from the program indirectly during the loan group formation. A married woman, who constitutes the major share of the study, had responsibility towards taking

care of various domestic issues and, those divorced had greater challenge of taking care of themselves and their children and hence needs financial liberation.

**Table 4.2. Marital status of the respondent**

|       |          | Frequency | Cumulative | Percent |
|-------|----------|-----------|------------|---------|
| Valid | Single   | 111       | 123        | 26.3    |
|       | Married  | 302       | 413        | 71.56   |
|       | Divorced | 9         | 311        | 2.14    |
|       | Total    | 422       |            | 100     |

Source: own computation from field data (2021)

## 4.2. Research Finding

This study investigated of the Determinants of Financial Inclusion in the case of Gurage zone by applying the Logit regression models by using the powerful Stata-15 and SPSS version 25. The analysis was done based on research questions and objectives above and it was presented in the

**Table 4.3: Model Summary**

| Step  | 0-6 Log likelihood | Cox and Snell R square | Nagelkerke R Square |
|---|--------------------|------------------------|---------------------|
| 1   | 62.9345            | 0.69812                | 0.914412            |
| a. Estimated terminated at iteration number 10 because parameter estimates changed by less than 0.001 |                    |                        |                     |

Source: Source: own computation from field data (2021)

form of tables to give better explanations. All the tables in the analysis were generated from survey data through the Stata-15 and SPSS-25.

The above mentioned headed **Model Summary** gives us another piece of information about the usefulness of the model. The **Cox & Snell R Square** and the **Nagelkerke R Square** values provide an indication of the amount of variation in the dependent variable explained by the

model independent variables. These are described as pseudo R square statistics, rather than the true R square values that you will see provided in the multiple regression output.

In this regards, the two values are 0.69812 and 0.914412, suggesting that between 65.42% Percent and 91.5 of the variability are explained by this set of variables (Pallant, 2011).

### **4.3. Estimation Diagnostic Tests**

Similar to other multivariate data analysis techniques, major/ important assumptions or diagnostic tests were performed to check the validity of the data for the current binary logistic regression model. Accordingly, diagnostic tests such as autocorrelation, Omnibus Tests of Model Coefficients and Hosmer and Lemeshow Test were used to check model fitness.

#### **4.3.1. Autocorrelation**

For any two observations the residual terms should be uncorrelated. This eventually is sometimes described as a lack of autocorrelation.

This assumption was tested with the Durbin-Watson d statistics which tests for serial correlation between errors. This is the most celebrated test for detecting correlation developed by statisticians Durbin and Watson. The test statistics for this can vary between 0 and 4 with the value of 2 meaning that the residuals are uncorrelated. A great advantage of the d statistic is that it is based on the estimated residuals, which are routinely computed in regression analysis. Because of this advantage, it is now a common practice to report the Durbin–Watson d along with summary measures, such as R square, adjusted R square, t, and F. If there is no serial correlation; d is expected to be about 2.

Therefore, as a rule of thumb, if d is found to be 2 in an application, one may assume that there is no autocorrelation, either positive or negative (Guajarati,2004).

From the regression result shown in the table below the Durbin-Watson d statistics for the current study is 1.965 which is approximately near to 2, so we can conclude that the autocorrelation assumption is met or the residual terms are uncorrelated.

| Table 4.6: Test for Auto correlation |                 |
|--------------------------------------|-----------------|
| Test                                 | Durbin – Watson |
| 1                                    | 1.86334         |

**Source:** Own Computation (2021)

Other major assumptions such as normality, heteroscedasticity and linearity which are common in many multivariate data analysis techniques are not compulsory for logistic regression because the error terms of a discrete variable follow the binomial distribution instead of normal distribution, thus invalidating all statistical tests based on normality assumption. In addition, the variance of dichotomous variable is not constant creating instances of heteroscedasticity as well. Moreover, logistic regression does not require linear relationships between the dependent and independent variable, it can address non-linear effects even when exponential and polynomial terms are not explicitly added as additional independent variables because of the logistic relationship (Hair et al., 2010).

| Table 4.7: Fitness of Estimate Logistic Model |                                 |                   |       |       |
|---|---------------------------------|-------------------|-------|-------|
| Test for model Coefficients                   |                                 |                   |       |       |
|   |                                 | Chi-Square(9,138) | D f   | Sig   |
| Step 1  | Step                            | 321.301           | 9,138 | 0.000 |
|   | Block                           | 321.301           | 9,138 | 0.000 |
| Step 2  | Model                           | 321.301           | 9,138 | 0.000 |
|   | <b>Hosmer and Lemeshow Test</b> |                   |       |       |

|  |            |    |  |       |
|--|------------|----|--|-------|
|  | Chi-Square | Df |  |       |
|  | 7.2374     | 8  |  | 0.253 |

**Source:** Own Computation (2021)

The first table under model fitness assessment above provides us with an indication of how well the model is able to predict the correct category (financially included/not included) for each case after predictors are included (Pallant, 2011). The result for the current study indicated that the model correctly classified 97.8 percent of cases overall which is above the cut of value of 0.5. The Omnibus Tests of Model Coefficients presented above gives us an overall indication of how well the model performs as compared to a model with none of the predictors entered. This is referred to as a ‘goodness of fit’ test. For this set of results, we want a highly significant value (the Sig. value should be less than .05). In this case, the value is .000.

Therefore, the model (with our set of variables used as predictors) is better than other guesses, which assumed that everyone is included in the usage of the services provided by financial institutions and it is reported as a chi-square value of 321.301 with 138 degrees of freedom (Pallant, 2011).

**Table 4.4: Variables and Binary Logistic Regression Estimation**

|   |
|---|
| Number of Obs:422<br><br>Logit Model Estimation: <b>Binary Logistic Regression Estimation</b><br><br>Dependent: Financial Inclusion<br><br>Explanatory Variables: Gender ,Income ,Residence ,Accessibility ,Interest rate ,Financial literacy ,Infrastructure: ,Documentation: ,Availability ,Employment Status: Financial Inclusion and Trust. |
| Iteration 0: log likelihood = -292.83674  |

|  |                     |
|--|---------------------|
| Iteration 1: log likelihood = -137.00355 |                     |
| Iteration 2: log likelihood = -141.24626 |                     |
| Iteration 3: log likelihood = -152.14382 |                     |
| Iteration 4: log likelihood = -132.1638  |                     |
| Iteration 5: log likelihood = -132.15382 |                     |
| Iteration 6: log likelihood = -132.13524 |                     |
| Iteration 7: Log likelihood = -131.1238  |                     |
| Logistic regression                      | Number of Obs = 422 |
| LR chi2(9)                               | = 323.39            |
| Prob> chi2                               | = 0.0000            |
| Log likelihood = -122.1438               | Pseudo R2 = 0.5697  |

Source: **Own Computation with Stata-15**

The Result for the logit estimates of households' probability financially included groups and not included in (table 4.5) below. At the bottom of the table we see 300 observations in the data set that were used in the logit analysis. The Pseudo  $R^2$  is the measure of Goodness of fit, which is 0.5697. This implies that 56.97% of the variation in the households' probability of financially included is explained by the dependent variables in the model. As indicated on above table 4.4 Log likelihood = -22.567612, The Wald chi2 (17) is about 323.39 with a p-value (Prob>chi2) = 0.0000 also tells us that the logit model as a whole is statistically significant, as compared to the model with no predictor.

#### 4.4. Findings of Logistic Regression Model

As it indicated in the below table 4.45, the full model containing most of the predictors were statistically significant, indicating that the model was able to distinguish between financial inclusion and its main factors included in the model of the study.

**Table 4.5: Binary Logistic Regression Estimation Result**

| LR chi2(17) = 317.2         |          |           | Prob> chi2 = 0.000 |         |                         |           | EXP( $\beta$ ) |
|-----------------------------|----------|-----------|--------------------|---------|-------------------------|-----------|----------------|
| Log likelihood = -124.08767 |          |           | Pseudo R2 = 0.5834 |         |                         |           |                |
| Financial Inclusion<br>(D)  | Coeff.   | Std. Err. | Z                  | P>z     | [95% Conf.<br>Interval] |           |                |
| Gender:                     | 0.099695 | 0.6423894 | 0.15519465         | 0.84366 | -1.1493145              | 1.309198  | 1.104834334    |
| Educational level:          | -0.30287 | 0.7466809 | -0.40562601        | 0.60066 | -1.7562905              | 1.111037  | 0.738692757    |
| Income                      | 0.030990 | 0.1358345 | 0.22814822         | 0.88066 | -0.2251904              | 0.2476638 | 1.031475602    |
| Employment status           | 0.650637 | 0.3550761 | 1.83238860         | 0.00766 | -0.035249               | 1.297016  | 1.916762184    |
| Residence:                  | 0.660801 | 0.3658932 | 1.80599448         | 0.01166 | -0.0462864              | 1.328381  | 1.936342918    |
| Accessibility               | 1.011758 | 0.3936534 | 2.57017696         | 0.04834 | 0.2502623               | 1.733748  | 2.750434502    |
| Financial literacy:         | 1.016710 | 0.4825103 | 2.75465788         | 0.0251  | .2433637                | 1.6484853 | 2.896433211    |
| Interest rate               | -0.79650 | 0.3922076 | -2.0308186         | 0.02734 | -1.5551655              | -0.077347 | 0.450903244    |
| Infrastructure:             | 0.661873 | 0.3911598 | 1.69207929         | 0.03166 | -0.0947357              | 1.378975  | 1.938420372    |
| Documentation               | -0.08298 | 0.3938928 | -0.2106755         | 0.72566 | -0.8449494              | 0.6394747 | 0.920366241    |
| Availability:               | 0.084548 | 0.3925141 | 0.21540117         | 0.81066 | -0.6747155              | 0.8043039 | 1.088225078    |
| Trust:                      | 1.328711 | 0.3766509 | 3.52769899         | 0.05734 | 0.6005384               | 2.017375  | 3.776172762    |
| _const                      | -1.47724 | 2.906121  | -0.5083201         | 0.54666 | -7.1630815              | 4.169094  | 0.228266836    |

Source: Own Computation with Stata-15

As on above table **4.5**, below most of the independent variables (factors) made a unique statistically significant contribution to the model Gender ,Employmentstatus, Financial literacy, Residence, Accessibility, Interest rate , Infrastructure, Availability and Trust.

Accordingly, the role of each significant explanatory variable is deliberated below by associate with observed evidence. The  $\beta$ value which indicates the direction of relationship and the  $\text{Exp}(\beta)$  value indicating the odds ratio /likelihood of being included in the usage of financial service/ as well as the with associated p-value showing the level of significant for each independent variable were used for discussion purpose.

As presented above **Table4.5**, the direct binary logistic regression result, the result related to Gender indicated that it had insignificant effect on financial inclusion with p value of 0.84366and odds ratio of 1.1048. Similarly, which is no leaded to further interpretation which indicates that the null hypothesis associate with these factors were also failed to reject and indicated that there is no statistically significant relationship between this variable with specified variable of interest which is financially included. Therefore, there is no a positive significant relationship between Educational level and financial inclusion.

Moreover on this, the result of this factor is aligned with the study (Fungáčová and Weill, 2015). The respective p-value and value of EXP ( $\beta$ ) for employment status 0.6506and 1.9167respectively which indicated that the respondents with self-employed has 1.9167times greater opportunity to be financially included and p-value indicate that the employment status is statistically significant at 1% statistical level of significant with positive effect in this case. There is a positive significant relationship between employment status and financial inclusion. In addition to this, the income coefficient is has not became statistically insignificant which leads to There is no a positive significant relationship between Income and financial inclusion.

The other variable included in the model is the Residence and the output with regard to this variable shows that it had positive significant effect on financial inclusion status with p-value of 0.6608 and an odds ratio of 1.9363. This to indicate that the group of community whose living in urban have 1.9363 times greater than those who live in rural areas. With the same interpretation the coefficient for Accessibility is also positive and statistically significant at 1% statistical level significance with 1.0117 and 2.7504 with p-value and likelihood ratio respectively which show that the respondents which have opportunity of access to financial institution has 1.0117 times greater opportunity to financially included. On the other hand, those who can simply access to financial institution have 1.0117 times financial included when compared to that respondent difficult to access while the econometric coefficient.

The Other factors in this study were interest rate, financial literacy and Infrastructure three factors are becoming statistically significant while the first factor has a negative coefficient the last two have positively significant at 5% statistical level of significance. In this regard, the financial institution those operate with low interest has 0.4509 times propensity to include clients while compared to those with high interest rates. There is a negative significant relationship between interest rate and financial inclusion.

Financial literacy and Infrastructure were with positive sign and statistically significant indicates that a people with financially literate and living in improved infrastructure have 2.8964 and 0.4509 times high tendency to financially included while the reverse is financially excluded. Moreover, the peoples with financial understanding and with access of infrastructures are more beneficiary from financial services when compared to the peoples with financial illiterate and with lack of infrastructures. It is found that, this study result is aligned with (Irene, 2017)

Further, to investigate the effect of trust peoples in Gurage zone have on financial services was investigated which found has positive coefficients indicate that the associated p-value and value of EXP ( $\beta$ ) are 0.057 and 3.7761 respectively. The interpretation of this value indicate the group community have more trust on financial service delivery are 3.7761 times finically included when relatively compared to the people less interest on the service while the p-value available is statistically significant 5% statistical level of significance the Null hypothesis also rejected and there is statistically significant relationship with financial awareness and financial Inclusion. This study finding is directly alight with the related study of (Jatinder, 2017) and (Adhitya et al, 2016) which were carried out in India and Indonesia respectively.

Finally, the availability which the community can take part were also investigated through the coefficient of availability of the financial institution which became statistically significant at 1% statistical level significance with positive coefficient as well as 0.81066 and 1.0882 which becomes statistically insignificant nothing relevant interpretation have to make according to logistic regression theory which leads to in-rejection of the null hypothesis of that thereby significant relationship between availability and the dependent financial inclusion.

**Table 4.8: Summary of explanatory variables determination on the dependent variable**

| SN | Predictors         | Signal effect | Code Hypothesis | Actual        | Decision Rule |
|----|--------------------|---------------|-----------------|---------------|---------------|
| 1  | Gender:            | Positive      | H <sub>01</sub> | Insignificant | Rejected      |
| 2  | Educational level: | Positive      | H <sub>02</sub> | Insignificant | Rejected      |
| 3  | Income             | Positive      | H <sub>03</sub> | Insignificant | Rejected      |
| 4  | Employment status  | Positive      | H <sub>04</sub> | Significant   | Accepted      |
| 5  | Residence:         | Positive      | H <sub>05</sub> | Significant   | Accepted      |

|    |                     |          |                 |               |          |
|----|---------------------|----------|-----------------|---------------|----------|
| 6  | Age                 | Positive | H <sub>06</sub> | Insignificant | Rejected |
| 7  | Accessibility       | Positive | H <sub>07</sub> | Significant   | Accepted |
| 8  | Interest rate       | Positive | H <sub>08</sub> | Significant   | Accepted |
| 9  | Financial literacy: | Positive | H <sub>09</sub> | Significant   | Accepted |
| 10 | Infrastructure:     | Positive | H <sub>10</sub> | Significant   | Accepted |
| 11 | Documentation       | Positive | H <sub>11</sub> | Insignificant | Rejected |
| 12 | Availability:       | Positive | H <sub>12</sub> | Significant   | Accepted |
| 13 | Trust               | Positive | H <sub>13</sub> | Significant   | Accepted |

**Source:** Own Computation (2021)

The other statistical measure is Hosmer and Lemeshow measure of overall fit. This statistical test measures the correspondence of the actual and predicted values of the dependent variable.

In this case better model fit is indicated by a smaller difference in the observed and predicted classification (Hair et al., 2010).

So, the results shown in the table headed Hosmer and Lemeshow Test above also support our model as being worthwhile but it is interpreted very differently from the omnibus test discussed above.

For the Hosmer-Lemeshow Goodness of Fit Test poor fit is indicated by a significance value less than .05 indicating the existence of significant difference between the observed and predicted value, so to support our model we actually want a value greater than .05 (showing the absence of significant difference between the observed and predicted value). In our study, the chi-square value for the Hosmer-Lemeshow Test is 7.734 with a significance level of 0.253 This value is greater than 0.05, therefore indicating support for the model (Pallant, 2011; Hair et al., 2010; and Tabachnick and Fidell, 2007)

# CHAPTER FIVE

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## **Summary, Conclusion and Recommendations**

In this fifth chapter, the researcher tried to travel around and dealt over all summaries of the study results, conclusions and alternative policy forwards as recommendation which is the final part of this empirical analysis.

### **5.1. Summary**

This study is conducted to examine the determinant factors that influence the financial inclusion of in Gurage zone SNNPR, Ethiopia). The independent variables (factors) made a unique statistically significant contribution to the model Gender, Employment status, financial literacy, Residence, Accessibility, Interest rate, Infrastructure, Availability and Trust. Accordingly, the role of each significant explanatory variable is deliberated below by associate with observed evidence. The  $\beta$  value which indicates the direction of relationship and the  $\text{Exp}(\beta)$  value indicating the odds ratio /likelihood of being included in the usage of financial service/ as well as the with associated p-value showing the level of significant for each independent variable were used for discussion purpose. The direct binary logistic regression result, the result related to Gender indicated that it had insignificant effect on financial inclusion with p value of 0.84366and odds ratio of 1.1048. Similarly, which is no leded to further interpretation which indicates that the null hypothesis associate with these factors were also failed to reject and indicated that there is no statistically significant relationship between this variable with specified variable of interest which is financially included. Therefore, there is no a positive significant relationship between Educational level and financial inclusion. Moreover, the respective p-value and value of  $\text{EXP}(\beta)$  for employment status 0.6506 and 1.9167respectively which indicated that the respondents with self-employed has 1.9167times greater opportunity to be financially included and p-value

indicate that the employment status is statistically significant at 1% statistical level of significant with positive effect in this case. There is a positive significant relationship between employment status and financial inclusion. In addition to this, the income coefficient is having not become statistically insignificant which leads to There is no a positive significant relationship between Income and financial inclusion. The other variable included in the model is the Residence and the output with regard to this variable shows that it had positive significant effect on financial inclusion status with p-value of 0.6608 and an odds ratio of 1.9363. This to indicate that the group of community whose living in urban have 1.9363 times greater than those who live in rural areas. With the same interpretation the coefficient for Accessibility is also positive and statistically significant at 1% statistical level significance with 1.0117 and 2.7504 with p-value and likelihood ratio respectively which show that the respondents which have opportunity of access to financial institution has 1.0117 times greater opportunity to financially included. On the other hand, those who can simply access to financial institution have 1.0117 times financial included when compared to that respondent difficult to access while the econometric coefficient. The Other factors in this study were interest rate, financial literacy and Infrastructure three factors are becoming statistically significant while the first factor has a negative coefficient the last two have positively significant at 5% statistical level of significance. In this regard, the financial institution those operate with low interest has 0.4509 times propensity to include clients while compared to those with high interest rates. There is a negative significant relationship between interest rate and financial inclusion. Financial literacy and Infrastructure were with positive sign and statistically significant indicates that a people with financially literate and living in improved infrastructure have 2.8964 and 0.4509 times high tendency to financially included while the reverse is financially excluded. Further, to investigate the effect of trust peoples in Gurage zone have on

financial services was investigated which found has positive coefficients indicate that the associated p-value and value of EXP ( $\beta$ ) are 0.057 and 3.7761 respectively. The interpretation of this value indicate the group community have more trust on financial service delivery are 3.7761 times finically included when relatively compared to the people less interest on the service while the p-value available is statistically significant 5% statistical level of significance the Null hypothesis also rejected and there is statistically significant relationship with financial awareness and financial Inclusion Finally, the availability which the community can take part were also investigated through the coefficient of availability of the financial institution which became statistically significant at 1% statistical level significance with positive coefficient as well as 0.81066 and 1.0882 which becomes statistically insignificant nothing relevant interpretation have to make according to logistic regression theory which leads to in-rejection of the null hypothesis of that thereby significant relationship between availability and the dependent financial inclusion.

## **5.2. Conclusion**

The main purpose of this study is to identify the factors that affect practice of financial services among the peoples in Gurage Zone. Therefore; based on the findings from binary logistic regression result, it is possible to conclude that among the independent variables included in the model, employment status, residence, financial literacy, accessibility, interest rate, infrastructure, trust and availability have significant impact on financial inclusion. However, Infrastructure, trust, and availability are the major ones. On the other hand, Income, Educational, and Documentation have no significant impact on financial inclusion. The finding of the study reveals that financial inclusion is positively correlated with the variables included in the study except some of three among about thirteen variables. Subsequently, the following sections discuss the finding of each

variable. The result of logistic regression analysis indicates that; the variable different factors (Educational level, Documentation, Income) have a negative effect on access to finance and statistically significant at 1% alpha level significance level.

The findings of this study have important practical implications for financial institutions as well as for the government. Therefore, in order to make the people fully and effectively financially included, all financial institutions should aggressively create continuous awareness to the people by using different media, financial institutions should be more accessible to all peoples especially to rural people and thereby they have to increase their level of outreach, financial education should be delivered starting from primary school. In addition, different workshops should be organized to deliver financial education to different segments of the people especially to those who are financially excluded.

### **5.3. Recommendations**

As a result, several formations explaining a high financial inclusion as well as exclusion are obtained and these configurations provide implications towards what conditions require attention from financial institutions and other responsible bodies.

- ❖ The Government is better to encourage financial institution through infrastructure to promote opportunities to access financial services.
- ❖ It is enhanced to better to carry out institutional and policy reforms to promote inclusive financial services by ensuring anticipated economic growth and channel more resources to community through licensing more financial institutions.
- ❖ The Understanding of financial services better to be expanded its service coverage to the areas where its service is presently non-existent in order to reach the community who need the factors had a positive impact on financial inclusion.

- ❖ It is enhanced to cooperate with other bodies have to develop comfortable source of finance for other source of finance.
- ❖ The particular attention proper to be paid to programs that lack the focus on micro and small perspective of activities with their indication and managers, directors, governmental bodies and all stakeholders better to consider about factor that encourage or discourage the financial inclusion.
- ❖ The responsible agents better to enhance their customer's skills through proper training and experience sharing with other successful to make skill full their clients.
- ❖ Financial Institutions are better to remove all barriers, both supply side and demand side. Supply side barriers stem from financial institutions themselves to include the population seeking for their services.

#### **5.4. Limitations and Directions for Future Research**

It is impossible to make a single study comprehensive by incorporating all dimensions, so like previous research's, the current study has also its own limitations. Accordingly, the major limitations include the usage of binary logistic regression than developing financial inclusion index to measure the dependent variable (financial inclusion) and the usage of only primary data for data analysis and interpretation. Therefore, we recommend future researchers to consider the limitations of this research as a gap / opportunity/ while doing similar researches.

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## **Questionnaires’’ to be filled by Customers of Financial Institution**

### **Wolkittie University School of Graduate Studies**

#### **College of Business and Economics**

#### **Department of Accounting and Finance**

First of all, Thanks so much for completing the informed consent form. The question here is requiring some specified rating forms which take the few minutes to be completed. Hereby, you are kindly requested to give sincere and honest response. To the best of your knowledge please note that the collected information will be used only for Academics purpose and thesis work.

The purpose of this questioner is to gather primary data in order to assess “**The Determinants of Financial Inclusion in the Case of Gurage Zone**”. the researcher is grate full for your cooperation and assures you that all the information gathered will be kept confidential and used only for academic purpose .you don’t need to write your name on the questionnaires’ and since the data is processed and analyzed in aggregation your individual answer cannot be separately identified.Your cooperation in giving genuine and frank answer in the questioner is highly crucial to obtain relevant and reliable information for the success of this study. Thank you for your co-optation in advance.

#### **Instruction**

- No need of writing your name
- For multiple-choice questions indicate (√) sign in the appropriate block

## Section I

### Demographic Characteristics of Respondent'

1. Gender : Male  Female:
2. Level of education: secondary education  certificate  Graduate   
Diploma under  Undergraduate
3. Age of respondent: < 20 years  20 -29  30- 39  40- 49  50 & above
4. Marital status: Single  Married  Divorced

### Section II: Financial Inclusion and Families head household's relationship with regards to product awareness's, services, accessibility and Usage

5. Is there was any affordable and timely opportunities' and availability initiates to obtain any types financial products and services (i.e., banking, loan, credit, debit, and insurance and whatever other financial related modern service)YesNo
6. What about your employment status : self-employed  Government Employee
7. Is it financial institution branches services near to your home or you living area?  
: Yes  No
8. If question #5 is yes is it interesting the availability these institutions branches to changes your saving habit and to achieve your family life? : Yes  No
9. Have you some Financial awareness regards to how to apply for financial products and
10. services of institutions when necessary : Yes  No

| <b>SECTION-II</b>  |  | <b>Income Activity:</b> |           |
|--------------------|--|-------------------------|-----------|
|                    |  | Permanent               | Temporary |
| 1.1                | What is terms of your Income Generating activity   |                         |           |
| 1.2                | Trading Activities other than selling self-produced agricultural goods   | Yes                     | No        |
| 1.3                | Participated produced agricultural goods   |                         |           |
| 1.4                | Service provision ( renting house, car, and other equipment)   |                         |           |
| 1.5                | Production activities (excluding agricultural goods)   |                         |           |
| 1.6                | Agricultural production( crops, fruits, vegetables, and processing)  |                         |           |
| 1.7                | Pension or Money received from somebody/ relative  |                         |           |
| <b>SECTION-III</b> | <b>Financial Account: Creating profile/Account with Financial Institutions to obtain credit and Insurance services</b> |                         |           |
| 2.1                | Does anyone in the household currently have bank account?  | Yes                     | No        |
| 2.2                | Type of financial institution household member hold the account with   | Bank                    | Non-bank  |
| 3                  | <b>Loans /Credit: The accessibility credit</b>   | Yes                     | No        |
| 3.1.               | Is there any household member who borrowed money?  |                         |           |
| 4                  |  |                         |           |

|                   |  |       |           |
|-------------------|--|-------|-----------|
|                   | <b>Participations in Social security Activities</b>  |       |           |
| 4.1               | Does any household member engage in formal insurance? <i>(If no, go to)</i>  |       |           |
| 5                 | <b>Attitudes towards Financial Services:</b>   | Yes   | No        |
| 5.1               | Do any Consider being the advantages of using formal financial services?   |       |           |
| 6                 | <b>Resident:</b>   | Rural | Urban     |
| 6.1               | Residence of Respondent: Where are you current living?   |       |           |
| 7                 | <b>Financial literacy:</b>   |       |           |
| 7.1               | Do you have any other knowledge or information that you think would help us understand   | Yes   | No        |
|                   |  |       |           |
| 7.2               | There have been advertising activities as services of by institution's   |       |           |
| <b>SECTION-IV</b> | Instruction: Indicate whether you agree or disagree with the following statements on the promotion of financial education by: A-Agree and D-Disagree |       |           |
| 8                 | <b>Capacity building activities:</b>   | Agree | Dis-agree |
| 8.1               | there existed training activities being designed by the Institution's  |       |           |
| 8.2.              | It was helpful in improving of using formal financial services   |       |           |
| 9                 | <b>Assess Issue Infrastructure:</b>  |       |           |
| 9.1               | The transport costs that rural people used to incur when   |       |           |

|           |  |  |  |
|-----------|--|--|--|
|           | travelling to branches before  |  |  |
| 9.2       | Financial service technology provided by the institution is supported me for further react with the this institution |  |  |
| 9.3       | The appearance and product of the institution initiated me to take part in the financial services.                   |  |  |
| <b>10</b> | <b>Attracting Financial Policy/ guidelines institutions</b>  |  |  |
| 10.1      | Does your Microfinance Institution have a policy to attract the rural and urban poor to patronize its services?      |  |  |
| 10.2      | The financial strategies employed by Institution is effectively communicated to the customers weaknesses             |  |  |

Source: Own Design on the basis of theoretical framework (2021)