

Factors That Affect Rural Financial Inclusion: A study on selected Districts under Jimma Zone, Ethiopia.

A Thesis submitted to the school of Graduate studies of Jimma University in partial fulfillment of the requirements for the award of MSc degree in accounting and finance.

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**Factors that affect the rural Financial Inclusion a case on selected Districts
under Jimma Zone, Ethiopia.**

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DECLARATION

I declare that the research Report entitled

“Factors That Affect Rural Financial Inclusion: A study on selected

Districts under Jimma Zone, Ethiopia”.

Submitted to Research and Postgraduate Studies’ Office of Business and

Economics College is original and it has not been submitted previously in part or

full to any university.

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CERTIFICATE

We certify that the research report entitled

**“Factors That Affect Rural Financial Inclusion: A study on selected Districts
under Jimma Zone, Ethiopia.”**

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ABSTRACT

The importance of the inclusive financial system is widely recognized in the policy circle and has become a policy priority in many countries including Ethiopia. Therefore, the aim of this study is to examine the factors affecting rural financial inclusion and how to improve financial inclusion among customer and people live in Seka Chokorsa and Manna District. The study used survey research design and the study population compressed of the employees and customers of OCSSCO in Seka Chokorsa and Manna District branch. The study used primary source of data and the data was analyzed quantitative and qualitatively by the use of statistical package of social science (SPSS) 20 versions and STATA 13 and based on content analysis respectively. Descriptive and analysis of inferential statistic were used to address research objective by presenting in the form of frequency, percentage, and logit model regression analysis. The study found out that sex, marital status, religion, level of education, service quality, level of income and trust in financial service had statistically significant and positively effect on the financial inclusion. But distance from branch of financial institution and residence ID card had negative effect on the financial inclusion. And the studies recommend that since the study tried to analyze some of the factors that affect rural financial inclusion in Seka Chokorsa and manna Districts; in addition to this, the findings were not generalizable for other financial institution in Ethiopia so that it requires future researches which broaden the sample size to include other financial institution.

Key words: *financial inclusion, financial literacy, service quality, Oromia credit and saving association, trust.*

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ACRONMY

ATM- Automatic teller machine

CBE- commercial bank of Ethiopia

CBK- central bank of Kenya

CGAP- Consultative group to assist the poor

GDP- Gross domestic product

ID- identification card

IMX – International micro and small enterprise

KYC- know your customer

MFI- Micro finance institution

NBE- National bank of Ethiopia

OCSSCO – Oromia credit and saving Association

OECD – organization for economic co-operation and development

SPSS- Statistical package for social science

UN- United nations

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CHAPTER ONE

INTRODUCTION

1.1 Backgrounds of the Study

According to the center for financial inclusion publication (2015), full financial inclusion is a state in which all people can use financial services and as illustrated above, financial services imply access to savings, micro loans, insurance products and electronic payments and remittances. However, for households to understand and use these financial services there is need for financial literacy and this can be improved through financial education

The assertion that financial inclusion is the mere opening of account at formal financial institution can be refuted. Probably this mere belief may be based on the fact that the opening account does not change the live of household. But it's not always true and it does not stop there only with regular use people can careful benefit from having an account. (Apportela, 1999) describes having an account increases saving rate at least between 3 and 5 percentage points.

However, according to the World Bank in (2011) only 50% of all adults (aged 15+) in the world have an account at formal financial institution. The exclusion of large population share from access to compressive banking service has been discovered as major obstacle to development in recent years (Govind & Marcus, 2012). The implication of financial exclusion could be that poor segment of the population would have to rely on their personal saving to pursue growth agenda and this might have terrible implication for the existing income inequality gap especially in developing economies. As the result of this its worth of empirical attention to analyses immediate and remote causes of financial inclusion. This is an effort to bring about all inclusive growing through better financial spread.

In Africa the percentage of adults with a bank account is 20% and in latin America 39%. In India, half of the poor are financially excluded from the country mainstream of the banking sector (Singh&Tandon, 2012).

The UN report defines an inclusive financial system as one that provides credit to all bankable individual and firms; Insurance to all insurable individuals and firms; and saving and payment service for everyone. It is commonly argue that the economy as whole benefits through financial inclusion (Mohan, 2006).

The objective of achieving universal financial access by 2020, expressed by the president of World Bank, is another attempt to recognize the important role of financial inclusion for economic growth and alleviation of poverty (Honohan, 2008).

Financial inclusion as concept is very difficult to define but generally it has been conceived in term of financial exclusion which is construed as the in ability to access necessary financial service in appropriate form due to problems associated with access , conditions, prices, marketing or self-exclusion (Mohan, 2006).

“Financial inclusion may be defined as the process of insuring access to financial service and timely and adequate credit where needed by vulnerable groups such as weaker section and low income groups at an affordable cost (Ibeachu, 2010). The essence of financial inclusion is trying to insure that a range of appropriate financial service is available to every individual and enabling them to understand and access those services. A part from the regular form of financial intermediation , it may include a basic no frills banking account for making and receiving payments, a savings product suited to the pattern of cash flows of poor household , money transfer facility , small loans and over draft for productive , personal and other purpose, insurance (life and non-life).

To achieve a rapid economic growth in developing economies, it’s therefore necessary to insure that economic growth performance is inclusive and sustained. This requires particular attention to specific portion of the population that have been historically excluded from the formal financial sector either because of their income level and volatility , gender, location , type of activity or level of financial literacy (Demirgus-Kunt, 2013).

As argued by Hariharan and Marktanner (2012, cited in, p. 144) “the lack of financial inclusion is a multifaceted socio-economic phenomenon that results from various factors such as geography, culture, history, religion, socio-economic inequality, structure of the economy and economic policy.” In a developing country such as Nigeria, these and other factors serve as

barriers to financial inclusion, as shown in Supply-side factors include physical barriers, non-availability of suitable financial products, and non-eligibility due to documentation issues. On the demand side are financial capability and financial literacy

Ethiopia is the second highest populous nation in Africa with only 22% banked population compared to 34.2% sub-Saharan African countries (World Bank, 2014). Moreover as per Ethiopia national financial inclusion strategy document only 22% of the population are banked in 2014 and projected to reach to 60% by 2020 (NBE, 2017). Besides to that, the country may seize alarmingly increasing mobile penetration rate as opportunity to promote financial inclusion (NBE, 2017).

In this context, it is worth researching the possibility of identifying and addressing barriers in the financial exclusion as well as financial inclusion status, and thereby, enhancing the inclusive financial system for reducing poverty and achieving economic growth. So many research has been conducted worldwide at different times indicate different findings with respect to factors affecting the financial inclusion. In Ethiopia as to the knowledge of the researcher is concerned, and for different findings and very few research conducted in Ethiopia especially factors affecting rural financial inclusion is not conducted on oromia credit and saving S.C found in Sekka Chokorsa and Manna District branch under Jimma Zone, oromia Region western part . So this study would select specifically Oromia credit and saving S.C found in Sekka Chokorsa and Manna District branch under Jimma Zone, in Oromia Region Western Part of Ethiopia. Crop farming, coffee farming and livestock keeping are the main economic activity. The head quarter of zone is Jimma town which is served by several financial institution like banks (CBE And private bank), insurance, macro finance (MFI) and oromia credit and saving S.C. most of the financial institution are located in urban centers especially Jimma town where people have to move out of their to come and make the use of financial service in the town. With the advent of mobile and agency banking, the rural population can now access financial service within their vicinity. However in the reality most of the rural population is still unbanked because of some factors. This is what motivates me to investigate probable factors affecting the rural financial inclusion with specific focus on oromia credit and saving association S.C (OCSSCO) in Sekka Chokorsa and Manna District Branch.

1.2 Statement of the problem

There would be many challenges in financial inclusion which bridge gap between the section of society that are financially excluded within the realm of the formal financial system, providing financial literacy and strengthening credit delivery mechanisms.

In evaluating a research on financial inclusion in developing countries the research on financial inclusion can be classified in to the following groups: development of financial inclusion & regulatory infrastructure to strengthen financial institutions & market. (Allen, 2011)

The constraints that hinder financial inclusion are not limited to constraints in the financial sector. (Guieze, 2014). In his investigation of financial inclusion in developing countries finds that there are a number of structural constraints such as raising level of public debt, poor infrastructure and undiversified economies that are hindering financial development.

To addressing some of this issue that are hindering financial inclusion in developing countries, the issue of innovation and information technology have been suggested as a way to enhance financial inclusivity. (Andrianaiyo & kpodar, 2011).

Financial inclusion is important for improving the living conditions of poor farmers, rural nonfarm enterprises and other vulnerable groups (Wambua Datche, 2013).

The link between banking service penetration and poverty starts from the premises that household try to maximize their profit and not their income (Honohan,2008). Their objective is to synchronize income flow and consumption needs. In this context, the use of financial service is an important tool for smoothing the cycles in consumption.

One study conducted by the World Bank, (2012) indicates that the lack of financial service could indicate lead to poverty trap and an increase in inequality gap. Social objective of the poverty eradication is considered to be the main objective of financial inclusion scheme since they bridge up the gap between the weaker sections of society and the source of livelihood and the means of income which can be generated for them if they get loans and advances which in turn lead to sustainable livelihood because weaker section of society got some money in loan which they can start up their own business or they can support their education.

The transaction cost and bank availability Allen, (2013) the study has found that increasing the level of income will directly increase the financial inclusion of the study Area. Moreover, lowering transaction cost will highly discourage being unbanked.

The study conducted in sub- Saharan countries conclude that financial inclusion in sub-Saharan African can be meaningfully influenced by both demand factors (gross domestic per capita and literacy level) and supply side factor are also known as interest rate and ATM service.

Also it's documented that the socio economic characters affecting the use of financial service system by both household and enterprises. We build our proxy to study financial inclusion with information from the household survey conducted in peru (ENAHO). Their econometric strategy has been on the study of factors that could affect the decision to be included in the formal financial system, by starting from the narrowest level of aggregation in the data up until the broadest. They found that individual characters such as being a woman, living in rural area or having low income and educational level reduce the likely hood of being included in the formal financial system.

According to the research conducted in Kenya the study has established that financial education, infrastructure provision, network access and quality of agent are significant factors in predicting financial inclusion for rural development in marakwet west Sub County (Joseph, 2015).

According to the research conducted in Ethiopia by using three indicators for financial inclusion: account ownership, saving and the use of financial product and service including ATM, mobile banking, internet banking and agent banking (Allen et al. 2012). Is found that generally, financial inclusion in term of all the indicators, account ownership, saving and use of financial service like ATM and internet is low among Ethiopian adults compared to those in sub- Saharan.

According to research conducted in Jimma zone by financial inclusion and its determinants among household in Jimma zone found that age, education, financial literacy, and income are positively related to financial inclusion, and distance to the nearest provider of financial service negatively impact financial inclusion (Mekuanit, A, 2019).

But, the previous researcher mention some gaps especially low use of financial product and service, low level of financial inclusion in Ethiopia and most of the rural population where

unbanked. And different research where conducted throughout the world on factors affecting financial inclusion by using different variable and come up with different findings. However, there are few research conducted in Ethiopia especially factors affecting rural financial inclusion is specifically not conducted on oromia credit and saving S.C (OCSSCO) in Sekka Chokorsa and Manna Districts, in Jimma zone, oromia Region western part of Ethiopia.

However, one research conducted in Kenya by using variable like financial education, network connectivity, infrastructure access and branch service quality is looked specially from supply side but for better findings both supply and demand side would be important for this study with adding some variable like, level of household income, Age, sex, Residence ID and degree of trust in financial service are as additional variable. So this study was preferable to conducted on oromia credit and saving S.C (OCSSCO) in Jimma zone in selected Districts to fill the Gap. So specifically the focus of this study was examine factors affecting the rural financial inclusion in oromia credit and savings S.C in Seka Chokorsa and Manna Districts found in Jimma Zone.

1.3 Objective of the Study.

1.3.1 General objective

The purpose of this research was to investigate factors affecting rural financial inclusion (in the case OCSSCO in Seka Chokorsa and Manna District).

1.3.2. Specific Objectives of the study:

1. To determine how the financial education of employees of OCSSCO branch influence rural financial inclusion.
2. To determine the effect of the OCSSCO branch distance on financial inclusion in selected District.
3. To examine how OCSSCO branch service quality influence rural financial inclusion.
4. To examine whether the household income level affect the rural financial inclusion.
5. To determine the influence of Age on rural financial inclusion
6. To determine the influence of Sex difference on rural financial inclusion
7. To examine weather Residence ID card Affect rural financial inclusion

8. To determine the influence of trust adult individual or household in rural financial inclusion.

1.4 Significance of the study

The findings of this study were relevant to rural population (unbanked), and financial service providers like oromia credit and saving S.C (OCSSCO) to provide financial product and service in well manner with creating awareness and providing financial knowledge to the rural people as they were being financial included. To residents, identifying factors influencing financial inclusion was help drive out poverty in rural population. In addition the unbanked population may had an opportunity for accessing oromia credit and saving S.C service at their location since recommendation would go to be made on how accessibility to OCSSCO branch can be improved. To policy makers the study aims at understanding of opportunities available for financial accessibility development. The study findings would informing the management on the best methods and way through which financial inclusion can be improved to insure the success of OCSSCO branch is achieved. Lastly the contribution of this study was used as secondary source of information for further study.

1.5 Scope of the study

Aiming at identifying factors affecting the rural financial inclusion, this study was limited to Oromia credit and saving S.C in Seka Chokorsa and Manna District branch, which are providing some financial service to the surrounding rural people. Geographically, the study was confined to two woreda in the districts and on rural financial inclusion. Methodologically, the study used primary data collected from 285 sample customers using questioner and 39 employees using interview as method of data collection.

1.6 Limitation of the study

Limitation is those characteristics that limit the scope and define the boundary of the study. Since it was become difficult, costly and time consuming to conduct a census survey on all of the OCSSCO to see the factors that affect the rural financial inclusion, so this study were limited to only oromia credit and saving S.C in Seka Chokorsa and Manna District branch.

1.7 Organization of study

This research paper was organized in to five chapters. The first chapter addressed back ground of the study, problem statement, research questions and objective of the study, significance of the study, scope of the study, limitation of the study and organization of the paper.

The second chapters deal with the review of related literature where theoretical, empirical evidences and conceptual framework have explored from different journal and article in area of factors affecting financial inclusion.

The third chapter presents the research design and methodology which focused on the type of research, target population, sample size, sample technique, source and instrument of data collection, procedures of data collection and finally method of data analysis.

The fourth chapter is about the result and discussion that was concerned with the summarization and interpretation of the research findings. Finally in chapter five, summary of findings, conclusion, recommendation and limitation of the study have been discussed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews related literature on factors affecting rural financial inclusion with specific reference to agency banking model as written by other scholar.

Reviewing previous research works help us to analyze the existing knowledge in the area of interest. The theoretical and empirical findings gave validation to carry out the study and help the researcher to set foundation for the prevailing study. Reviewing the theoretical and empirical aspects was guiding the study; the reviews were also essential in identifying the gaps in research the study contributed to fill.

2.1.1 The Overview of Financial Inclusion

Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost Ibeachu, (2010). The essence of financial inclusion is in trying to ensure that a range of appropriate financial services is available to every individual and enabling them to understand and access those services. Apart from the regular form of financial intermediation, it may include a basic no frills banking account for making and receiving payments, a savings product suited to the pattern of cash flows of a poor household, money transfer facilities, small loans and overdrafts for productive, personal and other purposes, insurance (life and non-life), etc.

To achieve a rapid economic growth in developing economies, it is therefore necessary to ensure that economic growth performance is inclusive and sustained. This requires particular attention to specific portions of the population that have been historically excluded from the formal financial sector either because of their income level and volatility, gender, location, type of activity, or level of financial literacy Demirgus-Kunt, (2013). In so doing, there is a need to harness the untapped potential of those individuals and businesses commonly excluded from the formal financial sector or underserved, and enable them to develop their capacity, strengthen

their human and physical capital, engage in income-generating activities, and manage risks associated with their livelihoods. Financial inclusion does not imply that everyone will use all available financial services; rather everyone has the option to use them.

A continuum of financial services needs to be made accessible to individuals as they improve their standard of living. More recently, financial inclusion has been defined by the World Bank, (2015), as the absence of price and non-price barriers in the use of financial services. Low and irregular income is often the primary cause of financial exclusion on both supply and demand sides. The reason is that it leads to lack of availability of suitable financial products, as well as lack of motivation for individual to open accounts due to inability of the individuals to save

. According to the center for financial inclusion publication (2015), full financial inclusion is a state in which all people can use financial services and as illustrated above, financial services imply access to savings, micro loans, insurance products and electronic payments and remittances. However, for households to understand and use these financial services there is need for financial literacy and this can be improved through financial education. The nature and forms of financial inclusion are varied and so are the factors responsible for it. Therefore, no single factor explains the phenomenon. The nature and extent of financial inclusion are influenced by several factors which can be classified broadly into supply and demand side factors. For purposes of this study, I shall look both the demand side and supply factors.

2.3. Theoretical Framework

The study theoretical framework was guided by agency theory. According to Laudon, (1996), agency theory views the company as a link of contracts among self-interested individuals rather than a unified, profit-maximizing entity. It explains the relationship between principal and agent in business. Agency theory is concerned with resolving problems that can exist in agency relationships; that is, between principals and agents of the principals. The two problems that agency theory addresses are: the problems that arise when the desires or goals of the principal and agent are in conflict, and the principal is unable to verify what the agent is actually doing; and problems that arise when the principal and agent have different attitudes towards risk. Because of different risk tolerances, the principal and agent may each be inclined to take different actions. Therefore, agents need constant supervision and management to ensure success

of their principals' objectives. Information technology, by reducing the costs of acquiring and analyzing information, permits organizations to reduce overall management costs, and allows them to grow in revenues while shrinking the numbers of middle management and clerical workers. Research on agency theory has had several findings. Most notably, an agent is more likely to adopt the goals of the principal, and therefore behave in the interest of the principal, when the contract is outcome-based.

Studying the evolution of growth, relative income inequalities, as well as their level of persistence afforded the modern development theorists to identify financial market imperfections as constituting a major barrier to progress. This being the case, it is capable of influencing human and physical capital accumulation and occupational choices. For instance, in theories underpinning capital accumulation, financial market imperfections determine the extent to which the poor can borrow to invest in schooling or physical capital. Similarly, it determines the extent to which talented but poor individuals can raise external funds to initiate projects. Thus, finance influences not only the efficiency of resource allocation but also the comparative economic opportunities of individuals from relatively rich or poor households. The importance of finance has equally been stressed in the historical development of views showing the links between economic growth and income inequality. For instance, in the model of Galor and Zeira, (1993), it was discovered that financial market frictions made it difficult for the poor people to invest in their education despite their high marginal productivity of investment. Also, in Banerjee and Newman's model, (1993), individual occupational choices are limited by their initial endowments. These models show clearly that lack of access to finance can be the critical mechanism for generating persistent income inequality or poverty traps, as well as lower growth. Several factors have been identified as representing key drivers of FI in the literature. These include: high transactions, poor infrastructural development, high poverty levels and Banking charges, sparse population and illiteracy among others.

2.2. Factors Associated with Financial Inclusion and Overview

While the importance of broader access is becoming crucial in addressing financial inclusion, there is relatively lacking, inconclusive and mixed evidence on the determinants to financial inclusion. There are a few reasons that might explain the limitations. Firstly, bearing in mind that the issue of financial inclusion is a complex issue in nature, there could be just simply too many issues that need to be studied. This is commonly referred to as an unfinished agenda Beck & Demirguc-Kunt, (2008). Secondly, it could be due to limited data on access to financial services and There are many angles in the discussion of financial inclusion such as types of financial services involved World Bank, (1995), financial services providers who responsible to it, different factors from different dimensions associated to it (demand, supply and economic factors, Demographic factor), different perspectives of the study (micro and macro) and so on so forth. Therefore a proper investigation of this issue is far from possible Claessens,; Beck et al., (2006;2008 ;).

In the same spirit, it was once noted that the great challenge before us is, to address the constraints that exclude people from full participation in the financial sector| Annan, (2003).

Many researchers have been used different theoretical frame works in the study of factors affecting financial inclusion. Among frameworks that have been developed based on the past studies includes, Saving level as culture of people is often associated as strong demand trigger for financial services According to Demirguc-Kunt&Klapper, (2012). Bank distance, According to World-Bank, Financial Inclusion, (2016), Around Two billion people or 38% of adults in the world do not use formal financial services and those barriers of 73% of poor people to have a bank account are because of costs, travel distances and the often-burdensome requirements involved in opening a financial account.

As argued by Hariharan and Marktanner (2012, cited in, p. 144) “the lack of financial inclusion is a multifaceted socio-economic phenomenon that results from various factors such as geography, culture, history, religion, socio-economic inequality, structure of the economy and economic policy.” In a developing country such as Nigeria, these and other factors serve as barriers to financial inclusion, as shown in Supply-side factors include physical barriers, non-

availability of suitable financial products, and non-eligibility due to documentation issues. On the demand side are financial capability and financial literacy

More recent studies in Africa by Zins & Weill, (2016), posit that variable such level of education, GDP per capita, mobile banking, population and interest rate can positively influence inclusion in the sub-region though without categorizing the variables into demand and supply side of the financial inclusion.

Agency Banking and Financial Inclusion

An agency bank is a company/organization that acts in some capacity on behalf of another bank, it, thus, cannot accept deposits or extend loans in its own name; it acts as agent for the parent bank. It is a retail outlet contracted by a financial institution or a mobile network operator to process clients' transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive government benefits or a direct deposit from their employer Central Bank of Kenya [CBK], (2011).

Financial Education and Financial Inclusion

In India, many people are unaware of the banking terms and conditions laid down from time to time. Because of illiteracy, a substantial number of people are unable to take recourse to banking services. Lack of information about the role and function of banks, banking services and products, interest rates among others stop people from including themselves in mainstream banking Singh & Tandon, (2012). Another barrier to access is the fact that there might be an issue of trust due to asymmetric information causing problems of moral hazards and adverse selection. The group of people that is most likely to be affected by this barrier is the group referred to as the un-bankable. The un-bankable consists of people who are considered a high lending risk or who lack sufficient earnings in order to obtain access to financial services.

When exploring barriers to financial access in countries with different characteristics Beck *et al.*, (2007) found that the stricter the regulatory framework is on the financial system, the higher are the barriers to access. Economies with stricter regulations on the formal financial sector often require more documentations and higher minimum balances in order to open an account.

Furthermore, the requirements on collateral in order to obtain a loan are usually higher in these economies and finally there are usually high restrictions put on financial services carried out through alternative delivery channels. Wambua and Datche, (2013) study found out that majority of the respondent in Mombasa found it very hard to operate the gadgets (for Agency banking) without any help. Further the aged and peasant farmers could not operate the innovated channels without any help hence this indicates that majority of respondents were skeptical about user friendliness of innovated channels. However, a significant number of respondents indicated user friendliness this has bared a segment of the market from ii accessing bank services through the innovated channels which has affected financial inclusion in the opposite direction. Customer service is a huge challenge for the banks, as they need to train and retrain the Agents to maintain high levels of customer service. Most agents are not properly trained on know your customer (KYC) they do not know how to distinguish a fake identification document and a real one. Accounts opened at agent locations are also prone to money laundering transactions this is because of a few irregularities that happen during account opening Sirken, (2009).

Distance of Bank branch

This obstacle is common throughout the world, but more specifically to developing and under developing countries. Around 27.5 million of Pakistani adults cite distance to a financial institution as a barrier to opening a financial account World-Banks, (2016). Therefore, to tackle this problem, today there is strong appetite for reducing the distance between the user and financial service globally, and for the sake of that a lot of banks and countries has started to digitalize their banking services, for example Somalia, Kenya and more others of Sub-Sahara African Countries. Hence, Digital financial services present an enormous opportunity to bring more women into formal financial system by bridging the distance and service gaps from formal banking services.

Agent service Quality and Financial Inclusion

Agent quality will be assessed using three parameters namely float adequacy, age of an agent in agency business and the core business of the agent. According to CGAP (2011), the top concerns among agents are low remuneration, liquidity management and network availability. The operation of the agency is such that a customer deposit at the agent means customer giving cash to the agent and is accounted by the bank by debiting the agent account at bank and crediting the customer's account at the bank Gitonga and Njeru, (2014).

It is therefore not possible for an agent to receive a deposit unless the agent has sufficient credit in the bank. A customer withdrawal at the agent means the agent gives cash to the customer and the bank accounts by debiting the customers bank account and crediting the agents account at the bank. An agent then can only pay out a withdrawal if they have cash in their till at the shop. This means the agent has to have both cash in the bank and cash in till. This is a key challenge to banks as most agents are not able to balance the cash holding or have inadequate capital.

Income level

Income can be defined as the amount of money received in an exchange for labor or selling of goods or services Abreu & Greenstein, (2011). Income levels are being considered and observed as the intimate factor to financial sector development and increase of the demand for financial services in both developed and developing countries. This is explained thus; that the volume and sophistication of the financial services demanded is much greater in the higher income economies than in the lower income economies and as such developed countries are better able to achieve economies of scale in banking Allen, (2013). Being financially excluded is linked to income level: The richest 20% of adults in developing countries are more than twice as likely to have a formal account as the poorest 20% Demircuc-kunt, A. (2017). The level of income is significant determinant on the nature of financial service demand from the bank thus, the higher the income higher ability to access more and better financial service and being financial inc

Definition of Demographic Factor and related variable

Age (AGE): it is a continuous variable, defined as the household heads age at the time of the study measured in years. Rehman *et al.* (2010)

Johnson and Arnold , (2012) also noted age had important influence of financial inclusion, as older people were much more likely to use a bank account than younger people where.

Financial exclusion affects some age groups more than the others Lammermann, (2010). Generally speaking, the aged (65+) and the young (18-25) are at greater risk of being excluded

Sex (SEX): it is a dummy variable that assumes a value of “1” if the head of the household is male, “0” if they are female. Several studies have shown that sex has an effect on asset accumulation. In sub-Sahara Africa, women own fewer assets than men LeBeau *et al.*, (2004).

In most developing countries, Zimbabwe included, and the rest of Africa, statistics have favored men than women in accessing financial services, Demircuc-Kunt and Klapper, (2012).

Trust in financial service. The Global Findex, (2012) also reported that lack of trust in the banking system has caused disparities in financial inclusion. Lack of the customer trust in the financial system could be a result of improper supervisory mechanisms.

2.4 Empirical Literature

Kumar (2013) examined the status as well as the determinants of financial inclusion in India using both the fixed effects and dynamic panel generalized methods of moments (GMM) methodologies on 29 major states and union territories between 1995 and 2008. The results showed that branch network has unambiguous beneficial impact on financial inclusion.

In addition, the findings further revealed the importance of a region's socio-economic and environmental setup in shaping banking habit of masses. In a similar vein, Devlin, (2005) undertook a study to understand determinants of range of banking financial services in UK. Results indicated that although factors vary according to kind of financial service, however certain variables portray consistent and significant influence across an array of financial services. Variables concomitantly affecting dependent variable turned out to be employment status, household income and housing tenure.

Kumar and Laha (2012) attempted measuring the inter-state variations in the access to finance using a composite index of financial inclusion. In their paper, they identified the underlying factors that constituted obstacles in the process of financial inclusion in rural West Bengal. Using Binary Probit Regression Model, it was established that the greater degree of awareness of basic banking services, diversification of rural non-farm sector, literacy drive to rural households and an expansion of household level assets were some of the crucial factors which have significant bearings, creating an enabling environment in reducing the obstacles in the process of financial inclusion. However, the land reform measures, which have created significant impact on landless, small and marginal farmers in West Bengal, especially in providing economic security, failed to augment the process of financial inclusion by bringing them in the network of financial services.

From a microeconomic point of view, studies aim to analyse the determinants of financial inclusion and quantify the impact of the different factors affecting participation in the formal financial system. For households, the use of financial products (savings, credit, insurance, etc.) improves the possibilities of consumption, and can smooth the income cycles generated by unexpected shocks or discontinuous income flows, thus optimizing inter-temporal consumption and improving well-being. A micro-data based paper by Allen (2012) estimates several Probit models for a total of 123 countries to analyse the relationship between financial inclusion and individual- and country-level variables, such as regulatory aspects, the implementation of the policies and alternative banking designs. These authors found that greater financial inclusion has a positive correlation with better access to formal financial services (lower banking costs, greater proximity to bank branch offices and reduced documentation requirements). Living in rural areas and low income are negatively correlated with financial inclusion.

Age and financial inclusion was positive relationship, This concurs with Modigliani's life cycle theory that people tend to consume less as they get older, so they accumulate savings during their adult life and de-accumulate in old age. This theory would mean that the level of financial inclusion is greater among people who are middle aged Carmen, Ximena and David, (2013). Financial inclusion also reduces as a larger segment of the population are either too young or above the retirement age which impedes their access to financial services as they do not earn income Cyn-Young and Rogelio (2015).

Gender is not significantly related to financial inclusion. These findings disagree with Data from the World Bank's Global Financial Inclusion database which highlights the existence of significant gender gaps in ownership of accounts and usage of savings and credit products. It also disagrees with RBI (2008) who argues that financial inclusion also varies among gender.

Soumare et al. (2016) studied the factors determining financial inclusion in central and West Africa. The study employed the global financial inclusion data base (Global index). The authors found that financial inclusions was driven by gender, education , age , income, residence area, employment status , marital status , household size and degree of trust in financial institutions.

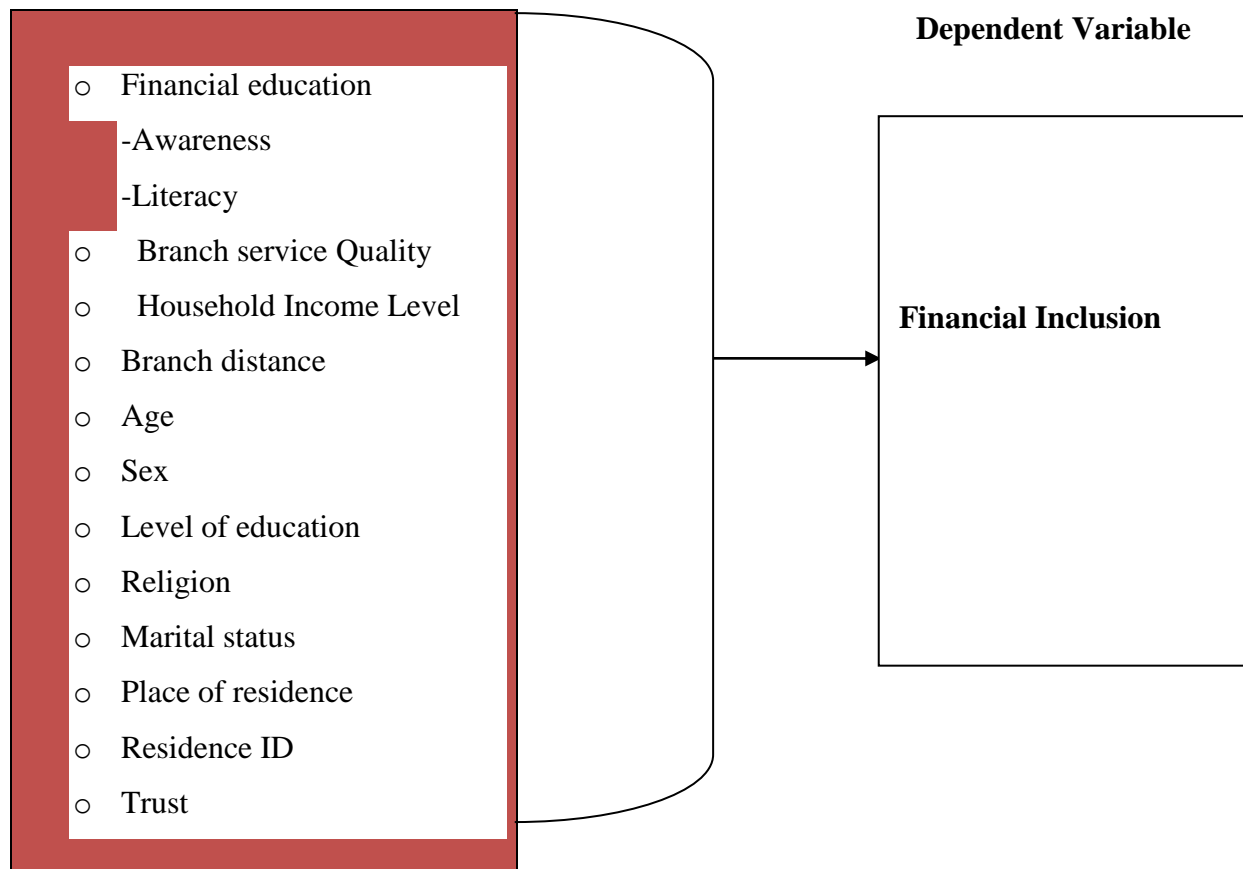
The result implies that financial inclusion is mostly affected by the individual attribute in the central and West African countries.

2.5. Conceptual Framework

Based on the existing theories and ideas in the literature, the research formulated an inclusive research framework. This framework illustrates the interaction between the independent variables and the dependent variable.

The model is shown in Figure 1.1.

Independent Variable



Source: Developed by self-design and partly adopted from Joseph Kimutai, (2015)

The first independent variable entails the financial education given to agents' operators and public on the agency OCSSCO platform. The financial education was dependent on the extent to which awareness and publicity has been made regarding the importance of owning and transacting using agency OCSSCO mode. The second variable looks at the access factors of distance, proximity and location that may influence rural population access to financial services. The third independent variable touches on the agents factors like; convenience, working

hours/days and float management regarding to service quality. The fourth independent variable is based on factors that higher income with higher ability to access more and better financial service and being financial included than lower income and demanded to have an account, borrow and being the user of financial service provided by financial institution. Fifth is the Age categories that may affect financial inclusion which may during young age and old may not include in financial service.

The sixth one is Sex difference that mean men and women may not use equally use financial service because of sex matter. The seventh one is residence ID card which is the document that required by the financial institution to use the financial service. The eighth is trust in financial service special in rural area some people may not belief the financial institution to open account.

The last identified variables are assumed to have direct relationship on the dependent variable that involves financial inclusion to rural population in Seka Chokorsa and manna District. The indicators of financial inclusion are measured through determining approximate daily transactions, opening account and number of registered rural people in one branch outlet.

2.6 Literature gap

The exclusion of large population shares from access to comprehensive banking services has been discovered as a major obstacle to development in recent years Govindand Marcus, (2012). The implication of financial exclusion could be that poor segment of the population would have to rely on their personal saving to pursue growth agenda and this might have terrible implication for the existing income inequality gap especially in developing economies.

In this study, we have used three indicators for financial inclusion: account ownership, saving, and the uses of financial products and services including ATM, mobile banking, internet banking and agent banking Allen etal, (2012). According to Findex data, 2 billion adults are unbanked worldwide as of 2014. Since 2011, adult population account ownership has risen from 51 to 62 percent. Similarly, developing countries are making substantial progress towards financial inclusion. Account ownership has increased, on average, from 41 percent to 54 percent in the same period. In Africa, the average account ownership (35%) is low when compared to both the world and developing countries. Only 22 percent of Ethiopian adults had accounts as of 2014.

This is very low compared to the sub-Saharan average (34%). In addition, the use of financial products and services such as savings, ATM, mobile banking, internet banking and agent banking is in its infancy. For example, mobile banking in the neighboring Kenya is 75 percent compared to only 1 percent in Ethiopia. Zins&Weill, (2016) investigated the reason for the low level of financial inclusion in Africa where Ethiopia is one of the samples. However, for the knowledge of the researchers, there is no single or specific study focused factors affecting rural financial inclusion in particularly in Oromia credit and saving S.C in Seka Chokorsa and manna District branch.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

The purpose of this chapter is to discuss the methods adopted throughout the study to accomplish the research objective. In order to determine the factors affect financial inclusion, this study uses specific research methodology. It covers the research design, the target population, sampling procedure, Research instrument, data collection procedure and analysis and presentation of findings.

3.2 Research Design

Kothari (2004) describe a research design as the conceptual structure with in which the research is conducted; it constitutes the blue print for the collection, measurement and analysis of data. It specifies the method and procedures for collecting and analyzing the needed information.

In order to achieve objective of the study, it was follow a quantitative research methodology. Quantitative research was used to provide numerical measurement analysis of the adoption dynamic.

To meet the research objectives, the design of the study is descriptive type. Descriptive research designs are those design which are concerned with describing the characteristics of a particular individual, or of a group. The main character tics of this method is that the investigator has no control over the variables he/she can merely report what has occurred or what is occurring (Kothari, 2004).

The study was also use a survey research design plan to acquiring enough information from target respondents by using closed ended and open ended questioner and interview as research instruments. Survey research is defined by leedy and ormrod, (2010) is acquiring information about one or more groups of people about their characters, opinions, attitudes, or previous experience by asking question and tabulating their answers. The data was collected from the respondents were analyzed to come to logical conclusion.

Development of Hypothesis based on the objective of the study

The main objective of the study is factors that affect the rural financial inclusion in case of Jimma Zone selected districts. Contingent with specific objective specified in chapter one the following hypothesis was developed

Gender has influence in access to finance where being woman was significantly associated with high likelihood of exclusion from financial service and thus not able to use financial service for investments (Ellis, 2012) .

Then based on Literature review the following Hypothesis is formulated.

H1: sex positively and significantly affects financial inclusion

Johnson and Arnold , (2012) also noted age had important influence of financial inclusion, as older people were much more likely to use a bank account than younger people where.

Financial exclusion affects some age groups more than the others (Lammermann, 2010). Generally speaking, the aged (65+) and the young (18-25) are at greater risk of being excluded

Then based on Literature review the following Hypothesis is formulated.

H2: Age is positively and significantly affects financial inclusion

Educated people are able to comprehend the various financial products on the market and make informed decisions hence improving on the access to these (Pena, 2014). Other scholar argue that education is the way of measuring knowledge, skillsets and capacity to make decision in formal financial market hence positive financial inclusion and education. (Kempson., cole ;; Ellis ., 2010, 2013, 2019)

Then based on Literature review the following Hypothesis is formulated.

H3: level of education is positively and significantly affects financial inclusion

Marital status has an influence on decision making whether to be included in financial service or not. (Johnson and Arnold 2012) noted being single in Kenya can have strong influence on exclusion from financial service.

Then based on Literature review the following Hypothesis is formulated.

H4: Marital status is positively and significantly affects financial inclusion

Place of residence had influence on investment (Ellis, 2009). Use of bank account in rural areas is at minimal level lagging far behind urban area especially in development countries (World Bank, 2014).

Then based on Literature review the following Hypothesis is formulated.

H5: place of residence is positively and significantly affects financial inclusion

Financial literacy shows the knowledge and skill in reading the financial product on the market hence it means those people who are financially literate are able to understand the advantage and disadvantage of the various financial product. (Iusard,2007).

Then based on Literature review the following Hypothesis is formulated.

H6: place of residence is positively and significantly affects financial inclusion

Access to financial product is a function of distance between the financial product service provider and the end user of financial product. (Sanderson, & Mekunit, 2018, 2019)

Distance reduces the chance of people access to financial products. Financial product should be easy accessible to the people enable them to be able to derive any utility from them. This implies that access to financial product is a function of distance between the financial product service provider and the end user of financial product. (Sanderson, & Mekunit, 2018, 2019)

Then based on Literature review the following Hypothesis is formulated.

H7: Distance is negatively and significantly affects financial inclusion

Agent's improvement in quality of service will lead to reduce more unbanked population opening and making transaction through agent outlets. (Joseph Kimutai 2015).

Then based on Literature review the following Hypothesis is formulated.

H8: Service quality is positively and significantly affects financial inclusion

Demirguc-kunt, A. (2017). The level of income is significant determinant on the nature of financial service demand from the bank thus, the higher the income higher ability to access more and better financial service and being financial included.

Then based on Literature review the following Hypothesis is formulated.

H9: Level of income is positively and significantly affects financial inclusion

Residence ID card is a document required by financial institution then precludes those who don't have this document to be involuntarily excluded from enjoying financial product. This finding was supported by prior study (Sanderson Abel 2018).

Then based on Literature review the following Hypothesis is formulated.

H10: Residence ID card is negatively and significantly affects financial inclusion

Trust in financial service. The Global Findex, (2012) also reported that lack of trust in the banking system has caused disparities in financial inclusion. Lack of the customer trust in the financial system could be a result of improper supervisory mechanisms.

Then based on Literature review the following Hypothesis is formulated.

H11: Trust is positively and significantly affects financial inclusion

3.3. Target Population

The target population for this particular study was all individual customer and employees of Oromia credit and saving association in Sekka Chokorsa and Manna woreda branch respectively, which are totally 15261 from both woreda. Because in reality and concept of Ethiopia most of rural people were get financial service from such organization like OCSSCO, than financial institution like banks especially in loan case and financial institution locate in woreda have more information about rural people than the main locate in town. Therefore for the purpose of this study two woreda are selected based on sustainability and availability of financial service and client's availability so the populations of this study were both employees and customer of oromia credit and saving association in Seka Chokorsa and manna woreda District respectively. And hence, this study was focus on the branch or agent on selected District in Jimma Zone. The two

District were selected from different direction, Seka Chokorsa District from south of Jimma town and Manna District from west of Jimma town purposively based on sustainability and accessibility of financial service by financial institution under Jimma zone.

3.4. Sample Size and Sampling Procedure

3.4.1. Sample Size

Sampling technique was defined as procedure used to select some elements of a population in such a way that they represent the actual characteristics of the total population. Considering that the total Population of this study was both employees and customers of OCSSCO. So the total population was 15261 from Seka Chokorsa and manna District, mean 8463 customer and 22 employees totally 8485 from Seka District branch and 6759 customer and 17 employees totally 6776 from manna District branch.

A large sample size can become administratively unwieldy to handle while a small one was give inaccurate results. It is therefore vital to select a sample size that determines a statistically significant outcome. So the sample technique used for this study was Convenience sampling for customer of both OCSSOC in Seka Chokorsa and Manna District and Purposive sampling were used for interviewing employees of oromia credit and saving S.C in both Districts.

According to Bartlett, (2001) to determine, the sample the following formula was used when the population is greater than 10,000.

$$\begin{aligned} \text{no} &= Z^2 pq / ((e)^2) \\ &= (1.96)^2 (0.5) (0.5) / (0.05)^2 \\ &= 384. \end{aligned}$$

Therefore, out of the 15261 customers and employees based on above formula 384 were selected as sample size for this study. So from this above sample size 345 customers were selected based on convenient sampling technique and all 39 employees purposively selected as sample size for this study. Finally proportional allocation was used to assign the number of customers selected

from each District sampled in the study. So the proportion allocation of the two districts as follow.

Table 1: The proportional allocation of customer sample size

Name of District	Total No. of customers	Sample size
Seka Chokorsa District	8463	$8463/15222 \times 345 = 192$
Manna District	6759	$6759/15222 \times 345 = 153$
Total	15222	345

Total sample size of customer = $192+153=345$

3.4.2. Sampling Procedure

For this study branches or agent of oromia credit and saving S.C in Jimma districts have more information than the central or Main in town because the District branch was more near to the rural area to provide financial service to them and have more information than branch in Jimma town. So Seka Chokorsa District and manna District Customers and employees were selected based on convenient sampling and purposive sampling respectively to fill the questioner and give oral interview mean questioner was filled by customers and employees were interviewed. The researcher would go to the selected District branch during working hours (5 days per week) over three weeks for both Districts. And administered the questionnaire to clients in each branch and make interview all employees. The researcher was assist clients and employees in filling out the questionnaire and during interview time.

3.5. Data Collection Methods

There are mainly two types of data, namely primary data and secondary data. Primary data refers the information a study was obtains from the field for example from the subjects in the sample.

Secondary data is data that has been collected, analyzed and made available from sources other than you (White, 2010). Therefore secondary data refers to the information a study obtains from research articles, books, reports and journals. In this study, the researchers make use of primary data. The study utilized questionnaires and interview was scheduled as instrument of collecting primary data.

3.6 Data Collection Procedure

The questionnaires were distributed to selected branches customers of Seka Chokorsa District and manna branch District in Jimma Zone. The branches were selected purposively based on sustainability and Accessibility of financial service provided by financial institution. Then after draw branches then questionnaires was distributed to the respondents by using convenience sampling method for customers to fill the questioner and all employees are interviewed based on purposive sampling method. The data were collected during working hours (5 days per week) over three weeks.

The researcher was thank each respondent and after completion of data collection exercise, proceeded to sort the questionnaires for data processing and analysis.

3.7. Methods of Data Analysis

Kothari, (2004) defines data analysis as the process of computation of certain indices or measures along with searching for patterns of relationship that exist among the data group.

The study was quantitative in nature and thus ensured that the data obtained is checked for completeness ready for analysis. Logit Model was used to determine Financial Education, Branch service quality, Branch distance, level of household income, Age, Sex, religion, marital status, Residence ID and Degree of trust in financial service (independent variable) on rural financial inclusion (dependent variable). The collected data was analyzed and presented quantitatively and qualitatively. Quantitative data analyses techniques was used by statistical package for social science version 20 (SPSS) and STATA is used for model regression and content analysis used for qualitative data. For the purpose of this research, the relevant descriptive parameters such as the percent and frequency where used. And use of inferential statistics was applied.

. Further a Logit Model was used based on nature of data which is binary/dichotomous to determine the statistical significance of the factors on the dependent variable. In this regard the following variables are of interest; financial education, branch service quality, branch distance, level of household income, Age, Sex, religion, marital status, Residence ID and trust in financial service.

3.8 Justification of model used.

The underlying thinking behind the use of the logit model is premised on the fact that people are faced with decision on whether to be included or not on the reaction threshold inherent in them based on a number of factors, beyond the threshold the person would not seek to be included in the formal financial market while at the critical threshold level the desire to be included in the formal financial market is motivated.

The Logit regression based on previous model designed by (Akudugu, 2013) was adapted using the variables from the above conceptual framework and It follows that the estimated Logit Model equation:

$FinIn=f(\text{financial education, Branch service quality, and branch distance, level of household income, Age, sex, Residence ID and Degree of trust in financial service})$

To capture such phenomena in mathematical form:

$$P(FiIn=1/X) = \beta_0 + \beta_1 Fedu + \beta_2 serQlyt + \beta_3 dist + \beta_4 income + \beta_5 age + \beta_6 sex + \beta_7 resiID + \beta_8 trust + \mu_i$$

Where: the dependent variable $P(FiIn=1/X)$ the probability that an individual or household head would seek formal financial service given the vector of observable demographic, economic and institutional characteristics.

β_0 = Financial inclusion in the absence of the Variable considered in the study.

β_1 = change probability in FI due to change in sex while other things remain constant.

β_2 = change probability in FI due to change in Age while other things remain constant.

β_3 = change probability in FI due to change in financial literacy while other things remain constant.

β_4 = change probability in FI due to change in distance while other things remain constant.

β_5 = change probability in FI due to change in service quality while other things remain constant.

β_6 = change probability in FI due to change in level of income while other things remain constant.

β_7 = change probability in FI due to change in ID card while other things remain constant.

β_8 = change probability in FI due to change in trust while other things remain constant.

Definition and measurement of Variables

Dependent Variable e: Financial Inclusion

Financial Education: The process by which financial consumers/ investors improve their understanding of financial products, concepts and risks and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being (OECD, 2005)

Bank distance: According to World Bank Financial Inclusion, (2016), Around Two billion people or 38% of adults in the world do not use formal financial services and those barriers of 73% of poor people to have a bank account are because of costs, travel distances and the often-burdensome requirements involved in opening a financial account.

Agent service Quality: Agent quality would be assessed using three parameters namely float adequacy, age of an agent in agency business and the core business of the agent. According to (CGAP, 2011), the top concerns among agents are low remuneration, liquidity management and network availability.

Income Level

Being financially excluded is linked to income level: The richest 20% of adults in developing countries are more than twice as likely to have a formal account as the poorest 20% (Demirguc-kunt, A. 2017). The level of income is significant determinant on the nature of financial service demand from the bank thus, the higher the income higher ability to access more and better financial service and being financial included.

Age (AGE): it is a continuous variable, defined as the household heads age at the time of the study measured in years. (Rehman *et al.* 2010)

Financial exclusion affects some age groups more than the others Lammermann, (2010). Generally speaking, the aged (65+) and the young (18-25) are at greater risk of being excluded

Sex (SEX): it is a dummy variable that assumes a value of “1” if the head of the household is male, “0” if they are female. Several studies have shown that sex has an effect on asset accumulation. In sub-Saharan Africa, women own fewer assets than men (LeBeau *et al.*, 2004).

In most developing countries, Zimbabwe included, and the rest of Africa, statistics have favored men than women in accessing financial services, Demirgüç-Kunt and Klapper, (2012).

Residence ID: Is the document required by banks and other financial institution in offering their product or service to customers

Trust: The Global Findex (2012) also reported that lack of trust in the banking system has caused disparities in financial inclusion. Lack of the customer trust in the financial system could be a result of improper supervisory mechanisms.

Table 2: Description of variables

Variable	Description	Type of data
Financial education	Is the Knowledge of using financial product and service and the level of education attained by adult individual or household head	nominal
Distance	Is the distance to the nearest bank or financial institution	nominal
Service Quality	Is offering quality service to rural development	nominal
Income	The level of income of the adult individual or household head	nominal
Age	The Age of the adult individual or household head In years	nominal
Sex	Is the sex difference weather male or female	nominal
Residence ID	Is the document required by banks and other financial institution in offering their product or service to customers	nominal
Trust	The trust of adult individual or household head in formal financial service	nominal

Table 3: Measurement of variables

	No	Variable	Symbol	Measurement	Expected sign
Dependent variables		Factor affect financial inclusion	FinIn		
Independent variables	1	Financial Education	Fedu	Question No.7&8	+
	2	Agency service quality	serQlty	Question No. 12&13	+
	3	Branch Distance	Dist	Question No 9,10&11	-
	4	Household income	Hinc	Question No 14,15&16	+
	5	Age	Ag	In a years	+
	6	Sex	Sx	Take value of 1 if the respondent man and 2 if woman	+
	7	Residence ID	ResID	Question 17&18	-
	8	Trust	Tr	Question 19&20	+

Table 4: Name, type, code and value for variables

Name	Type	Code	Value
Financial inclusion	Dummy	Finc	1 if use 0 if not use
Financial education and literacy	Dummy	Finltry	1 if know 0 if not know
Distance	Dummy	Dist	1 if agree 0 if not agree
Service quality	Dummy	SQ	1 if got 0 if not got
Level of income	Dummy	Inco	1 if have 0 if not have
Residence ID card	Dummy	Rid	1 if have 0 if not have
Trust	Dummy	Cdt	1if trust 0 if not trust

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this section, analysis and discussion of the data gathered based on the research methodology design for the research is conducted. This chapter focused on the presentation, analysis and interpretation of data collected from primary source. A total of 345 questioner where distributed to collect data from customers about the factors affect rural financial inclusion in case of oromia credit and saving association in Jimma zone in selected Districts and employees where interviewed. This chapter has three sections; the first section describes respondents, characteristics in term of sex, age, marital status, religion, level of education and place of residence and descriptive statistics with respect to the current practice of financial inclusion and factors that affect rural financial inclusion. The second section describes the relationship between the variables. Finally the regression result concerning the factors that affect rural financial inclusion. For this purpose, statistical instruments called binary logit regression analysis is used to perform data analysis. All the data were coded and entered in to SPSS version 20 and inferences were made based on the statistical results.

4.2. Descriptive statistics

Factors that can affect the rural financial inclusion including Sex, Age, religion, marital status, place of residence, level of education, financial literacy, distance, level of income, service quality, residence ID card and trust were analyzed and the following descriptive results were obtained and presented below.

Table 5: shows the response rate of questioner

Number of questionnaire returned	Target number of respondents	Response rate
285	345	82.6

Source: from own survey data, 2020

A total of 345 questioners were distributed to the customer of Oromia Credit and Saving Association of two Districts and out of this questioner a total of 285 questioners were successfully completed and returned. The total response rate was 82.6%. As a result the analysis of this research is based on the number of questionnaires' collected and interview.

Table 6: Sex of respondent

Sex	Frequency	Percent
Female	69	24.2
Male	216	75.8
Total	285	100.0

Source: from own survey data, 2020

Sex is one of the variables that can explain rural financial inclusion. As indicated in Table 6 75.8% of respondent were male and 24.2% were female. This implies that the number of female respondents were less than male respondents.

Table 7: Age of respondent

Age	Frequency	Percent
less than 20 years old	15	5.3
between 20-30 years old	60	21.1
between 31-40 years old	96	33.7
between 41-50 years old	105	36.8
above 50 years old	9	3.2
Total	285	100.0

Source: from own survey data, 2020

The result indicate that majority of the customer (36.8% range between 41-50 years while 33.7% range between 31- 40, also 21.1% range between 20-30, 5.3% less than 20 years and 3.2% above 50 years old. So the result implies that majority of the customer 36.8% which range between 41-50 year where economically active and age during above 50 year and below 20 year where economically inactive and less financially included.

Table 8: Marital status of respondent

Marital status	Frequency	Percent
Single	103	36.1
Married	182	63.9
Total	285	100.0

Source: from own survey data, 2020

Table 8 indicate that Majority of the respondent 63.9% where married and 36.1% of respondent where single so the result indicate that married people are more used and included in the financial service than the single.

Table 9: customer residence Area

Place of residence	Frequency	Percent
Urban	123	43.2
Rural	162	56.8
Total	285	100.0

Source: From own survey data, 2020

The result show that 56.8% of the customer came from the rural place and 43.2% of the customer live in the urban area, this result indicated most of the respondent 56.8% where rural dwellers and 43.2% are urban dwellers and in reality most of the financial institution where found in town while majority of the respondent came from the rural area and have not equal chance to get financial service. Also the result of interview held with staff members of oromia credit and saving association in both District showed that regarding to the approximate number of people in the area who are unbanked shows that the total population of the both District are estimated as 153000 among those population majority of the people are out of financial service because of some religious factor like sharia specially in loan case which is not permitted to the Muslim religion followers which lead to increase the number of unbanked population. So the study noted

that the place of residence has influence on financial inclusion and the result is supported by prior study. the prior Research conducted show that bank are mostly located in towns as opposed to being equally spread across all regions Singh and Tendon, (2012). The high response rate of rural dwellers was by the fact that majority of the Kenyan citizens live in rural area. MDP (2013). Similarly the [bigger part of Nyeri and Kirinyaga counties is a rural area KCG& NCG , (2013, 2013).

Table 10: religion of respondent

Religion	Frequency	Percent
Christian	73	25.6
Muslim	212	74.4
Total	285	100.0

Source: From own survey data, 2020

Religions plays an important role in affecting the rural financial inclusion .The survey result revele that majority of the respondent 74.4% where Muslim religion followers and 25.6% where Christian religion followers. So the result of Table 10 show that majority of the respondent is Muslim religion followers.

Table 11: Education level of customer

Level of education	Frequency	Percent
Illiterate	78	27.4
Literate	207	72.6
Total	285	100.0

Source: from own survey data, 2020

Education enhances the capacity of individuals to obtain, process, and utilize information through different sources and it support clients to make financial inclusion decision and support them to access financial service. The result indicated that majority of the customer 72.6% where literate and 27.4% where illiterate and this indicate that majority of the respondent where literate people and implies they are able to make decision of financial usage.

Table 12: financial education and literacy

Financial literacy		Frequency	Percent
Do you have concept of financial inclusion	No	152	53.3
	Yes	133	46.7
	Total	285	100.0

Source: from own survey data, 2020

The result where indicate that majority of the respondent 53.3% have no the knowledge of financial inclusion which may increase the exclusion of large number of the population out of the financial service while 46.7% have the knowledge of using financial service and product . Also the result of interview held with staff members of oromia credit and saving association in both District regarding to method used by organization to promote financial education and literacy among branch and population showed that they go to the rural people area to teach culture of saving in community and school area, advice on unnecessary credit, give training for new clients advice how to use financial service, advertise their goal and objective to the community and providing training about meaning and importance of financial inclusion however based on client response still majority of rural people have a lack of knowledge about financial inclusion.

Table 13: Types of account with in financial institution do you have

Type of account	Frequency	Percent
Current account	38	13
Saving account	188	66
Fixed account	16	6
Loan account	43	15
Total	285	100.0

Source: from own computation

Table 13 indicates that 66% of respondent have saving account, 15% respondent have loan account, 13% have current account and 6% have fixed account. Most of clients where having a saving account which implies majority of the rural people are used saving account than loan account. The result indicates the rate of loan used by the rural people is still low.

Table 14: Distance from financial institution

Distance		Frequency	Percent
Do you think distance is the problem to use financial service	No	30	10.5
	Yes	255	89.5
Is the accessibility of road discourage you to use financial service	Total	285	100
	No	92	32.3
	Yes	193	67.7
	Total	285	100

Source: from own survey data, 2020

The result shows that majority of the respondents 89.5% of the respondent agreed as distance is the major obstacle to use financial service while 10.5% not agreed and also majority of respond 67.7% said accessibility of road discourage the use of financial service while 32.3% said it's not a matter. So it implies distance from branch of financial institution and lack of the road accessibility is the main problem to use financial service and product based on majority response.

Table 15: distance from branch of financial institution

	Frequency	Percent
Near	142	49.8
Average	65	22.7
Far away	52	17.9
Very far away	26	9.1
Total	285	100.0

Source: own computation

Also depending on this computation it indicate that majority of the respondent 49.8% near to the financial institution, 22.7% are average, 17.9% are far from financial institution and 9.1% are very far away from the financial institution. This implies that based on the majority of the respondent rural people in the Seka Chokorsa and manna District are near to financial institution to get financial service and product so distance is not as much problematic to include in the financial service in this area. Also the result of interview held with staff members of oromia credit and saving association in both District regarding to consideration of geographical distance

and location when licensing new branch show that during licensing new branch distance is considered mean new branch is launched on remote area to avoid the cost of farmer based on the area near to the community and with having availability of the clients.

Table 16: branch service quality

Service quality		Frequency	Percent
Do you have got service in a single days	No	111	38.9
	Yes	174	61.1
Do you have got service during weekend and holiday	Total	285	100
	No	213	74.7
	Yes	72	25.3
	Total	285	100

Source: from own survey data, 2020

The result show that majority of respondent 61.1% got service in a single day and 38.9% of respondent where not and also majority of respondent 74.7% respond as they not get service during weekend and holiday time while 25.3% response they got service during weekend and holiday time. This implies that majority of the respondent got service always in a single day and no more service during holiday and weekend time. Also the result of interview held with staff members of oromia credit and saving association in both Districts regarding to the quality service towards promoting financial inclusion in the area of operation, to insure the quality service it shows that all employees providing quality service based on their responsibility area.

Table 17: Income level

Level of income		Frequency	Percent
Do you have any income per month	No	135	47.4
	Yes	150	52.6
Do you belief the level of income have an effect on financial inclusion	Total	285	100
	No	71	24.9
	Yes	214	75.1
	Total	285	100

Source: from own survey data, 2020

As stated in the above table majority of the respondent 52.6% have income per month and 47.4% have no income per month. Based on the above result it implies that majority of the respondent where have income per month which is support them to include in financial service usage.

Table 18: level of customer income

	Frequency	Percent
Relatively low	40	13.8
Low	69	24.3
Medium	26	9
High	15	5.5
Total	150	52.6

Source: own computation

And based on the above information it indicate that from total customer of 150 in Table 17 got income per month ,24.3% got low income, 13.8% got relatively low income, 9% medium and 5.5% got high income. This result implies that majority of the respondent got low level of income which has an effect on the level of financial inclusion. So the result indicate majority of people live in rural area have low level of income which exclude majority of the total population out of financial service and make unbanked.

Table 19: Residence ID card

Id card		Frequency	Percent
Do you have residence id card	No	252	88.4
	Yes	33	11.6
Is id card is required by FI	Total	285	100
	No	6	2.1
	Yes	279	97.9
	Total	285	100

Source: from own survey data, 2020

The above result indicate that majority of the respondent 88.4% have no id card and only 11.6% have residence id card , also 97.9% of the customer respond id card is document required by financial institution at the time of using financial service while only 2.1% respond as not required . So this implies that majority of the respondent have no id card and is a document require by financial institution during rendering service to their customer.

Table 20: degree of trust in financial service

Trust		Frequency	Percent
Do you have trust in service provided by financial institution	No	82	28.8
	Yes	203	71.2
Do you know and see people not trust in financial service	Total	285	100
	No	238	83.5
	Yes	47	16.5
	Total	285	100

Source: from own survey data, 2020

The result indicate that majority of the respondent 71.2% trust in financial service provided by financial institution while only 28.8% where not believe and majority of respondent 83.5% where not see and know people not trust in financial service in their residence area. Therefore the result indicates that most of the rural people are trust in financial service provided by the financial institution.

Table 21: financial inclusion

		Frequency	Percent
Opening account	No	77	27
	Yes	208	73
Total		285	100.0
Cash deposit	No	169	59.3
	Yes	116	40.7
Total		285	100.0
Cash withdrawal	No	125	43.9
	Yes	160	56.1
Total		285	100.0
Loan request	No	74	26
	Yes	211	74
Total		285	100.0
Loan repayment	No	185	64.9
	Yes	99	34.9
Total		285	100.0

Source: from own survey data, 2020

The result show that majority of the respondent 73% opening account at oromia credit and saving association and 40.7% of respondent have some deposit in a day, week and monthly in the organization also the result indicate that majority of the respondent 56.1% use cash withdrawal in a day, week and during month. And 74% of respondent request some loan from the organization while only 34.9 are repay loan to the organization. Also the result of interview held with staff members of oromia credit and saving association in both District regarding to the strategy towards insuring the inclusion of unbanked population indicate that, the inclusion of unbanked population is through promoting advertise, by using low interest rate on borrowing, creating awareness and identifying the community resource for the base of supporting them based on the nature of resource they have. And Contribute to rural development to promote financial inclusion of the rural by encouraging small enterprise, buying ox to the farmer and give credit based on their capacity.

4.3 Econometrics Analysis

Inferential statistics is used to determine the probability of characteristics of population based on the characteristics of sample and help to access the strength of relationship between independent(casual) variable, and dependent (effect) variable and for this study the correlation analysis and chi-square test where discussed under this inferential analysis.

Correlations Analysis

Is one of the widely used measure of association between two or more variables by describing the direction of correlation whether it's positive or negative and the strength of correlation and ether an existing correlation is strong or weak.

The Second important things taken into consideration for the application binary logit regression like multiple linear regression there should be no high correlation (multicollinearity) among the predictors (independent variables) this can be assessed by a correlation matrix among the predictors (independent variables). According to Tabachnick & Fidell, (2013) and also Kline, (2005) suggest that as long correlation coefficient among independent variables are less than 0.9 the assumption is met. So in order to detect multicollinearity problem in this study the researcher apply the correlation matrix. According to Kline, Phyllis, (2005,2007; p 220) by citing Kline,

(2005). Correlation coefficients for nominal variable Pearson correlation can be applied then the result of the matrix shows that all independent variable correlation below 0.9 which means there is no Multicollinearity problem.

Table 22: correlation between variable

	SX	AG	MRT	REL	PLRS	LVED	FILT	DIST	ID	ICN	DT	SQ
SX	1											
AG	-0.035	1										
MRT	-0.016	0.053**	1									
RELG	0.213	0.072	0.127*	1								
PLRS	0.037	0.017	0.034*	0.252*	1							
LVED	0.149	-0.008*	0.111*	0.271*	0.275	1						
FILT	-0.013	0.086**	0.191	-0.06	-0.07	-0.08**	1					
DIST	-0.086	0.026	0.634*	-0.02*	0.032*	-0.02**	0.352	1				
ID	-0.011	0.009	0.034	-0.01	-0.02	0.052*	-0.05	-0.08*	1			
INC	0.002	0.077**	0.255	0.112	0.097	0.149	-0.03*	0.273	0.066	1		
DT	-0.123	0.014*	0.423*	0.000*	0.036	-0.06**	0.357	0.642*	0.041	0.168*	1	
SQ	0.007.	0.062*	0.507	0.102	-0.04	0.029	0.269*	0.501	0.026	0.174*	0.520	1

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed)

Source: from own survey data, 2020

EVALUATION OF A LOGISTIC REGRESSION MODEL

According to Hyeoun (2013) there are several parts involved in the evaluation of the logistic regression model. First, the overall model (relationship between all of the independent variables and dependent variable) needs to be assessed. Second, the importance of each of the independent variables needs to be assessed. Third, goodness-of-fit statistics; finally, predictive accuracy or discriminating ability of the model needs to be evaluated

The relationship between the dependent variable and the overall combination of the independent variables (predictors) is tested in the Omnibus Tests of Model Coefficients table represented in table below. The model chi-square value of $\chi^2 = 174.886$, $df=12$, $N=285$, $P = .000$. With a p-value of less than 0.05 tells us that our model as a whole fits significantly. So, the relationship between the combination of the independent variables and the dependent variable is confirmed.

Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
	Step	174.886	12	.000
Step 1	Block	174.886	12	.000
	Model	174.886	12	.000

Source: from own survey data, 2020

The model summary table below illustrates the computation of correlation measures to estimate the strength of the relationship so the researcher prefer to use Nagelkerke R Square shows that about 61.7% of the variation in the outcome variable which is the financial inclusion of rural people is explained by this logistic model. Chan. Y, (2004).

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	213.073 ^a	.459	.617

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Source: from own survey data, 2020

According to Sakar &Midi, (2010) common techniques in social science for judging the classification table accuracy of fitted binary logistic regression model is accuracy ratio. The

probability of detecting true signal (sensitivity) and false positivity (specificity) for entire range of possible cut point comes from classification table. According to Hyeoun (2013) higher sensitivity and specificity indicate a better fit of the model. Then overall correct prediction, 57.9% shows an improvement over the chance level which is 50%. If the classification table greater than the cut value the model is fit or it is considered as the model performance is excellent.

Classification Table^{a,b}

	Observed		Predicted		
			financial inclusion		Percentage Correct
			No	Yes	
Step 0	financial	No	0	120	.0
	inclusion	Yes	0	165	100.0
Overall Percentage					57.9

a. Constant is included in the model.

b. The cut value is .500

Source: from own survey data, 2020

Hosmer Lemeshow test

The Hosmer–Lemeshow test is another test to examine whether the observed proportions of events are similar to the predicted probabilities of occurrence in subgroups of the model population. According to Hyeoun (2013) better approach to present any of goodness of fit test available is Hosmer Lemeshow which is commonly used measure of goodness of fit based on the χ^2 distribution with 8 degrees of freedom (with large p -value >0.05) indicate a good fit to the data, therefore, goodness of overall model fit. In generally according to Hosmer & Lemeshow, (2000) if p -value is less than 0.05 and conclude that the model is not fit but the p value in this model is 0.852 which greater than 0.05 means conclude that the model is fit for the observed data.

Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	4.061	8	.852

Source: from own survey data, 2020

Logistic Regression

The result of the below Table was illustrated like this: LR chi2 (12), Prob>chi2, pseudo R2, and log-likelihood results are used as evaluation of model goodness of fit. The LR chi2 (12) is the likelihood ratio (LR) of the chi-square test which is equal to 174.89. Number in the parenthesis indicates the number of degrees of freedom which is equal to the number of the predictor variable.

Prob > chi2 is the probability of obtaining the chi-square statistic if there is an effect of the independent variables, taken together, on the dependent variable. This is, of course, the p-value, which is compared to a critical value, to determine if the overall model is statistically significant. Thus, the model is statistically significant as the p-value is 0.0000.

Pseudo R2 is the pseudo-R-squared. In this case, logistic regression does not have an equivalent to the R-squared that is found in OLS regression; but pseudo-R2 which indicates how well the regressors Xs explain the participation probability. The low pseudoR2 which is less than half the percentage means about 45.08% also shows the well-fitted model. Thus, in this all instance, as long the goodness of fit concerned the model fitted well.

Table 23: Logit Regression result

FI	Coef.	Std. Err.	Z	dy/dx	P> z
Sex	1.268	0.411	3.08	0.302	0.002**
Relign	1.405	0.415	3.39	0.333	0.001**
Marital	1.604	0.483	3.32	0.37	0.001**
Age	-0.226	0.184	-1.23	-0.052	0.220
Lvofedu	1.369	0.419	3.26	0.324	0.001**
Plcofresd	0.116	0.376	0.31	0.027	0.758
Finltry	-0.355	0.38	-0.94	-0.082	0.350
Dist	-3.02	1.081	-2.79	-0.694	0.005**
RID	-3.127	1.105	-2.83	-0.718	0.005**
inc	1.193	0.542	2.20	0.274	0.028*
cdt	5.28	1.12	4.71	1.213	0.000***
SQ	3.674	0.793	4.63	0.844	0.000***
_cons	-3.212	1.122	-2.86		0.004**
Number of obs		285			
LR chi2(12)		174.89			
Prob > chi2		0.0000			
Pseudo R2		0.4508			

Source: from own Survey data, 2020

As indicated in the Table 25 When the variables in the equation table is examined p-value of the sex (.002), religion (.001) marital (.001), level of education (.001, distance from branch of financial institution (.005), service quality (.000), level of income (.028), residence id card (.005) and degree of trust in financial service (.000), critical factor are observed to be less than 0.05 So, these independent variables are found to be statistically significant and effect on the rural financial inclusion in Seka Chokorsa and manna woreda Districts under Jimma Zone.

Marginal Effects Analysis

The estimated logistic coefficient couldn't be interpreted directly. To illustrate this, the marginal effect analysis was found to be an important step that could fill such an issue of interpretation with the direction of each explanatory variable that affected depends on the variable. The marginal effect indicates the probability derivatives at the sample mean which is the change in probability due to one unit change in a given explanatory variable after holding all other variables as constant.

Amongst, the twelve independent variables, only nine variables are found statistically significant.

Sex:

The result shows that there is positive and statistically significant between sex and financial inclusion. The result indicate that sex is an important factor affecting financial inclusion among the respondents and financial inclusion are a good predictor for men and woman to access financial service equally. Male headed family, compared to female headed, increases probability to become financial included by 30.2 %, keeping all other factors constant. The result is supported by prior study. Demirguc-kunt et al.,(2014).

Marital Status

The result shows that there is a positive and statistically significant between marital status and financial inclusion. This implies that the number of married people compared to single increase the probability to become financial included by 37%, keeping all other factor constant. Which indicate that people after married they have some responsibility to care family but during single they have no more responsibility to manage the family. This is supported by other study that has indicated marital status to have an influence on decision making. Johnson and Arnold (2012) noted being single in Kenya can have strong influence on exclusion from financial service.

Religion

The result indicates that there is positive and statistically significant between religion and financial inclusion. It implies that as the number of Muslim religion compared to Christian religion, increases the probability to become financial included by 33.3%, keeping all other factors constant. This indicate that religion have some influence on the financial inclusion.

Level of education

The study indicates that there is a positive and statistically significant between the level of education and financial inclusion. It implies that as number of educated people increase the probability that rural people are included in the financial service increased by 32.4%, keeping all other factors constant. The result shows educated people have more chance to get financial access than illiterate people and this result is supported by prior studies. Educated people are able

to comprehend the various financial products on the market and make informed decisions hence improving on the access to these. Pena. (2014) argue that education is the way of measuring knowledge, skillsets and capacity to make decision in formal financial market hence positive financial inclusion and education. Kempson et al., cole et al.,; Ellis et al., (2010, 2013, 2019)

Distance From branch of financial institution

The study also established that there is a negative and statistically significant with distance and financial inclusion. distance to the nearest financial institution revealed that as respondent become one hour for distance from nearest financial institution the probability that people are included in the financial service were decreased by 69.4%, keeping all other factors constant. This indicates that the greater the distance away from center that provides financial products less the people financially included. This result is supported by prior study. Distance reduces the chance of people access to financial products. Financial product should be easy accessible to the people enable them to be able to drive any utility from them. This implies that access to financial product is a function of distance between the financial product service provider and the end user of financial product. Sanderson, & Mekunit, (2018, 2019)

Service Quality

The study shows that there is a positive and statistically significant with service quality and financial inclusion. This implies that as a number of service quality increased by one unit the probability that people are included in the financial service are increased by 84.4%, keeping all other factors constant. This implies that agent's improvement in quality of service will lead to reduce more unbanked population opening and making transaction through agent outlets. And the result is supported by Joseph Kimutai (2015).

Level of income

Level of income has a positive and statistically significant with financial inclusion. This implies that as a people income increase by one unit the probability that people included in the financial service increased by 27.4%, keeping all other factor constant. This implies that as people income increase financial inclusion also increase. The result is supported by the prior studies, and it

indicates majority of the rural people earn income from different service used through bank account. Abel et al., 2018 Mekuanint Abera et al., (2019).

Residence ID card

The study shows that there is a negative and statistically significant between financial inclusion and residence ID card. This indicate that as people have not residence id card increase by one unit the probability that people financial included decreased by 71.8%, keeping all other factor constant. . This means that bank require a document from clients during providing financial product to them. This is then precludes those who don't have this documents to be involuntarily excluded from enjoying financial product. This finding was supported by prior study Sanderson Abel (2018).

Trust

Degree of trust has a positive and statistically significant with the financial inclusion. This shows that as the level of people trust in financial service provided by the financial institution increase by one unit the probability that people included in the financial service increased by 100%, keeping all others factors constant. This means that as people increase their trust in the financial service in the economy there increase also their uptake of the same service, Shankar, (2013). The global findex (2012) also reported that lack of trust in the banking system has caused disparities in financial inclusion. Lack of customer trust in financial system could be result of improper supervisory mechanism.

Table 24: Decision of Hypotheses Test result

<u>Hypothesis</u>	<u>Sign</u>	<u>Decision</u>
H1: sex of respondent is statically significant and positively related to effect on financial inclusion	+vely	Supported
H2: Age of respondent is a positive and insignificant effect on financial inclusion	+vely	NotSupported
H3: marital status is a positive and significant effect on financial inclusion	+vely	Supported
H4: religion is a positive and significant effect on financial inclusion	+vely	Supported
H5: level of education is positive and a significant effect on Financial inclusion	+vely	Supported
H6: place of residence is a positive and a significant effect on financial inclusion	+vely	Supported
H7: financial literacy is statically significant and positively related to effect on financial inclusion.	+vely	Supported
H8: distance is a negative and a significant effect on financial inclusion	-vely	Supported
H9: service quality is a negative and significant effect on financial inclusion	-vely	Not supported
H10: level of income is a negative and significant effect financial inclusion	-vely	not Supported
H11: id card is statically significant and positively related to effect on financial inclusion.	+vely	not Supported
H12: trust is a negative and significant effect on financial inclusion	-vely	not Supported

CHAPTER FIVE

5. CONCLUSION AND RECOMMEDATIONS

This study is concerned with an examination of factors that could affect rural financial inclusion on employees and customer of Oromia Credit and saving association in Sekka Chokorsa and Manna worda Districts. These factors include Sex, Age, Marital status, Religion, Customer place of residence, Level of education, Financial education and literacy, Distance from branch of financial institution, service quality, level of income, residence id card, trust in financial service and the findings are discussed in the above section.

5.1 Conclusions

Financial inclusion is an important aspect of development. Access to finance enhances the ability of people to engage in economic activities that lead to development.

The main purpose of this study was to examine the Factors that affect rural financial inclusion. In line with objective the study has established that financial inclusion has driven by sex, age, level of education, marital status, and religion, place of residence, financial education and literacy, service quality, distance, level of income, residence ID card and trust in financial service. Of this result shows sex, marital status, religion, level of education, service quality, level of income and trust in financial service are positively related to the financial inclusion. By collecting questionnaire data and interview, then the study continued statistical analysis by applying binary logit regression analysis with SPSS 20 version and STATA 13 and additional made a discussion on the results of data analysis.

The study establishes that sex of the respondent is statistically significant and positive to factors affect financial included in Seka Chokorsa and Manna Districts. This clearly indicate that sex of the respondent have an influence on the financial inclusion and the Oromia credit and saving association and government have aware and highly encourage female to use financial service which lead to increase the probability of female in financial inclusion in the study area.

The result shows that marital status is positive and statistically significant to factors that affect rural financial inclusion in the study area. This implies that married person have been found to

have higher chance of being included in the financial service than the single person. Single person are less reliable and stable than the married one and married person have huge responsibility to manage the family which pushes to use saving and financial access than a single person and if the advantage of financial inclusion is clear for all people the probability of included in the financial service will become high.

The result also indicates that Religion is statistically significant and positive to the factors that influence rural financial inclusion in the Seka Chokorsa and Manna Districts found in Jimma zone. This result shows that religion is the special factor that influences the financial inclusion. Which mean specially majority of the population in the study area are Muslim religion followers which lead to make majority of people out of financial service because of religion matter especially in loan case and if it's advisable the use of financial service is in different way which may not limit the people, and the probability of financial inclusion become increase and useful for organization for increasing number of customer and benefit.

The studies reveal that level of education is statistically significant and positive to the factors that affect the financial inclusion of rural people. This indicates the level of education is an important factor in decision to include in financial service and if the level of educated people high it insures the better probability of included in the financial service.

The study shows that distance from branch of financial institutions is statistically significant and negative relation to the factors that affect rural financial inclusion. This implies that the longer distance to the nearest financial institution reduce the chance of people being financial included. So this implies the government should have expand the branch of financial institution in rural area within their proximity, to avoid the cost of transportation which lead to increase the probability of being financial included.

The study noted that service quality is statistically significant and positive to the factors that influence financial inclusion. This implies that the improvement in quality of service were lead to reduce the unbanked population in the study area and it mean that increase in quality service by the organization lead to increase the probability of financial inclusion and keep the organization good will and attract more customer to include in financial service.

The study also shows that income level is positive relation to the factors that influence financial inclusion in the study area. This indicate that as income of the people increase the level of financial inclusion also increase and it's advisable if the government support rural people in the way of generating income which enhance the probability of more people financial included.

The study established that residence ID card is statistically significant and negative to factors that influence financial inclusion. This shows that ID card is especial factor to determine financial inclusion and having this document during using of financial service increase the probability of being included in financial service.

The result indicates that trust in financial service is statistically significant and positive to the factors that affect financial inclusion. This implies that as people trust in financial service increase lead to higher probability to being financial included.

5.2 Recommendations.

Based on the findings of the research, the study has recommended certain points what he thought to be very critical if considered and implemented by the oromia and credit saving association institutions accordingly and properly. Therefore, the following recommendations have been given.

- ✓ Since the study tried to analyze some of the factors that affect rural financial inclusion in Seka Chokorsa and manna Districts; in addition to this, the findings were not generalizable for other financial institution in Ethiopia so that it requires future researches which broaden the sample size to include other financial institution.
- ✓ Related with sex the organization should have work on female participation on financial service and highly advisable to encourage female by providing necessary facility and support them to increase number of female in financial inclusion.
- ✓ Related to income , as income is the special factors that influence financial inclusion I recommend that the organization should have to give consideration to the rural people by facilitating to them through teaching advantage of saving at formal financial institution, facilitating the way of getting loan or credit in form of IMX or individually.

- ✓ Related to the distance in reality majority of people in Ethiopia are live in rural and unbanked. So it's advisable to recommend that distance of rural people from financial institution is highly needed consideration from the organization and government so the government should have work on minimizing rural distance by facilitating availability of road and expansion of financial institution branch at their proximity and the Oromia credit and saving S.C also batter to launch branch at remote area during get licensing of new branch to reduce distance and increases financial inclusion in rural area.
- ✓ Related to service quality as availability of service is important in determination of financial inclusion the oromia credit and saving association should have to improve and providing quality service to their customers through providing different financial service which change the life of rural people and by using local language, to attract new clients and more benefited.
- ✓ Related to residence ID card as it's a document required by financial institution during providing service to the clients for formality so the organization and government should have to facilitate all important required document by informing the concerning body to insuring the loyalty of customer.

5.3 Areas for Further Study

- This study is more focused on the demand side factors so the further study should have more focused on other supply side factors and other socio economic factors.
- This study is focused on the factors that affect financial inclusion in the study area. So the further study is advisable to conduct on comparing the financial inclusion and financial literacy in the study area and in addition level of financial inclusion in the study area need further study.

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Appendix I Regression Result for factors affects financial inclusion.

Logistic regression	Number of obs	=	285
	LR chi2(12)	=	174.89
	Prob > chi2	=	0.0000
Log likelihood = -106.53648	Pseudo R2	=	0.4508

FI	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
sex	1.26776	.4113806	3.08	0.002	.4614691	2.074052
religvw	1.405456	.414586	3.39	0.001	.5928824	2.21803
marital	1.604355	.4826581	3.32	0.001	.6583629	2.550348
age	-.2262373	.1842689	-1.23	0.220	-.5873976	.134923
lvofedu	1.368986	.4193999	3.26	0.001	.5469775	2.190995
plcofresd	.1156805	.3757744	0.31	0.758	-.6208239	.8521848
finltry	-.3550662	.3796056	-0.94	0.350	-1.09908	.3889472
dist	-3.019624	1.081493	-2.79	0.005	-5.13931	-.899937
RID	-3.126781	1.104744	-2.83	0.005	-5.29204	-.9615215
inc	1.192709	.5421964	2.20	0.028	.130024	2.255395
cdt	5.280428	1.120098	4.71	0.000	3.085077	7.475779
SQ	3.673524	.7931939	4.63	0.000	2.118893	5.228155
_cons	-3.212131	1.122349	-2.86	0.004	-5.411894	-1.012368

Correlation

	sex	religw	marital	age	lvofedu	plcofr~d	finltry
sex	1.0000						
religw	0.2125	1.0000					
marital	-0.0160	0.1275	1.0000				
age	-0.0346	0.0715	0.0533	1.0000			
lvofedu	0.1491	0.2708	0.1116	-0.0080	1.0000		
plcofred	0.0367	0.2515	0.0376	0.0167	0.2755	1.0000	
finltry	-0.0131	-0.0634	0.1913	0.0859	-0.0883	-0.0795	1.0000
dist	-0.0861	-0.0261	0.6339	0.0258	-0.0185	0.0322	0.3526
RID	-0.0106	-0.0019	0.0359	0.0090	0.0526	-0.0267	-0.0511
inc	0.0016	0.1120	0.2596	0.0772	0.1499	0.0972	-0.0304
cdt	-0.1244	0.0005	0.4235	0.0136	-0.0646	0.0368	0.3572
SQ	0.0072	0.1020	0.5078	0.0615	0.0290	-0.0430	0.2695

	dist	RID	inc	cdt	SQ
dist	1.0000				
RID	-0.0849	1.0000			
inc	0.2735	0.0669	1.0000		
cdt	0.6429	0.0407	0.1680	1.0000	
SQ	0.5017	0.0263	0.1745	0.5200	1.0000

Chi2- test

sex of customer	financial inclusion		Total
	no	yes	
female	40	29	69
male	80	136	216
Total	120	165	285

Pearson chi2(1) = 9.4013 Pr = 0.002

age of customer	financial inclusion		Total
	no	yes	
less than 20 years ol	9	6	15
between 20-30 years o	22	38	60
between 31-40 years o	36	60	96
between 41-50 years o	49	56	105
above 50 years old	4	5	9
Total	120	165	285

Pearson chi2(4) = 4.4501 Pr = 0.349

religion of respondent	financial inclusion		Total
	no	yes	
christian	50	23	73
muslim	70	142	212
Total	120	165	285

Pearson chi2(1) = 28.0327 Pr = 0.000

marital status of customer	financial inclusion		Total
	no	yes	
single	74	29	103
married	46	136	182
Total	120	165	285

Pearson chi2(1) = 58.5194 Pr = 0.000

customer place of residence	financial inclusion		Total
	no	yes	
0	61	62	123
rural	59	103	162
Total	120	165	285

Pearson chi2(1) = 4.9776 Pr = 0.026

educationa l level of customer	financial inclusion		Total
	no	yes	
0	49	29	78
literate	71	136	207
Total	120	165	285

Pearson chi2(1) = 18.9049 Pr = 0.000

financial education literacy question one	financial inclusion		Total
	no	yes	
no	71	81	152
yes	49	84	133
Total	120	165	285

Pearson chi2(1) = 2.8338 Pr = 0.092

T-test

```
. ttest dist, by( FI)
```

```
Two-sample t test with equal variances
```

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
no	120	.6694444	.0311857	.341622	.6076937	.7311952
yes	165	.8707071	.017334	.2226591	.8364805	.9049336
combined	285	.7859649	.0175158	.2957013	.7514876	.8204422
diff		-.2012626	.0334651		-.2671346	-.1353906

```
diff = mean(no) - mean(yes)           t = -6.0141
Ho: diff = 0                           degrees of freedom = 283
```

```
Ha: diff < 0           Ha: diff != 0           Ha: diff > 0
Pr(T < t) = 0.0000     Pr(|T| > |t|) = 0.0000         Pr(T > t) = 1.0000
```

```
. ttest RID, by( FI)
```

```
Two-sample t test with equal variances
```

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
no	120	.5583333	.0179317	.1964318	.5228268	.5938399
yes	165	.5393939	.0128869	.1655357	.5139482	.5648396
combined	285	.5473684	.0106094	.179107	.5264854	.5682514
diff		.0189394	.0214968		-.0233745	.0612533

```
diff = mean(no) - mean(yes)           t = 0.8810
Ho: diff = 0                           degrees of freedom = 283
```

```
Ha: diff < 0           Ha: diff != 0           Ha: diff > 0
Pr(T < t) = 0.8105     Pr(|T| > |t|) = 0.3790         Pr(T > t) = 0.1895
```

```
. ttest inc,by( FI)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
no	120	.5416667	.0293387	.3213897	.4835731	.5997603
yes	165	.7090909	.0250914	.3223046	.6595471	.7586347
combined	285	.6385965	.0196571	.3318505	.5999043	.6772886
diff		-.1674242	.0386223		-.2434477	-.0914008

```
diff = mean(no) - mean(yes)          t = -4.3349
Ho: diff = 0                          degrees of freedom = 283
```

```
Ha: diff < 0          Ha: diff != 0          Ha: diff > 0
Pr(T < t) = 0.0000    Pr(|T| > |t|) = 0.0000    Pr(T > t) = 1.0000
```

```
. ttest cdt, by( FI)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
no	120	.3041667	.0223731	.2450847	.2598657	.3484676
yes	165	.5363636	.0204186	.2622815	.4960464	.5766808
combined	285	.4385965	.0165522	.2794325	.406016	.471177
diff		-.232197	.0306165		-.292462	-.1719319

```
diff = mean(no) - mean(yes)          t = -7.5840
Ho: diff = 0                          degrees of freedom = 283
```

```
Ha: diff < 0          Ha: diff != 0          Ha: diff > 0
Pr(T < t) = 0.0000    Pr(|T| > |t|) = 0.0000    Pr(T > t) = 1.0000
```

```
. ttest SQ, by( FI)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
no	120	.2458333	.023666	.2592477	.1989723	.2926943
yes	165	.5666667	.022142	.2844192	.5229465	.6103868
combined	285	.4315789	.0187369	.3163157	.3946981	.4684598
diff		-.3208333	.0328871		-.3855676	-.256099

```
diff = mean(no) - mean(yes)          t = -9.7556  
Ho: diff = 0                         degrees of freedom = 283
```

```
Ha: diff < 0          Ha: diff != 0          Ha: diff > 0  
Pr(T < t) = 0.0000    Pr(|T| > |t|) = 0.0000    Pr(T > t) = 1.0000
```

APPENDIX
Jimma University
Business and Economics College
Survey Questionnaire

I am post graduate student in the college of business and economics at Jimma University and I am undertaking a survey on Factors affecting rural inclusion in OCSSCO in partial fulfillment for the award of masters in accounting and finance.

Therefore, I kindly requested for your kind assistance in completing the attached questionnaires to the best of your knowledge. The information you give will be treated with strict confidentiality and is solely for academic purpose only. Your assistance and co-operation in this regard is highly appreciated.

PART A: give your opinion to each of the following question by putting tick mark “√ “ or circle the appropriate choice

		Rating point			Rating point
1	What is Your Sex	1. Male 0. Female	3	Marital status	1. Single 0. Married
2	Age category	1. Below 18 years 2. 19-24 years 3. 25-35 years 4. 35-50 years 1. Above 51 years	4	Place of residence	1. Rural 0. Urban
			5	Religion	1. Muslim 0. Christian
			6	Your education level	1. Literate 0. illiterate

PART B: fill the following based on the rating point given accordingly by putting tick mark

	Statement to be evaluated	Rating point
Financial education and literacy level		
7	Do you have any concept about financial inclusion	1. Yes 0. No
8	Type of account with financial institution do you have?
Distance from financial institutions		
9	Do you think that distance is the problem to use financial service from formal financial institution	1. Yes 0. No
10	How far is your home from formal financial institutions?

11	Is the accessibility of road discourage you to use financial service from formal financial institutions	1. Yes 0. No
Service quality		
12	Do you have got service in a single day	1. Yes 0. No
13	Do you have got service during weekend and holiday time	1. Yes 0. No
Income level		
14	Do you have any income per month	1. Yes 0. No
15	Based on above if your answer is yes what is your level of income??
16	Do you believe the level of income have an effect on financial inclusion	1.yes 0. No
Residence ID card		
17	Do you have a residence ID card	1. Yes 0. No
18	Is it possible to use financial service without residence ID card	1. Yes 0. No
Degree of trust in financial institution service		
19	Do you have trust in service provided by financial institution	1. Yes 0. No
20	Do you know and see people not use financial service from financial institution because of lack of trust in it in area of your residence.	1. Yes 0. No
Financial inclusion		
21	Did you have opening account at OCSSCO	1.Yes 0.No
22	Did you deposit cash at OCSSCO in day, week or month	1.Yes 0.No
23	Did you use cash withdrawal from your current deposit	1.yes 0.No
24	Did you ask loan request from OCSSCO	1.yes 0 .No
25	Did you loan repay to OCSSCO from your loan debt	1.yes 0.No

Thank you for your cooperation in Advance

APPENDIX III: INTERVIEW SCHEDULE FOR EMPLOYEES

Question to be asked.

1. What is the approximate number of people in this area who are unbanked or not get financial service?
2. What is the strategy of OCSSCO towards ensuring the inclusion of unbanked population in financial activity?
3. What are the methods through which your organization uses to promote financial education among branch and population?
4. Does your organization take in to consideration geographical distance and location when licensing new branch?
5. How do you address issues concerning branch maintenance quality service towards promoting financial inclusion in the area of operation?
6. What is your opinion on the contribution of OCSSCO towards promoting financial inclusion for rural people in this area?