FACTORS AFFECTING SMALL HOLDER FARMERS' ACCESS TO FORMAL CREDIT SOURCE IN ABESHEGE DISTRICT, GURAGE ZONE, ETHIOPIA

A Senior Research Project

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ABBREVIATIONS

AIDB	Agricultural and Industrial Development Bank
AISCO	Agricultural Input Supply Corporation
BoFED	Bureau of Finance and Economic Development
BoA	Bureau of Agriculture
BRD	Bureau of Rural Development
CBE	Commercial Bank of Ethiopia
CSA	Central Statistical Authority
DBE	Development Bank of Ethiopia
DTU	Development Technology Unit
FAO	Food and Agricultural Organization
FMSC	Farmers Multi-Purpose Service Cooperatives
GDP	Gross Domestic Product
LPM	Linear Probability Model
MFI	Micro Finance Institution
MLE	Maximum Likelihood Estimator
NBE	National Bank of Ethiopia
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development Cooperation
OaA	Office of Agriculture
OLS	Ordinary Least Squares
ORDA	Organization for Rehabilitation and Development in Amhara
REST	Relief Society of Tigray
ROSCA	Rotating, Saving and Credit Association
SACCO	Saving and Credit Cooperatives
SEEP	Small Enterprise Education and Promotion
SME	Small and Medium Enterprise
UNDP	United Nation Development Program
UNFP	United Nation Population Fund

VIF	Variance Inflation Factor

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ABSTRACT

In Ethiopia, among other things, lack of finance is one of the fundamental problems hampering production, productivity and income of rural farm households. Since access to institutional finance is very limited, the majority of the poor are forced to search financial services through informal channels. The study was sought to ascertain factors that affect smallholder farmer's access to formal credit and also the status of women and different wealth groups' access to formal and informal credit sources in the study area. A two stage sampling method was employed to select three out of eighteen rural peasant associations and 130 farm households. Structured interview schedule was developed, pre-tested and used for collecting quantitative data for the study from the sampled farm households. Focus group discussion, group interview and field observations were held to generate qualitative data. Descriptive statistics and logit model were used for analyzing quantitative data. Farmers acknowledge group lending that solves the problem of collateral requirement by lending institutions, controls misuse of borrowed funds and minimizes the risk of default and they also recognize the provision of saving services by MFI, while strongly criticizing the isolation of very poor farmers from the group formation. Moreover, the smaller loan size, earlier saving requirement which was not convenient to the farmers, and repayment period by the MFI were among the critical problems.

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1. INTRODUCTION

1.1 Background of the study

The Ethiopian agriculture is characterized by its very low productivity with grain yields reported for various crops varying between 5.1 and 9.6 quintals per hectare over the 1960/61-1991/92 period (Belay, 1998). According to CSA (2004), the level and distribution of poverty in Ethiopia is extensive. The 1995/96 and the 1999/2000 Household Income, Consumption and Expenditure Survey and Welfare Monitoring Survey of the Central Statistical Authority (CSA) show that about 44 percent of the total population (45 percent in rural areas and 37 percent in urban areas) are living below poverty line.

The causes of poverty in Ethiopia are in one way or another related to inappropriate social and economic policies, mismanagement of natural resources, lack of developed physical and human capital, and lack of well-organized and sustainable institutions. Among these, lack of well-organized and sustainable institutions was recognized to be the main bottleneck that militates against any attempt of eradicating poverty. In the past several years a lot of efforts have been made to reduce poverty. However, these efforts could not come up with a remarkable outcome at grass root level.

Thus formulating policies on human development (educating the society), building sustainable institutions and fostering financial accessibility are crucial for the self-driving and sustainable eradication of poverty (Agrawal, 1994). Generally, the accessibility of a good financial service is considered as one of the engines of economic development. The establishment and expansion of financial service is also one of the instruments to break the vicious circle of poverty. Governments of less developed countries have frequently practiced the policy of providing cheap credit to the agricultural sector through financial intermediaries. This cheap credit, it was hoped, would lower the dependence on the rural money lenders (Pinaki, 1998).

The provision of credit has increasingly been regarded as an important tool for raising the incomes of rural populations, mainly by mobilizing resources for more productive uses. As

development takes place, one question that arises is the extent to which credit can be offered to the rural poor to facilitate their taking advantage of the developing entrepreneurial activities. However, at low levels of income, the accumulation of such capital may be difficult. Under such circumstances, loans, by increasing family income, can help the poor to accumulate their own capital and invest in employment-generating activities (Hossain, 1988).

Formal and informal credit are imperfect substitutes. In particular, formal credit, whenever available, reduces, but not completely eliminates, informal borrowing. This suggests that the two forms of credit fulfill different functions in the household's inter-temporal transfer of resources. Commercial banks and other formal institutions fail to cater to the credit needs of smallholders, however, mainly due to their lending terms and conditions. It is generally the rules and regulations of the formal financial institutions that have created the myth that the poor are not bankable, and since they can't afford the required collateral, they are considered 2 uncredit worthy (Adera, 1995). Despite efforts to overcome the widespread lack of financial services, especially among smallholders in developing countries, and the expansion of credit in the rural areas of these countries, the majority still have only limited access to bank services to support their private initiatives (Braverman and Guasch, 1986).

In Ethiopia, several microfinance institutions (MFIs) have been established and have been operating towards resolving the credit access problem of the poor particularly those who engage in petty business (Befekadu, 2007). Financing of agricultural inputs and labor wages requires liquid cash that often is not readily available with the smallholder farmers. Therefore, it is essential to expand the status of rural credit at large to improve agricultural productivity.

1.2. Statement of the Problem

Credit provision is one of the principal components of rural development, which helps to attain rapid and sustainable growth of agriculture. Rural credit is a temporary substitute for personal savings, which catalyzes the process of agricultural production and productivity. To boost agricultural production and productivity farmers have to use improved agricultural technologies. However, the adoption of modern technologies is relatively expensive and small farmers cannot afford to self-finance. As a result, the utilization of agricultural technologies is

very low. It is argued that enhanced provision of rural credit would accelerate agricultural production and productivity (Briquette, 1999).

Schmidt and Kropp (1987), stated that access to financial services by smallholders is normally seen as one of the constraints limiting their benefits from credit facilities. However, in most cases the access problem, especially among formal financial institutions, is one created by the institutions mainly through their lending policies. This is manifested in the form of prescribed minimum loan amounts, complicated application procedures and restrictions on credit for specific purposes.

They further argue that the type of financial institution and its policy would often determine the access. Where credit duration, terms of payment, required security and the provision of supplementary services do not fit the needs of the target group, potential borrowers would not apply for credit even where it exists and when they do, they would be denied access. In addition, formal credit schemes do not typically take gender into account in practice; they tend to be biased towards men. It is the male headed household which is usually approached and registered for the provision of institutional credit (Ellis, 1992).

In Ethiopia there is a wide gap between owned and required capital to finance the agricultural activities of small holder farmers since the income from subsistence agriculture does not yield much surplus beyond family consumption and other social obligations. The lack of access to capital in rural areas is one of the major factors which hinders the development of agriculture (Tefera, 2004). According to the Micro-start Project document of UNDP (1999), the economically active poor in Ethiopia who can potentially access financial services were about 6 million. Out of this, about 8.3% of the active poor had gained access to the licensed microfinance institutions. To narrow the gap between owned and required capita rural farm households have been accessing credit from formal and informal financial institutions. Due to the fact that the formal sector is not in a position to satisfy the credit requirements of the farmers during the periods, they depend on the informal sector for their credit needs. Most informal lenders provide cash advance before the crop is harvested, farmers are then obliged to repay the loan in cash or in kind based on previous commitment made with the lender.

Formal credit institutions failed to reach the poor, particularly women and the very poor households due to different factors in the study area. On account of this the study was undertake, to fill the information gap on the factors affecting smallholder farmers' access to formal credit in Abeshge.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of the study was to analyze factors that affect small holder farmer's access of formal credit source.

1.3.2. Specific Objective

Specific objectives of the study are:

1. To assess smallholder farmers' perception of the strengths and weaknesses of formal financial institutions in the study area
2. To identify factors affecting the smallholder farmer's access to formal credit

1.4. Basic Research Questions

This study was intended to deal with the following research questions;

1. What is the view of clients regarding service delivery of formal financial institutions in the study area?
2. What are the determinant factors that are affecting access to formal credit by smallholder farmers?

1.5. Scope and Limitation of the Study

The study aims at identifying determinant factors that affect smallholder farmer's access to formal credit and the perceptions of clients regarding service delivery of formal financial institution. The scope of the study will be limited to Abeshege woreda, Gurage zone. This is mainly because of limited availability of resources and time to undertake the study on a wider scale.

1.6 Significance of the Study

The lack of capital and the absence of attractive investment opportunities are considered to be important reasons behind inadequate economic development in many developing countries. This is why an attempt is made in most developing countries to encourage, through development policy measures, capital formation as well as the supply of financial means in the form of credit through official financial institutions.

Because of the lack of access to credit in the formal sector, productive assets of the poor are depleted; assets used as collateral are transferred from the poor to wealthier informal lenders, and households may become impoverished. Therefore, the findings of the research would be of great policy use. The study of factors that affect smallholder farmer's access to formal credit and assessing the credit users perception on the formal credit institution in the study area is important in providing information that was enable to take effective measures by lending and policy makers to improve access to credit.

Therefore, the outcome of the study would be useful to identify innovative options and institutional arrangements that would serve as an input for policy makers in formulating rural credit policy, and also the government takes the policy as an input for financial administration.

2. LITERATURE REVIEW

2.2.1 Definitions and concepts

According to the free on line dictionary, Encyclopedia (undated), credit means Faith and it comes from the Latin creditor. An agreement, by which something of value-goods, services, or money-is given in exchange for a promise to pay at a later date. Credit is a transaction between two parties in which one, acting as creditor or lender, supplies the other, the debtor or borrower, with money, goods, services, or securities in return for the promise of future payment. As a financial transaction, credit is the purchase of the present use of money with the promise to pay in the future according to a pre-arranged schedule and at a specified cost defined by the interest rate.

It was also defined by Ellis (1992) that credit is a sum of money in favor of the person to whom control over it is transferred, and who undertakes to pay it back. Moreover, Beckman and Forster (1969), defined credit as the power or ability to obtain goods or services in exchange for a promise to pay later. Similarly, it is a power or ability to obtain money by the borrowing process, in return for a promise to repay the obligation in the future. Financial institutions are private or governmental organizations, which serve the purpose of accumulating funds from savers and channeling them to individual households, and business looking for credit.

Financial institutions are composed of deposit-type institutions (bank and non-bank contractual saving institutions), personal and business financial companies, government and quasi-government agencies, and miscellaneous lenders (Greenwald &Assocates, 1983). Aryeetey et al., (1997), define informal finance as referring to all transactions, loans and deposits occurring outside the regulation of a central monetary authority. In Africa it has been defined as the operations of savings and credit associations, rotating savings and credit associations (ROSCAs), professional moneylenders, and part-time moneylenders like traders, grain millers, smallholder farmers, employers, relative and friends, as well as cooperative societies. The concept of perception, according to Lindsay & Norman (1977), is which better describes one's ultimate experience of the world and typically involves further processing of sensory input. As stated by Rao et al., (1998), the interpretation of information is called

perception. These perceptions play an important role in decision making of people in general and farmers are no exception. Perceptions are relative rather than absolute and they are influenced by the surroundings to a great extent. Due to past experiences, different people can interpret the same object differently, and this in turn affects their behavior. Perceptions can even differ among the family members on various aspects of farming, credit needs and the like. For example, men and women may differ on issues like an increased herd size which adds to the workload of women, while it may increase the cash flow for the man (Rao et al., 1998).

2.1 Credit in Rural Development

At a certain stage in agricultural development, agricultural credit clearly does become a strong force for further improvement –when a man with energy and initiative who lacks only the resources for more and more efficient production is enabled by the use of credit to eliminate the one block on his path to improvement. Financial credit is the most flexible form of transferring economic resources to the poor. One can buy anything that is for sale with cash obtained through credit (Padmanabhan, 1996). According to the free on line dictionary (undated), credit transactions have been indispensable to the economic development of the modern world. Credit puts to use property that would otherwise lie idle, thus enabling a country to more fully employ its resources. The presence of credit institutions rests on the readiness of people to trust one another and of courts to enforce business contracts.

The principal function of credit is to transfer property from those who own it to those who wish to use it, as in the granting of loans by banks to individuals who plan to initiate or expand a business venture. The transfer is temporary and is made for a price, known as interest, which varies with the risk involved and with the demand for, and supply of, credit. According to Kebede (1995), credit makes traditional agriculture more productive through the purchase of farm equipment and other agricultural inputs, the introduction of modern irrigation system and other technological developments. Credit can also be used as an instrument for market stability. Rural farmers can build their bargaining power by establishing storage facilities and providing transport system acquired through credit. Credit plays a key

role in covering consumption deficits of farm households. This would, in turn, enable the farm family to work efficiently in agricultural activities. Credit can further be used as an income transfer mechanism to remove the inequalities in income distribution among the small, middle, and big farmers. Moreover, credit encourages savings and savings held with rural financial institutions that could be channeled to farmers for use in agricultural production. Credit also creates employment opportunities for rural farmers.

2.2.2 Types of rural credit

There is typically a dual rural credit market in developing countries, formal and informal credit. In the formal credit markets institutions provide intermediation between depositors and lenders charge relatively low rates of interest that usually are government subsidized. In informal credit markets money is lent by private individuals, professional moneylenders, traders, commission agents, land lords, friends and relatives (Mohieldin S. and Write W. 2000). Formal and informal credits are imperfect substitutes. In particular, formal credit, whenever available, reduces, but not completely eliminates, informal borrowing. This suggests that the two forms of credit fulfill different functions in the household's inter-temporal transfer of resources. Despite the fact that credit is fungible, informal credit is used perhaps forconsumption-smoothing purposes, while formal credit is sought and used mostly for agricultural production purposes and investment in non-farm income generating activities.

The empirical evidence also suggests that the imperfect substitutability between formal and informal credit reflects to some extent the existence of due dates and conditionality on informal loan contracts (AliouDiagne, 1999). The establishment of formal credit institutions in the agricultural-based developing economies some 40 or more years ago was, among other reasons linked to the belief that local or informal lenders such as merchants, landlords and shop owners exploit small farmers by charging them exorbitant interest rates (Adams, 1984). The informal rural credit market is very heterogeneous and is always a component of the prevailing political, economic, and social relations network, involving relatively low additional transaction costs for credit supply. The informal credit market was mainly relevant

only for sectors that were not directly productive and through which the expenditure for social obligations was met (Manig, 1996).

2.3 Perspectives on Rural Finance

Traditional and new views of rural finance in the 1950s and early 1960s, credit provision was considered a key instrument for breaking the 'vicious circle' of low incomes, low savings, and low productivity. However, in that period emphasis was far more on market oriented farmers and commercial agriculture than on peasants. From the mid-1960s, and up to the present time, small farmers and the rural poor have increasingly become the chief target of credit interventions. In addition, since the early1970s a strong equity dimension emerged in the aims of credit schemes and small farm projects. The traditional approach to credit policy is for funds for lending to farmers to be predominantly supply-led. This means that they originate from the central bank or from external donors, rather than from local saving in the rural economy (Ellis, 1992).

According to Assefa (2004), the new rural financial market approach assigned a different role to the government with less direct intervention of the government in credit allocation and credit delivery. Ellis (1992), stated that Past credit policies have tended to make wrong assumptions about peasants, viz. that they are unable to save, and that their demand for credit is highly sensitive to the level of the interest rate. There were new views of credit objectives, instruments (interest rate, credit targeting, and loan portfolio regulation and others) and institutions that arise from the defects of the old.

A traditional view that smallholder farmers and poor rural people are unable to save has been shown to be wrong in several experiments. The main features of the rural poor in this context are: their income is uneven; their potential to save involves very small amounts, they cannot afford 'costs' associated with saving, and they are naturally concerned with the security of saving. For peasants who are not so-poor, lack of saving is much more to do with lack of opportunity, or distrust of the alternatives available, than to do with low savings capacity. Households keep their assets in goats or cattle rather than in the bank, especially when the bank discourages savings, or appears to be run by untrustworthy officials. On the other hand,

the traditional view that market interest rates discourage farmers from making use of credit is wrong in most cases. It rests on the mistaken assumption that credit demand by farmers is highly elastic with respect to the price of credit, whereas for small farmers requiring short-term loans to overcome cash flow problems, demand is in reality inelastic.

The successful reorientation of credit policy in the future requires an imaginative and experimental approach to institutional innovation. Rural credit provision needs to be located in a context of diverse institutions providing lots of different services, not a single bureaucracy providing just one kind of service. The few case studies of successful credit institutions show that devices like regular small savings collected on the doorstep group lending and group accountability for loan repayment, and improved incentives and performance methods within financial institutions, provide potential ways forward (Ellis, 1992).

2.4 Rural Financial System in Ethiopia

Rural finance in Ethiopia, as in other developing countries, has dualistic features. There exist both formal and informal credit institutions in the country.

2.4.1 Formal financial institutions in Ethiopia

The formal sources are financial institutions that are set up legally and engaged in the provision of credit and mobilization of savings. These institutions are regulated and controlled by the National Bank of Ethiopia (NBE). In the Ethiopian context formal financial sector includes (NBE), commercial banks (owned by private and public), Development Bank of Ethiopia (DBE), credit and savings cooperative, insurance companies (both public and private) and microfinance institutions (owned by regional governments, NGOs, associations and individuals), (NBE, 2003). During fiscal year 2002/03, the numbers of banks operating were nine, of which three were government owned. The number of insurance companies was also nine, of which one was state owned (annual report of NBE, 2004). According to the report, foreign entry in to the financial sector is not allowed until domestic banks attain a

certain degree of desired competitiveness and the National Bank's supervisory and regulatory capacity is adequately strengthened.

The numbers of bank branches reached 339, of which 172 or about 51 percent belong to the Commercial Bank of Ethiopia. Despite modest branch expansion, Ethiopia remains as one of the under-banked countries even at sub-Saharan African countries standard. The bank branch to population ratio was 1:20,400 during 2002/03. Similarly, total capital of the banking system reached Birr 2.7 billion, of which about 75 percent was hold by government owned banks. Commercial Bank of Ethiopia accounted for more than 47 percent of total capital of the banking system (excluding NBE). Total branches of insurance companies reached 106 at the end of the fiscal year (2002/03). Yet geographical distribution of bank and insurance branches was highly skewed to major towns and cities. Nearly 42 percent of insurance and 31 percent of bank branches were located in Addis Ababa (NBE, 2004).

Microfinance institutions in Ethiopia According to a report from NORAD (2003), Microfinance can be defined as provision of a broad range of client-responsive financial services to poor people through a wide variety of institutions. Microcredit activities in rural and urban Ethiopia were initiated by local and international NGOs (Wolday, 2004). According to Pischke et.al, (1996), there were 30 NGOs in Ethiopia who were delivering microcredit services but concentrated in urban areas. Although the NGOs had contributed to testing innovative methodologies and products, they had the problem of combining the humanitarian objectives of the NGOs with the financial objectives of the microcredit program.

In Ethiopia integration of the credit schemes initiated by local NGOs like the Relief Society of Tigray (REST) and Organization for Rehabilitation and Development in Amhara (ORDA) into the formal financial system contributed to the formulation of a regulatory and supervision framework for efficient delivery of services to the urban and rural poor and the issuance of a new proclamation for Licensing and Supervision of Micro-Financing Institutions in 1996 (Proclamation No.40/1996) (Wolday, 2004).

2.4.2 Informal credit institutions in Ethiopia

The inability of the formal financial sector to provide adequate financial services to small farmers and the poor in general continued even after the reform (Assefa 2004). A study by the National Bank of Ethiopia (1996) concluded that "CBE and DBE have only catered for insignificant demand for credit of small farmers. The bulk of financial services provided to small and micro-enterprises in rural and urban areas, therefore, mostly originated from the informal sector such as Iqqub, moneylenders and friends" (NBE, 1996) On the other hand, as Dejene (2003) stated the non-formal sources in Ethiopia include relatives and friends, moneylenders, neighbors, Iddir, Iqqub and Mahaber.

The major sources of loans include friends and relatives (66 percent), moneylenders (14 percent), and Iddir (7 percent). In other words, the bulk of the rural credit comes from informal sources. Every year, the informal sector mobilizes resources equivalent to about 10 percent of deposits mobilized by all banks in Ethiopia. Rural Iddirs mobilized through informal loans alone an amount 3.5 times the total capital of all micro finance institutions in Ethiopia.

2.5 Access to Rural Financial Service by Poor Rural Households

2.5.1 Smallholder farmers access to formal credit

Penchansky R. and Thomas W. J., (1981), stated that "to some authors "access" refers to entry into or use of the health care system, while to others it characterizes factors influencing entry or use." Moreover, according to the free on line dictionary (undated), access can be defined as, the right to obtain or make use of or take advantage of something (as services or membership). Diagne et al., (2000) stated that a household is said to have access to a type of credit if at least one of its members has a strictly positive credit limit for that type of credit. Similarly, a household is classified as credit constrained for a type of credit if at least one of its members is constrained for that type of credit.

Access to financial services by smallholders is normally seen as one of the constraints limiting their benefits from credit facilities. However, in most cases the access problem, especially among formal financial institutions, is one created by the institutions mainly through their lending policies. This is manifested in the form of prescribed minimum loan amounts, complicated application procedures and restrictions on credit for specific purposes (Schmidt and Kropp, 1987). For small-scale enterprises, reliable access to short-term and small amounts of credit is more valuable, and emphasizing it may be more appropriate in credit programmers aimed at such enterprises.

Women are frequently discriminated against in formal credit markets in developing countries (Buvinic, Sebstad and Zeidenstein, 1979). The belief in discrimination against women in formal credit markets, often based upon the limited number of women borrowers in the market, is perceived as an outcome of lenders' rejection of women's applications for loan contracts. Over a decade ago, Buvinic, Sebstad and Zeidenstein, emphasized that there are: "two major factors which restrict women's access to formal credit more than men's. These are related to women's lack of control over economic resources and the nature of their economic activity". A decade later, researchers are still trying to clarify the reasons that limit women's access to formal credit. In her assessment of credit as the missing piece in micro enterprise development, McKee (1989), emphasized the gender-based credit constraints, such as limited education, inferior legal status and unpaid reproductive responsibilities exacerbated the problems women face when operating small businesses. In another attempt to evaluate women's access to credit, Lycette and White (1989), noted that there is little direct evidence of women's limited access to credit.

The authors argued that it is difficult to carefully analyze the problem because many formal financial institutions do not keep records of financial transactions by gender since women are such a small proportion of their clients. Nonetheless, based on a few case studies, the authors reported that women small business owners, in both urban and rural areas, face problems with regard to credit that men do not experience. The perception that formal financial institutions discriminate against women does not only focus on developing countries in Africa, Asia and Latin America. This view is also pervasive in developed countries.

A large literature treats the issue of bank discrimination against female business owners in Western countries, but the measurement of discrimination is largely based on subjective perceptions and lacks statistical support (Stevenson, 1986). In Ethiopia, the poor have been highly deprived of financial services. The Commercial Bank of Ethiopia (CBE), Development Bank of Ethiopia (DBE) and other six private banks have a total of 371 branches and the ratio of population to bank branch is 203834:1. This shows that the bank branches do not cover a number of districts. But even in localities where bank branches exist, the majority of the population has no access to financial services, due to high collateral requirements (NBE 2002/03). As stated by Wolday (2002), not only the rural poor are excluded from the formal financial system, also small and medium enterprises (SME) lack access to financial services, due to the fact that formal banks are either unwilling or unable to serve SME. These banks face high risk and transaction costs, difficulties in enforcing contracts, and penalization by the central bank (NBE) for lending to enterprises that lack traditional collateral. They also lack reliable information on borrowers, appropriate information systems and instruments for managing risk.

2.5.2 Empirical studies on determinants of access to credit

Geoffrey (2014) analyzed determinants of market participation among small-scale pineapple farmers in Bureti district, Kenya.Heckman two-stage selection model and Multinomial logit model were applied for the study. Four factors were found to be significant in influencing the pineapple marketparticipation. Age, gender, education level and pineapple yield positively influences thedecision to participate in pineapple market. Age was negatively significant meaning thatmore of younger people participated in pineapple marketing. Six factors were found to be significant in influencing the extent of market participation. Gender, group marketing, price information, marketing experience, vehicle ownership and contract marketing had a positive influence on the proportion of pineapple sales.

A number of factors explain why certain borrowers prefer to use credit. Factors related to the participation of credit users in the credits market were therefore investigated. Such factors can be divided into borrower’s characteristics, and the loan terms and conditions imposed by

lenders (Kashuliza and Kydd, 1996; Zeller, 1994). Schmidt and Kropp (1987) revealed that the type of financial institution and its policy will often determine the access. Where credit duration, terms of payment, required security and the provisions of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit even where it exists and when they do, they will be denied access. In addition, Bigsten et al. (2003), and fliesig (1995), stated that in developing countries asymmetric information, high risks, lack of collateral, lender-borrower distance, small and frequent credit transactions of rural households make real costs of borrowing vary among different sources of credit. A study by Atieno (2001), indicates that income level, distance to credit sources, past credit participation and assets owned were significant variables that explain the participation informal credit markets.

Hussien (2007), also indicated that Farm households are more likely to prefer the informal sector to the formal sector with respect to flexibility in rescheduling loan repayments in times of unexpected income shocks. This was also supported by Padmanabhan (1996), comparing the informal credit sector from the formal stated that proximity, comfortable atmosphere, quick credit, all times access, freedom of deployment, repayment flexibility and lower transaction costs are the advantages of the informal sector have made them almost indispensable, particularly to small farmers. According to Hossain (1988), the Grameen Bank experience shows that most of the conditions imposed by formal credit institutions like collateral requirements should not actually stand in the way of smallholders and the poor in obtaining credit.

The poor can use the loans and repay if effective procedures for disbursement, supervision and repayment have been established. On the other hand, Getaneh (2005a), stated that group lending approach effectively ration out some groups of farm households (The poorest of the poor). That is co borrowers tend to self-select themselves into a group of homogenous members that effectively discriminates against some others to reduce risk of carrying the burden of repayment in case of defaults of co-borrowers. Access to formal credit can also be affected by household characteristics. As stated by Hussien (2007), the probability of choosing the formal credit sector was positively affected by gender, educational level, household labor and farm size. He further explained that education, credit information and

extension visit are more likely to increase the information base and decision making abilities of the farm households including the ability to compare pros and cons of choosing appropriate credit and production technology. In another study, based on the data from a sample survey of 699 randomly selected peasant farmers in Bolivia, Miller and Ladman (1983), applied determinant analysis to identify a set of socio-economic, physical and psychological factors that influence credit use among small farmers with a view to differentiate between borrowers, potential borrowers, and no borrowers. The results of the study indicated that borrowers were characterized by higher resource base, farm size, higher level of education, large number of cattle, higher household incomes, higher level of market integration, greater use of improved technology, larger operating costs and investments, higher risk ability, etc. Potential borrowers were characterized by further distance from markets, low level of market integration, higher transaction costs, less number of cattle, etc. Furthermore, non-potential borrowers were characterized by lack of interest to expand production, lower level of education, limited use of improved technology, shortage of labor and proximity to market. Physical distance of farm households from formal lending institutions is one of the factors that influence access to formal credit.

According to Hussien (2007), farm households are discouraged to borrow from credit sector if it is located farther. This is because both temporal and monetary costs of transaction, especially transportation cost, increase with lender borrower distance which raises the effective cost of borrowing at otherwise relatively lower interest rate in the sector. A study in Egypt by Mohieldin and Write (2000), employing a probit model analysis of the formal credit sector shows the impact of the explanatory variables on the outcome of whether a person has a loan. Both the requirements of the individual (demand side) and of the lending institution (supply side) determined whether a loan is extant. The results of the study indicated that educational level, ownership of land, total assets, and sizes of the household were significant factors.

Assefa (1989), empirically tested a set of socio-economic and other important factors influencing agricultural credit use among small farmers aimed at differentiating borrowers from non-borrowers. Using discriminant analysis, Assefa found that large farm size, high

investment, adoption of improved technology were significant variables in distinguishing borrowers from non-borrowers. Hussien (2007), in his study also found out that the use of extension package, in effect, requires adequate labor supply, thus a positive effect of household labor on the choice of formal credit for the farm input. The choice of the formal sector increases with the number of productive members of the farm households. It was also indicated that the low level ofeducation of the farm households may have contributed for limited use of formal sector credit by farm households. Men tend to borrow more from the formal and semiformal sources than women do. That is being a female reduces the likelihood of borrowing from the formal and semiformal credit sectors where it increases the probability of borrowing from the informal credit sources. Hence, based on the above explanations and the author's knowledge of the credit schemes of the study area the following conceptual framework depicted the most important variables expected to influence smallholder farmers' access to formal credit in the study area.

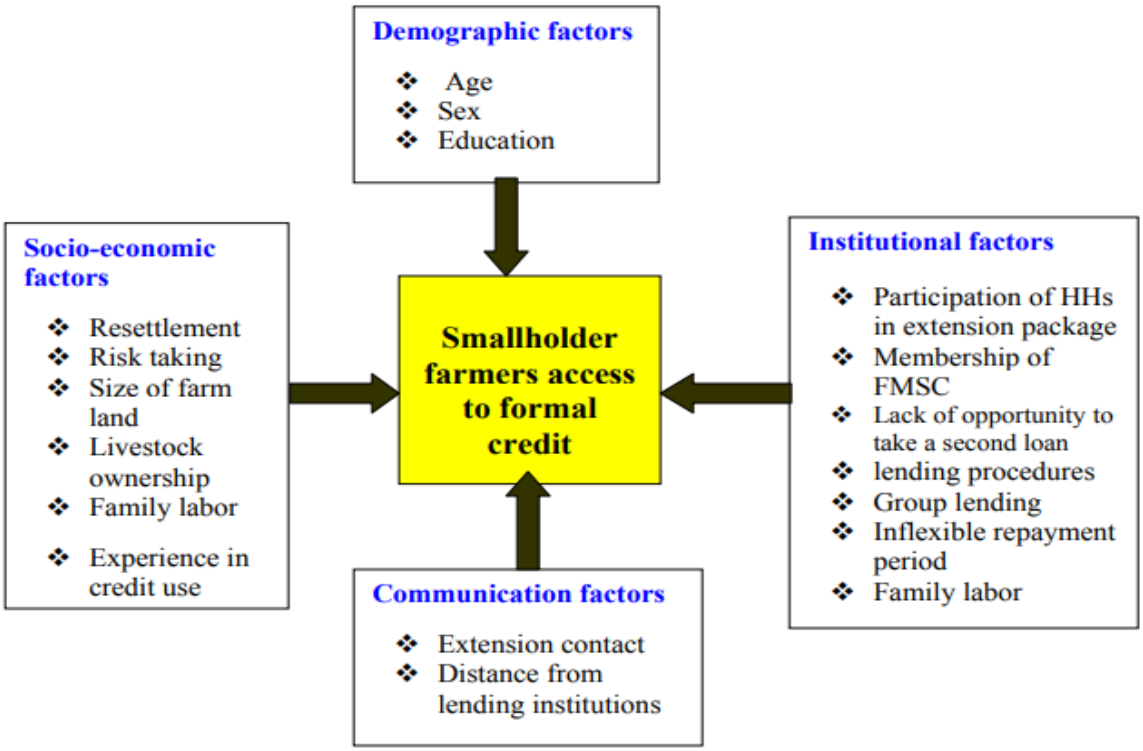

Figure 1.conceptual frame work of access of formal credit source

Source: Sisay, 2008

3. RESEARCH METHODOLOGY

3.1 Description of the Area

Abeshge is one of the 13 Districts of Gurage Zone of SNNPRS, Ethiopia. It is located about 158 km southwest of Addis Ababa and 258.5 km northeast of Hawassa town, the capital of SNNPRS. Wolktie town is the administrative set of the District. The district is bordered on the south by the River which separates it from Cheha District, on the west and north by the Region and on the east by Kebena District. The District is composed of 26 rural kebeles and 3 urban kebeles (ABA, 2019). The District had total population about 61,424, of which 32,450(52.8%) are men and 28,974(47.2%) women (CSA, 2007).

The District has two Agro ecologies which are Woina-dega (10%) and kola (90%) agro climatic zones. It receives annual rainfall of 801-1400 mm, which is bimodal and erratic in distribution. The economy of the District is dominated by crop farming mixed with livestock husbandry. The major formal credit institutions in the district are CBE and OCSI (ABA, 2019).

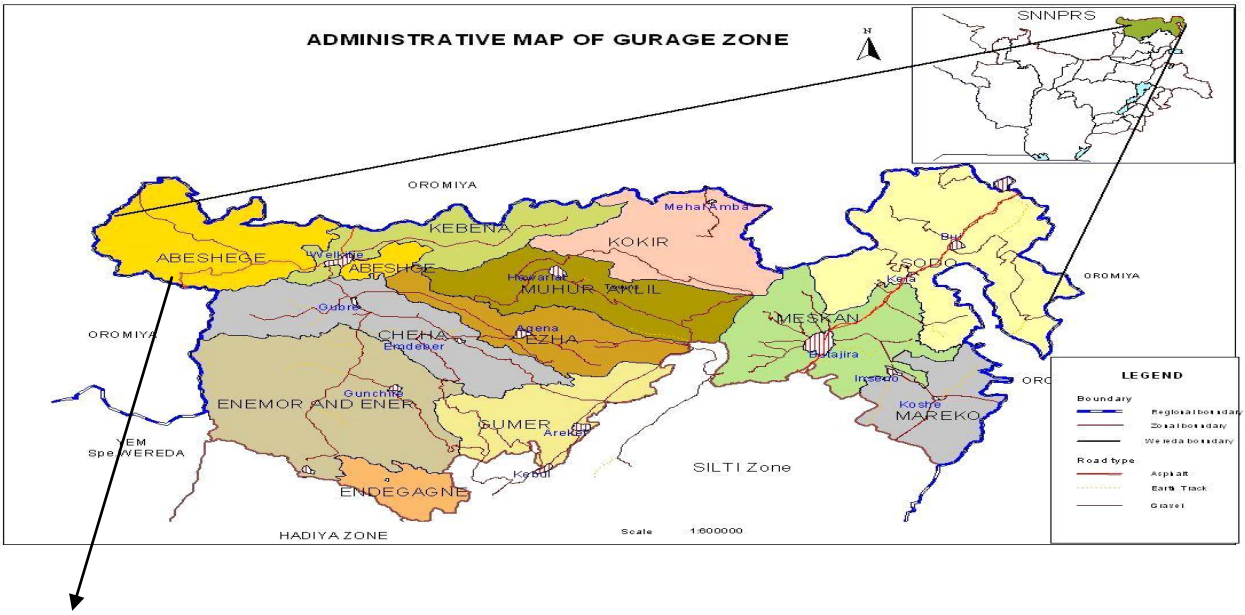

Figure 2. Map of the study area

Source: ABA, 2019

3.2 Data Types, Data Sources and Data Collection Methods

Both qualitative and quantitative data were collected from primary and secondary data sources. Qualitative data that help to assess smallholder farmer's perception of the strengths and weaknesses of formal financial institutions in the study area were collected informant interviews using checklists; semi- structured and open ended questionnaires.

The perception of farm households in the strengths and weaknesses of the formal financial institutions were assessed based on the operational modalities like, group lending, earlier saving requirement, repayment period, interest rate and loan size. Structured questionnaire were prepared to collect quantitative data for the study. Secondary sources were office of agriculture and Omo credit and saving institution (OCSI) of Abeshege sub-branch. The questionnaires were pre tested to evaluate for consistency, clarity and to avoid duplication and to estimate the time requirement during data collection.

3.3 Sample and Sampling Method

A two stage sampling method was employed. In the first stage, from 26 rural kebeles in the Woreda, three sample kebeles were selected by using simple random sampling technique. In the second stage, farmers in each kebele were stratified into two as formal credit users and non-users. This was mainly because the target populations (smallholder farmers) are more or less heterogeneous in terms of their access to formal credit. Thus, after stratification, a total of 130 smallholder farmers from both strata were selected using simple random sampling technique with proportional probability.

3.4 Methods of Data Analysis

Two types of data analysis, namely descriptive statistics and econometric analysis were used for analyzing the data.

3.5.1. Descriptive analysis

This method of data analysis refers to the use of ratios, percentages, means, standard deviations and likes in the process of examining and describing demographic characteristics and to know farmers perception, strength and weakness of formal credit source.

3.5.2. Econometric analysis

A binary logit, model which best fits the analysis for determinant factors that affects small holder farmers access to formal credit were employed.

Specification of the Logit Model

This study was intended to analyze which and how much the hypothesized repressors will relate to the small holder farmers' access to formal credit. As already noted, the dependent variable is a dummy, which takes a value of zero or one depending on whether or not small holder farmers use formal credit. However, the independent variable is both continuous and discrete. There are several methods to analyze the data involving binary outcomes. However, for this particular study, logit model was selected over discriminate and linear probability models.

The justification for using logit is its simplicity of calculation and that its probability lies between 0 and 1. Moreover, its probability approaches zero at a slower rate as the value of explanatory variable gets smaller and smaller, and the probability approaches 1 at a slower and slower rate as the value of the explanatory variable gets larger and larger (Gujarati, 1995). Hosmer and Lemeshew (1989) pointed out that the logistic distribution (logit) has got advantage over the others in the analysis of dichotomous outcome variable in that it is extremely flexible and easily used model from mathematical point of view and results in a meaningful interpretation. Hence, the logistic model is selected for this study. Therefore, the cumulative logistic probability model is econometrically specified as follows:

3.5 Definition of Variables and Working Hypothesis

3.5.1 Dependent variable

The dependent variable for the logit analysis is of dichotomous nature representing small holder farmer's access to formal credit. This is to distinguish or discriminate between those users or non-users of formal credit in the study area. Y- Household uses credit from formal sources during the year (FORCTAKE): This is the dependent variable. It takes value of "1" for users "0" for non-users to formal credit.

3.5.2. Explanatory variables of the study

Review of literatures on factors influencing smallholder farmers' access to formal credit, past research findings and the author's knowledge of the credit schemes of the study area were used to establish working hypotheses of this study. In other words, among a number of factors, which have been related to smallholder farmers' access to formal credit, in this study, the following demographic, socio-economic, communication and institutional factors were hypothesized to explain the dependent variable.

1. Age of the farm household head (AGE): It is a continuous variable, defined as the farm household heads age at the time of interview measured in years. Those farmers having a higher age due to life experience have much better association with cooperatives and other formal credit institutions, and it was hypothesize that farmers with higher age may have more access to use credit from the formal sources.

2. Sex of respondent (SEX): this is a dummy variable that assumes a value of "1" if the head of the household is male and "0" otherwise. According to (Buvinic, Sebstad and Zeidenstein, 1979) "there are two major factors which restrict women's access to formal credit more than men's. These are related to women's lack of control over economic resources and the nature of their economic activity". With this background including the existing gender differences; male headed households have mobility,

Participate in different meetings and have more exposure to information; therefore, it washypothesize that male headed households have more access to use formal credit.

3. Literacy level (EDLVL): It is categorized in to illiterate and able to read and write or literate, it is a dummy variable. Farmers who can read and write are expected to have more exposure to the external environment and accumulate knowledge. They have the ability to analyze costs and benefits. The more educated the household head the more credit he will use for consumption purposes. According to Musebe et al, (1993), as the household gets more formal education, the probability of obtaining credit increases. Therefore, it was expected that those farmers who can read and write have better credit requirement that leads to access to use formal credit sources.

4. Extension contact (EXECON): This refers to the number of contacts with extension agents that the respondent made in the month. Farmers who have a frequent contact with extension agents are expected to have more information that was influence farm household's demand for credit from the formal sources. Therefore, it was hypothesize that this variable positively influences farmer's access to use formal credit.

5. Experience in credit use from the formal sources (EXCRIFS): This refers to the number of years the household head uses credit from formal financial institutions. A farmer having more experience in formal credit use will have higher tendency towards using the formal credit sources and vice versa. Hence, this variable is assumed to have positive influence on the dependent variable.

6. Farm size in hectare (TOCULASI): - It is the total land size cultivated (it is the sum of owned cultivated land, rented-in land and land secured through share cropping arrangements) by the household. It is a continuous variable. The larger the cultivated land size the more the labor required that demands additional capital that might be obtained through credit. The main hypotheses was that the farmer who cultivates larger size of land can utilize more capital and will demand for credit and therefore he/she will be more accessed to credit from the formal sources.

7. Attitudes towards Risk (RITAKE): The other factor, which influences the household's access to formal credit, is their attitude towards risk. Many farmers, as can be expected, are very risk-averse that even when credit is available, they do not like to venture into activities. This is due to risks of repaying loans that come from loss of crops due to seasonal changes, pest and insect damage. It will be measured based on the farmer's positive or negative perception. This is a dummy variable which takes "1" if they respond as they don't fear risk to take loans and "0" otherwise. Therefore, it was expected that farmers who are risk averse will not demand credit and it negatively affects access to use credit from the formal credit institutions.

8. Farmers perception of group lending (COLLATGF): Smallholder farmers are expected to form a group (that can serve as collateral) to take credit from the formal credit sources. But farmers perceived that group lending is difficult to access credit from these sources. It is a dummy variable which takes a value "1" for those who perceived group formation was a constraint and "0" otherwise. Therefore, it was expected that farmers who are unable to form a group or deprived of membership by the group will not able to use formal credit.

9. Physical distance of farmers from lending institutions (DINST): Farmers near the lending institutions have a location advantage and can contact the lender easily and have more access to information than those who live more distant locations. Therefore, location advantage was expected to increase access to use credit from the formal institutions.

10. Farmers' perception of Loan repayment period (SHOREPIN): Formal credit institutions have rules and regulations that limit the time at which the borrower should repay the loan. If farmers fail to repay on time they will be sent to the court or their property may be confiscated. Due to this reason farmers fear taking loans from formal credit sources. This variable represents the borrower's perception of how the loan repayment periods and time discourages farmers from participating in credit market. This is a dummy variable which takes a value "1" for those who perceive it as a constraint and "0" otherwise. And it was hypothesize that, this variable negatively influences the dependent variable.

11. Farmers' perception of lending procedures (LEPROC): To get formal loans farmers are expected to pass through different processes, which is time-taking, cumbersome and sometimes difficult to understand. Rather they prefer to take from the informal credit institutions for the sake of ease even if it charges higher interest rates. Schmidt and Kropp (1987) also reported that in most cases the access problem, especially among formal financial institutions, is one created by the institutions mainly through their lending policies. This is manifested in the form of complicated application procedures and restrictions. This variable represents the borrower's perception of difficulty of the lending procedure. It is a dummy variable which takes a value "1" for those who perceive it as a constraint and "0" otherwise. Therefore, it was expect that, this variable negatively affects smallholder farmer's access to credit from the formal credit sources.

4. RESULTS AND DISCUSION

4.1. Characteristics of Sample Farm Households

Rural household's access to formal credit services is influenced by demographic, economic and social characteristics of households. This section report is on the background and the difference between user and non-user of formal credit services on variables pertinent to the concern of the research. Access to formal credit by smallholder farmers to the context of this study is measured in terms of users and non-users.

I. Family size of the respondents by credit users group

Table 1, shows the family size of the sample respondents. Accordingly, the average family size of the sample respondents was found to be 5 persons. The largest family size was 12 and the smallest was 1. The result from the table shows that from the total sample households about 68.9 percent of the credit non-users and 55.4 per cent of the users had the family size that ranges from 1-5.

Table 1. Family size of the respondents by credit users group

Family	Non-Users		Credit users		Total	
Size	N	%	N	%	N	%
1-5	51	68.9	31	55.4	82	63.1
6-8	20	27.0	21	37.5	41	31.5
>8	3	4.1	4	7.1	7	5.4
Total	74	100	56	100	130	100

Source: Survey result, 2019

4.1.2 Demographic characteristics of sample households

The average age of the household heads was 39.70 years, with minimum and maximum ages of 20 and 82 years respectively. The average age of formal credit users and non-users was 42.04 and 38.82 years respectively. Male and female headed households had similar average age and it was almost equal to the total average (Table 2). With regard to sex the sample was composed of 76.2% male headed households and 23.8% female headed households. 14.3 percent of the users and 31.1 percent of the non-users were female headed households. The number of credit user female headed households is lower than the credit users as compared to male. The implication is that male headed households had more access to credit from the formal financial sources. About 48.5 per cent of the sample households were literate, while 51.5 per cent of the sample households were illiterate. Of the total sample respondents 67.8 per cent of credit non-users and 30.4 per cent of users were illiterate (Table 4). This may probably mean that literate farmers have more exposure to the external environment and information which helps them easily associate to credit sources. This percentage difference was also true for male and female headed households. According to the survey result, 77.4 per cent and 43.4 per cent of female and male headed sample households were illiterate respectively (Table 4). The percentage difference between male and female household heads in terms of literacy level may mean that female headed households have less access to use credit due to the fact that their low level of education.

Table 2.Demographic characteristics of sample households

		Non user (N=40)		User (N=90)		Female HH N=31)		Male HH (N=99)		Total (N=130)	
Characteristics		N	%	N	%	N	%	N	%	N	%
Sex	Male	51	68.9	48	85.7					99	76.2
	female	23	31.1	8	14.3					31	23.8
Literacy level	Illiterate	50	67.8	17	30.4	24	77.4	43	43.4	67	51.5
	literate	24	32.2	39	69.6	7	22.6	56	56.6	63	48.5
Age mean		38.82		42.04		40.42		40.14		40.01	
Age St.dev		10.01		10.33		10.79		10.10		10.23	

Source: Survey result, 2019

4.1.3 Farm household's opinion on the risk of borrowing and lending procedures of formal financial institutions

The risk of borrowing arises from the natural disaster facing the farmers and the inflexible repayment period of formal financial institutions. Risks associated with seasonal changes like excess rain and drought, pest and insect damage influence farmers' attitude towards credit use that may be difficult to repay their debt due to the changes that may occur. From the total sample households, 49.2 per cent did not want to take risk by borrowing from formal financial sources. Among the credit user and non-user groups 26.8 per cent of the users and 66.2 per cent of the non-users also thought that it is risky to borrow from the formal credit sources and they fear to take credit due to risk problems (Table 3). The survey result also indicated that male and female headed households have different views on the risk of borrowing from formal financial institutions. Though, farmers have similar demand for credit they have different thoughts towards borrowing from this sources. 67.7% of female headed households and 43.4% of male headed households thought taking loan from formal financial institutions is risky (Table 3) for repayment. The result indicates that the majority of the female headed households fear the risk of repayment, while the majority of the male headed households perceived differently. This perception difference might be one of the problems for lower

status of women in the credit market. non-users and 88.4 per cent of the users responded that the lending procedure was not a constraint to access credit (Table 3). Mekonnen (2004), reported that given the high level illiteracy among clients, maximum effort in ACSI was made to avoid cumbersome appraisal process that require sophisticated project proposal and other written applications that conventional banks require. On the other hand, from the total respondents 90.3 per cent and 74.7 per cent of female and male headed households thought that the lending procedure was not difficult and constraint to access credit (Table 11). Hence, the result shows that the lending procedure was less difficult to female headed households as compared to male; this may be because MFIs facilitates the process to women to participate in the credit market**.**

Table 3. Farmers opinion on the risks of borrowing and lending procedure

		Non user		user		Female HH		Male HH		Total	
		(N=74)		(N=56		(N=31)		(N=99)		(N=130)	
Characteristics		N	%	N	%	N	%	N	%	N	%
Lending procedure	Perceive as constraint	17	23	11	19.6	3	9.7	25	25.3	28	21.5
	Not constraint	57	77	45	80.4	28	90.3	74	74.7	102	78.5
Attitude toward risk	Fear	49	66.2	15	26.8	21	67.7	43	43.4	64	49.2
	Not fear	25	33.8	41	73.2	10	32.3	56	56.6	66	50.8

Source: Survey result, 2019

Logistic regression			Number of obs = 130					
			LR chi2(11) = 143.48					
Prob> chi2 = 0.0000								
Log likelihood = -15.331359			Pseudo R2 = 0.8239					
Access of formal credit	Coef.	Odds ratio	Marginal effect (dy/dx)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Sex of the household	.61	1.84	.0639	2.00062	0.31	0.760	-3.3089	4.533385
EDLVL	**3.74**	**42.43**	**0.3909**	**1.821**	**2.06**	**0.040**	**.17792**	**7.317699**
EXECON	-1.89	.15	-.1975	3.171	-0.60	0.551	-8.1086	4.322199
RITAKE	.58	1.785	.0604	1.307	0.44	0.658	-1.9833	3.142803
COLLATGF	.38	1.45	.0394	1.213	0.31	0.756	-2.0007	2.756508
SHOREPIN	1.17	3.23	.1221	1.553	0.75	0.451	-1.8741	4.216868
LEPROC	1.66	5.29	.1737	1.864	0.89	0.372	-1.9880	5.319131
AGE	-.022	.98	-.0023	.04686	-0.48	0.629	-.1144	.0692411
DINST	.26	1.30	.0274	.79915	0.33	0.742	-1.3029	1.829635
EXCRIFS	**2.64**	**14.05**	**.2756**	**.73253**	**3.61**	**0.000**	**1.2072**	**4.07874**
TOCULASI	-.05	.95	-.0055	.43837	-0.12	0.903	-.91268	.8057061
_cons	-11.47	.0000104		6.7677	-1.70	0.090	-24.738	1.790531
Marginal effects after logit								
y = Pr(FORCTAKE) (predict)								

= .88171451

Table 4. Maximum likelihood estimates of logit model and the effects of explanatory variables on the probability of access to formal credit

Source: Model output (2019)

The result of the logistic regression analysis showed that two variables namely educational status and experience of farmers towards accessing formal credit were found to significantly determine farmers' access to formal credit. In general, the probability of households to get a credit was nearly 88.17%.

Marginal effects of the explanatory variables

Educational status: this variable was found to significantly affect the access to credit at less than 5% significance level. Other factors being unchanged, compared to the illiterate households, being literate farmer would likely increase the probability of accessing the formal credit by 39%.

Experience in credit use from the formal sources (EXCRIFS) is another factor, which is significantly related to the dependent variable and that it is significant at 1% probability level. Other factors being constant farmers that have experience on credit use increased by one year the use of formal credit increase by 27%. The reason behind this is that a farmer having more experience in formal credit use will have more tendencies towards using that source. A study made by Atieno (2001), also agrees with the result of this study that indicates past credit participation was a significant variable to explain the participation in both formal and informal credit markets.

5. SUMMARY AND CONCLUSIONS

5.1. Summary

Ethiopia is one of the countries, where the smallholder farming dominates the overall national economy and its population is subject to extreme poverty. Small farmers of the country who do not have access to capital, encompasses the largest portion of the population. This lack of access to financial services is one of the reasons for rural households to live in the vicious circle of poverty for long period. The formal financial sector in Ethiopia is not well developed to provide their services to the rural poor farmers. Therefore, the present study was focused on the problems that affect smallholder farmers' access to formal credit. A two stage sampling technique was employed to select first the PAs and then the respondents. A total of 130 respondents were selected from 3 PAs using probability proportional to size. It was apparent in the results of the study that group lending solves the problem of collateral requirement by lending institutions, controls misuse of borrowed funds and minimizes the risk of default. However, farmers find it difficult to access credit from MFI. The poor especially the very poor could not form a group because others did not want them in their group; as a result most of the very poor farmers are marginalized to access formal credit

The analysis shows that the probability of accessing formal credit was positively and significantly affected by educational status the one who is being literate have greater tendency to use formal credit higher than the illiterate by 39%.

The other variable which positively and significantly related to the dependent variable was farmers experience in credit use from the formal sources and that it is significant at 1% probability level. It was observed that a farmer having more experience in formal credit use will have more tendencies towards using that source.

5.2 Conclusion and Policy Implication

1. Nowadays group lending becomes the most important method of providing rural credit to the poor who could not bring material collateral. However, poor farmers especially the very poor farmers find group lending inconvenient to access credit from MFI since they are rejected from the group by others. Therefore, there should be a policy environment whereby individuals may have access to MFI credit, without forming groups, by means of using land use right certificates and also guarantor as a collateral.

2. The results of the study revealed that most of the households borrowed relatively small size of loans for short duration. Hence, before intervention in these areas one should have to formulate policies of credit by assessing the requirements of the communities in relation to the terms and conditions of credit. The policies of credit like the loan size and duration should be designed according to the need of the local society, and the loan size ceiling should be flexible.

3. The majority of the rural households' especially female headed households and the very poor farmers did not use credit from formal financial sources. Therefore, high emphasis should be given in screening potential borrowers and to address the very poor and female headed households in the formal credit market. Participatory wealth ranking can be carried out to select and reach those who should be first beneficiaries of the service.

4. The repayment period for agricultural loan in the region is almost uniform and regular. These inflexible repayment schedules do not correspond to period of cash availability for the poor households. Therefore, participatory development of activity and income calendars could be used to synchronize repayment schedule with credit need and income flow of different households.

6. REFERENCE

Abshege bureau of agriculture, (2019).

Adams, D.W. 1984. Are the arguments for cheap credit sound? In Undermining Rural Development with Cheap Credit, Adams, D.W., Graham, D.H. and Von Pischke, J.D. (eds), Westview Press, Boulder and London.

Adera, A. 1995.Instituting effective linkages between formal and informal financial sector in Africa: A proposal. Savings and Development, 1: 5–22.

Agrawal, A.N. 1994. Economics of development and planning. Second edition

Amemiya, T. 1981. Qualitative Response Model: A Survey. Journal of Economic literature 19: 1483-1536

Amare Birhanu, 2005. Determinants of formal source of credit loan repayment performance of smallholder farmers: the case of north western Ethiopia, north Gondar. Unpublished M.Sc. Thesis submitted to Alemaya University, Ethiopia.

Anbes Tenaye, 2003. Pattern of credit use and its impact on small farmers income: A study in Dire Dawa area, Eastern Ethiopia. Unpublished M.Sc. Thesis submitted to Alemaya University, Ethiopia.

Aryeetey, E. H. Hettige, M. Nissanke and W. Steel. 1997. Financial market integration and reforms in Ghana, Malawi, Nigeria and Tanzania. World Bank Economic Review, 11(2): 195–218

Assefa Admassie, 1989. Some Factors Influencing Agricultural Credit, among Peasant Farmers in Ethiopia: A case study of two districts. Ethiopian Journal of Development Research, 11(1): 10.

Atieno, R. 2001. Formal and informal institutions' lending policies and access to credit by small-scale enterprises in Keya: An empirical assessment. African Economic Research Constortium, Nairobi.

Beckman, T.N. and Forster, R.S. 1969. Credit and collection, Mcgrawn Hill.

Befekadu B. Kereta, 2007. Outreach and financial performance analysis of microfinance institutions in Ehiopia: African Economic Conference United Nations Conference Center (UNCC), Addis Ababa, Ethiopia.

Belay Kassa, 1998. Structural problem of peasant agriculture in Ethiopia. research report. Alemayauniversity of agriculture, Ethiopia.

Beth A. Porter, TesfayeAssefa and Kiendel Burritt, 1999.Microstart Project Document. A project document produced for UNDP and the Government of Ethiopia, Addis Ababa.

Bigsten, A., Collier, p., Dercon, S., Fafchamps, M., Gauthier, B., Gunning, J.W., Oduro, A., Oostendrop, R., Patillo, C., Soderbom, M., Teal, F., and Zewfack, A.,, 2003. Credit constraints in manufacturing enterprises in Africa. Journal of African Economics 12(1): 104-125.

Braverman, A. and J.L .Guasch. 1986. Rural credit markets and institutions in developing countries: Lessons for policy analysis from practice and modern theory. World Development, 14(10): 1253– 1267.

BRD, 2003. Rural house holds socio-economic base line survey of 56 Woreda in the Amhara region. Bahir Dar, Ethiopia.

Briquette, 1999. Better practices in Agricultural lending, FAO publication

Buvinic, M. and Berger, M. 1990. Sex differences in access to small enterprise development fund in Peru. World Development, 18(5): 695—705.

CSA, 2002.Statistical abstract.Various issues. Addis Ababa, Ethiopia.

Dejene Aredo, 2003. Informal financial institutions: the economic importance of Iddir, Iqqub, and loans, technological progress in Ethiopian agriculture, proceedings of the national workshop on technological progress in Ethiopian Agriculture; November 29-30, 2001. Economic department, faculty of business and economics, AAU; Addis Ababa, Ethiopia.

Diagne, A. 1999. Determinants Of Household Access To And Participation In Formal And Informal Credit Markets In Malawi: International Food Policy Research Institute. Washington, D.C. U.S.A.

Diagne, A. Zeller, M. and Sharma, M. 2000. Empirical Measurements of Households' Access To Credit And Credit Constraints In Developing Countries: Methodological Issues And Evidence: International Food Policy Research Institute. Washington, D.C. U.S.A.

Ellis, F. 1992. Agricultural policies in developing countries. School of development studies, university of east Angellia, Cambridge university press.

Fleisig, H. 1995. The power of collateral. View point. Washington D.C., the World Bank.