DEBRE BERHAN UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

MASTER OF BUSINESS ADMINISTRATION

DEPARTMENT OF MANAGEMENT

Determinants of Non-Performing Loans in Amhara Credit and saving institutions in case of North shoa Debre berhan branches

A Thesis for Partial fulfillment of the requirement of Master of business administration on the title ``Determinants of non - performing loans in Amhara credit and saving institutions in case of north shoa Debre Berhan branches.

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This thesis submitted to the department of management in Debre Berhan University to fulfill the requirement of master of business administration (MBA).

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CERTIFICATE

This is to certify that the thesis titled "Determinants of Non-Performing Loans: The Case of Amhara credit and saving institution in North shoa debre berhan branches", submitted to Debre berhan University, Department of Management for the award of Master of Business Administration (MBA) and is a record of genuine research work carried out by Derebe Shiferaw, under my guidance and supervision.

Therefore, I hereby declare that no part of this thesis has been submitted to any other university or institution for the award of any degree or diploma.

Advisor's Name	Signature	Date
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DECLARATION

I hereby declare that this thesis titled "Determinants of Non-Performing Loans: The Case of Amhara Credit and saving institution" in North shoa Debre berhan branches has been carried out by me under the guidance and supervision of my Advisor Dr. Lemma Nigussie.

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

Researcher's Name	Signature	Date
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Acronyms/abbreviation

ACSI Amhara Credit and Savings Institution

ADA Amhara Development Association

ADLI Agricultural Development Led Industrialization

ALCO Asset and Liability Committee

AWA Amhara Women's Association

ANRS Amhara National Regional State

CBE Commercial Bank of Ethiopia

GDP Gross Domestic Product

IFAD International Fund for Agricultural Development

MFI Micro Finance Institution

MIS Management Information Systems

NBE National Bank of Ethiopia

NGO Non-governmental Organization

ORDA the Organization for the Rehabilitation and Development of Amhara

SIDA Swedish International Development Cooperation Agency

USAID United States Agency for International Development

CRM customer relationship manager

Abstract

Loans and advances form a greater portion of the total assets in Amhara credit and saving institution. These assets generate huge interest income for the institution which to a large extent determines the financial performance of Amhara credit and saving institution. However, some of these loans usually fall into non-performing status and adversely affect the performance of ACSI. In view of the critical role ACSI play in an economy, it is essential to identify problems that affect the performance of these institutions. Non-performing loans is one of these problems. Therefore, a research on determinants of non-performing loans, the case of Amhara credit and saving institution in north shoa debre berhan town was conducted on four branches. The research seeks to find out the determinants of non-performing loans in the Amhara credit and saving institution. Structured questionnaire was used to collect data for the study from four ACSInorth shoa zonal office and debre berhan branches include; tebasie branch, atsezeriacob branch, debre berhan zuriya branch and debre berhan branch. Research type was cross-sectional research and the sampling technique was census sampling technique. The sampling size was 100 employees of ACSI debre berhan branches and north shoa zonal office. The study found that poor credit analysis and unsound lending practices, lack of focused loan monitoring and follow-up, lenient credit terms and conditions, compromised integrity, covid-19, customer orientation/culture, non-collateralized loan and fund diversion as the major factors that contribute to loan default/NPLs. Thus, it is suggested that Amhara credit and saving institution debre berhan branches and zonal office should put in place a vibrant credit process that ensures proper loan follow up, credit analysis, collateralized loan, credit monitoring, customer selection, robust credit analysis, proactive monitoring, ethical standards, and prudent application of polices that govern ACSI loans. To analysis the data, SPSS version 25, multiple linear regression analysis and descriptive analysis were used and the.

Key words: ACSI*, *Non-Performing Loans (NPLs); Credit Analysis, Credit Process, loan follow microfinance institutions (MFIs)

CHAPTER ONE

1. Introduction

In this study includes, the overall background of the study, the statement of the problem, objective of the study, research questions ,the hypothesis of study , scope of the study, significance of study ,literature review, methods of the study. Finally the definition of common terms and organization of the paper would include seeing the entire concept of determinant of non-performing loans that affecting loan performance of ACSI debre berhan four branches and north shoa zonal office in debre berhan town.

1.1. Background of the study

It is widely accepted that the quantity or percentage of non-performing loans (NPLs) is often associated with microfinance failures and financial crises in both developing and developed countries. In fact, there is abundant evidence (Fofack , 2005 and Hu, 2006) that the micro financial crises in East Asia and Sub-Saharan African countries were preceded by high NPLs.

The current global financial crisis, which originated in the US, was also attributed to the rapid default of sub-prime loans/mortgages. In view of this reality, it is therefore understandable why much emphasis is placed on NPLs when examining financial vulnerabilities. The issue of non-performing loans (NPLs) has gained increasing attentions in the last few decades.

The immediate consequence of large amount of NPLs in Ethiopia micro financial institutions is Amhara credit and saving institution failure. Many researches on the cause of bank failures (e.g. Demirguc-Kunt 1989, Barr and Siems 1994) found out that asset quality is a statistically significant predictor of insolvency, and that failing financial institutions always have high level of NPLs prior to failure.

According to the International Monetary Fund (IMF, 2009), NPL is any loan in which interest and principal payments are overdue for 90 days or more. On the other hand the Basel Committee (2001) puts NPLs as loans left unpaid for a period of 90 days. Therefore, NPLs refer to those as financial assets from which banks and microfinances no longer receive interest or installment payments as scheduled. A financial intermediary is an institution that acts as an intermediary by matching supply and demand of funds (Beck, 2001). Heffernan (1996) defines microfinance as intermediaries between depositors and borrowers in an economy which are distinguished from other types of financial firms by offering deposit and loan products.

A financial intermediary is an institution that acts as an intermediary by matching supply and demand of funds (Beck, 2001). Heffernan (1996) defines microfinances as intermediaries between depositors and borrowers in an economy which are distinguished from other types of financial firms by offering deposit and loan products.

According to the research by Havrilesky and Boorman (1994), interest on loans contributes significantly to interest income of microfinance institutions. But, Lending is not an easy task for amhara credit and

saving institution because, it creates a big problem which is called NPLs (Chhimpa J, 2002, as cited in Upal, 2009). Due to the nature of their business, microfinance institutions expose themselves to the risks of default from borrowers (Waweru and Kalami, 2009).

According to Alton and Hazen (2001) NPLs are those loans which are ninety days or more past due or no longer accruing interest. Hennie (2003) agrees arguing that NPLs are those loans which are not generating income. This is further supported by Caprio and Klingebiel (1996 as cited in Fofack, 2005) who define NPLs as those loans which for a relatively long period of time do not generate income that is, the principal and or interest on these loans have been left unpaid for at least ninety days. The term "bad loans" as described by Basu (1998) in Fofack (2005) is used interchangeably with non- performing and impaired loans. Berger and De Young (1997) also consider these types of loans as "problem loans". According to Berger and De Young (1997), NPLs could be injurious to the financial performance of microfinance institutions.

According to Kroszner (2002), as cited in Waweru and Kalami (2009), NPLs are closely associated with microfinances crises. Greenidge and Grosvenor (2010), argue that the magnitude of NPLs is a key element in the initiation and progression of financial institutions crises. Guy (2011) agrees arguing that NPLs have been widely used as a measure of asset quality among lending institutions and are often associated with failures and financial crises in both the developed and developing world.

Reinhart and Rogoff (2010) as cited in Louzis et al (2011) point out that non- performing loans can be used to mark the onset of microfinances crisis. Despite ongoing efforts to control microfinance institutions lending activities, NPLs are still a major concern for both international and local regulators (Boudriga et al, 2009).

They are known as non-performing because the loan ceases to "perform" or generate income for the microfinance. According to National Bank of Ethiopia's Directive No SBB/43/2008 „Asset Classification and Provisioning‟ Directive Non-performing‟ means loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with contractual repayment terms of the loan or advances is due and uncollected for 90 (ninety) consecutive days or more beyond the scheduled payment date or maturity.

Amhara credit and saving institution has provided credit facilities and services to various classes of customers. In the course of their operation, however, they may find themselves with a loan portfolio in which the risk of the loss is greater than they had anticipated when the loan was made. That is a position where the risk is greater than the institution would normally be willing to assume. During this time the loan portfolio will be dominated by NPLs.

NPLs or bad loans arise in respect of the loans and advances which are given by ACSI to the whole range of different projects including but not exclusively retail or wholesale, personal or corporate or short, medium or long term projects. NPLs are, therefore, a very sensitive element of financial operations. Thus, an efficient and well-functioning financial sector is essential for the development of any economy, and the

achievement of high and sustainable growth. One of the indicators of financial sectors health is loan qualities. Most unsound financial sectors show high level of NPLs within a country.

Therefore, theoretically there are so many reasons as to why loans fail to perform. The current my study focuses on exploring the Amahara credit and saving institution specific determinants of NPLs.

1.2. Statement of the Problem and Research Questions

In alleviating poverty and underemployments, microfinance institutions plays an indispensable role through provision of credit and saving services to the poor peoples who lack financial services (Fikirte, 2011). Effective repayment performances of microfinance institutions are a requirement for being serving the large poor needy borrowers in a sustainable manner rather than subsidizing through government or donor supports.

Micro finance institutions play a great role in supporting the economic activities of the rural and urban poor in developing countries. Studies show that African MFIs are important actors in the financial sector, and they are well positioned to grow and reach the millions of potential clients who currently do not have access to mainstream financial services (Lafourcade et al., 2005).Ebisa et al.

Although the provision of financial services to the underserved or non-served poor peoples is the primary objectives of microfinances, an increasing rate of defaulters with large amount of outstanding loan is still the challenges of most microfinance institutions that are operating in Ethiopia. According to the operational reports of some lending microfinance institutions, although slight improvements in repayment recovery rate from year to year were obtained, still there is a gap which required researchers to identify the major factors that undermines non-performing loans. various studies were revealed their results as socio-economic features (age, sex, martial statuses, education level) have been identified as factors that can influence non-performing loans, still identifying individual borrower socio-economic characteristics and adopting effective lending mechanisms by the lending institutes is the major limitations that most microfinance managements lacks during their operations.

There are a good number of studies that examine the factors leading to NPL. However, there is little empirical study on Ethiopia that has intensively investigated the relationship between microfinance institutions specific factors and NPLs. Thus, the motivation for undertaking this study is to identify the determinants of NPLs in the case of amhara credit and saving institutions in debre berhan town four ACSI branches and north shoa zonal office.

The study is designed to seek answers for the following one major research question and five sub-research questions.

1. What are the Amhara credit and saving institution in debre berhan town four branches and north shoa zonal office specific contributing factors of non-performing loans (NPLs)?

1.1. Is there a relationship between credit assessment and occurrence of NPLs?

1.2. Is there a relationship between credit monitoring and occurrence of NPLs?

1.3. Is there a relationship between collateralized lending and bad debts?

1.4. What is the influence of borrowers` credit culture on occurrences of bad debts?

1.5. Do high lending interest rates entail loans to lead to loan default?

1.3. Objectives of the Study

1.3.1. General Objective

This research will be used for all financial institutions whether government banks, private banks or other micro finance institutions in the financial sector and it will enhance their credit controlling system. The findings will support and motivate the interest of the financial institutions regarding to credit management and credit underwriting in order to minimize rate of non-performing loans. The overall objective of the study is to find out the determinants of NPLs in the case of the Amhara credit and saving institution.

1.3.2. Specific Objectives

The specific objectives of the study has been concentrated the selected financial institution, which is ACSI/amhara credit & saving institutions in debre berhan town and after this research finding completed the institutions should be minimize the non – performing loans. Therefore, Non – performing loans will perform well by strictly follow up and timely adjust the default loans status by convert from non - performing loans to performed loans. Therefore the specific objectives of the study would be as follows listed.

- To examine the concentration of credit managers and employees of amhara credit and saving institutions regarding to follow up of the loan status of north shoa zonal office and debre berhan branches.
- To measure awareness of the determinant factors of non-performing loans in ACSI debre berhan branches and this institution will get the solutions for the problems of north shoa zonal office and debre berhan branches.
- To investigate knowledge’s and skills of the institution employees and the institutions will take the remedial action on the non-performing loans through enhancing of professional experience in ACSI north shoa zonal office and debre berhan branches.
- To examine ACSI towards giving technical loan training for the consumer loan officers, credit underwritings and credit managers in north shoa zonal office and debre berhan branches.
- To investigate new mechanisms of ACSI loan processing and loan follow up system to adjust the non - performing loans in ACSI debre berhan branches and north shoa zonal office.
- To investigate major loan related factors significantly affecting the non-performing loans of borrowers in ACSI debre berhan branches and north shoa zonal office.

- To identify major challenges and difficulties of ACSI debre berhan branches and north shoa zonal office encounter in its day to day credit scheme activities.
- To examine relationships between non-performing loan and factors such as; credit assessment, credit monitoring, borrowers` credit culture and collateralized lending, level of interest rates.

1.4. Significance of the Study

The current study explored the factors contributing to NPLs in the case of amhara credit and saving institution. As such, the study yields great contribution to research and practice. The research contribution is attributed to the current contribution to the existing body of knowledge and research regarding factors influencing NPLs. Besides providing further evidence to findings of prior studies, the current study has also identified a few additional factors that worth for further research and validation.

The other contribution of the current research is in relation to practice. The findings of the current study would help amhara credit and saving institution get insight on what it takes to improve their loan qualities.

1.5. Scope of the Study

Geographically, this study was delimited to ACSI debre berhan branch, tebassie branch and atsezeriacob branch, and debre berhan zuriya branch and north shoa zonal office because of researcher's proximity to the area. Conceptually, the study was delimited to investigate factors affect loan performance of ACSI branches and zonal office in debre berhan town.

This research paper, which is essentially about identifying causes and effects of NPLs in Amhara credit and saving institution in north shoa debre berhan town by containing four branches and north shoa zonal office of ACSI. So, I have collected primary and secondary data from the study area related to factors of non-performing loans by distributed structured questioners for 100 employees/performers from the target populations.

1.6. Limitations of the Study

The limitation of the study lies in collecting complete data of all branches and north shoa zonal office. The number of respondents in tebase, atsezeriacob, and debre berhan branch, debre berhan zuriya branch and north shoa zonal office employees has reached fourteen, ten, and twenty four, fifteen and thirty seven employees were selected from each branches respectively and obtaining complete and reliable data in connection with non - performing loans. However, a complex exercises owing to confidentiality of ACSIs business. Some limitations seems like as follows; shortage of time, high workload in ACSI branches, there was uncompleted questioner due to high customer traffic in ACSI branches, involuntary of employees to give data by fulfilling the appropriate space of the questioner, covid-19 and existence of fulltime meeting in ACSI zonal higher credit managers, credit officers and branch managers. These limitations have been made complexity to collect data.

1.7 Hypothesis of the study

In this case hypothesis of the study is very essential part of the study. Because, hypothesis is uses to make analyses the relationship between dependent and independent variables by accept the significance variables and by reject the insignificant variables which is related to the determinants of non-performing loans of Amhara credit and saving institutions in debre berhan town.

H0: There is not significant relationship between gender and non-performing loan

H1: There is a significant relationship between gender and non-performing loan.

H0: There is a negative and insignificant relationship between age and non – performing loan

H2: There is a positive and significant relationship between age and non – performing loan

H0: There is not significant relationship between marital status and non – performing loan.

H3: There is a significant relationship between marital status and non – performing loan.

H0: There is not significant relationship between level of education and non – performing loan

H4: There is a significant relationship between level of education and non – performing loan.

H0. There is not significant relationship between borrower's source of income and non – performing loan

H5. There is a significant relationship between borrower's source of income and non – performing loan.

H0: There is not significant relationship between borrowers" borrowing experience before taking loans and non - performing loan.

H6: There is a significant relationship between borrowers" borrowing experience before taking loans and non - performing loan.

H0: There is not significant relationship between use of financial records and non – performing loan.

H7: There is a significant relationship between use of financial records and non – performing loan.

H0: There is negative relationship between lengths of borrowers business Experience and non-performing loan

H8: There is a positive relationship between lengths of borrowers business Experience and non – performing loan.

H0: There is not significant relationship between market studies of borrowers before Stating business and non – performing loan.

H9: There is a significant relationship between market studies of borrowers before Stating business and non – performing loan.

H0: There is not significant relationship between availability of business information before Starting business and loan performance status.

H10: There is a significant relationship between availability of business information before Starting business and loan performance status.

H0: There is not significant relationship between duration of repayment period and non – performing loans.

H11: There is a significant relationship between duration of repayment period and non – performing loans.

H0: There is not significant relationship between unavailability of creation awareness before giving loans and Non – performing loans.

H12: There is a significant relationship between unavailability of creation awareness before giving loans and Non – performing loans.

H0: There is not significant relationship between inadequate supervision about loan utilization & non – performing loan

H13: There is a significant relationship between inadequate supervision about loan utilization & non – performing loan.

H0.There is not significant relationship between insufficient loan information and non – performing loan.

H14.There is a significant relationship between insufficient loan information and non – performing loan.

1.8. Organization of the Study

The research report is organized into five Chapters. The first Chapter is made up of the introduction, background of the study, the statement of the problem and research questions, significance of the study, scope of the study, limitation of the study and organization of the study.

In Chapter two theoretical foundation and empirical review of the study is presented. This chapter covers important issues related to the banking literatures, empirical studies, types and natures of credit, principles of good lending, and general lending procedures.

Chapter three describes the research methodology. It explains the study area, research design, target population, sampling methods, sample size and methods of data collection and analysis. Results presentation and discussions are contained in Chapter four together with the survey outcomes. Chapter five provides conclusion and recommendations of the study.

CHAPTER TWO

REVIEW OF LITRATURE

2. Theoretical framework and related literature review

2.1. Theoretical framework

This chapter summarizes the information from the available literature in the same field of study. This chapter has reviewed theoretical literatures, empirical literatures and conceptual frame works of Microfinance institutions and Amara credit and saving institutions especially its loan performance as well as determinants of non-performing loans like experience of loan performers, socio economic factors and business related factors that affect non-performing loans so, this study will fill the knowledge gaps of the previous studies.

2.1.1. The Nature of Non-performing Loans

The recent global financial crisis highlighted the importance of appreciating financial institutions vulnerabilities in the context of managing credit risk. The key motivation for this paper is to improve understanding of the determinants of NPLs. However a lot of research papers can be found regarding the problem on non-performing loan. Many prudential researchers intend to work on NPLs because it is perceived as the foremost aspect of microfinance survival.

The question of non-performing loans is related with none recovery loans. When a borrower cannot repay interest and/or installment on a loan after it has become overdue, then it is qualified as non-performing loans (Chowdhury & Adhikary, 2002). It is known as non-performing, because the loan ceases to "perform" or generate income for ACSI. The default/non-performing loan is not a "uniclass", rather a "multiclass" concept. It implies that the default/NPLs can be classified into five different categories, usually based on the "length of overdue" of the said Loan. These categories are:

- pass – loans overdue for a period of 31 to 60 days
- special mention news – loans overdue for a period of 61 to 90 days
- Substandard – loans overdue for a period of 91 to 180 days
- Doubtful – loans overdue for a period of 181 to 360 days
- Loss – loans overdue for more than 360 days

The issue of NPLs has gained increasing attentions in the last few decades.

According to the Basel rules, if a loan is past due for 90 consecutive days, it will be regarded as nonperforming. The criteria used in Ethiopian financial institutions that a use to identify NPLs is a quantitative criterion based on the number of days passed from loan being overdue.

The concept of NPLs has been defined in different literatures. According to Patersson and Wasman (2004), NPLs are defined as defaulted loans which MFIs are unable to profit from. They are loans which cannot be recovered within stipulated time that is governed by the laws of a country. According to the International Monetary Fund (IMF, 2009), a NPL loan is any loan in which interest and principal payments are more than 90 days overdue; or more than 90 days' worth of interest has been refinanced.

NPLs generally refer to loans which for a relatively long period of time do not generate income. That is, the principal and/or interest on these loans have been left unpaid for at least 90 days (Fofack, 2005). NPLs are further defined as loans, whose flows stream is so uncertain that the MFIs does not recognize income until cash is received, and loans those whose interest rate has been lowered on the maturity increase because of problem with borrower (Machiraju, Undated).

Machiraju (2001) expresses NPLs as a leading indicator of credit quality. NPLs or bad loans arise in respect of the loans and advances which are given by MFIs to the whole range of different projects including but not exclusively retail or wholesale, personal or corporate or short, medium or long term projects. NPLs are very sensitive elements of ACSI credit operations.

According to Brown, Mallett and Taylor (1993), the losses from bad loans (NPLs) caused by reducing the capital resource of the microfinance affects its ability to grow and develop its business and disclosure of the extent of these losses in its financial statements may lead to a loss of confidence in the microfinance management and a reduction in its credit ratings. This will in turn increase the ACSI cost of borrowing in the wholesale market and make it more expensive or more difficult to raise capital.

In extreme cases, it can leads to a loss of deposits, the withdrawal of the microfinance institutions authorization and ultimately insolvency (Taylor, 1993). Thus NPL is one of the concrete embodiments of credit risk which Amara credit and saving institutions take. They have greater implication on the function of the overall financial sector development.

It is apparent that insolvency of micro finance institution is costly to the macro economy as such, but this cost can be increased or decreased by the regulators and the policies they use in resolving the insolvencies. The faster microfinance institutions can be resolved before their economic capital turns negative, the smaller are both losses to depositors and costs to the macro economy (G. Kaufman, 2004). This is why most countries provide their own rules regarding NPLs and its classifications. Under the Ethiopian national bank directives, NPLs are defined as "loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with the contractual repayment terms of the loan or advances in question (NBE directive, 2008)." It further provides that:

… Loans or advances with pre-established repayment programs are non-performing when principal and/or interest is due and uncollected for 90 (ninety) or more consecutive days beyond the scheduled payment date or maturity (NBE directive, 2008).

According to this directive of NBE, in addition to the aforementioned category of non-performing loans that do not have pre-established repayment program (essentially overdraft loans) shall be nonperforming when:

i. The debt exceeds the borrower's approved limit for 90 (ninety) consecutive days or more;
ii. The account has been inactive for 90 consecutive days or
iii. Deposits are insufficient to cover the interest capitalized during 90 consecutive days or
iv. These accounts fails to show 20 percent of the approved limit or less debit balance at least once over 360 days preceding the date of loans review.

According to the Basel rules, if a loan is past due for 90 consecutive days, it will be regarded as non - performing. The criteria used in Ethiopian MFIs business to identify NPLs is a quantitative criteria based on the number of days passed from loan being due.

2.2. The Theoretical review of micro finance institutions

2.2.1. Definition and goals of microfinance institutions

The definition of Microfinance institutions proposed by some authors and organizations are seemingly different from one another. However the essence of the definition is usually the same, in which microfinance refer to the provision of financial services primarily savings and credit to the poor and low income households that don't have access to commercial banks (Arsyad 2005).

According to Ledgerwood (1999), microfinance is a provision of a broad range of financial services such as savings, credit, insurance and payment services to the poor or low-income group who are excluded from the normal banking sectors. Microfinance is a development approach that provides financial as well as social intermediation.

The financial intermediation includes the provision of savings, credit and insurance services, while social intermediation involves organizing citizens‟ groups to voice their aspirations and raise concerns for consideration by policy makers and develop their self-confidence (Robinson, 2002). Moreover, Conroy (2002) stated that microfinance is the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low-income households and their MEs. The term evolved from the concepts of "microcredit" and "microenterprise" financing, to include the importance of savings as well as borrowing.

Although the terms are used interchangeably, microfinance represents the field as a whole, while the other two terms are more technical and refer only to credit provision (Maria, 2004).

The World Bank defines microfinance as

"…. Small-scale financial services – primarily credit and savings – provided to people who farm or fish and who operate small enterprises or microenterprises where goods are produced, recycled, repaired, or sold; who provide services; who work for wages or commissions; who gain income from renting out small

amounts of land, vehicles, draft animals, or machinery and tools; and to other individuals and groups at the local levels of developing countries, both rural and urban."

However, Bank Negara Malaysia (BNM) defined microfinance as the provision of small loans/ financing up to RM50, 000 to microenterprises or self-employed individuals, for their business activities. Its proclamation No. 626/2009 defines micro financing business as "the provision of financial services like accepting saving, extend credit, drawing and accepting drafts payable, providing money transfer services and others specified in the Article 3(2) of the proclamation.

Microfinance institutions (MFIs) were established to fill the gap in the financial services sector by providing funds to the poor and lower income group and thus alleviating poverty and enhance their business activities. The MFIs provide funds for start-up business or for working capital. In addition, some MFIs also provide funds for non-business activities such as for education and emergencies purpose. In the credit market, agency problem, moral hazard and adverse selection exist because of information asymmetries.

Information asymmetries are the main obstacle for MFIs to provide loans to clients. Financial institutions usually requires business proposal, borrower past credit information and collateral before approving the loan. MFIs offer credit through group-based lending method to mitigate agency problems, moral hazard and adverse selection and to replace the collateral requirement. In group-based lending, borrowers must form a group before applying loans and they also responsible to other loan members. If one member default, the others will be responsible to pay the loan or they will be denied access for the next loans.

The goals of microfinance institution as development organizations is to service the financial needs of un-served or underserved markets as a means of meeting development objectives such as to create employment, reduce poverty, help existing business grow or diversify their activities, empower women or other disadvantaged population groups (poor people or low income people) and encourage the development of new business. In short, microfinance institutions have been expected to reduce poverty, which is considered as the most important development objective (Arsyad, 2005).

2.2.2. The Historical foundation of Microfinance Institutions

Beginning in the late 1970s, there was recognition that among the obstacles preventing the working poor from improving their lives was the lack of access to financial services. From this developed a new emphasis on establishing financial systems able to reach poor clients on a more sustainable basis than had been possible under previous discredited schemes of directed credit.

The Grameen Bank, established in Bangladesh in 1976 by Professor Muhammad Yunus, developed highly effective techniques for lending to the poor. These were based on techniques such as taking services to the village level, promoting and motivating groups of the poor, use of group guarantees, compulsory savings mobilization, transparency of credit transactions, intensive supervision of borrowers, and decentralized and cost effective operations.

In the 1990s, however, microfinance has captured the imagination of governments, donor agencies, and other opinion leaders in both industrial and developing countries. Microfinance has moved from the margins of the development debate to center stage. It is seen as much more than simply the provision of financial services to poor households, but as a key strategy for poverty reduction in its own right (McGuire and Conroy, 2000).

McGuire and Conroy (2000) identified three basic characteristics that make MFIs similar in their operation:

First, MFIs know their market. The poor are willing to pay for access and convenience. Interest rates are market oriented, but lending outlets are located near the client, application procedures are simple, and loans are disbursed quickly.

Second, they use special techniques to slash administrative costs. Simple procedures are used and approvals are decentralized. Borrower groups often handle much of the loan-processing burden.

Third, they use special techniques to motivate repayments. MFIs have developed a range of techniques to ensure high repayment rates, including the use of self-selected groups in which members guarantee each other's loans, intensive motivation and supervision of borrowers, incentives for borrowers, progressive lending, and compulsory savings requirements.

2.2.3. The Development of Microfinance Institutions in Ethiopia

Development of microfinance in Ethiopia should be viewed as

(a) An identification of considerable levels of unrealized demand and potential market growth for financial services and

(b) A shift by the NGO sector and government from relief assistance to sustainable development which intersects at the point of institutionalization of microfinance provision. The establishment of sustainable microfinance institutions that reach a large number of rural and urban poor who are not served by the conventional financial institutions, such as the Commercial Banks, has been a prime component of the new development strategy of Ethiopia (AEMFI, 2000).

According to Degefa (2009:3) in Ethiopia microfinance services were introduced after the demise of the dergue regime following the policy of economic liberalization. It is taken as a shift from government and NGO subsidized credit programs to financial services run by specialized financial institutions. With this shift some NGO and government micro credit programs were transformed to microfinance institutions. Such shift was mainly promoted by a regulatory framework that was put in place to license and supervise the institutions under the country's central bank.

The regulatory framework was developed as a part of government's effort to liberalize the financial sector and lay down an alternative institutional framework to provide financial services mainly to the rural poor to boost agricultural production, enable food self-sufficiency, and reduce rural poverty.

2.2.3.1. Background and formation of ACSI

ACSI was founded by the Organization for the Rehabilitation and Development in Amhara (ORDA), a local NGO engaged in development activities in the Amhara region. It was recognized in 1991 to give relief to the people affected by drought and the war against the earlier Dergue regime. In moving to head off from the more usual direct supply of relief, the NGO formed a department to provide small amounts of credit to rural people on a pilot basis. That department grew into a separate institution and ACSI was licensed as a micro finance share company in April 1997 with the primary mission of improving the economic situation of low income productive poor people in the Amhara region through increased access to lending and savings services. The other shareholders of ACSI are the Amhara State Government (25%), Amhara Development Association (ADA) (20 %), Amhara Women's Association (AWA) (10%) and Endeavor (10%) (USAID, 2006).

The objective of ACSI is providing loans for poverty alleviation in both rural and urban particularly focusing on rural poor households.

Vision: ACSI aspires to see a society in which people are free from the grips of abject poverty, with all the power determining their future in their own hands.

Mission: Given the level of poverty in the region, ACSI's primary mission is to improve the economic situation of low income, productive poor people in the Amhara region primarily through increased access to lending and saving services. It will maintain cost effectiveness in service delivery, and integrate its activities with government and NGOs working towards achieving food security and poverty alleviation in the region.

Currently, Amhara credit and saving institution has 13 zonal main offices, 399 branches and 1107 satellite branches, 12,616 employees in Amhara region and Addis Ababa city. Specifically in north shoa total branches are 222. In north shoa zone 1633 employees are working in Amhara credit and saving institution.

Credits of ACSI

Credit is provided for income generation and related purposes. The credit products consist of installment, term and asset loans. The asset loans are being offered on a pilot basis, particularly for the housing construction sector. The installment loan is aimed at traders, manufacturers and handicrafts producers. Term loans are mainly made in the agriculture sector, with balloon repayments made at the end of the term (coinciding with the harvest).Credit is extended to groups, but recently ACSI started issuing loans to individuals.

Interest charged on loans ranges between 12 to 19 percent per annum, and is calculated on a declining balance basis. No additional fees are charged on loans. The maximum loan period for group loans is two years and the majority of the loans are to groups that are residing in the rural areas. The proportion of lending to urban areas is limited. The ceiling on interest rates that is charged on loans was lifted by the National Bank of Ethiopia some time ago, with no formal restrictions in terms of interest rates MFIs

charge their clients. This means that ACSI can freely price its loans to cover administrative expenses, loan losses, and cost of funds, capitalization rate and a profit margin. However, there appears to be pressure from the Government to keep interest rates low.

In addition to the normal interest rates and loan charges, ACSI also implements penalty charges for loans in arrears as follows:

TABLE 1: DAYS IN ARREARS	
Days in Arrears	**Penalty**
1-30 days	No penalty
31-90 days	1% of outstanding
91-180 days	2% of outstanding
181-270 days	3% of outstanding
271-360 days	4% of outstanding
>360 days	5% of outstanding

Source: ACSI credit procedure and practice

2.3. Credit Management Policies

In the past decades there have been major advances in theoretical understanding of the working of credit markets. These advances have evolved from a paradigm that emphasis the problems of imperfect information and imperfect enforcement (Hoff and Stiglitz, 1990).

They pointed out that borrowers and lenders may have differential access to information concerning a projects risk, they may form different appraisal of the risk. What is clearly observed in credit market is asymmetric information where the borrower knows the expected return and risk of his/her project, whereas the lender knows only the expected return and risk of the average project in the economy.

Lending institutions are faced with four major problems in the course of undertaking credit activity: a) to ascertain what kind of risk the potential borrower has (adverse selection), b) to make sure the borrower will utilize the loan properly once made, so that he will be able to repay it (moral hazard). C) to learn how the project really does in case the borrower declares his inability to repay and d) to find methods to force the borrower to repay the loan if the borrower is reluctant to do so (enforcement) (Ghatak and Guinnane, 1999). These problems of imperfect information and enforcement leads to inefficiency of credit market which in turn to default. Thorough credit assessment that takes into account the borrowers` character, collateral, capacity, capital and condition (what is normally referred to in the banking circles as the 5C`s) should be conducted to minimize credit risk.

2.4. General Lending and credit processing procedures

Although there is no hard and fast rule about the techniques of lending, it is necessary that defined procedures have to be followed by the MFIs to properly address the credit needs of its customers.

2.4.1. General Lending Procedures

1/ Getting started:-this is the first stage in which either the customer will come to the MFIs seeking for a loan or the branch manager initiates the customer to take out a loan for his business because the customer may not always know how to obtain credit from microfinance institutions.

2/ Preliminary discussion with the customer:-after the first encounter the request for a loan can be processed. Then the borrower's credit worthiness is assessed. The request may not be processed if it falls outside the domain of the MFIs credit policy. If it is accepted, the customer completes the MFIs credit application explaining the relevant details to be incorporated therein including the type of collateral he is able to offer.

3/ processing the credit application:-if the loan request of a borrower can be processed then the branch manager or other lending officers shall follow a detailed procedure in the appraisal of credit request and execution of the necessary documentation. The following general guideline is to be observed by lending officers of the MFIs whenever a loan request is presented to them.

4/ Loan application: the loan application should be in writing stating the following main points: amount of loan requested, the intended purpose for which the loan is to be used, the proposed collateral, mode of performing loans and possible sources, duration of the loan, direct and indirect liabilities, the borrower`s contribution to the project, a brief history of the firm or the borrower and its future plan, and any other information that may assist the lending in appraising the loan proposal. Documentation:-along with the written loan application, the following and other documents

5/ Interview:- after all the documentations are in order, the customer may be called in for interviews to obtain further information that has not been disclosed in the application or documents or that were not made clear to the lending officer. A general interview on his/her business and future plans can provide useful information. It is usually necessary to have prior preparation on the topics to be discussed and this should be to the point. In the interview important information must be skillfully extracted.

6/ Site visits:-if the loan interview indicates that the request for credit sound, a sit visit to the business for a more detailed assessment is necessary. Site visits are useful for many reasons mainly to become acquainted with new customers; to review changes that are taking place when customers have been granted a continuity line of credit; to review such changes when a significant new loan is to be considered and to assess the manner in which the business is organized. Important benefits can accrue from regular and informal visits to seize up the customer, which might reveal his managerial ability at close range. Any diversification of funds by customer other than for which it was intended should be immediately corrected upon bank's advice.

7/ Credit Information:-if the borrower or the applicant is new to the MFIs, it is particularly necessary to obtain as much information as possible. Such information may usually be related to his honesty, ability, stability, managerial capacity, operational efficiency, financial history, etc. The information can be gathered from various sources, including banks, trade partners, suppliers and the like. Credit information from MFIs must be required at the earliest possible time, while other lending formalities continue to overcome unnecessary delays in processing the loan application.

8/ Credit Investigation:-when as much relevant and adequate information is obtained, the credit investigation can be conducted to determine the accuracy and the authenticity of the statements made during interview and at the time when financial position was declared. One must also look for information regarding payment habits and the character of the operator of the business. The Investigation process should be comprehensive and detail sufficiently far into the past to establish all pertinent facts regarding the applicant and his business. There is nothing more important than knowing a potential borrower as thoroughly and as fast as possible before making credit decisions.

9/ Credit analysis:-the next step in the sequence of credit appraisal is conducting credit analysis of the applicant`s financial condition should be done carefully. Ratios should be calculated to determine the applicant's liquidity position and ability to repay the debt. The decision to external credit to the customer should basically depend on such and many other factors outlined above. The nature of the financial analysis is determined by or depends upon the specific interest of the analyst. For example, the credit performers will focus on the liquidity of the firm if he/she is considering a short - term loan.

10/ The credit decision:-the final decision as to whether the loan request should be approved or rejected is reached by comparing the statements made by the applicant with the information derived through the investigation process and by analyzing various credit factors such as capacity, capital, collateral, track record for repayments of the loan and others. At this point it is necessary to underline the need for fast processing of credit application sot that credit decision is given without undue delay. Undue delay in credit processing leads to losing good borrowers, a situation which must always be avoided. The competitive environment dictates that priority attention must be given to test processing of credit applications.

2.5. Review of theoretical literature

To separate the impact of MFIs specific and macroeconomic factors, the authors employ survival analysis. Using a dynamic model and a panel dataset covering the period 1985-1997 to investigate the determinants of problem loans of Spanish commercial and saving banks, Salas and Saurina (2002) reveal that real growth in GDP, rapid credit expansion, bank size, capital ratio and market power explain variation in non-performing loans.

Furthermore, Jimenez and Saurina (2005) examine the Spanish banking sector from 1984 to 2003; they provide evidence that NPLs are determined by GDP growth, high real interest rates and lenient credit terms. This study attributes the latter to disaster myopia, herd behavior and agency problems that may entice bank managers to lend excessively during boom periods. Meanwhile, Rajiv and Dhal (2003)

utilized panel regression analysis to report that favorable macroeconomic conditions and financial factors such as maturity, cost and terms of credit, banks size, and credit orientation impact significantly on the NPLs of commercial banks in India.

Rinaldi and Sanchis-Arellano (2006) analyzed household NPLs for a panel of European countries and provide empirical evidence that disposable income, unemployment and monetary conditions have a strong impact on NPLs. Berge and Boye (2007) find that problem loans are highly sensitive to the real interest rates and unemployment for the Nordic banking system over the period 1993–2005.

Lawrence (1995) examines the theoretical literature of life-cycle consumption model and introduces explicitly the probability of default. This model implies that borrowers with low incomes have higher rates of default due to increased risk of facing unemployment and being unable to settle their obligation.

Carey (1998) argues that the state of the economy is the single most important systematic factor influencing diversified debt portfolio loss rates (Carey, 1998, p. 1382). Quagliarello (2007) finds that the business cycle affects NPLs for a large panel of Italian banks over the period 1985–2002.

Furthermore, Cifter et al. (2009) provides empirical evidence for a lagged impact of industrial production on the number of NPLs in the Turkish financial system over the period 2001–2007. Salas and Saurina (2002) estimate a significant negative contemporaneous effect of GDP growth on NPLs and infer the quick transmission of macroeconomic developments to the ability of economic agents to service their loans (Bangia et al., 2002; Carey, 1998). Nkusu (2011) investigating the macroeconomic determinants of loan defaults through panel regressions and panel vector autoregressive models. The author suggests that hike in interest rates result in deterioration of borrower's repayment capacity and hence, cause of increase in NPLs.

There is significant empirical evidence to suggest that local economic conditions explain to some extent, the variation in NPLs experienced by banks (Keeton and Morris, 1987; Sinkey and Greenwalt, 1991; Salas and Saurina, 2002; Rajan and Dhal, 2003 as cited in Greenidge and Grosvenor, 2010). Research conducted in the Caribbean includes that of Khemraj and Pasha (2009), who examined the determinants of NPLs in Guyana. The empirical results revealed that with the exception of the inflation rate and bank size, all other factors have a significant relationship with the non-performing loan ratio (Greenidge and Grosvenor, 2010).

Causes and treatment of NPLs were studied in detail by Bloem and Gorter (2001). They agreed that "bad loans" may considerably rise due to abrupt changes in interest rates. They discussed various international standards and practices on recognizing, valuing and subsequent treatment of NPLs toaddress the issue from view point of controlling, management and reduction measures. A study conducted by Espinoza and Prasad (2010) focused on macroeconomic and bank specific factors influencing NPLs and their effects in the Banking System. After a comprehensive analysis, they found that higher interest rates increase NPLs but the relationship was not statistically significant.

2.6. Review of Empirical literature

This section re-examines literature related to the subject of the study which was based on global view narrowing to the local view. The review entails studies that have been conducted in relation to organizational structure on the performance of MFI, effect of educated and skilled staff on the performance of MFI, effect of age and gender on the performance of MFI , saving ,borrowing repayment habit on the performance of MFI, effect of financial coverage and available to the performance of MFI, effect of macroeconomics stability of the country and donors on the performance of MFI effects of Government legislative and regulatory on the performance of MFI.

2.6.1. Microfinance and Poverty Alleviation

Poverty is lack of access by the poor households to the assets like human capital, natural, physical, social-political, or financial (savings and access to credit) necessary for a higher standard of income or welfare. It means not having enough to feed and clothe a family, not having a school or clinic to go to; not having the land on which to grow ones food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living in marginal or fragile environments, without access to clean water or sanitation (UN, 2010).

Urban poverty is a multidimensional phenomenon. The urban poor live with many deprivations. Their daily challenges may include: Limited access to employment opportunities and income, Inadequate and insecure housing and services, violent and unhealthy environments, little or no social protection mechanisms, and Limited access to adequate health and education opportunities.

2.6.2. Institutional factors

As per literature reviews, most of the empirical studies have been conducted through the objective of measuring financial performance MFI by using internal and external factors that affect the profitability of the institution Abebaw (2014) Aziza(2013) studied the contribution of Microfinance based on income, living condition, asset accumulation, saving, decision making power, self-esteem, self-confidence, business management skills along with the strength and weakness of the institution among others.

2.6.3. Requirements of Skills and experience to staff

As Feleke (2011) indicates microfinance creates a much better positive effect on beneficiaries equipped with a better education and skill training on business administration, income generating and loan repaying, than on beneficiaries have no education and training skills. Kinde (2012) found that microfinance breadth of outreach, depth of outreach; dependency ratio and cost per borrower affect the financial sustainability of MFIs in Ethiopia. However, the capital structure, and staff productivity have insignificant impact on financial sustainability of MFIs in Ethiopia during the study period.

2.6.4. Macro and micro economic factors that affect NPLs

Studies show that problem loans are often used as an exogenous variable to explain other banking outcomes such as bank performance, failures, and bank crises (Boudriga et al., 2009). However, some studies investigate problem loans as an endogenous variable (Sinkey and Greenwalt, 1991; Kwan and Eisenbeis, 1997; Salas and Saurina, 2002, as cited in Boudriga et al., 2009).

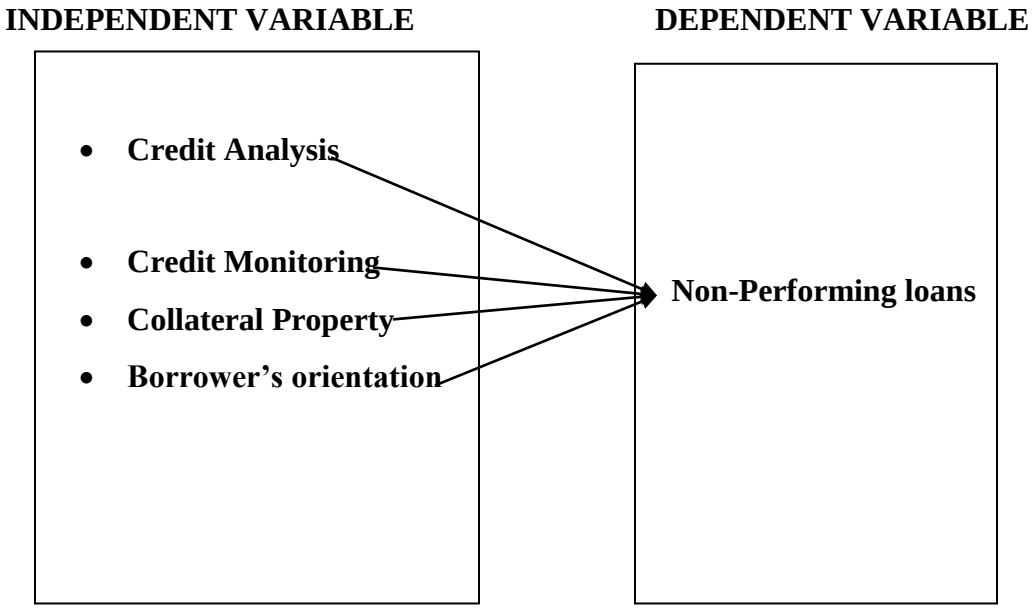
GDP growth, inflation and interest rates are common macro-economic factors, while size and lending policy are micro-economic variables (Greenidge and Grosvenor, 2010). These variables are by no means exhaustive, but they provide a useful framework for monitoring the development of non- performing loans (Guy, 2011).

2.7. Conceptual framework

When I describe the determinant factors of the loan, there are four independent variables such as credit assessment, credit monitoring, collateralized loan, borrower`s orientation/culture and the dependent variable is non-performing loans and the sum total of these independent variables would have been affected non-performing loans.

The study of Arene (1992) identified loan size, enterprise size, income, age, number of years of business experience, distance between home and source of loan, education, household size, adoption of innovations, and credit needs as the main factors that determine non-performing loans.

Figure 1: Conceptual framework of determinants of non – performing loans of ACSI



CHAPTER - THREE

RSEARCH METHODOLOGY

3. Introduction

This section discusses the research methodology applied for the study, specifically, research design; data type, source and collection instrument; population sample and sampling techniques, method of data analysis, model specification and measuring variables.

3.1. Study Area

Like other business activities, ACSI strive to make profit and grow. The area of the study was amhara credit and saving institution four branches in debre berhan town including north shoa zonal office. Therefore, the study was conducted in consultation with staff involved in credit and other operations at branches and zonal office level using survey design with structured self-administered questionnaires.

3.2. Research Design

In order to examine the determinants of non-performing Loans by taking ACSI Debre berhan branch, Tebassie branch, Debre berhan zuriya branch, and Atsezeriacob branch and north shoa zonal office case in point, the researcher adopted both quantitative and qualitative research approach. The essential goal of this cross-sectional research approach is to tackle a given research question from any relevant angle, making use where appropriate of previous research and/or more than one type of investigative perspective. The rationale of using such a mixed approach in this study is to gather data that could not be obtained by adopting a single method. And also some of the qualitative data in this study cannot be described and manipulated numerically. That is why the researcher applied mixed research approach.

3.3. Total Population

Any research work has conclusion inferred from set of premises. The conclusion could be about groups of people, groups of organizations, employees in an organization, contracts between organizations, about economic phenomenon, and the like. The broad class of people, objects, or events that are targeted by the conclusion is known as population or universe

In this study, the population consisted of all employees who are involved in Amhara credit and saving institution branches and north shoa zonal office which is existed in Debre berhan town. Name of branches, tebassie, atsezeriacob, debre berhan zuriya and debre berhan branch. From these branches and zonal office total employees are 100. So, the employees proportion of each branches including zone office are twenty four employees involved in debre berhan branch, fourteen employees lays in tebassie branch, fifteen employees are employed in debre berhan zuriya branch, and ten employees are work in atsezeriacob branch and finally thirty seven employees are employed in north shoa zonal office.

3.4. Sampling Technique and sample size

All the items under consideration in any field of inquiry constitute a universe or population. A complete enumeration of all the items in the population is known as a census inquiry. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained. Therefore, census sampling technique was used to collect data with equal involvement of all employees of the selected branches and north shoa zonal office.

Sample size is refers to the number of items to be selected from the universe to constitute a sample. Therefore, the sample size of this study was 100 employees from each branches and north shoa zone office of ACSI in debre berhan town. Therefore, I have selected all the target populations by using census sampling method.

3.5. Data type, source and collection instrument

Both qualitative and quantitative data type were collected from primary and secondary data sources in this study. ACSI debre berhan branch, tebassie branch, and debre berhan zuriya branch, atsezeriacob branch and north shoa zonal office credit performers and branch managers and other officers were the primary sources of data. To obtain data regarding determinant factors affecting loan performance of ACSI debre berhan branch, tebassie branch, and debre berhan zuriya branch, atsezeriacob branch and north shoa zonal office distributed questionnaires (both open and closed ended format) were used. Secondary data are obtained from September 2020 publications of Amhara credit and saving institution.

3.6. Method of Data Collection

All study participants are literate employees. So, Primary data were collected by questionnaires (Appendix I) distributed to respondents that involve branch Managers and Senior Officers and junior officers working on loan processing. Such group involves Loan Officers, Credit Analysts, Credit follow-up and Monitoring officers, internal auditors, collateral estimator engineer`s, Credit managers, Relationship Managers and Recovery/Monitoring Officers. Secondary Data are directly gathered from records and published documents of each branches and north shoa zonal office of ACSI under sample study.

3.7. Method of Data Analysis

The data collected from survey questionnaire were thoroughly coded and checked for consistency and entered into SPSS version 25 spreadsheet. To achieve the objective of the study, Data collected using documents and questionnaires were analyzed quantitatively. The primary data collected was coded, tabulated, presented and analyzed using econometrics regression analysis method by using SPSS software application. The hypothesis tests regarding the coefficient estimates are validly conducted and assumptions relating to the classical multiple linear regression model were tested as required relating to the study. Descriptive statistics, mean, standard deviation, minimum and maximum values were analyze from the regression results

3.8. Model specification and Variables of the Study

The research models is multiple linear regressions and I have used this model to express difference between the explained and the explanatory variables or in other ways it mean that dependent and independent variables which has close relationship with non-performing loans/NPLs.

The model assumption is:

$$Yi = \beta 0 + \beta 1X1i + \beta 2X2i + \beta 3X3i + \cdots + \beta kXki + Ui \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots EQ.1$$

Where Yi = non-performing loan, X1 is one independent variables, X2 is the second independent variables, X3 is the third independent variables, and β ' s are unknown parameters of independent variables and Ui is the disturbance\error terms.

Where X (i is 1,2,3,....., K) ki are explanatory variables, Yi(NPL) is the dependent variable and (j = 0,1,2,....(k +1)) j = are unknown parameters and Ui is the disturbance term. The disturbance term is reflecting the:

- the basic random nature of human responses
- errors of aggregation
- errors of measurement
- Errors in specification of the mathematical form of the model and any other (minor) factors, other than xi that might influence Y.

So, my assumptions the independent variables of the study have been x1= credit analysis, X2= credit monitoring/follow up, X3= collateral property, X4= borrowers orientation. Whereas, Yi= non-performing loans (NPL) which is dependent variable.

The values of variables x1, x2, x3, and x4 are different from zero.

Therefore, $Yi = \beta 0 + \beta 1X1i + \beta 2X2i + \beta 3X3i + \cdots + \beta kXki + Ui \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots EQ.1$

For the analyses purpose, nonperforming loan treated as the dependent variable; NPL rate Calculated by using the ratio of impaired loan to total loan, whereas credit analysis, credit monitoring, collateral and borrower`s orientation are treated as independent variables.

3.9. Ethical considerations

Virtually all studies with human participants involve some degree of risk. These risks may range from minor discomfort to much more severe effects on participants` physical or emotional or social well-being. Thus, the researcher conduct the study based on the Nuremberg Code of research ethics. Due consideration was given to obtain consent from each participant about their participation in the study. It was strictly conducted on voluntary basis. The researcher tried to respect participants` right and privacy. The findings of the research were presented without any deviation from the outcome of the research. In addition, the researcher gave full acknowledgements to all the reference materials used in the study.

CHAPTER FOUR

RESULTS PRESENTATION AND DISCUSSIONS

In this chapter data analysis results are presented and discussions of the result of the research work. The objective of the study is to identify the determinants of NPLs in Amhara credit and saving institutions.

4.1. General

A structured questionnaire (Appendix I) was distributed to one hundred employees, loan officers, credit analysts, credit appraisal officer, relationship managers, recovery/monitoring officers and credit underwriting managers in four ACSI branches including north shoa zone office in debre berhan town and has selected by 100 employees from the selected study areas through census sampling technique.

The questionnaire was distributed in person to hundred employees (whose positions are related to ACSI lending). By employed census sampling technique, Out of 100 respondents only correctly fill 90 respondents which were 90% of response rate (see Table 1 below).

As a result, the analysis is made on the valid number of responses. In some incidents analysis and explanation for amounts in the table are given only for most frequented and extreme figures. The data was analyzed using descriptive analysis, correlation analysis and multiple linear regressions analysis to answer the research question and fulfill objective by using SPSS version 25 software output. The results are presented in the form of summary tables.

Table 4.1 Response rates

Respondents	**Size**
sample size	100
completed and returned questionnaires	90
response rate	90%

Source; own survey

I have collected 90 questionnaires from the total respondents and the remain10 percent of the respondents was not returned the questionnaires.

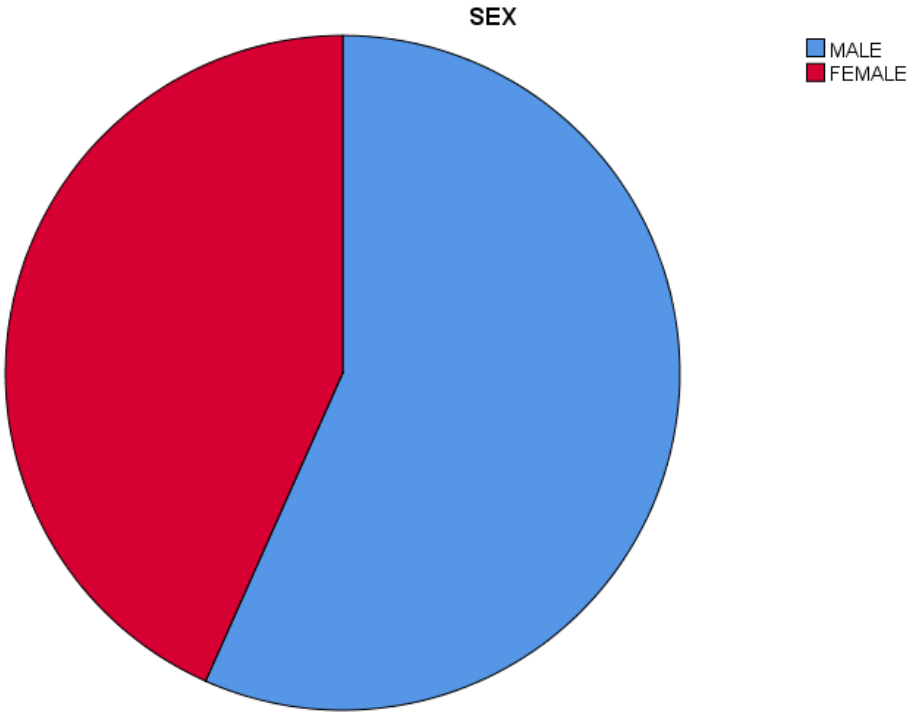
4.2. Profiles of respondents

Table 4.2 Gender rate of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	51	56.7	56.7	56.7
	FEMALE	39	43.3	43.3	100.0
	Total	90	100.0	100.0	

Source; survey and own computation

In the above table and pie chart shows the involvement of male and female by the percentage of 56.7 percent and 43.3 percent respectively. Therefore, most of ACSI employees are male.

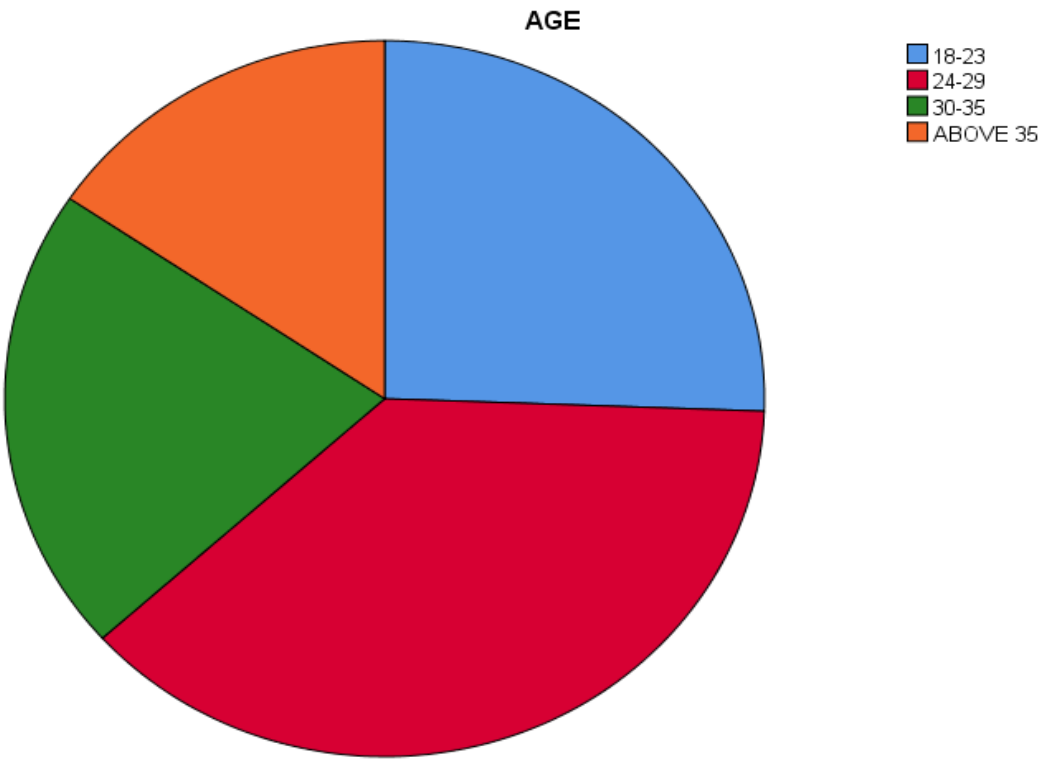


Pie chart 1 gender

Table 4.3 Respondents age interval

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-23	23	25.6	25.6	25.6
	24-29	34	37.8	37.8	63.3
	30-35	19	21.1	21.1	84.4
	ABOVE 35	14	15.6	15.6	100.0
	Total	90	100.0	100.0	

Source; own survey



Pie chart 2 Respondent`s Age interval

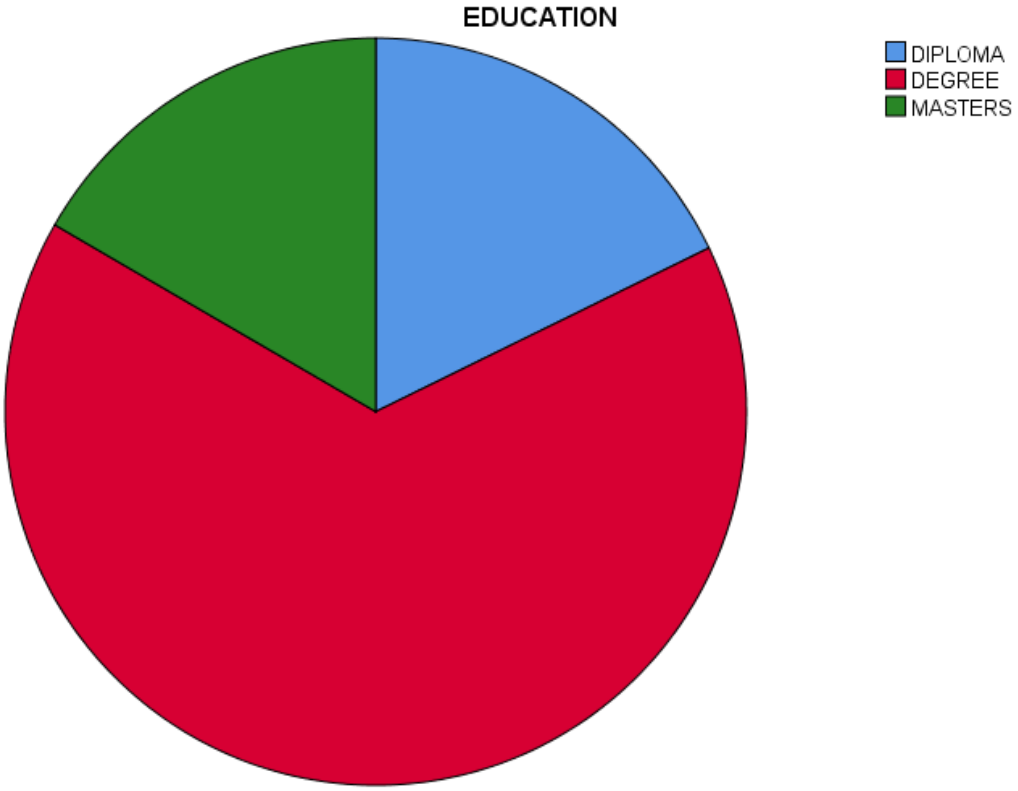
As shown in the above table and pie chart, 25.6 percent of employees lie the age of between 18 years and above 23 years. 38 percent of employee's age lies between 24 years and 29 years, 21.1 percent of employees age lies between 30 years and 35 years, and the rest 15.6 percent of employee's age is above 35 year. So, most of employees are young.

Table 4.4 Respondent`s educational level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DIPLOMA	16	17.8	17.8	17.8
	DEGREE	59	65.6	65.6	83.3
	MASTERS	15	16.7	16.7	100.0
	Total	90	100.0	100.0	

Source; survey outcome and own computation

As show in the above table and the following pie chart, 17.8 percent are diploma holders, the most 66 percent are degree holders, and the rest 18 percent are master's holders. So, this educational level indicate that all employees of ACSI are literate this is potential for the institution.



Pie chart 3 respondent`s educational level

Table 4.5 Respondent`s position in ACSI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LOAN OFFICER	18	20.0	20.0	20.0
	CREDIT ANALYST	8	8.9	8.9	28.9
	INTERNAL CONTROL	10	11.1	11.1	40.0
	CRM	14	15.6	15.6	55.6
	MONITORIN AND RECOVERY OFFICER	9	10.0	10.0	65.6
	CUSTOMER SERVICE OFFICER	10	11.1	11.1	76.7
	CREDIT APPRAISAL	2	2.2	2.2	78.9
	zonal higher financial officer	2	2.2	2.2	81.1
	collateral estimator engineer	3	3.3	3.3	84.4
	Accountant	10	11.1	11.1	95.6
	BRANCH MANAGER	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

Source: Survey outcome and own computation

As shown in the above table credit officer are 20 percent of the total respondents, credit analysis officers are 9 percent, 15.6 percent are credit relationship managers, 11.1 percent are internal control, and 10 percent are monitoring & recovery officer s and 2.2 percent are credit appraisal. In addition to these customer service officers, zonal higher financial officer, branch managers, accountants, and collateral estimator engineers are 11.1, 2.2, 4.4, 11.1, 3.3 percent respectively.

Table 4.6 Respondent`s total work experience in ACSI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 Y	19	21.1	21.1	21.1
	6-10 Y	25	27.8	27.8	48.9
	11-15 Y	18	20.0	20.0	68.9
	ABOVE 15	28	31.1	31.1	100.0
	Total	90	100.0	100.0	

Source; survey outcome and own computation

In terms of ACSI total work experience, 21.1 percent has below five years' experience, 27.8 percent has between 6 and 10 years` experience, and 51 percent covered by above 10 year`s work experience.

Table 4.7 Respondent`s credit related experience in ACSI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BELOW 1 Y	1	1.1	1.1	1.1
	1-5 Y	37	41.1	41.1	42.2
	6-10 Y	32	35.6	35.6	77.8
	11-15 Y	6	6.7	6.7	84.4
	ABOVE 15 Y	14	15.6	15.6	100.0
	Total	90	100.0	100.0	

Source; survey outcome and own computation

As per the above table, 35.6 percent of the respondent's credit experience lies between 6 years and 10 years. While 41.1 percent are lies the age interval of 1years and 5 years, and 15.6 percent are lies above 15 years and below 1year is 1 percent. So, this credit work experience indicates that all respondents have been credit performers.

Table 4.8 Ownership type of ACSI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PRIVATE OWNED	2	2.2	2.2	2.2
	STATE OWNED	88	97.8	97.8	100.0
	Total	90	100.0	100.0	

Source; own survey

Even if some respondents filled the private ownership of ACSI 97.8 percent of the respondents was respond that the ownership type of ACSI is state owned or Amhara regional government.

Table 4.9 Factors affecting occurrences of NPLs are obvious

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AGREE	76	84.4	84.4	84.4
	NEUTRAL	10	11.1	11.1	95.6
	DISAGREE	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

Source; survey outcome and own computation

As per the agreed respondents in the above table is Determinant factors of non-performing loan in Amhara credit and saving institution was obviously well known by the weight of 84.4 percent agreement and 11.1 percent are neutral and the remain 4.4percent of the respondents are neutral.

4.3. Factors that Affect ACSI Lending and occurrence of NPLs

As per the open ended questioners resulted, ACSI specific factors are categorized in to three factors. Such as, specific factors to the lender ACSI, and specific factor to borrowers and specific factor to macro-economic conditions.

A) Lender ACSI specific factors

These factors that affect the non-performing loans of ACSI and their factors have risen from internal source of the institution. Such cause of NPLs are;-

- Lack of follow up and credit analysis
- unknowing of customers and it makes difficulty to follow up them
- Lack of loan awareness creation capacity
- Lack of employees work commitment
- due to lack of knowledge and skills is one factors of the uncollected loan amounts
- Did not sign on loan contract formats by couples/ loan formats. So, after borrowing the money conflict might be raised and the case address at court. At that time the owner of the borrowers miss promised themselves. Due to this conflict the loan status turn to non-performing loan.
- Do not select the right borrowing customers.

- Disbursed the loan beyond the financial statement/income limits of the customers.
- Disbursed the loan without sufficient loan collateral properties and overestimated of the collateral.
- Approved the loan without made business profitability analysis.
- Disbursed the loan without fulfilling the eligibility criteria.
- existence of mismatching of loan and business type
- Lack of training regarding to loan process and loan behavior.

B) Specific factors to borrowers

- Work profit will be below the expected results and will be difficulty to repay the loan.
- Due to lack of business profit of the selected business, so, will fly to out of the country to gain profitable work and to return the loan.
- Due to bankruptcy of business
- Lack of loan cultures to doing business and lack of attitude to repay the loan.
- lack of attitude to repay the loan
- Rises of conflict between members of group borrowers and may not voluntary to work together and as well as may not pay the loan.
- There was disbursed Youth revolving fund without awareness creation and that was not actively repaying the loan, because unemployed youth termed it as governmental gift.
- Due to lake of awareness, Most of the societies have decided as the ACSI interest is more exaggerated and termed as enemy.
- The borrower`s selected business type might not be profitable and difficult to pay the loan by the terms of the loan
- Civil servant employees may be terminated from the employer before settling the loan.

C) Specific factors to macroeconomic conditions

These factors are cause of NPLs in ACSI which is beyond the control of the institution and that are affects the ACSI business activities at all. So, source of these factors are externally. Therefore, these factors are listed as follows;-

- political unrest and natural problem has been factors
- high lending interest rate is one of factors of NPL
- Inflation and GDP growth of the country
- There was disbursed Youth revolving fund by the intervention of government and that was not actively repaying the loan, because unemployed youth termed it as governmental gift. So, this type of credit product is the highest share of ACSI non-performing loans ratio.
- existence of seasonal health problem like .covid-19, Ebola, and the like
- The productivity of farmers might be low due to flood, and or lack of rain season
- Do not enter insurance coverage agreement for natural disasters.

Table 4.10 Factors rank that affecting occurrences of NPLs in ACSI.

Factors	**1st**	**2nd**	**3rd**	**sub total**	**%**	**4th**	**5th**	**6th**	**7th**	**8th**	**sub total**	**%**	**Total**
Rapid loan growth by ACSI	5	7	3	15	0.17	10	16	22	8	19	75	0.833	90
High interest rate	8	3	17	28	0.31	17	11	13	16	5	62	0.689	90
Credit culture or orientation	12	9	14	35	0.39	18	15	11	7	3	54	0.607	89
Size of the institutions	13	6	9	28	0.31	12	15	12	9	14	62	0.689	90
Poor monitoring or loan follow-up	15	18	22	55	0.61	9	6	9	4	7	35	0.389	90
Ownership type of the institution	9	7	11	27	0.3	7	5	9	14	27	62	0.697	89
Poor risk assessment	37	16	9	62	0.69	9	7	5	3	4	28	0.311	90
Lenient credit term	13	21	9	43	0.48	13	9	8	12	15	57	0.633	90

Source: survey outcome and own computation

As shown table4.10, the respondents have listed the ranks of determinant factors of NPL started from the highest factors that affect NPLs. So, the highest respondent percentage indicates that the role of that factor is high. Therefore, 69 percent and 61 percent are poor risk assessment and poor monitoring/loan follow up respectively and these factors rank has found one up to three redundantly as per the respondents result and these factors affect NPLs highly. The second and the most determinant factors are lenient credit term, credit culture/orientation and high interest rate are 48, 39 and 31percent respectively and these factors are the highest determinant factors. Besides of this, rapid loan growth by ACSI (83 percent) and ownership type of ACSI (70 percent) are the lowest determinant factors of NPLs in ACSI.

4.4. Descriptive Statistic Analysis

The descriptive statistics for dependent and independent variables are presented and their results are discussed in the table 4.11 below. For both dependent and independent variables value of minimum, maximum, mean and standard deviation are presented. So, NPL is dependent variable and independent variables are credit assessment, credit monitoring, collateralized loan and borrower`s orientation/culture.

Table 4.11 Factors on relation between credit assessment and occurrences of NPLs

	N	Minimum	Maximum	Mean	Std. Deviation
Easily admitted borrowers usually default	90	1.00	5.00	3.8889	1.27592
Know Your customer (KYC) Policy of ACSI lead to high Loans quality	90	1.00	00	3.5778	1.12157
Good loan underwriting ensures loan Performance	90	1.00	5.00	3.7000	1.34457
Poor risk assessment would lead to non-performing loan	90	1.00	5.00	3.6667	1.22704
Valid N (list wise)	90				

Source: survey outcome and SPSS computation

From the table survey outcome, the highest mean and standard deviation indicates that the highest determinant factors of credit assessment. So, the highest determinant is Easily admitted borrowers usually default and it affects credit assessment by the mean 3.89 with the standard deviation 1.28,medium determinant for credit assessment is Good loan underwriting ensures loan Performance by the mean 3.7 with the standard deviation is 1.34 and the lowest credit assessment factors is KYC policy of ACSI by the lowest mean and St. Deviation 3.58 with 1.12 respectively.

Table 4.12 Factors on relation between credit monitoring and occurrences of NPLs

	N	Minimum	Maximum	Mean	Std. Deviation
Strict monitoring ensures loan performed	90	2.00	5.00	3.8778	1.01481
Poorly assessed and advanced loans may perform well if properly monitored	90	1.00	5.00	3.7889	1.02216
Loan follow up is directly related to occurrence of NPLs	90	2.00	5.00	3.7333	1.06844
ACSI with higher budget for loan monitoring has lower NPLs	90	1.00	5.00	3.7111	1.19215
Valid N (list wise)	90				

Source: survey outcome and own computation

Credit monitoring factors are one of the independent variables of NPL and as shown in the above table is strict monitoring ensures loan performed affects credit monitoring highly by the mean of 3.87 with the St. Deviation of 1.01. The second determinant factor of credit monitoring is poorly assessed and advanced loans may perform well if properly monitored. The third factor of credit monitoring is loan follow up is directly related to the occurrence of NPLs by the mean 3.73 with the St. Deviation is 1.06. Then ACSI with higher budget for loan monitoring has lower NPLs needs lower attention from credit monitoring by the mean of 3.71 and with the St. Deviation of 1.19.

Table 4.13 Relationship of collateralized loan and occurrence of NPL

	N	Minimum	Maximum	Mean	Std. Deviation
Collateralized loans perform well	90	1.00	5.00	1	1.08818
Most of the time non-collateralized loans are non-performed loans	90	1.00	5.00	3.5222	1.22912
Collateralizing loans help protect loan default	90	2.00	5.00	3.5778	1.11151
Valid N (list wise)	90				

Source: survey outcome and own computation

Collateralized loans perform well should be the first steps of collateralized loan. Because the mean and St. Deviation is 3.61 and 1.08 respectively. Second, collateralized loans help protect loan default. The last factors and the lowest mean and St. Deviation is non-collateralized loans are non-performed loans.

Table 4.14 Relationship between borrower's orientation & occurrence of NPLs

	N	Minimum	Maximum	Mean	Std. Deviation
Borrower's orientation/culture is related to loan performing habit	90	1.00	5.00	3.9889	1.01111
There is a relationship between loan default and borrower's culture.	90	1.00	5.00	3.6889	1.12823
Default in some area is ascribed to the culture of the borrowers	90	1.00	5.00	3.9000	1.10209
Society's cultural development leads to good loan performance.	90	1.00	5.00	3.8000	1.12380
Valid N (list wise)	90				

Source: survey and SPSS outcome

Cultures of the borrower`s is one of the core determinant factors under borrower orientation that affecting NPLs by the mean of 3.99 with the St. Deviation is 1.0. the second largest mean of 3.9 with the St. deviation 1.10 indicates the second factor of borrower`s orientation is the lowest borrower`s credit culture and it leads to the higher loan defaults.

The third level factors of borrower`s orientation that shows in the (table, 4.14) is society's cultural development leads to the good loan performance by the mean 3.80 with the St. deviation of 1.12. finally, the lowest affecting factors in the above table described factors are relationship between loan default and borrower`s culture is statistically significant by the mean 3.68 with the standard deviation of 1.12.

Table 4.15 Relationship between Cost of Loan and NPLs

	N	Minimum	Maximum	Mean	Std. Deviation
Low loan price affects NPLs	90	1.00	5.00	3.6000	1.11979
Charging big interest rate leads to non-performing loans	90	1.00	5.00	3.3556	1.16418
Loan with big interest rent tend to turn to NPL	90	1.00	5.00	3.7444	1.22301
Valid N (list wise)	90				

Source: survey outcome and own computation

As shown (table 4.15) the first factor of loan cost is Lending loan with big interest rent tend to turn to NPL by the mean 3.74 with St. Deviation of 1.22. The second determinant factor is low loan price affects NPL by the mean 3.60 with the St. Deviation 1.11. Therefore, the lowest factor is charging high interest rate increases non-performing loans by the mean of 3.35 with the St. Deviation 1.16.

Table 4.16 Relationship between credit terms and occurrence of NPL

	N	Minimum	Maximum	Mean	Std. Deviation
Lenient /lax credit term and tariff cause non-performing loan	90	1.00	5.00	3.3444	1.10322
Existence of write off leads to non-performing loans	90	1.00	5.00	3.5667	1.16165
Lack of Borrowers understand the loan terms and tariff will be cause of NPLs	90	1.00	5.00	3.4556	1.20076
Valid N (list wise)	90				

Source: survey outcome and own computation

Due to lack of awareness borrower`s might be considered write off the loan as opportunity for unpaid loan outstanding balance. But, this was derived from absence of understand the terms and conditions of the lender ACSI. From the above (table 4.16) indicates that the existence of write off loans highly affected NPLs by the highest mean 3.6 and with the St. deviation 1.16, and lack of borrower`s understand the loan terms and tariff will affect NPL by the moderate mean 3.45 and with the St. Deviation 1.2. The existence of lenient/lax credit term and tariff will affect NPL by the mean 3.34 and 1.1o standard deviation.

Table 4.17 Relationship between credit growth and NPLs

	N	Minimum	Maximum	Mean	Std. Deviation
Aggressive lending leads to large NPL volume/ratio	90	1.00	5.00	3.0889	1.14798
ACSI`s whose credit growth is rapid experience huge NPL level	90	1.00	5.00	3.1778	1.16675
ACSI's great risk appetite is cause for NPL	90	1.00	5.00	3.5778	.98275
Compromised integrity in lending loan leads to non-performing loans	90	2.00	5.00	3.7889	1.01111
Valid N (list wise)	90				

Source: survey and SPSS outcome

Compromised integrity in lending loan leads to NPL and this factor affect NPL highly by the mean 3.79 and with the St. Deviation 1.01, and ACSI`s great risk appetite is the main cause of NPLs and it affects by the moderate mean of 3.56 and with the St. deviation 0.98. The rapid Credit growth experiences the huge NPL level. So, it affects NPL by the mean 3.18 and with the St. Deviation is 1.16. Finally, the lowest factors that affect NPL are aggressive lending and it increases the NPL volume/ratio by the lowest mean of 3.01 and with the St. Deviation 1.15.

Table 4.18 Relationship between size of ACSI and NPLs

	N	Minimum	Maximum	Mean	Std. Deviation
Having large no. of borrowers causes for NPL`s	90	1.00	5.00	3.7000	1.03261
Non-performing loan rate is directly related to ACSI size	90	2.00	5.00	3.7222	1.06029
With growth in ACSI size comes growth on NPL	90	1.00	5.00	3.6667	1.07055
Valid N (list wise)	90				

Source: survey outcome and own computation

As shown in the above table 4.18 indicates that there is a direct relationship between ACSI size and non-performing loans by the mean 3.72 with the St. Deviation 1.06. Whereas, existence of large number of borrower`s are the main cause of non-performing loan of ACSI by the mean 3.7 with the standard deviation of 1.03. Thirdly, the lowest factor of NPLs is growth in ACSI size leads to growth in NPLs rate of ACSI by the mean 3.66 with the standard deviation of 1.07.

Therefore, this statistical results indicate that number of borrower`s and ACSI size should be give attention in order to minimize NPL rate of ACSI.

Table 4.19 Relationship between ACSI ownership type and NPL

	N	Minimum	Maximum	Mean	Std. Deviation
Non-performing loan is not related ACSI ownership Type (private/state owned)	90	2.00	5.00	3.8667	.97381
Valid N (list wise)	90				

Source: survey and SPSS result

Ownership type of ACSI is not related with non-performing loan rather giving attention for ACSI size growth is highly affected NPLs by the mean of 3.7 and with the St. Deviation 1.07.

4.5. Multiple linear regression analysis

4.5.1. Tests of multiple linear regression

Table 4.20 Test of correlations

		CREDITASSESMENT	MONITOR	COLATERAL	BOROWER	NPL
CREDITASSESMENT	Pearson Correlation	1	.289**	.425**	.571**	.602**
	Sig. (2-tailed)		.006	.000	.000	.000
	N	90	90	90	90	90
MONITOR	Pearson Correlation	.289**	1	.786**	.098	.528**
	Sig. (2-tailed)	.006		.000	.360	.000
	N	90	90	90	90	90
COLATERAL	Pearson Correlation	.425**	.786**	1	.252*	.706**
	Sig. (2-tailed)	.000	.000		.017	.000
	N	90	90	90	90	90
BOROWER	Pearson Correlation	.571**	.098	.252*	1	.657**
	Sig. (2-tailed)	.000	.360	.017		.000
	N	90	90	90	90	90
NPL	Pearson Correlation	.602**	.528**	.706**	.657**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	90	90	90	90	90

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

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

Source: survey and SPSS result

From above table SPSS results indicated that there is correlation between the dependent variable and independent variables and vice versa.

4.5.2. Tests of multicollinearity

Multicollinearity meant the existence of ``perfect`` or exact linear relationship among some or all explanatory variables of regression model. If multicollinearity is less than perfect, OLS estimators retain the property of BLUE. Although, BLUE, the OLS estimators have large variances and covariance's. So, the speed with which variances increase can be seen with the variance-inflating factor (VIF), which is defined as VIF = 1/1-r12^2.

Tolerance – the tolerance measures the influence of one independent variable on all other independent variables; the tolerance is calculated with an initial linear regression analysis. Tolerance is defined as $T = 1 – R^2$ for these first step regression analysis.
Variance Inflation Factor (VIF) – the variance inflation factor of the linear regression is defined as VIF = 1/T. Similarly with VIF > 10 there is an indication for multicollinearity to be present.

Table 4.21 Test of multicollinearity

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.326	.233		1.403	.164		
	CREDITASSESMENT	.069	.045	.108	1.540	.127	.589	1.697
	MONITOR	.047	.065	.064	.722	.472	.371	2.693
	COLATERAL	.341	.065	.493	5.275	.000	.334	2.991
	BOROWER	.438	.063	.465	6.982	.000	.659	1.518

a. Dependent Variable: NPL
Source: survey and SPSS results

Therefore, by testing VIF and tolerance there is no multicollinearity in the model and the value of VIF of explanatory variables are above 1 and less than 10, secondly, testing multicollinearity by using tolerance and then the tolerance values of the independent variables are approach to 1.

4.5.3. Test of autocorrelation

In this survey result indicate that there is no autocorrelation by tested durbin-watson. The result of DW lays between $Du \leq D \leq 4 - Du$. so, at this condition do not reject the null hypothesis rather accept it. Therefore, we can test the multiple linear regression models for autocorrelation with the Durbin-Watson test. Durbin-Watson's d tests the null hypothesis that the residuals are not linearly auto-correlated. While d

can assume values between 0 and 4, values around 2 indicate no autocorrelation. As a rule of thumb values of 1.5

Table 4.22 Test of autocorrelation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.867[a]	.752	.740	.35874	1.992

a. Predictors: (Constant), BOROWER, MONITOR, CREDITASSESMENT, COLATERAL

b. Dependent Variable: NPL

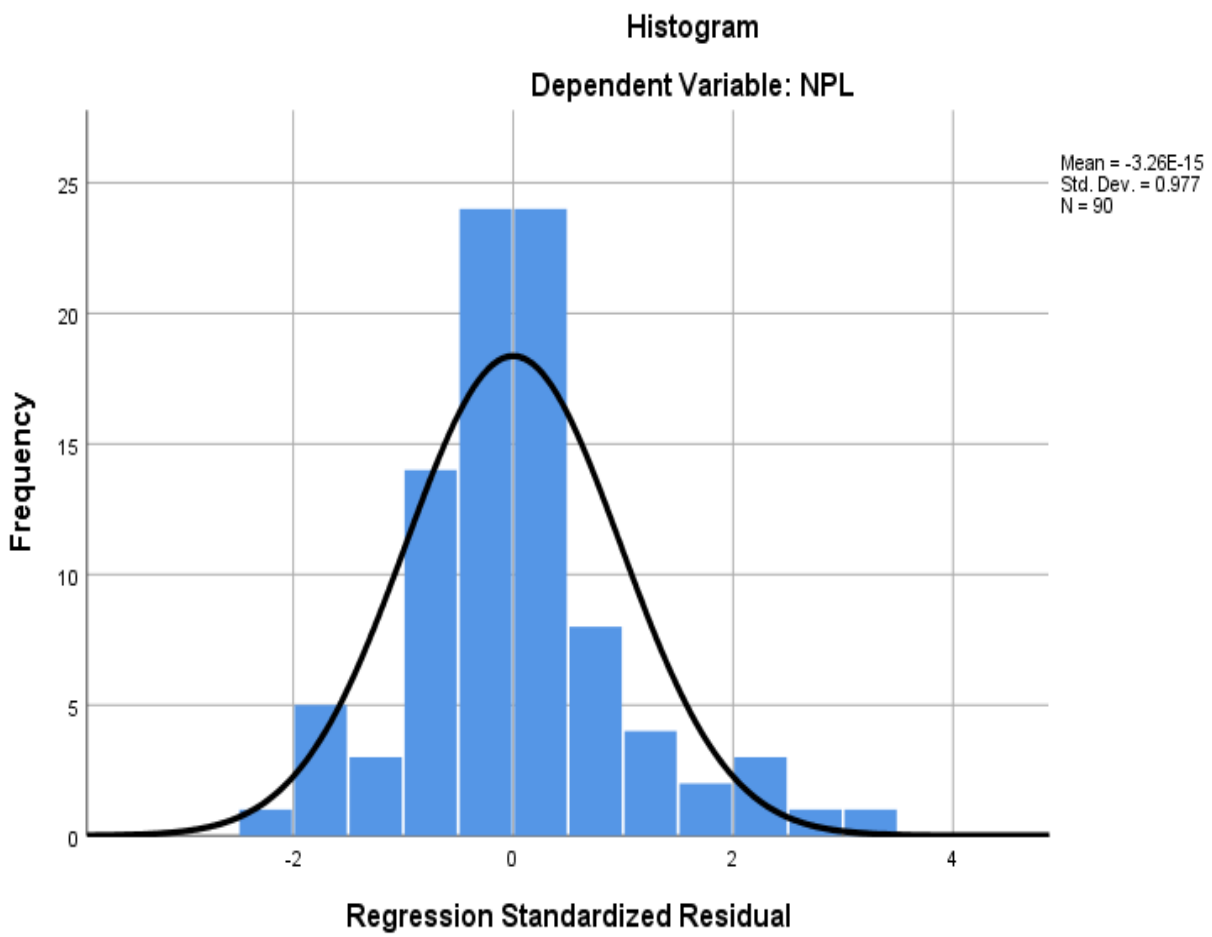
Source: survey out come and SPSS computation result

The above model summary indicates that there is no autocorrelation in the regression model. So, the result of Durbin- Watson is 1.992 and this value lies between 0 and 4.

4.5.4. Test of normality

Regression assumes that variables have normal distributions. Non-normally distributed variables (highly skewed or kurtotic variables, or variables with substantial outliers) can distort relationships and significance tests. There are several pieces of information that are useful to the researcher in testing this assumption: visual inspection of data plots, skew, kurtosis, and P-P plots give researchers information about normality, and Kolmogorov-Smirnov tests provide inferential statistics on normality. Outliers can be identified either through visual inspection of histograms or frequency distributions, or by converting data to z-scores. Bivariate/multivariate data cleaning can also be important (Tabachnick&Fidell, 2001, p 139) in multiple regression.

Histogram 1 tests of normality graph



Source: survey results and SPSS computation result

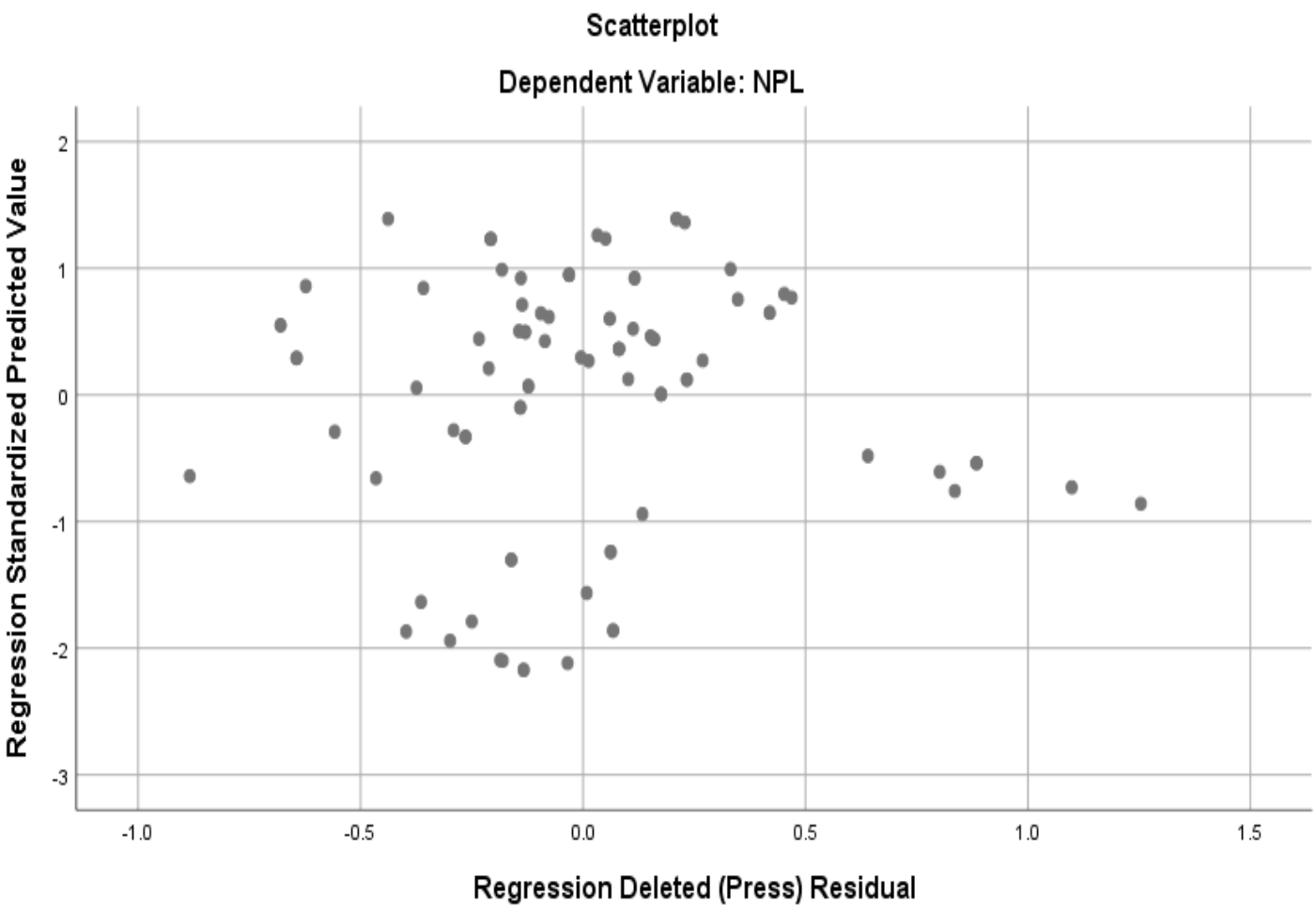
4.5.5. Test of linearity

Multiple linear regressions need the relationship between the independent and dependent variables to be linear. It is also important to check for outliers since multiple linear regressions are sensitive to outlier effects. The linearity assumption of the model has been satisfied. That means degrees of the coefficient of the explanatory variables are one. So, this model is linearly related between dependent variable and independent variable. Therefore by computed the coefficient beta value and I have formed the model as follows;-

NPL = $\beta 0$ +0.069x1+0.047x2+0.341x3+0.438x4+Ui

The linearity assumption can best be tested with scatter plots as follows mentioned.

Scatterplot 1 Test of linearity



Source: survey and SPSS computed outcome

4.5.6 Test of Homoscedasticity

The Nature of Homoscedasticity

In the classical linear regression model, one of the basic assumptions is that the probability distribution of the disturbance term remains same over all observations of X; i.e. the variance of each $u\ i$ is the same for all the values of the explanatory variable. Symbolically, var (ui) =E[ui−E(ui)]2 =E(ui2) =$\sigma\ u\ 2$; constant value. This feature of homogeneity of variance (or constant variance) is known as homoscedasticity.

4.6. Model specification and tests

Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867[a]	.752	.740	.35874

a. Predictors: (Constant), BOROWER, MONITOR, CREDITASSESMENT, COLATERAL

Source: survey outcomes and SPSS computation result

The research models is multiple linear regressions and I have used this model to express difference between the explained and the explanatory variables or in other ways it mean that dependent and independent variables which has close relationship with non-performing loans/NPLs.

The model assumption is:

$$Yi = \beta 0 + \beta 1X1i + \beta 2X2i + \beta 3X3i + \cdots + \beta kXki + Ui \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots EQ.1$$

Where Yi = non-performing loan, X1 is one independent variables, X2 is the second independent variables, X3 is the third independent variables, and β ' s are unknown parameters of independent variables and Ui is the disturbance\error terms.

Where X (i is 1,2,3,....., K) ki are explanatory variables, Yi(NPL) is the dependent variable and (j = 0,1,2,....(k +1)) j = are unknown parameters and Ui is the disturbance term. The disturbance term is reflecting the:

- the basic random nature of human responses
- errors of aggregation
- errors of measurement
- Errors in specification of the mathematical form of the model and any other (minor) factors, other than xi that might influence Y.

So, my assumptions the independent variables of the study have been x1= credit analysis, X2= credit monitoring/follow up, X3= collateralized loan, X4= borrowers orientation. Whereas, Yi= non-performing loans (NPL) which is dependent variable.

The values of variables x1, x2, x3, and x4 are different from zero.

Therefore,

$$Yi = \beta 0 + \beta 1X1i + \beta 2X2i + \beta 3X3i + \cdots + \beta kXki + Ui \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots EQ.1$$

As per the derived from SPSS regression analysis the value of $\beta 0$ = 0.326, $\beta 1 = 0.069, \beta 2 = 0.047, \beta 3 = 0.341$ and $\beta 4 = 0.438$

Would be NPL = $\beta 0$ +0.069x1+0.047x2+0.341x3+0.438x4+Ui and change to this justification model.

Yi = 0.326+0.069(credit assessment) +0.047(credit monitor) +0.341(collateralized loan) +0.438(borrower`s orientation) +Ui

But, the coefficient of the explanatory variables ($\beta 1$, $\beta 2$, $\beta 3$ and$\beta 4$) is indicates the relationship and the influence degree of determinant factors of non-performing loans.

The value of the intercept number 0.326 implies that the value of the dependent variable 'Y' is 0.326, when the value of the explanatory variable is zero. The value of the slope coefficient (β ˆ1=0.069,β ˆ 2=0.047, β ˆ 3=-0.341, β ˆ 4=0.438) is a measurement of the marginal change in the dependent variable 'Y' when the value of the explanatory variable increases or decreases by one. For instance, in this model, the value of 'Y' increases on average by the above coefficient of beta units when 'X' increases by one.

4.6.1. Hypothesis Testing in Multiple Regression Model

In multiple regression models we will undertake two tests of significance. One is significance of individual parameters of the model. The second test is overall significance of the model.

4.6.2. Test of Overall Significance

I was concerned with testing the significance of the estimated partial regression coefficients individually, i.e. under the separate hypothesis that each of the true population partial regression coefficients test of the relevance of all the included explanatory variables.

Now consider the following:

$Y = \beta 0 + \beta 1 X 1 + \beta 2 X 2 + ... + \beta k X k + U i ..... 0$

$H 0: \beta 1 = \beta 2 = \beta 3 = \beta 4 = \beta k = o$

$H1$: at least one of the βk is non-zero this null hypothesis is a joint hypothesis that β1, β 2,β3,β4..... βk are jointly or simultaneously equal to zero. A test of such a hypothesis is called ***a test of overall significance*** of the observed or estimated regression line, that is, whether Y is linearly related to X 1, X 2, X3, and X4variables.

Therefore, the result that was derived from regression model rejected the null hypothesis by accepted alternative hypothesis. Because, the value of coefficientβ1, β2,β3, and β4 is(β ˆ1= 0.069,β ˆ 2=0.047, β ˆ 3=-0.341, β ˆ 4=0.438). this indicate that all explanatory variables that involved in the regression model are statistically significant. Such explanatory variables are credit assessment, credit monitoring, collateral and borrower`s orientation.

4.6.3 Tests of model adequacy

Goodness of fit (R2) and adjusted (R2)

R2is a number that indicates the proportion of the variance in the dependent variable that is predictable from the independent variable. R**2** is a statistic that will give some information about the goodness of fit of a model. In regression, the R**2** coefficient of determination is a statistical measure of how well the regression line approximates the real data points.

An R**2** of 1 indicates that the regression line perfectly fits the data. It provides a measure of how well observed outcomes are replicated by the model, based on the proportion of total variation of outcomes explained by the model.

R2=0.752 From the regression result above, the R**2** of 0.752 suggested that the explanatory variable credit assessment, credit monitoring, collateral and borrower`s orientation explained about 75% change or variation in the dependent variable or nonperforming loans. Thus, 75% of changes in nonperforming loans of ACSI are due to change in the explanatory variables identified by the researcher.

4.7. Discussion of Findings

The main objective of Amhara credit and saving institution is to deliver efficient and effective customer focused credit and saving products and services with the aim of attaining customer satisfaction and fostering sustainable growth and profitability. All these ACSIs give different kinds of services; among which credit provision is the major one as it is the core function of the institution. It is commonly said that the successful microfinance institution is the successful lender.

ACSI provides different types of term loans. These include term loans (short, medium & long term), over draft facilities, youth revolving credit, construction loan, consumer loans, agricultural loan, technology loan etc. It is noted that when ACSI lends to a customer there are principles that should be considered; i.e., safety, liquidity, effective utilization of loan precede, profitability and diversification of advances. Even if the procedures of loan processing differ from one microfinance institution to another, in general, lending procedures include: primary discussion with the customer, processing the credit application, interview, site visit, credit information, credit investigation, credit analysis and credit decision making. The health of financial institutions often is measured by the amount of sick loans they have in their books.

The following points are drawn as conclusion based on the analysis made on primary and secondary data and the findings about problems of NPLs. As has been stated in chapter one, the study has intended to identify causes behind the unpaid loans that literally exist in all financial institutions specially my selected institution ACSI and formulated six specific questions (one major question and five sub-questions) to help achieve the broad objective to identify determinants of NPLs, including relationship among credit assessment, credit monitoring, collateralized lending, borrower's orientation, and credit growth vis-à-vis occurrences of NPLs. In respect of the factors affecting NPLs, the subjective questions in the survey identified factors such as poor credit assessment and monitoring, culture/orientation, ACSI credit terms, aggressive lending, compromised integrity, and economic condition attribute to the causes of loan default. Further, the research questions stated under the ``Statement of the Problem and Research Questions``(Chapter 1) were formulated to contribute to meeting the general objective of the research. Factors are further investigated as follows.

Factors (specific determinants) affecting occurrences of NPLs

The study analyzed each factor that has impact on occurrences of NPLs. Bercoff et al (2002) indicated that NPLs are affected by both ACSI specific factors and macroeconomic factors. Focus of this study being ACSI specific determinants of NPLs, the findings in light of related literature are discussed. Substantial number of respondents believed that poor credit analysis on the part of lending ACSI and unsound lending practices are major causes behind unpaid loans (Table 4.9). Failure to consider credit worthiness of borrowers, truck record, proven integrity, applicants‟ management profile etc. before admitting new customers indulge to recruiting borrowers with poor track record, inadequate business management, excessively risk venture that would eventually lead to poor credit performance.

Credit assessment and occurrence of NPLs

The survey also indicated that poor risk assessment would lead to loan default. Credit analysis constitutes the critical phase of ACSI lending process. Credit facility requests are analyzed by assessing the five Cs - Character, Capital, Collateral, Capacity and Condition. Thus failing to carry out proper risk assessment would lead to missing any or all of the mentioned issues, which has the potential for the occurrences of NPLs (Table 4.11). Ning (2007) indicated the impact of poor risk assessment on loan quality. Furthermore, the survey results indicate the fact that ACSI pursue strong KYC principle lead to high loan quality. The fact that ACSI pursue a loose KYC before admitting a new customer indulge them to recruiting a borrower with poor track record, inadequate business management, excessively risky and/or unviable venture that would eventually led to poor credit performance. The results do not support the statement of Brown Bridge (1998) who stated that easily admitted customer's loan would be damaged at the early stage.

Relation between credit monitoring and NPLs

The importance of regular monitoring of loan quality, Agresti et al. (2008) stated that it would help insure a sound financial system and there by prevent systemic risk that otherwise would lead to loan default. This survey also confirmed the stated study as 90 percent of the respondents indicated agreement (Table 4.12) to the assertion that strict monitoring of loans and advances ensures performance and poorly assessed and advanced loans may fail to perform well even if properly monitored. Thus failing to properly monitor loan would lead to loan default.

Since the ``know-Your-Customer`` (KYC) principle needs constant updating, proactive management of credit risk before serious problems arise is the hallmark of credit monitoring. Its objective is to verify whether the advanced loan does not deviate from terms and conditions of approval and utilized for the purpose they were granted. All involved in the credit processing ought to be alert to sick signals, such as, deterioration in the key financial indicators of the borrowers, lack of management on the part of management, sluggish periodic loan repayments, frequently bounding cheques.

If loans are not paid as and when due, credit risk is involved on reducing the value of the bank`s business. In order to continue lending ACSI must be able to collect their outstanding loans on time. All payments come in on the due dates without problem. Hence, in order to minimize the occurrence of bad loans every effort of follow-up must be carried to the utmost degree and take timely action when necessary. The survey results also indicated that 67.8 percent of the respondents agree that occurrence of NPLs is directly related to loan follow-up.

Effective loan follow-up need to be in place should good asset quality is maintained. Loan follow-up involves confirmation of repayment of currently maturing debts but also continuity of repayments for loans duration. Under physical follow-up existence and operation of the borrowers` business is ensured. Whether the end use of the borrowed fund is according to the purpose for which the loan was granted should be ascertained by financial follow-up. To protect the interest of lending ACSI, ensure legal

recourse is available at all times legal follow-up should be put into effect. Survey results indicate that banks that incur big cost for loans follow-up would have comparatively lower NPLs.

Relation between collateralized loans and NPLs

Collateral refers to assets that Amara credit and saving institution holds to mitigate default risk. It is a security that a borrower gives to the institution to guarantee repayment of a loan. It depends on ACSI policy that all loans shall be backed by acceptable collateral. It is a second way-out and it should never be a substitute for credit worthiness, which is the existence of adequate cash flow to repay the loan. Security is taken to mitigate the ACSI risk in the event of default and is considered a secondary source of repayment (Koch &MacDonald, 2003).

In the microfinance environment, security is required among others, to ensure the full commitment of the borrower, to provide protection should the borrower default from the planned course of action outlined at the time credit is extended, and to provide insurance should the borrower default. The survey results indicated that quite majority (77.6 percent) of the respondents are of the view that collateralizing loans helps protect loan default while, on the other hand, a significant majority (72.2 percent) and (22.3 percent) of the survey respondents disagree or were neutral to the assertion that collateralized loans perform well or non-collateralized loans usually default, respectively (Table 4.13).

Impact of Borrowers' orientation/culture and NPLs

The fact that the respondents who agree with the assertion that: society`s cultural development also leads to loan performance, the borrowers‟ culture/orientation is related to loans performance, and default in some areas is ascribed to the culture of the borrowers - constitute over 70 percent, 74.4 percent, and 76.4 percent, respectively, indicates existence of strong relationship between each of these factor and NPLs (table 4.14).

Cost of loan and loan default

Study by Sinkey and Greenwalt (1991), Rajan and Dhal (2003), Waweru and Kalini (2009), Berger and DeYoung,(1997), Jimenez and Saurina (2006), Quagliariello,(2007) Pain, 2003, Bikker and Hu, (2002) indicated that high interest rate charged by banks is associated with loan defaults. This study supported by this finding as 60 percent of the respondents said agree or remained neutral and disagree to the assertion that loans with big interest rate would turn to default. Majority (67 percent) of the respondents also expressed agreement became similar to the statements - charging big interest rate and loan prices affect loan performance (Table 4.15).

Credit terms& tariffs and loan performance

Researches indicate that failure to put appropriate credit terms and conditions would lead to loan default. Rajan and Dhal (2003) who studied the Indian commercial banks found out that terms of credit determines occurrences of NPLs. Jimenez and Saurina (2005) also stated that NPLs are determined by lenient credit terms. Consistent with this, 62 percent of the respondents expressed their agreement to the assertion that

poorly negotiated credit terms lead to loan default. However, 38 percent of them expressed disagreement or indifference to the statement that borrowers default because they don`t understand credit terms well (Table 4.16).

Relationship between credit growth and NPLs

Salas and Saurina (2002) who studied Spanish banks found out that credit growth is associated with NPLs. As far as the survey results are concerned, the concentration of respondents who attributed occurrence of NPLs to: compromised integrity, aggressive lending and ACSI increased risk appetite constitute - 74 percent, 46 percent and 63.3 percent of the sample respondents (Table 4.17).

Bank size & ownership type and NPL

Studies of gebrumeshesha (2015), indicated that banks size have significance on occurrence of NPLs. The survey results support this study. About 65.5 percent of the respondents express their agreement to the statements that occurrence of NPLs is attributed to ACSI size (Table 4.18).On the other hand, type of ownership of ACSI is supposed to impact occurrence NPLs as reported by majority of the respondents. (Table4.18)

4.8. Summary of Results

The survey was conducted on 100 employees of ACSI four branches and ACSI north shoa zonal office in debre berhan town. The data were collected using self-administered questionnaire. The feedback yielded a response rate of 90 percent. In terms of experience, 36 percent and 29 percent of the respondents had over five years of lending and total work experience respectively. In response to specific factors causing occurrences of NPLs, the results indicated that poor credit analysis was shared by all branches of ACSI, followed by economic condition, and diversion of fund. Regarding ranking factors affecting occurrences of NPLs in Amhara credit and saving institution, poor risk assessment, poor monitoring and follow-up and credit culture/orientation of borrowers were rated to be the top three critical factors causing non-performing loan. Nearly all respondents (78.9 percent) agreed that prudent credit assessment leads to high asset quality, followed by strict employment of KYC principle (72 percent). Around 74.3 percent of the respondents agreed that strict loan monitoring and follow-up ensures conducive loan performance and.

On the other hand, quite majority of the respondents were of the opinion that holding collateral backup helps protect loan defaults. The response on the relationship between loan pricing (interest rate) and occurrences of loan default depicted that 37.2 percent disagree that loans with big interest rate tend to turn to NPLs. With regard to the impact of culture on occurrence of NPLs, 73.6 percent and 68.4 percent of the respondents agree that loan performance depends on orientation/culture of the society and the borrowers respectively. Respondents asserted that there is a cause-and-effect relationship between sincerity of negotiation in credit terms and occurrence of NPLs. Respondents also agreed to the assertion that aggressive lending increased risk appetite and compromised integrity lead to loan default. However, results indicate that factors like size and ownership of ACSI has no significant impact on occurrences NPLs.

4.9. Causes and Effects of NPLs

Similar to any other business enterprises, Amhara credit and saving institution strive to earn profit. But in the drive for profit ACSI would face different problems. It is obvious that this institution is custodian of others` surplus funds. That is, ACSI take in money as deposits on which they pay interest and then lend it out to borrowers who use it to finance trade, investment or consumption. All Financial institutions have made profit mainly from the different between the interest rate they pay on deposits and the interest rate they receive on loans & advances. The problem of NPLs is one of the serious problems of ACSI branches. Normally, ACSI term loan is short, medium, and sometimes long term loan. So, ACSI disbursed loan for short-term and medium-term commercial purposes, and then they can realize the repayment within short and medium period of time. However, for many reasons the loans may turn to non-performing assets.

Causes for NPLs can be classified into four classes, namely, collateral, borrowers orientation, credit monitoring and credit analysis. Generally, we conclude that determinant factors are not always constant factors. Because, determinant factors are different in each organization`s environment at different time.

4.9.1. Causes Specific to the Borrower

A borrower may default because of either he/she is unable or unwilling to pay. Inability to pay is related to the financial conditions of the borrower, while unwillingness to pay is mainly related to the enforcement system which could be a legal or social mechanism.

In other words, willingness to pay depends on the borrowers` honesty, which is shaped by the available legal enforcement mechanisms and other social features such as spiritual and religious norms of the society. Inability to repay occurs when the borrower's project to be financed by the loan earns a gross return less than the principal, and the interest due on the loan. Thus, poor quality project is one factor that causes loans default. Even if the project is good, if the owner of the project manages it poorly, the loan received to finance the project may become less productive. This may occur if the owner or the manager of the project is illiterate and unskilled to manage the project and the loans received in this regard. Absence of financial statements and/or cash flows of the investment project financed by the loan create difficulties on planning how much to be earned and hence to repay periodically. Thus, if the borrower doesn't have proper accounting and auditing mechanism, it will be difficult for him to repay his/her periodic repayment timely and properly.

In Ethiopia since small firms are not obliged to prepare their financial statements and audit their performances, this is common factor for defaulting. Lack of knowledge adequacy (being illiterate or unskilled) on how to use granted loan`s may lead to default. In this connection, loan diversion is a problem for such borrowers, because they may employ the loan for other purposes and the investment project will have low returns that could not cover the repayment resulting in default. Insufficient or inexact loan provision may make the project less productive and repayment could be difficult. Similarly, short period of loan due date makes the periodic repayment so high that the borrower may face difficulties to repay, thus resulting in default.

High interest rate on the loan makes the total interest repayment to be large compared to the return obtained from the project and hence, periodic repayment will be huge. Loans with due date longer than a year or so have higher interest rates so that they bear high costs to borrowers. On the other hand, loans with shorter due date result in high periodic repayment. Thus, borrowers of both the shorter and longer tenure loans face difficulties, and if unprofitable they are likely to default. Provision of new loan when the previous loan fails may sometimes help to generate revenue for the borrower. Thus, absence of new loan in such cases may aggravate the problem of the borrower that otherwise could repay the loan.

Some borrowers may default regardless of their financial capabilities. They may default when the cost (consequence) of default is lower than its benefit. Cost of default involves a number of factors such as: loss of collateral offered, loss of future access to credit, loss of reputation, loss of status in community and if the borrower is not of a limited liability (PLC or corporation) then it may also lose other personal wealth, etc. Irrespective of these, however, some borrowers may have poor personal qualities of dishonesty, fraud, etc., and are unwilling to repay their loans, and become defaulters. In general, the factors mentioned above are the possible reasons for defaulting (i.e., causes of NPLs), which are specific to the borrower.

4.9.2. Factors Specific to the Lender ACSI

ACSI needs to assess the credit worthiness of their borrowers before they grant loan and need to monitor and follow-up the effective utilization and repayment of the loan after disbursement. Thus, credit market is information intensive, and banks need to have much information to effectively extend their loans and minimize the losses associated with NPLs. Since most firms are small and have no financial statements, ACSI face scarcity of information. In such cases, finding information to evaluate prospective borrowers and their projects, and encouraging borrowers to willfully repay has significant difficulties. In some cases, it is also difficult to seize collateral, resell it or to use legal action to collect bad debts from defaulters. Due to fear of default lender institutions charge high lending interest rates to compensate loan losses, which make cost of borrowing high. When the interest rate is high, the effort on the part of the borrower to make the project successful decreases resulting in default (NPLs).

At higher interest rates low-risk borrowers would find it almost impossible to borrow and rather prefer not to seek loans while high-risk borrowers would take the loan and gamble the proceeds in a risky venture. ACSI make choices among investments to be financed on the basis of expected return and risk. Good information is needed in order to make those choices, to monitor borrowers` behavior after lending and to take appropriate corrective actions if it appears that things are not going as planned. For these matters, ACSI require reliable data, which in turn depend upon better accounting, auditing and rules on disclosure of financial information.

However, the information system in our country is poor that microfinance institutions often use incomplete information for decision-making, where the probability of default is high. Scarcity of skilled and experienced manpower in loan processing results in poor loan quality, which will turn out to large

NPLs. Lack of adequate trainings and continuous updating of the level of staff competence may create poor credit evaluation, monitoring and recovery.

Excessive dependence on collateral alone would create poor credit allocation. Considering collateral lending as a loan adequately secured where such a loan has no visible cash flow results in difficulties of repayment or default. Similarly, overestimation of the collateral or the fall in its value upon its sale would result in loss of some income to be covered by the collateral in the event of default. A more serious problem is lack of a well-developed second hand markets or saturation of the market for properties pledged as collateral. Desire of acquiring fast profit by the managers of ACSI may also result in lending to poor quality borrower. Competition among each branch to attract borrowers has similar adverse effect of lending to non-promising borrowers. When ACSI lends excessively to some sectors of the economy, the portfolio diversification becomes narrow resulting in high occurrence of risk of defaulting.

Lending to affiliated or related parties of the ACSI such as shareholders, managers or staffs, may create problems of loan default because proper loan processing procedures may not be strictly applied. Existence of large volume of deposits compared to the relatively low level of outstanding loans in the ACSI urge the institution to lend even to the undesired borrowers or borrowers of poor project quality. This may lead to high risk of defaulting.

4.9.3. Effects of NPLs

When Amhara credit and saving institution holds large volume of NPLs it will suffer from serous liquidity problem. That is, most of its liquid assets (cash and cash equivalents) tend to be lost. At this time the bank will be unable to extend further loans for new loan requests.

In the meantime earnings to be collected from the outstanding loans would be denied. Consequently, the ACSI loses the principal and the interest income from NPLs. Recovery of such bad debts requires effective legal system to realize the value of the collateral security pledged against the loan. Even if it is possible to sell, loss of value upon sale of the collateral will erode profit of the institution and obviously its capital base. The problem reaches highest stage when ACSI becomes unable to meet the day-to-day cash and deposit withdrawal needs of its customers. Since immediate liquidation of large volume of collateral assets is very difficult or involve large capital loss, the liquidity problem of the ACSI may deteriorate into a solvency problem.

The ACSI is said to be insolvent when its assets value is less than the value of its liabilities and hence, the value of its capital (net worth) becomes negative. At such times, ACSI cannot expect to pay all of its depositors in full and on time. Losses thus will pass to depositors, creditors and shareholders of the ACSI. Such an event is called ACSI failure. To conclude, NPLs can be accumulated due to factors specific to borrowers, lender ACSI or the macroeconomic conditions of the economy. The effects of large volume of NPLs have far-reaching implications from inability to execute the ACSI operations within a single branch to failure of the entire ACSI system and the overall economy as a whole. However, Amhara credit and saving institution should be regulated and monitor all branches and take corrective actions if necessary before such serious problems occur in the system.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

When ACSI disburses a loan, the loan may not be collected because of many factors and those uncollected loans are said to be NPLs or bad loans. All ACSI branches render different kinds of services; among which provision of credit is the major one as ACSI lending is the core function of the institution. It is commonly said that the successful financial institution is the successful lender. It is also noted that when ACSI lends to a customer there are principles that should be considered in terms of safety, liquidity, effective utilization of the fund, profitability and diversification of investment and business. Even if the procedures of loan processing differ from one financial institution to another, in general, the procedures include: prior discussion or interviewing the customer, site visits, processing the credit application, gathering of credit information, detail credit analysis and appraisal, credit decision making, contact signing, registration of collaterals (is applicable), and then disbursement .

NPLs are serious problem that need to be accorded careful attention. A loan is identified and segregated as non-performing depending on the number of days a repayment is delayed or discontinued. According to National Bank of Ethiopia`s Directive No SBB/43/2008 Asset Classification and Provisioning Directive, Non-performing means loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with contractual repayment terms of the loans or advances is due and uncollected for 90 (ninety) consecutive days or more beyond the scheduled payment date or maturity.

The basic objective of this research has been to identify determinant factors of ACSI non-performing loans. On the basis of the broad objective one major research questions and five sub research questions were developed and dealt with. For the achievement of the objective the study used survey of credit performers of ACSI by employing structured questionnaire. The study indicated that poor credit analysis on the part of ACSI lending, unsound lending practices, failure in loan monitoring and follow-up, borrowers` undesired culture, compromised integrity, fund diversion, and the like are the major causes behind NPLs.

5.2. Recommendations

The resultant effect of a business organization is measured in its monetary achievement /profitability and efficient management. The greater extent of its success depends on the efficient management of its financial resources. Thus management of finance in credit area is a very sensitive and complex issue in the operation of Amhara credit and saving institution where one should be well aware of minimizing risk in the course of administering loans and advances. As deposits of ACSIs are usually payable on demand or on a short notice, ACSI should also limit the time for which loans are granted and ensure that they are repaid within that period of time.

Lending ACSI should be aware of the dangers involved in maintaining bad loans in their books of accounts and make advance preparations as to how disbursed loans should be collected timely. Collection plans are not to be initiated after approval or disbursement. It has frequently been said that a good financial institution collects a loan at the time of its disbursement; meaning - a loan properly analyzed and scheduled at the outset is virtually self-servicing.

Administration of loans involves the entire process starting from credit application to final resolution. Therefore, lending institutions need to develop and put in place prudent credit processing, encompassing appropriate exercise of KYC for proper customer selection and assessment of credit worthiness of borrowers. Robust credit analysis from the point of view of what contribution the loan will yield to the customer`s business, to the ACSI income/profit as well as to the overall economic development of the country needs to be accorded earnest concern of the pertinent stakeholders.

In order to maintain asset quality ACSI should

- Provide training and development to employees involved in credit operations to enhance the aptitudes and abilities of every member,
- Put in place a clear policy framework and working procedures that effectively address the issues of KYC,
- Develop and put in place framework for the entire credit management process and set objectives, standards and parameters to guide credit personnel in the overall credit processing.
- Institute proper loan processing, and essentially prudent analysis and appraisal system,
- Put in place proactive follow-up and monitoring system to monitor loan performance and check continued viability of operations,
- Develop and implement corporate code of conduct, fraud prevention policy, and proper check-and-balance in credit decision making processes, and
- Identify early warning signals, if any, and initiate remedial measures thereby averting loss from possible default,
- Exert effort to develop borrowers` culture towards credit, and to shape employees involved in credit operations towards ensuring integrity, making them free of undesired internal and external pressures.
- Create aggressive awareness of credit for the borrowers and clearly state the institution terms and conditions clearly.
- Sharing of credit experience from other better lender`s financial institution.

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Appendix I questioners (English version)

DEBRE BERHAN UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

EXTENTION MBA PROGRAM

Dear respondent,

Thank you very much for your willingness to take time to respond to this research questionnaire. The study is being conducted by a postgraduate student at Debre Berhan University, College of Business and Economics, Department of Management, Extension MBA Program. It is all about questions pertaining to Determinants of Non-performing Loans and related practices in ACSI BRANCHES AND NORTH SHOA ZONAL OFFICE IN DEBRE BERHAN TOWN. To this end, it intends to gather information from ACSI employees involved in credit and related activities (i.e.; credit managers, analysts, recovery/monitoring officers, risk management officers, credit committee members).

The participation is fully on voluntary basis, and your accurate and frank responses are imperative for the successful accomplishment of the study. Please be assured that your responses will be treated in a strictly confidential manner, and the results will be used only for the purpose of this research, presented only at aggregate level without focusing on this institution. Kindly, therefore, return the questionnaire upon completing each item appropriately.

Thank you in advance.

Respectfully;

Derebe shiferaw

(Please encircle the appropriate number)

Section One – Background Information

1. Gender

A. male

B. female

2. Age

A. 18 – 23 year

B. 24 – 29 year

C. 30 – 35 year

D. above 35 year

3. Educational background

A. diploma holder

B. degree holder

C. master holder

D. PHD degree holder and above

4. Your current position in Amhara credit and saving institution?

A. Loan Officer

B. Credit analyst

C. internal auditor

D. customer relationship manager

E. Recovery/monitoring officer

F. branch manager

If any Others, Please specify…….....

5. Indicate your experience in Amhara credit and saving institution?

A. Less than 1 year

B. 1-5 years

C. 6-10 years

D. 11-15 years

E. above 15 years

6. Indicate your experience in ACSI in credit process.

A. Less than 1 year

B. 1-5 years

C. 6-10 years

D. 11-15 years

E. above 15 years

7. Indicate ownership of ACSI you work for.

A. Private microfinance B. State owned microfinance

8. Determinants of non-performing loans are obvious.

A. Agree B. Neutral C. Disagree

Section Two – Questions on Determinants of Non-performing loans.

1. What ACSI specific factors do you think are causing the occurrences of NPLs in Ethiopian microfinance institutions?----------
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2. Please rank the factors that cause occurrences of NPLs in ACSI by Ranking the factors in order of their importance in contributing to the occurrence of NPLs from 1 – 8.

	Factors	**Rank**
		1=highest ….8=lowest
2.1	Rapid loan growth by ACSI	
2.2	High interest rate	
2.3	Credit culture/orientation	
2.4	Size of the institutions	
2.5	Poor monitoring/follow-up	
2.6	Ownership type of the institution	
2.7	Poor risk assessment	
2.8	Lenient credit term	
2.9	If any Other, Please Specify----------	

2. **Please indicate your degree of agreement or disagreement to the statement pertaining to credit assessment and the occurrence of NPLs of ACSIs.**

	Credit assessment	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
3.1	Easily admitted borrowers usually default					
3.2	Know Your customer (KYC) Policy of ACSI lead to high Loans quality					
3.3	Good loan underwriting ensures loan Performance					
3.4	Poor risk assessment would lead to non-performing loan					

4. Please indicate your degree of agreement or disagreement to the statements pertaining to credit monitoring and the occurrences of NPLs.

	Credit monitoring	**Strongly agree (5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly disagree (1)**
4.1	Strict monitoring ensures loan performed					
4.2	Poorly assessed and advanced loans may perform well if properly monitored					
4.3	Loan follow up is directly related to occurrence of NPLs					
4.4	ACSI with higher budget for loan monitoring has lower NPLs					

5. Please indicate your degree of agreement or disagreement to the statement pertaining to collateral and the occurrence of ACSI NPLs.

	Collateral	**Strongly agree (5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly disagree (1)**
5.1	Collateralized loans perform well					
5.2	Collateralizing loans help protect loan default					
5.3	Most of the time non-collateralized loans are non-performed loans					

6. Please indicate your degree of agreement or disagreement to the statement pertaining to borrower's orientation and the occurrence of NPLs.

	Borrower`s orientation	**Strongly agree (5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly disagree (1)**
6.1	Borrower's orientation/culture is related to loan performing habit					
6.2	There is a relationship between loan default and borrower's culture.					
6.3	Default in some area is ascribed to the culture of the borrowers					
6.4	Society's cultural development leads to good loan performance.					
6.5	Loan with big interest rent tend to turn to NPL					
6.6	Charging big interest rate leads to non-performing loans					
6.7	Low loan price affects NPLs					
6.8	Lenient /lax credit term and tariff cause non-performing loan					
6.9	Lack of Borrowers understand the loan terms and tariff will be cause of NPLs					
6.1	Existence of write off leads to non-performing loans					

7. Please indicate your degree of agreement or disagreement to the statement pertain got credit monitoring and the occurrence of NPLs.

	Factors of NPL	**Strongly agree (5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly disagree (1)**
7.1	Aggressive lending leads to large NPL volume/ratio					
7.2	ACSI`s whose credit growth is rapid experience huge NPL level					
7.3	ACSI's great risk appetite is cause for NPL					
7.4	Compromised integrity in lending loan leads to non-performing loans					
7.5	Having large no. of borrowers causes for NPL`s					
7.6	Non-performing loan rate is directly related to ACSI size					
7.7	With growth in ACSI size comes growth on NPL					
7.8	Non-performing loan is not related ACSI ownership					
	Type (private/state owned)					

8. If you have further comments on the ACSI`s specific factors affecting Non performing loans of the Ethiopian microfinance institutions, please use the space provided below:

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Thank you once again for your participation!!!!!

ANNEX II

Multiple linear regression analysis

A) test of correlation

Correlations

		CREDITASSESMENT	MONITOR	COLATERAL	BOROWER	NPL
CREDITASSESMENT	Pearson Correlation	1	.289**	.425**	.571**	.602**
	Sig. (2-tailed)		.006	.000	.000	.000
	N	90	90	90	90	90
MONITOR	Pearson Correlation	.289**	1	.786**	.098	.528**
	Sig. (2-tailed)	.006		.000	.360	.000
	N	90	90	90	90	90
COLATERAL	Pearson Correlation	.425**	.786**	1	.252*	.706**
	Sig. (2-tailed)	.000	.000		.017	.000
	N	90	90	90	90	90
BOROWER	Pearson Correlation	.571**	.098	.252*	1	.657**
	Sig. (2-tailed)	.000	.360	.017		.000
	N	90	90	90	90	90
NPL	Pearson Correlation	.602**	.528**	.706**	.657**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	90	90	90	90	90

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

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

B) Multicollinearity tests

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.326	.233		1.403	.164		
	CREDITASSESMENT	.069	.045	.108	1.540	.127	.589	1.697
	MONITOR	.047	.065	.064	.722	.472	.371	2.693
	COLATERAL	.341	.065	.493	5.275	.000	.334	2.991
	BOROWER	.438	.063	.465	6.982	.000	.659	1.518

a. Dependent Variable: NPL

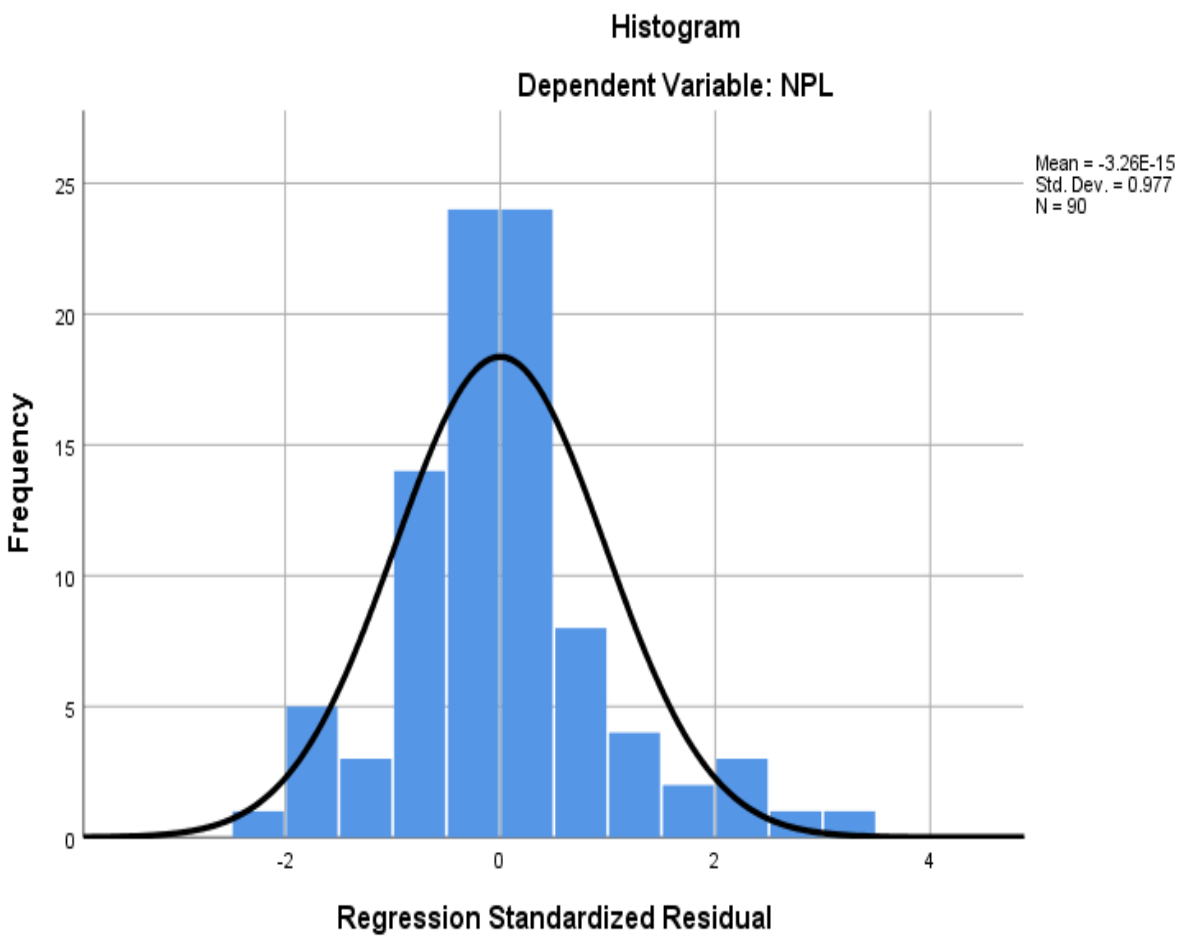
C) Test of autocorrelation

Model Summary[b]

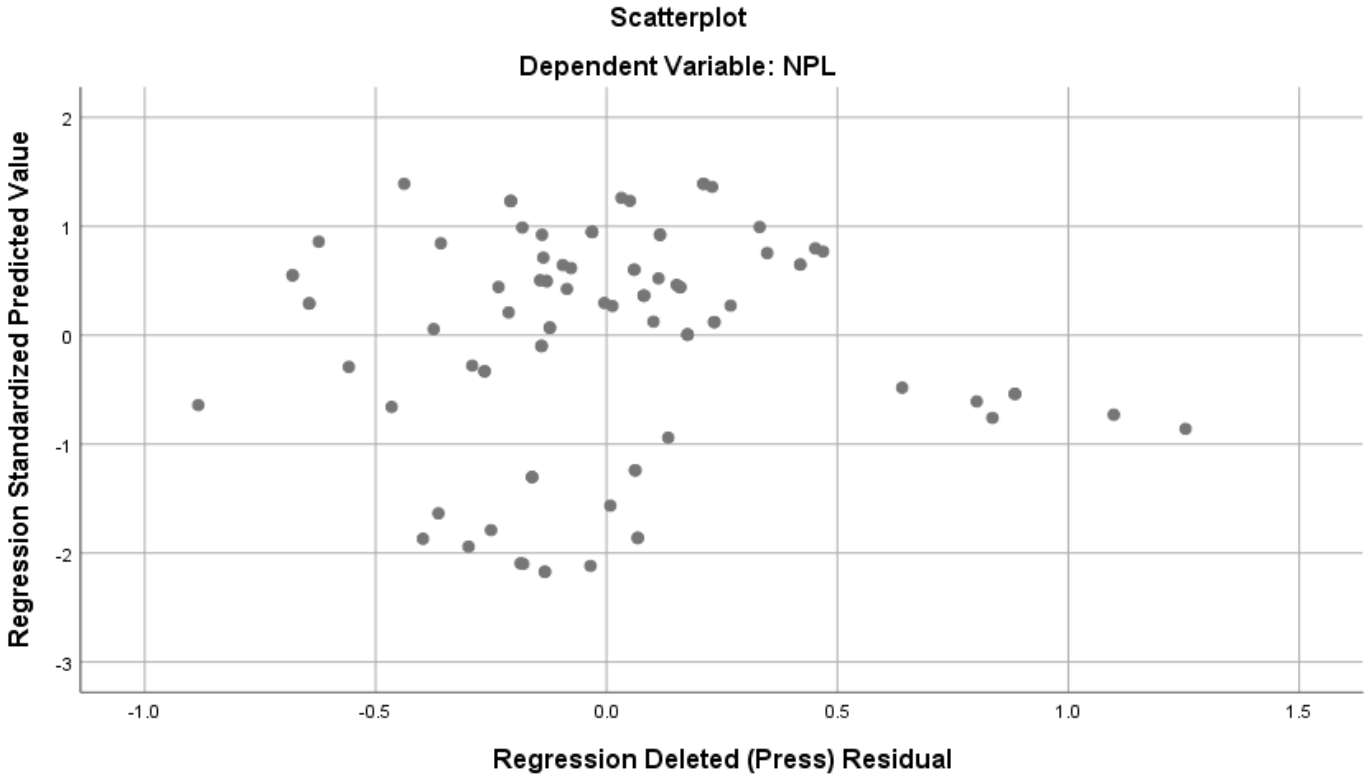
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.867[a]	.752	.740	.35874	1.992

a. Predictors: (Constant), BOROWER, MONITOR, CREDITASSESMENT, COLATERAL
b. Dependent Variable: NPL

D) Test of normality



E) Test of linearity



F) Test of Model adequacy

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867[a]	.752	.740	.35874

a. Predictors: (Constant), BOROWER, MONITOR, CREDITASSESMENT, COLATERAL