SAINT MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

FACTORS AFFECTING LOAN REPAYMENT PERFORMANCE: THE CASE OF ENAT BANK SHARE COMPANY

BY

YODIT TADDESE

JULY 2017

ADDISABABA

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A THESIS SUBMITTED TO SAINT MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN DEVELOPMENT ECONOMICS

JULY 2017

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APPROVED BY BOARD OF EXAMINERS

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ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my advisor Negussie Semie (PhD) for his support. Next i am glad to express my gratitude to staffs of Enat Bank share company for their support to undertake this research. Lastly, i would like to thank my family for their encouragement and support throughout my education life.

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Negussie Semie (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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Saint Mary's University, Addis Ababa June, 2017

ENDORSEMENT

This thesis has been submitted to Saint Mary's University, school of Graduate studies for examination with my approval as a university advisor.

Negussie Semie (PhD)

Advisor Signature___________________

Saint Mary's University , Addis Ababa July 2017

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LIST OF ACRONYMS

SME	Small and Micro Scale Enterprises
WB	World Bank
EWBFS	Enat Bank Women’s Business Financing Scheme
USAID	United States Agency for International Development
SIDA	Swedish International Development Cooperation Agency
LDCs	Less Developed Countries

ABSTRACT

The purpose of this study was to determine the factors influencing loan repayment default of the borrowers in Enat Bank Share Company and examine the level of loan repayment performance of the borrowers. Also to assess whether the aspect used by Enat Bank to force borrowers repaying the loan on time is suitable. The data used in the study is gathered through primary data collected through structured questionnaire and secondary data from records of pertinent publications. Enat Bank share company was last entrant to the banking industry to be competitive and survival on the sector it should avoided problems by identifying the root causes which leads to loan default and bring crises rather than generate profit for borrowers and for the bank .

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Enat Bank Share Company Created by a group of Ethiopia's leading eleven business women in 2014, Enat Bank was founded with the vision of to be world class bank by leveraging women's through finance by supporting female entrepreneurs with dual objectives:

1. Providing conventional commercial banking services, and
2. with special emphasis on the banking needs of women, and their economic empowerment.

The "Enat Collateral Saving Account" is an account where willing national and international organizations, private and governmental as well as concerned individuals, who has same vision as Enat Bank to reach "the missing middles", deposit a certain amount of money that will be blocked for a period of time; and which the Bank uses as a guarantee for women entrepreneurs.

The Banking partnership with development partners shall work on relevant training and business advisory services for potential beneficiaries of the scheme. Advisor partners may also directly participate in the preparation of business plans in addition to providing training and advisory services. This will ensure that the business is run properly, and make sure loans are paid as per schedule to minimized default.

The Collateral Saving Account garnered a lot of attention when it was first introduced with high-profile deposits from private and public sector leaders in the country. Ethiopia's First Lady Wz. Roman Tesfaye became one of the first to embrace the program and deposited ETB 100,000 (approx. USD 5,000).

Since the program launch in December 2014, the Collateral Saving Account has received funds and pledges amounting to a total of ETB 5.6 Million (approx. USD 272,000) and the United States Agency for International Development (USAID) funded USD 10,000,000.00 and the Swedish International Development Cooperation Agency(SIDA) have signed a new loan portfolio agreement with Enat Bank under the Portfolio Risk Sharing Loan instrument.

“Loan” in this research refers to any type of commercial loan like term loan, personal loan, consumer loan, merchandise loan but excluding any letter of credit, credit card debt, line of credit, overdraft or other forms of revolving debt. It is important that borrowed funds be invested for productive purposes, and the additional incomes generated be used to repay loans to have sustainable and viable production processes and credit institutions.

The provision of loan has increasingly been regarded as an important tool for raising the incomes of urban as well as the rural populations, mainly by mobilizing resources to more productive uses. As development takes place, one question that arises is the extent to which loan can be offered to the private sector to facilitate their taking advantage of the developing entrepreneurial activities (Kibrom Tadesse,2010).

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1.2 Statement of the problem

Default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare agencies, instead of a viable financial institution. It incorrectly penalizes credit worthy borrowers whenever the screening mechanism is not efficient If the loan is well managed it will increase the bank's profitability and sustainability in the future. However, if failed to do so, it will be the major threat to their survival Hunte, (1996).

However, some of the past studies have tried to find out the determinants of loan repayment performance like: high interest rate, weak monitoring and managing the loan, poor appraisal, borrowers related causes such as ill, burden of other debts, family problem and trying to suggest on how to overcome the problem of poor loan repayment, to the best of my knowledge there is no paper done on Enat Bank share company before this paper have tried to assess the loan delinquency and the factors that influencing the repayment of Enat Bank loan.

1.3 Objectives of the Research

1.3.1 General objective

The overall objective of the study is to identify factors that affect successful loan repayment performance of private borrowers at Enat Bank share company.

1.3.2 Specific objectives

To assess borrower's characteristics and loan characteristics that contributes to successful loan repayment performance.

1.4 Research Questions

Do borrower's socio economic characteristics such as educational level, household size, number of dependent household, age, sex, availability of other source of income, voluntarily saving affect loan repayment performance of the borrowers?

Do loan characteristics such as purpose of the loan, repayment period of the loan timeliness of loan release, profit gained from loan and loan diversion affect the loan repayment performance of the borrowers?

1.5 Research Hypotheses

H0: Age, Marital status, Educational level, Other source of income ,Voluntarily saving , Loan purpose and Loan diversion have positive and significant relationship with loan repayment performance.

H1: Sex, Household size No. of dependent households has negative and significant relationship with loan repayment performance.

1.6 Significance of the study

As output of the analysis, identifying factors that affect successful loan repayment will help Enat Bank credit officers to formulate successful credit programs that will help in allocating the Bank financial resources effectively and showing financial mechanisms to screen loan applicants to effectively use the loan proceeds on income generating activities and following up the loan utilization of borrowers to improve repayment rates and creating smooth relationship between the borrower and the Bank.

1.7 Scope of the Study

The study is delimited to the identification of factors that affect successful loan repayment performance of borrowers at Enat Bank share company .It does not include borrowers of other banks in Ethiopia. Includes only borrowers in Addis Ababa city branches of Enat Bank share company.

1.8 Organization of the study

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- Chapter one provides an overall introduction with sub sections; background, statement of the problem, objectives of the study, scope and limitations of the study and significance of the study.
- Chapter two covers a review of some important theoretical and empirical studies on factors affecting loan repayment performance are presented.
- Chapter three covers explanation of the methodologies employed for the study.
- Chapter four elaborates the results and discussion of the study with detailed descriptive and econometric analysis.
- Chapter five covers the summary and policy recommendations part.

CHAPTER TWO

LITRATURE REVIEW

2.1 Theoretical Literature

This effective credit management policy is particularly important in the case of small-scale entrepreneurs in LDCs like Ethiopia where most of the borrowers don't have sufficient entrepreneurship capacity to conduct scientific study before deciding on investing in a particular project. It would save the borrowers from undertaking risky project as well as the bank from default risk (Tenishu,2014).

Credit risk evaluation is a complex process, which implies a careful analysis of information regarding the borrower in order to estimate the probability that the loan will be regularly repaid. The probability of regular repayment depends on objective factors related to the borrower's operating environment, the borrower's personal attitude towards loan obligation, and the bank's ability to evaluate these two aspects through the information it has and to control credit risk specific contractual conditions(Vigano, 1993).Vigano summarized factors affecting credit risk as follows: the customer's ability and willingness to pay, presence of favorable external conditions, quality of information and bank's ability to ensure the customers willingness to pay.

2.1.1 Guiding Principles of Loan Repayment

Credit policy instruments and relevant lending principles are used by banks as their guiding principles these include; borrowers perceived need, competence or repayment capacity and personal character. (Zena Lemat bank, 2009).

(a) Borrower's Perceived Need

Borrowers have to be given an opportunity to borrow for their perceived needs because loans are more valuable when they meet borrower's need. The credit delivery system can focus on the needy part of households through establishing clear criteria for eligibility.

(b) Borrowers Competence
Borrower's competence refers to the repayment capacity which largely depends on the profitability of the use of credit. This is most helpful tool for estimating the potential credit worthiness of borrowers. In order to assess the borrower's capability in terms of repayment capacity, lenders will assess the borrower's past personal and profit record, past prosperity, etc.

(c) Borrower's Personal Character
Lenders need to know personal reputation of the borrower and his attitude to the financial obligations. Lenders should always relate credit with good personal qualities of the borrower like, integrity, honesty, responsibility, dependability and sincerity of the borrower.

2.1.2 Criteria for Successful Loan Repayment

There are certain criteria that most lenders require the business owner to meet in order to successfully acquire the funds needed for the business. These hurdles or requirements are generally categorized as: Good Credit, Equity, Experience, Business Plan, and Collateral, Van (2002).

These five guidelines of successful borrowing are reviewed as follows;

i. Good Credit – this deals with the requirement that one must have a credit history which is not only good, but more to the outstanding side of the scale. The reason for this lender requirement is that, every day coming to banks and lenders applying for loans for a variety of reasons. The funds do not belong to the loan officer, but rather they belong to the institution's depositors and investors. The loan officer and the lending institution's management have an obligation to manage these monetary assets to the positive benefit of the owners, namely the depositors and investors of the bank. Therefore, loans must be made only to those who present the least risk of failure to repay. Past repayment history (i.e. good credit) is the first and probably the most important requirement for a successful loan.

ii. Equity- Equity in borrowing can be thought of as similar to a down payment. The lender wants the borrower to have a financial commitment to the venture for which the loan is requested. borrower has to have some "skin" in this business "game" to insure his or her best efforts toward success and timely repayment of the borrowed funds. This is to say, that even if all the other four criteria for successful borrowing; credit, experience, business plan, and collateral are met; the bank usually will not lend 100 percent of the funds requested. The numeric value often placed on required *Equity* is in the range of 10 to 20 percent of the needed funds.

iii. Experience-No rational lender wants to or will turn over monies to a borrower to manage and expend in a business or venture in which the person has no or very limited experience. This criterion for successful borrowing should be easy to see from both the lender and borrower's point of view. Lenders need to be more certain that the person or persons borrowing the funds have the experience and expertise to manage the money and that day to day the business is conducted in a prudent manner. This is needed to insure positive results from the business and further insure that the lender will be repaid with interest and in a timely manner. Here again the question relates to risk. The more experience and talent the borrower has shown in the past, the lower the risk in lending from the bank's point of view. The minimum numeric value often expected here is that the borrower should have at least three years of experience in the management of the type of business in whose name he or she is borrowing the funds. This experience can be as an owner and/or management experience. It could also be experience as an employee in a similar type business.

iv. Business Plan- The fourth requirement of the bank or lender is a well thought out, researched and constructed business plan. This is a document that:

a) Will introduce the business in a clear and complete manner.

b) Describes the business potential market for the goods and service to be offered, the existing competition ,states who will be employed ,who will lead and manage and how the borrowed funds will be expended.

c) The good business plan will have pro-forma (estimated) financial documents. These are:

i. Cash Flow: shows the cash revenue coming into the business and the funds sent out in paid expenses as the business operates from period to period. The net result is either negative or positive on a month to month basis. Here the lender is looking for positive cash flows at least enough to make the loan repayment.

ii. **Income Statement:** is a listing of the total revenue of the business over the past year and a summarized listing of all the expenses of the business. These two values, one positive and one negative, when combined give the net income of the business operations for the period being reported.

iii. Balance Sheet : can be thought of as an instant photograph of the financial "health' of the business at an instant in time, normally at the end of the year. The balance sheet displays the assets (positive values of the things that the business owns) and the liabilities (the negative obligations that the business owes and is obligated to pay in the short or long run). Liabilities combined with the owner's or shareholder's equity (value of the ownership) will equal (balance) the value of the assets.

v. Collateral*:* Finally according to the writer, after a borrower have shown good credit, put in equity cash or goods, shown he/she have experience in the business and produced a positive cash flow business plan. The lender would be willing to open the vaults and ask the borrower to come in and select all the cash he/she desire. However, there is one last hurdle that the borrower must clear to reach loan success. This final criterion is collateral.

2.1.3 Repayment Capacity of Borrowers

Capacity refers to the ability of the borrower to repay the loan. Investment credit which will yield sufficient profit will enable the borrower to repay the loan. The surplus is used to repay the credit. Most borrowers can easily repay the principal and interest. However, some of them find it hard to repay the principal. Cash flow budgeting technique is used to assess repayment capacity.Good financial management improves repayment capacity and the profitable use of credit which help borrowers to improve their repayment capacity by extending repayment time-long repayment period, planning repayments to coincide with income and running to minimize overhead costs and stressing enterprises with higher and quicker income-related to this is maximum use of self-liquidating loans, Van (2002).

2.1.4 Means of Strengthening Repayment Capacity

Factors that strengthen the repayment capacity of borrowers. These include; Building more owners' equity or net worth, use more of self-liquidating loans**,** organize or operate business for more income select enterprises capable of increasing income and planning the repayment schedule for borrowers, Lyne and Ortmann (1992).

2.1.5 Reasons for loan Delinquency

Loan delinquency refers to failure of borrowers to repay their debts on time or to repay them at all. Loan delinquency is a serious problem of rural credit programs because it results in a waste of manpower, high administration costs and slow turnover of resources. The main reasons for loan delinquency are;

a) Failure to use borrowed funds for productive purposes-using borrowed funds for consumption or household acquisition purpose.
b) Natural disasters of various kinds and changes in economic conditions
c) Unrealistic project appraisal studies means business proposals which are not applicable
d) Willful default or refusal to repay -which is not good personal character, (Okorie 2004).

2.1.6 Repayment Plan

There are various kinds of repayment plans, these include;
a) Lump sum payment plan – pay at the maturity at one time.
b) Amortized even payment plan – equal installments paid by stage.
c) Amortized decreasing payment plan- installment is decreasing from time to time because income is higher at the beginning.
d) Quasi-variable payment plan – the installment payments are variable depending on the variability of income.

e) Reserve payment plan - the borrower is allowed to pay over and above the given installment.
The payment will be adjusted in such a way that the remaining balance will be brought to the next time.
f) Flexible payment plan - there is no restriction to pay a specified amount within a limited time until the loan is due-any time until the due date, Vogel (1998).

2.2 Enat Bank Women's Loan

The extent and form of women's participation in the market is different from that of men entrepreneurs. The reasons are strongly linked to the roles and positions of women in Ethiopian society. Women entrepreneurs in poor countries suffer from gender discrimination in society and laws, underdeveloped enterprise culture, inadequate support system for businesses and underdeveloped markets and infrastructure. Some of the barriers are faced by Ethiopian women entrepreneurs are; skepticism about market potential, shortage of capital, lack of motivation to transform ideas into actual products/ services, high aversion to risk, lack of focused training and absence of sufficient technical resources.

Studies reviewed highlighted access to finance as a major constraint for women-owned businesses. The constraint becomes severe especially for 'growth oriented' enterprises which are considered too small by commercial banks. EWBFS is a scheme to deliver collateral risk fund loan to women against cash collateral deposited by willing individuals/organizations provided to women-owned SMEs who lacks collateral is a bottle neck to the growth of their business.

The target groups of the scheme are:
i. Low income group-micro-business owners who want capital for growth

ii. Active poor- Existing and aspiring business women who are unable to secure stable jobs or start and manage business.

iii. Missing middles**-** women who are facing a financial gap in capital that lies above micro finance and below traditional institutional financing. The businesses are too large for micro-finance institutions, too small for main private equity and are not served by commercial banks.

The loan repayment is negotiable and depends upon the applicant business sector.it may be monthly or quarterly repayment schedules. The maximum time allowed for paying back the whole sum is up to 3 years depending on the nature and type of the business with a maximum of three months grace period**.** Include all economic sectors i.e. Agriculture, construction, retail, imports & exports, services etc. the minimum amount is birr 10,000.00 and the maximum is 300,000.00 with interest rate 9.75%.

The eligible criteria was being a women or business owned and managed by women only with Ethiopian nationality and age of 18-65 who have enterpreniual potential i.e. active and eager to work, possess an innovative idea, women engaged in risky and difficult work conditions like commercial sex, informal traders, much labor intensive work load ,support many dependents, survivor of gender based violence etc. and women lacking collateral or not have any property registered on their name or their husband. The bank have special financial scheme to business entity where business owned by a women with a sole proprietorship or 51% and above shareholding managed by a women and for a women having innovative business idea.

2.3 Loan Types Extended by the Bank

The Enat Bank s.c has been giving term loans in three time horizons:

Short-term Loan

This is a loan advanced for the purpose of working capital, and is payable within a year.

Medium-term Loan

This is loan given or the purpose of building construction, machinery, equipment, furniture and vehicles. It is paid back within one to five years.

Long-term Loan

The purposes of this type of loans are for construction of factory building and acquisitioning of machinery, for transportation vehicles and for any other infrastructure related with the project to be financed. The loan is payable within five to ten years.

Consumer loans

Granted to individuals who works at the bank as a form of term loan for the purpose of personal uses like housing loan, and automobile loan within 6% which repaid back in twenty five years ,personal loan within 6% interest and staff loan without interest which are repaid in three years.

2.4 Empirical Literature

2.4.1 Empirical studies in other countries

Bhatt and Tang (2002) conducted a study to investigate the determinants of loan repayments in microcredit programs that applied the group lending approach, but took a different approach. Bhatt and Tang looked at the borrower’s socio economic variables instead of the elements of group lending for their influence on loan repayment behavior. The borrower’s socio-economic variables included gender, educational level, household income and characteristics of the business (type of business, years in business, etc.).

In their study, they found that a higher education level was significant and positively related to better repayment performance. Conversely, female borrowers, level of household income, type of business and borrowers experience had no significant effect on repayment behavior.

Arene (1992) outlines the main factors that determine loan repayment performance as 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.

Roslan and Zaini, (2009) investigates the effect of borrowers' characteristics, project characteristics and loan characteristics on loan repayment of agro bank micro credit scheme. The data used in the study is a primary data, which is gathered through a survey carried out among agro-bank micro credit scheme borrowers in 86 branches of agro bank throughout Malaysia. In order to determine the effect of borrowers characteristics on the probability of default, an econometric approach that relies on both probit and logit models were employed. The result of the study shows the variable gender is positive and significant. This implies that the probability to default is higher for male than for female borrowers. The coefficient for the variable type of the project is negative and significant. This implies that the probability to default is lower for borrowers that involve in service/support activities as compared to those in production activities.

The coefficient for the variable training is also negative and significant. This result suggests that borrowers that did not have any training in relation to their business/project activity has a higher probability to default compared to those borrowers who had some training. The coefficient for amount variable is also negative and significant which suggests in terms of amount of loan the higher the loan amount the lower the probability for default. The coefficient for the variable period of repayment is positive and significant this gives an indication that the probability to default is higher the longer the repayment period.

Gerald and Deogratius,(2013) examined the credit rationing and loan repayment performance victoria savings and credit cooperative society in Tanzania. The study found that business management skills, alternative source of income, unfavorable weather conditions, household size, late loan delivery, distance between the savings and credit cooperative and the member’s project, number of years of project runs, experience, age, credit rationing and loan diversion influenced loan repayment performance.

2.4.2 Ethiopian case Empirical Literature

Jemal, (2003), make a research on Microfinance and loan repayment performance, which was a case study of the Oromia Credit and Savings Share Company in kuyu, the study area, Kuyu is found in Oromia National Regional State .In his research methodology, he employed a logit model to find the factors influencing on loan repayment performance in the micro finance institution. The sample size is 203, which is percent of the total beneficiaries of the micro finance institution.

The independent variables used on the research includes, age of borrower, sex of borrower, educational level of borrower, loan size in Birr, timeliness of loan release, loan diversion rate (ratio of loan diverted to total loan receive, income from activities financed by loan (annual), annual income from other activities (not financed by the loan), value of livestock in Birr, suitability of repayment period, use of financial records, adequacy of supervision visits made to a borrower, location of residence of borrower, number of dependents number of times borrowed.

The estimation results of the descriptive statistics and the tobit model show that education, income, loan supervision, suitability of repayment period, availability of other credit sources are important and significant factors that enhance the loan repayment performance, while loan diversion and loan size are found to significantly increase loan default. In addition, female borrowers were found better in terms of loan repayment.

Abraham, (2002) make a research on factors behind loan defaulters which was a case study of private borrowers financed by Development Bank of Ethiopia Zway Branch. In his research methodology, he employed a logit model to find the factors behind loan defaulters. A sample of 102 borrowers, in which 34 are credit worthy borrowers and the rest 68 sample borrowers are defaulters are interviewed. The independent variables include, age of borrowers (years), educational level of borrowers, loan diversion, sex of borrower, ratio of equity to total investment, ratio of value of collateral to loan amount, repayment period (years), availability of other source of income, household size (number), experience in related economic activity (in years).

The estimation result reveals that having other source of income, education, work experience in related economic activity before the loan and engaging on economic activities other than agriculture are enhancing while loan diversion, being male borrower and giving extended loan repayment period are undermining factors of the loan repayment performance of projects.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Sample design and Sample size

Survey sampling is the process of choosing from a large population, a group about which the researchers wish to make statements so that the selected part will represent the total group Leedy,(1989).

In random sampling each individual in the population has an equal probability of being selected which is important for the external validity of the study .Since the aim of the study is to make theoretical inferences from the results of the study that are suitable for further empirical investigation in any other context, this random sampling is the most appropriate method Creswell,(2009).

Two stages random sampling method was used to first select seventeen branches randomly and then 127 individual borrowers were selected as a sample from the branches randomly by 30% sample proportion from the total of 422 total population size.

3.2 Data Source and method of data collection

Both primary and secondary data were used for the study. Primary data were collected through well-structured questionnaires which were used to collect data on the socio-economic characteristics of the respondents and their loan performance activities. Secondary data were obtained from journals, published and unpublished documents, bulletins, newspapers and annual reports.

3.3 Method of data analysis

3.3.1. Descriptive statistics

Both descriptive and inferential statistical analytical techniques were used to analyze the data collected. The descriptive statistics include percentages and frequency distribution tables were used to analyze the socio-economic characteristics of the respondents.

3.3.2 Econometric model

The multiple regression analysis was used to determine factors that influence loan repayment among borrowers of Enat Bank using Ordinary Least Square (OLS) regression analytical technique. OLS is a method of estimating unknown parameter in a linear regression and precise method used to investigate issues that are cross-sectional in nature.

In this study the value of the dependent variable is the percentage of loan paid by the borrowers from the total borrowed from the bank during the specified repayment period, which is a continuous variable, calculated from the total amount of loan that a person's took.

Amount of loan Repaid = f (AGE , SEX ,MRTS, EDULEVEL, HHSIZ, DEPHH, LOANPUR, LOANDIV, TIMELNSS, LOANSIZ, VOLSV, REPPERIOD, OTHINCO, PRFTGAIN)

3.3.3 The Independent Variables

Age; age of borrower in years. It is a continuous variable in which the higher the age the higher may be his/her business experience, knowledge and the younger the age the lower may be his/her limited business experience and this leads to successful loan repayment and default respectively. Hence, borrowers with higher age may have higher repayment rates.

Education; this is a continuous variable. This factor is expected to have a positive impact in successful loan repayment performance, because higher educational levels enable borrowers to comprehend more complex information, keep business records, conduct basic cash flow analysis, and make the right business decision. Hence, borrowers with higher level of education may have higher repayment rates.

Sex: is a dummy variable taking, 0 for male and 1 for female. It is argued that lending to women can lead to their economic empowerment and inculcate them a culture of hard work and financial discipline, which can lead to high loan repayment rates, thus women borrowers may have high loan repayment performance.

Marital status: (measured as a dummy, 1 for married and 0 for single). Borrowers who are married may use their loans in meeting the needs of their families; hence borrowers who are single may have higher repayment rates.

Availability of Other Source of Income: it is a dummy variable taking 0 for borrowers that do not have other source of income and 1 for borrowers that do have other source of income. If the borrowers have other source of income, it is expected that he/she will cover his/ her other expenses from that income which is out of the project and it is assumed that this will result in higher deposit of money from the outcome of the project, which will help the borrower to have successful loan repayment performance.

Household Size: it is a continuous variable and it is assumed that the larger the household size the negative impact will have on successful loan repayment performance which is attributed to higher house hold expenses. And it is also expected that the smaller the house hold size the higher will be its probability to repay the loan successfully.

Number of Dependents: it is a continuous variable Defined as the total number of dependents in the family and elsewhere that depend on the borrower for their livelihood expressed in percentage. As the number of dependents increases, the borrower will need more money to fulfill their requirements in addition to the obligation of loan repayment. As a result he/she may divert the loan to meet the needs of the dependents. Hence we expect this variable to have a positive impact on loan diversion.

Voluntarily Saving: it is a dummy variable taking 0 for borrowers that do not save money and 1 for borrowers that have saving money regularly. Borrowers who save money are expected to be more successful with their enterprise. They have more stable cash flows than those who have not saved. Thus, those who have more saving experience will have high repayment rates. Hence, it is expected that saving experience will have a positive impact on successful loan repayment performance of private borrowers.

Loan Diversion: this is a dummy variable taking 1 if the project is diverted and 0 if the project is not diverted. Diverting loans to more productive projects will have positive impact on successful loan repayment while if the loan is diverted to less feasible projects then it will have a negative impact on repaying the loan successfully. Hence, the sign of diverting loans to another purpose cannot be predetermined.

Repayment Period; it is the period of time during which the entire loan must be repaid. It is a continuous variable. Short repayment period might cause the borrower not to have enough revenue to make loan repayments. On the other hand, long repayment period are detrimental to borrowers if they cannot access future loans until the existing loans is paid back. Hence both short and long term repayment period can have negative effect on successful loan repayment, however if the repayment period is medium it is expected that the borrower will have an opportunity to repay his/her loan successfully.

Purpose of the Loan; it is a dummy variable taking 1 for loans used for business like working capital and investment and 0 for loans used for house hold asset acquisition and other purposes which are not productive . It is argued that loans used for running business will have a positive impact on successful loan repayment performance of the borrowers.

Timeliness of loan release; it is a dummy variable taking 0 if the loan is not disbursed in time and taking value 1 if it is disbursed in the intended time. If loan is disbursed in time, it will be diverted to intended purposes. Johnson and Rogaly (1997) noted that timeliness of loan disbursement is important when loans are used for seasonal activities such as agriculture. They argued that complicated appraisal and approval procedures, which might delay disbursement, influence a program of loans. In such cases a positive sign is expected.

Profit gained from loan: it is a dummy variable take value 1 if borrowers gained profit and increased their capacity and 0 since borrower does not increased profit in their activities financed by loan Since profits are additions to principals, borrowers who are able to make substantial profits are expected to have higher repayment rates. It is expected to have a positive influence on his/her repayment performance

Amount of loan: It is a continuous variable measured by the total amount of money (in Birr) accessed as a loan from the bank. An efficient amount of loan which equals with the prepared business plan can create conducive environment for the borrower to use it properly and repay it back. But, if the disbursed loan size is below or above the required, it will lead to diversion of the resource to other activities or mismanagement respectively. Thus, this variable may have positive or negative sign.

3.3.4 Model specification

Model 1: Loan Repayment Model

Ordinary Least Square (OLS) regression analytical technique was used to determine the factors affecting the loan repayment performance of the borrowers. The model in the implicit form is specified as:

$$Q = \alpha_o + \alpha_i x_i + e \ldots\ldots\ldots \ldots\ldots \ldots\ldots \ldots\ldots\ldots \ldots\ldots \ldots\ldots \ldots\ldots (1)$$

Where: Q = amount of Loan Repaid

α_o = Constant term of the regression

α_i = Coefficient of Xi input

Xi = Independent Variables

e = Error Term

Model 2: Loan Default Model

The Linear Function of multiple regressions was used to estimate the loan default rate:.

$$Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6 + \alpha_7 X_7 + \alpha_8 X_8 + \alpha_9 X_9 + \alpha_{10} X_{10} + \alpha_{11} X_{11} + \alpha_{12} X_{12} + \alpha_{13} X_{13} + \alpha_{14} X_{14} + e \ldots (2)$$

Y = Amount of loan Repaid

$\alpha_1 - \alpha_{14}$ = Coefficients of explanatory variables (i. e. X1 – X14)

X_1 = Age of respondents (Years)

X_2 = Gender of respondents (Male = 1, Female = 0)

X_3 = Marital Status (Married=1, Single=0)

X_4 = purpose of loan (Business=1 , otherwise=0)

X_5 = Educational Level (Number of years in schooling)

X_6 = Household Size (persons)

X_7=Number of dependent family (persons)

X_8= Amount of Loan granted

X_9=voluntarily saving (Yes=1, No=0)

X_{10}= Loan repayment period (Years)

X_{11} = Other source of Income (YES=1, NO=0)

X_{12}=Loan diversion to productive purpose (Yes=1, No=0)

X_{13}=Timeline for loan release (Yes=1, No=0)

X_{14}=Profit gained from loan (Yes=1, No=0)

e= Error term

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Socio–economic and Loan characteristics of Borrowers

4.1.1 Age composition

As shown in Table 1, the average age of the borrowers was 34 years. In addition, the mean ages of non-defaulters and defaulters are 35 and 29 years respectively. Moreover, the mean difference between the two groups was statistically significant.

Table 1: Age composition of the borrowers

AGE	Mean	Min	Max	SD	t-value	p-value
Non-Defaulters	**35**	**22**	**63**	**8.31**	**-1.97**	**0.051***
Defaulters	**29**	**21**	**55**	**8.93**		
Total	**34.65**	**21**	**63**	**8.63**		

One star -5%significant level

Source: Survey results,2017

4.1.2 Sex

As shown in Table 2 ,the survey results revealed that52.76 % of the total borrowers were males and the remaining 40.16% were females. From the total non- defaulters, 55.45 percent and 44.55 percent of them were males and females respectively. In addition, 35.30 percent and 64.79 percent of the total defaulters were males and females respectively. The difference between the two groups was statistically insignificant.

Table 2: Sex of Borrowers

SEX	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	**%**	**No.**	**%**	**No.**	**%**	**-0.86**	**0.394**
Male	**56**	**55.45**	**11**	**35.30**	**82**	**52.76**		
Female	**45**	**44.55**	**6**	**64.79**	**36**	**40.16**		

Source: Survey results,2017

4.1.3 Marital status

As shown in Table 3,the survey results revealed that 64.57 percent of the total borrowers were married and the remaining 28.35% were single. From the total non- defaulters, 74.26 percent and 25.74 percent of them were married and single respectively. In addition, 41.18 percent and 58.82 percent of the total defaulters were married and single respectively. The difference between the two groups was statistically insignificant.

Table 3: Marital status of borrowers

MRTS	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	**%**	**No.**	**%**	**No.**	**%**	**0.03**	**0.975**
Married	**75**	**74.26**	**7**	**41.17**	**82**	**64.57**		
Single	**26**	**25.74**	**10**	**58.82**	**36**	**28.35**		

Source: Survey results,2017

4.1.4. Education level

As shown in Table 4, on average, borrowers have Degree. Meanwhile, secondary school and degree were the average level of education of defaulters and non-defaulters respectively. The difference between the mean values of the two groups was statistically significant. This shows that more educated borrowers have high probability of repaying their loan.

Table 4: Education level of borrowers

EDULEVEL	Mean	Min	Max	SD	t-value	p-value
Non-Defaulters	**14.81**	**10**	**17**	**1.39**	**2.51**	**0.014****
Defaulters	**10.52**	**8**	**13**	**1.8**		
Total	**14.19**	**8**	**17**	**2.09**		

Two stars-5% significant level

Source: Survey results, 2017

4.1.5 Household size

As shown in Table 5,the average family size of the borrowers was 6. In addition, the mean family size of non-defaulters and defaulters are 6 respectively.
The difference between the mean values of the two groups was statistically insignificant.

Table5: Household size of borrowers

HHSIZ	Mean	Min	Max	SD	t-value	p-value
Non-Defaulters	**6**	**2**	**13**	**2.23**	**0.98**	**0.328**
Defaulters	**7**	**2**	**13**	**3.48**		
Total	**6**	**2**	**13**	**2.44**		

Source: Survey results, 2017

4.1.6 Number of dependents

As shown in Table 6,the average dependent household size of the borrowers was 1. In addition, the mean dependent household size of non-defaulters and defaulters are 0.97 and 6.5 respectively. The difference between the mean values of the two groups was statistically significant. Results show that, borrowers who have less dependent household repaying their loans on time compared to , borrowers who have many dependent household.

Table 6: Number of Dependent Households of borrowers

DEPHH	Mean	Min	Max	SD	t-value	p-value
Non-Defaulters	**0.97**	**0**	**4**	**1.02**	**-2.60**	**0.011****
Defaulters	**6.5**	**1**	**4**	**3.48**		
Total	**1.33**	**0**	**6**	**1.39**		

Two stars-5% significant level

Source: Survey results,2017

4.1.7 Purpose of loan

As shown in Table 7,the survey results revealed that 77.17 percent of the total borrowers were borrowed for business purpose which is more productive and the remaining 15.75 percent were borrowed for household asset acquisition and other purposes. From the total non- defaulters and defaulters, 94.05 percent and 5.94% percent were borrowed for business purpose and the remaining 17.65% of non-defaulters and 82.35% of defaulters borrowed for other purposes. The difference between the two groups was statistically significant.

Table 7: Responses on Purpose of loan

LOANPUR	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	%	No.	%	No.	%	6.07	0.000***
Business	95	94.05	3	17.65	98	77.17		
Other	6	5.94	14	82.35	20	15.75		

Three stars - 1% significant level

Source: Survey results, 2017

4.1.8 Profit gained from activities financed by the loan

As shown in Table 8,the survey results revealed that 64.57 percent of the total borrowers were gained profit from the total amount of loan they financed and the remaining 28.35% of borrowers cannot generate profit. From the total non- defaulters and defaulters 75.25 % and 24.75% of them were gained profit. In addition, 11.76% and 88.24% percent of the total non-defaulters and defaulters cannot generate profit from the total amount of loan they financed. The difference between the two groups was statistically insignificant.

Table 8: Responses on Profit Gained From Loan

PROFTGAIN	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	%	No.	%	No.	%	-1.09	0.276
Yes	76	75.25	2	11.76	82	64.57		
No	25	24.75	15	88.24	36	28.35		

Source: Survey results, 2017

4.1.9 Loan diversion

As shown in Table 9,out of the total borrowers, 64.57% diverted the loan accessed for income generating activities. From the total non-defaulters and defaulters, 87.13% and 23.53% were those who diverted the credit finance to productive activities, the difference between the two groups was statistically insignificant.

Table 9: Responses on loan diversion

LOANDIV	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	%	No.	%	No.	%	-0.88	0.38
Yes	88	87.13	4	23.53	82	64.57		
No	13	12.87	13	76.47	36	28.35		

Source: Survey results, 2017

4.1.10 Timeliness of loan release

As shown in Table 10, the response on the timeliness of loan release from the total borrowers, 64.57% and 28.35% replied yes and no answers respectively. The difference between the two groups was statistically significant.

Table 10: Responses on timeliness of loan release

TIMELNSS	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	%	No.	%	No.	%	2.67	0.009***
Yes	95	94.05	2	11.76	82	64.57		
No	6	5.94	15	88.24	36	28.35		

Three stars - 1% significant level

Source: Survey results,2017

4.1.11 Income from other activities or sources

As shown in Table 11,the sample borrowers were asked to reply whether they had other sources of income not financed by the bank. Out of the total respondents, 64.57% and 28.35% replied as they have and as they didn't have other income respectively. Meanwhile, the difference between the two groups was found to be statistically significant.

Table11: Availability of income from other activities or sources

OTHINCO	Non-Defaulters		Defaulters		Total		t-value	p-value
	No.	%	No.	%	No.	%	-1.73	0.08*
Yes	74	73.27	6	35.30	82	64.57		
No	27	26.73	11	64.70	36	28.35		

One star - 10% significant level

Source: Survey results, 2017

4.1.12 Loan size

As shown in Table 12, Birr 1,830,296.00 was the mean amount of loan size that the borrowers accessed from the bank. In addition, the mean amount of loan size of non-defaulters and defaulters was 2,014,503.00 **and** 735,889.70 Birr respectively. Moreover, the mean difference between the two groups was statistically significant.

Table12: Loan size

LOANSIZ	Mean	Min	Max	SD	t-value	p-value
Non-Defaulters	**2,014,503**	**46,375.91**	**6,941,837**	**19,253.88**	**6.21**	**0.000*****
Defaulters	**735,889.7**	**21,000**	**7,307,674**	**447,184.30**		
Total	**1,830,296**	**21,000**	**7,307,674**	**1,881,379**		

Three stars - 1% significant level

Source: Survey results,2017

4.1.13 Availability of voluntary saving

As shown in table 13, Borrowers were asked to give their answer as to whether they were exercising voluntary saving in the bank. To this question 64.57% and 28.35% of the total respondents replied as they were exercising and not exercising respectively. Meanwhile64.35% and 17.65% of the total Non-defaulters and defaulters were those who have a voluntary saving and 34.65% of the non-defaulters and 82.35% of defaulters were those who did not have saving habit .The difference between the two groups was found to be statistically significant..

Table 13: Availability of voluntary saving

Loan Diversion	**Non-Defaulters**		**Defaulters**		**Total**		**t-value**	**p-value**
	No.	**%**	**No.**	**%**	**No.**	**%**	**2.67**	**0.01*****
Yes	**65**	**64.35**	**3**	**17.65**	**82**	**64.57**		
No	**36**	**34.65**	**14**	**82.35**	**36**	**28.35**		

Three stars - 1% significant level

Source: Survey results,2017

4.1.14 Suitability of loan repayment period

As shown in table 14,the average repayment period of the loan was 3 years. In addition, the mean repayment period of non-defaulters and defaulters are 4 and 3 years respectively. Moreover, the mean difference between the two groups was statistically insignificant.

Table 14: Responses on the suitability of loan repayment period

REPPERIOD	Mean	Min	Max	SD	t-value	p-value
Non-Defaulters	4	3	8	1.09	1.43	0.155
Defaulters	3	3	4	0.43		
Total	3.9	3	8	1.06		

Source: Survey results,2017

4.2Results of the Econometric Model

4.2.1 Test for Model Specification

4.2.1.1 Link Model Specification Test

Link test creates two new variables, the variable of prediction,(_hat), and the variable of squaredprediction,(_hatsq). The model is then refitted using these two variables as predictors. _hat should be significant since it is the predicted value. On the other hand, _hatsq shouldn't. This is because if our model is specified correctly, the squared predictions should not have much explanatory power. That is we wouldn't expect _hatsq to be a significant predictor if our model is specified correct (Wooldridge, 2005).

Table 15 below reveals that the regression model is correctly specified, since the coefficient of the predicted dependent variable (_hat) is statistically significant and the coefficient of the predicted dependent variable square (_ha tsq) is statistically insignificant. The Link test accepts that the model is correctly specified.

Table15: link test on variables

AMNTREPD	t-value	p-value
Hat	2.44	0.01
hat square	0.84	0.40

Source: Stata 12 output, 2017

4.2.1.2 Ramsey Omitted Variable Test

The Ramsey omitted variable test runs the Ramsey regression specification error test (RESET) for omitted variables. If p value is insignificant, say, at the 5 percent level, one can accept that the model has no omitted variables ,(Gujarati, 2004).

Table 16: Ramsey RESET test using powers of the fitted values of amntrepaid

F(3,100)	1.72
Prob>F	0.1678

Source: Stata 12 output,2017

It is clear from the above table that the p value is insignificant, greater than 5 percent level of significance, so, the model has no omitted variables using any of the standard significance levels.

4.2.2 Diagnostic Test

4.2.2.1 Heteroskedasticity Test

The test of heteroskedasticity is a test of the second assumption of OLS estimator that says the variance of errors is constant. In Breusch-Pagan / Cook-Weisberg test for heteroskedasticity, if the p-value is sufficiently small, that is, below the chosen significance level, then heteroskedasticity is a problem for the model
otherwise heteroskedasticity is not a problem for the model (Wooldridge, 2005). The insignificant result from the Cook-Weisberg test indicates that the regression of the residuals on the predicted values reveals insignificant heteroskedasticity which is a P value greater than 1%, 5% and 10% levels of significance. Thus, there is no heteroskedasticity problem for the values Fitted values of amntrepaid.

Table 17 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Variables: fitted values of amntrepaid	
F(1,116)	2.49
Prob>F	0.1175

Source: E-view 9 output of heteroskedasticity

4.2.2.2 Multicollinearity Test

Since the dependent variable in this study is binary, testing the existence of multicollinearity is important. It is the non existence of multicollinearity among the regressors which means each explanatory variable included in the model should have independent influence on the dependent variable. Multicollinearity problem arises when two or more variables (or combination of variables) are highly correlated with each other. The existence of multicollinearity might cause the estimated regression coefficients to have the wrong signs, smaller t-ratios and high standard errors (Pindyck and Rubinfeld, 1998).
According to Gujarati (2003), VIF can be defined as: VIFi = Variance Inflation Factor and Ri2 is the square of multiple correlation coefficient between Xi and the other explanatory variables. The larger the value of VIFi the more collinear the variable Xi is. As a rule of thumb, if the VIF of a variable exceeds 10, it is often taken as a signal for the existence of multi co linearity problem in the model.

Table 18 clearly shows, values of the VIF was found not to be greater than 10 and all values of the 1/VIF was greater than 0.1 revealing the non-existence of serious multicollinearity problem among all the explanatory variables.

Table 18: Variance Inflation Factor

Variables	**VIF**	**1/VIF**
AGE	1.83	0.54
MRTS	1.61	0.62
SEX	1.20	0.83
EDULEVEL	2.40	0.41
HHSIZ	1.52	0.65
DEPHH	1.85	0.54
LOANPUR	1.89	0.53
LOANDIV	1.71	0.58
TIMELNSS	2.61	0.38
LOANSIZ	3.88	0.33
VOLSV	1.86	0.25
REPPERIOD	3.62	0.27
OTHINCO	1.89	0.52
PRFTGAIN	2.33	0.43

Mean VIF | 2.15

Source: Source: Stata 12 output of Multicollinearity

4.3 Result of Regression Analysis

Adjusted R-squared shows 94.1 % of the variation on the dependent variable amount of loan repaid(AMNTREP) is explained by the independent variables .
The F-ratio was 134.31 and significant at 1% level, implying that join effects of all the included variables was significant.

Table 19: Results of regression analysis

EXPLANATORY VARIABLES	COEFF.	STD.ERR	T	P>t
AGE	-0.11	0.006	-1.97	0.051**
SEX	-0.07	0.877	-0.86	0.394
MRTS	0.003	0.109	0.03	0.975
EDULEVEL	0.071	0.028	2.51	0.014**
HHSIZ	0.019	0.201	0.98	0.328
DEPHH	-0.106	0.041	-2.60	0.011**
LOANPUR	0.88	0.145	6.07	0.000***
LOANDIV	-0.09	0.111	-0.88	0.380
TIMELNSS	0.38	0.142	2.67	0.009***
LOANSIZ	0.89	0.054	6.21	0.000***
VOLSV	0.28	0.116	2.48	0.015***
REPPERIOD	0.1	0.711	1.43	0.155
OTHINCO	-0.2	0.116	-1.73	0.086*
PRFTGAIN	-0.15	0.140	-1.09	0.276
_CONS	-2.64	0.628	-4.21	0.000

Source: Source: Stata 12 regression output

4.4 Results and sign of independent variables

1. **Age of borrower:** The coefficient of this variable was hypothized to have positive sign but from the regression result the age variable was negatively and significantly influencing loan repayment at 5% significant level. This implies that younger borrowers acquire new technology and updated information in business than older borrowers. This result is agreed with the findings of Medihin, (2015) and Kibrom, (2010) but contrary with Firafis, (2015) estimation which come up with positively and significant result.

2.Sex: The regression result implies being male/female were not related with loan repayment performane as expected,althougn the difference is statstically insignificant.This result is in agreement with the findings of Retta,(2000).

3. Marital status: Martial status of the borrower was not an important predictor of loan repayment performance. From regression result it is statistically insignificant. This result is in agreement with findings of Firafis, (2015).

4. Education level: education level was positively and significantly influencing loan repayment at 5% significance level. This suggests that more educated borrower have more level of awareness, exposure to technologies, better managing ability and access to business information. This result is agreed with the findings of Medihin, (2015) and Retta, (2000).

5.loan diversion: The co-efficient of this variable was hypothized to influence loan repayment performance positively. But from the regression result diversion of loan has no relation with repayment performance and statistically insignificant. This result contrary with the findings of Belay, (1998) and Retta , (2000).

6. Loan size: this variable also was found to influence borrowers' loan repayment performance positively and significantly at 1% significance level providing borrowers with the required amount of finance or sufficient loan size and operating business with adequate amount of capital reduce the probability of being defaulter that may encountered due to under or over financing of borrowers. This result is agreed with findings of Kibrom, (2000) and Medihin,(2015) but contrary with results of Chirwa,(2015) which come up with insignificant results.

7. Timleness of loan release: this variable was found to influence positively and Significantly the borrowers' loan repayment rate at 1% significance level. Loan which is timely disbursed used for the intended yet productive purposes . The Complicated loan processing procedures which might delay disbursement, most likely have high default rate. So when loans are timely disbursed it can increases the repayment performance of borrowers. This result is also agreed with findings of Kibrom, (2000) and Medihin,(2015).

8. Dependent Household: This variable was found to determine negatively and significantly borrowers' loan repayment performance at 5% significance level. borrowers with large number of dependent family having the higher responsibility to shoulder family members The loan may go into non-income generating activities used for different family expenses leads to the` higher probability of being defaulters. The co-efficient of this variable come up with the same sign as hypothized. This result agreed up on the findings of Firafis (2015).

9. House hold size: The coefficient of this variable was hypothized to influence loan repayment performance negatively. The regression result implies family size is not related with loan repayment performane as expected,althougn the difference is statstically insignificant . This result agreed with the estimation result of Firafis, (2015).

10. Loan purpose: this variable was found to influence positively and significantly the borrowers' loan repayment performance at 1% significance level. Borrowers who use the loan for business purpose become productive and generate additional income. The implication is those borrowers who divert the loan finance to consumption will face a shortage of finance to be engaged in income generating activities which finally leads them to be defaulters. This result is also agreed with findings of Kibrom,(2000) and Medihin,(2015).

11. Other source Income: The coefficient of this variable was hypothized to influence loan repayment performance positively but availability of other source of income is significant at 10% level and surprisingly negatively related to borrowers' ability to repay their loans. Borrowers may net be given much attention for the business they run jointly & the borrowed fund may not spent for the intended purpose. This result is contrary with the findings of Kibrom,(2010) and Medhin ,(2015).

12. Repayment period: The coefficient of this variable was hypothized to influence loan repayment performance positively. But from the regression result repayment period has no relation with repayment performance and statistically insignificant. This result agreed with the findings of Belay, (1998).

13. Voluntarily saving: voluntarily saving is significant at 1 % level and positively related to borrowers repayment performance. It implies that saving habit helps borrowers to improve the proper utilization of the loan, improve relationship with the bank and saving helps to repay their loan easily. This result agreed with the estimation result of Yonas ,(2015)

14. Profit gained from loan: The coefficient of this variable was hypothized to influence loan repayment performance positively. But from the regression result profit gained from loan has no relation with repayment performance and statistically insignificant. This result is contrary with the findings of Belay,(1998).

CHAPTER FIVE

SUMMARY AND POLICY RECOMMENDATIONS

5.1 SUMMARY

In the study the factors affecting loan repayment performance of the borrowers of Enat Bank share company is analyzed using primary and secondary data respectively. The primary data is collected from 127 borrowers from Addis Ababa city branches only. The sample borrowers were asked two types of questions the first questions related to the Borrower's characteristics such as age, sex, educational background, marital status, household size, number of dependent family and availability of other source of income. The second types of questions refer to the loan characteristics, which include purpose of the loan, repayment period of the loan, loan diversion and timeliness of loan release.

A descriptive analysis was employed to analyze socio economic and institutional characteristics of the borrowers. Under this method of data analysis, descriptive statistics including mean, standard deviations, frequency, percentages, etc. were used to summarize and describe the socio-economic and loan characteristics of the borrowers and to compare the defaulters and non-defaulters. In addition, ordinary least square (OLS) regression model was used to econometrically analyze determinants of loan repayment performance by using t-test, p-value and Adjusted R2 value.

The descriptive statistics results showed that about 13.39% and 79.52 percent of sample borrowers were defaulters and non-defaulters respectively. The result of OLS econometric model showed that, from a total of 14 explanatory variables used in the model, 4 variables loan size, purpose of loan, voluntarily saving and timeliness of loan release had statistically 1% significant influence on the loan repayment performance of the sample borrowers. Age, Education level and Number of Dependent Households had statistically 5% significant influence on loan repayment performance. Other source of income had 10% significant influence on loan repayment performance in the bank.

To compare my regression results from thesis results done before;
From estimation result of logit model done by Medhin Mekonnen ,(2015) Education, other source of income, loan size, timeliness of loan release and repayment period are positively related with loan repayment performance and Age and number of family size are negatively related. From estimation result of OLS model done by wongnaal Awunyo,(2013) Age ,loan size, saving ,marital status has positively related and family size negatively related with repayment performance. Estimation result of my Regression shows that; educational level, loan purpose timeliness of loan release, voluntarily saving and amount of loan size have positive and significant relationship with amount of loan repaid. Age, Number of dependent household and other source of income have negative and significant relationship with amount of loan repaid.

5.2 POLICY RECOMMENDATION

Enat Bank share company was last entrant to the banking industry to be competitive and survival on the sector it should avoided problems by identifying the root causes which leads to loan default and bring crises rather than generate profit for borrowers and for the bank .The size of the loan should be in line with the prepared business plan. Both under financing and over financing of borrowers will lead to default. Purpose of the loan in which the borrower is financed has a positive impact in the loan repayment performance. Thus, the bank should first properly evaluate the business plan submitted and should give technical support to borrowers so that they can engage in a profitable businesses. Once the loan finance is used for consumption which is non-productive purposes, it would be difficult for the borrowers to repay the loan back. Most of the time, such happens due to personal problems. Therefore, the trend should be changed by trainings and experience sharing so that borrowers can able to use the loan properly and they repay the loan on time.

An important policy implication from the strong relationship between education and successful loan repayment performance is that there is a need to consider the educational level of borrowers or their managers in the credit policy of the bank and it should be given high emphasis before the loan is disbursed. Number of dependent household which brings higher responsibility must be addressed by putting womens in the category of active borrowers and savers which makes them entrepreneurs this decreased the burden on one family member and helps to use the loan in appropriate way and perceived importance of loan by the borrowers it also helps to accelerates the chance of the repayment of the loan at proper time.

Timely disbursement and post-disbursement follow-up of borrowers by the loan officers on the status or progress of the business undertaken and some technical assistance undermine the defaulting rate of borrowers. It helps to evaluate the borrowers' loan utilization and repayment status. The Bank should give business trainings related to business development schemes and creates awareness on the role of saving to become successful and profitable both the borrower and the bank which works for mutual benefit.

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APPENDIXES

APPENDIX A

OLS REGRESSION

Source	SS	df	MS
Model	349.620588	14	24.9728992
Residual	19.1514111	103	.18593603
Total	368.771999	117	3.15189743

Number of obs	= 118
F(14, 103)	= 134.31
Prob > F	= 0.0000
R-squared	= 0.9481
Adj R-squared	= 0.9410
Root MSE	= .4312

amntrep	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
age	-.0118559	.0060168	-1.97	0.051	-.0237887	.0000769
sex	-.0750393	.0877039	-0.86	0.394	-.2489792	.0989006
edulevel	.071918	.0286868	2.51	0.014	.0150246	.1288114
mrts	.0033833	.1093555	0.03	0.975	-.2134976	.2202641
loansize	.089241	.0540841	6.21	0.000	.5958669	1.146093
hhsiz	.0198231	.020153	0.98	0.328	-.0201457	.0597919
dephh	-.1068994	.0410544	-2.60	0.011	-.1883211	-.0254776
loanpur	.882431	.1452865	6.07	0.000	.5942894	1.170573
loandiv	-.0985057	.111751	-0.88	0.380	-.3201375	.1231261
timelnss	.3817855	.1427794	2.67	0.009	.0986162	.6649548
volsv	.2891102	.1166356	2.48	0.015	.0577909	.5204294
repperiod	.1018562	.0711448	1.43	0.155	-.0392428	.2429551
othinco	-.2025171	.1168077	-1.73	0.086	-.4341776	.0291434
prftgain	-.1539668	.1406588	-1.09	0.276	-.4329303	.1249967
_cons	-2.642707	.6282331	-4.21	0.000	-3.888659	-1.396755

VARIANCE INFLATION FACTOR

```
. vif
```

Variable	VIF	1/VIF
loansize	3.88	0.257625
repperiod	3.62	0.276360
timelnss	2.61	0.383691
edulevel	2.40	0.416447
prftgain	2.33	0.429659
othinco	1.89	0.528968
loanpur	1.89	0.530321
dephh	1.85	0.540233
age	1.83	0.546987
volsv	1.80	0.555184
loandiv	1.71	0.586213
mrts	1.61	0.621510
hhsiz	1.52	0.657033
sex	1.20	0.834763
Mean VIF	2.15	

LINK TEST

```
. linktest

      Source |       SS       df       MS              Number of obs =     118
-------------+------------------------------           F(  2,   115) = 1056.44
       Model |  349.736436     2  174.868218           Prob > F      =  0.0000
    Residual |  19.0355636   115   .16552664           R-squared     =  0.9484
-------------+------------------------------           Adj R-squared =  0.9475
       Total |  368.771999   117  3.15189743           Root MSE      =  .40685

------------------------------------------------------------------------------
amountrepaid |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        _hat |   .7448727   .3057461     2.44   0.016     .1392485    1.350497
      _hatsq |   .0099918   .0119438     0.84   0.405    -.0136667    .0336502
       _cons |   1.594849   1.928996     0.83   0.410    -2.226121    5.415818
------------------------------------------------------------------------------
```

RAMSEY OV TEST

```
Ramsey RESET test using powers of the fitted values of amountrepaid
       Ho:  model has no omitted variables
                 F(3, 100) =      1.72
                  Prob > F =      0.1678
```

HETROSKEDASTICITY TEST

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of logamntrepaid

         F(1 , 116)   =     2.49
         Prob > F     =   0.1175
```

APPENDIX B

SURVEY QUESTIONNAIRE

These questions are designed to view the loan repayment performance of Enat Bank S.C borrowers. This field work is part of the work for the award of Masters of Development Economics at St/Marry University. This study is purely academic and as a matter of fact, the information you provide here would be kept confidentially. Thank you for your support.

PERSONAL INFORMAYION

1. Age _________ Years

2. Sex

(A) Male [ ]   (B) Female [ ]

3. Marital Status

(A) Married [ ]
(B) Unmarried [ ]
(C) Divorced [ ]
(D) Widowed [ ]

4. Are you participated in formal education?

A. Yes [ ]   B. No [ ]
If yes, what is your level of education? _______________

5. Your family size is _____in number.

How much of them are dependent on your income-------------

LOAN INFORMATION

6. What is the amount of loan you borrowed from Enat Bank? ________________Birr with interest rate _________________________

7. How much is loan repayment period? _____________

8. What Type of collateral you requested and its value? ________________ Birr
A. Building
B. Vehicle
C. House

D .other please specify________________

9. For what purpose did you use the Loan? ________________

10. Did you use your loan for consumption purpose?

**A. Yes [ ]		B. No [ ]**

If yes, why? _____________

11. Did you have any other sources of income which is not financed by the Bank?
**A. Yes [ ]		B. No [ ]**

12. Did the Bank respond to your loan application on your needed time?
**A. Yes [ ]		B. No [ ]**

If No, what were the reasons?

A. Long Bureaucratic chain
B. Too many criteria needed
C. Infeasible business plan
D. Other please specify________

13. Did you found the loan repayment date in which you agreed up with the Bank to repay your loan promptly?

**A. Yes [ ]		B. No [ ]**
14. Did you get the amount you requested from the Bank enough to conduct the business?
**A. Yes [ ]		B. No [ ]**
If No, what do you think is (are) the reason/s behind?
A. The cooperative did not approve my request
B. Price escalation has affected my business
C. My business plan was not correct
D. Other please specify ________________________________

15. Have you experienced increased profit in your enterprise after taking the loan?
**A. Yes [ ]		B. No[ ]**

16. Did you save money voluntarily in the Bank while you were engaged in the Bank's loan financed business?
**A. Yes [ ]		B. No [ ]**
If No, why?
A. Engaged in more extravagant practices
B. Have more children
C. Haven't seen its importance
D. Other_______

17. Did your amount of voluntary saving support you in repaying your loan back?
**A. Yes [ ]		B. No [ ]**

If yes, in what ways?
A. able to pay the loan easily
B. Helped me to be engaged in new profitable business
C. Other ______________

18. Has the Bank organized any training programme to assist you in your business?
A. Yes [ ] **B. No [ ]**

If yes please specify______________

THANKYOU