



**ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
MASTERS OF SCIENCE IN MANAGEMENT**

**FACTORS INFLUENCING DEFAULT
PROJECT FINANCING: THE CASE OF
DEVELOPMENT BANK OF ETHIOPIA**

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PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SCIENCE (MSc) IN MANAGEMENT**

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DECLARATION

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This is my original work and has not been presented for a degree in any other university.

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ABBREVIATIONS AND ACRONYMS

AL	Amount of Loan
BOC	Borrowers Organizational Capacity
BPR	Business Process Reengineering
CCC	Concept, Context and Content
COSO	Committee of Sponsoring Organizations
DBE	Development Bank of Ethiopia
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
ILD	Influence Diversion on Loan Default
ILP	Impact of Loan Processing
IMF	International Monetary Fund
IT	Information Technology
KYC	Knowing Your Customer
LPCT	Loan Processing Cycle Time
ME	Monitoring & Evaluation
NPL	Non-performing loan
OLS	Ordinary least square
PF	Project finance
ROE	Return on equity
ROI	Return on Investment
SPSS	Statistical Package for Social Science
UNIDO	United Nations Industrial Development Organization
UT	Use of Technology
WD	Willful Default

ABSTRACT

The commencement, grant, servicing and monitoring of loans by financial intermediaries has been done without consider to some critical factors, which could have averted the odds of default. This study intends to assess factors influencing Default project financing, the mixed research approach was adopted for the study. Survey was conducted with Customers of under the direct management of Head office Development Banks of Ethiopia using a self-administered questionnaire from the Customer view point, based on a Likert five scale questioner collected from 134 Customers through stratified sampling method. In addition, the study used structured review of documents and records of banks and adopted descriptive research design and inferential statistics in which multiple linear regression analysis was applied and correlation analysis assessed the relationship between loan default and the independent variables The main finding of the study is that; explanatory variables such as Loan Processing, use Technology & Technology adoption, Willful Default and Borrowers Organizational Capacity are significant influence on loan default. But Loan Diversion and Amount of Loan has no significant influence on loan default. Thus, it is suggested that the Bank shall put in place strong monitoring and follow-up mechanism by consistently visiting the business site and maintaining good communication with the customer about the use of fund and the project's Performance, early warning signals and give remedy before the major problem is materialize, exert the check and balance system through monitoring and evolution and needs technical audit section to protect from default, the Bank shall include enforcing and tangible system exercised by the borrower, the bank also strictly implement the use of technology as per the design and avoid second hand machinery since there is a cost overrun and high amount of maintenance cost.

Keywords: Development Bank of Ethiopia, Non-performing loan, Loan Default

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

The development bank rarely addresses the twin problems of lending risk and access to finance. Hence, most development banks around the world are bankrupt, either because of the inherent risk of the projects to which they lend, or because political interference pushes development banks to lend to well-connected borrowers who frequently feel no obligation to repay their loans. At the other extreme, the few development banks that are solvent lend only to the highest quality borrowers at subsidized interest rates, thus crowding out commercial lenders. In this economist's experience hardly any development banks have been worthwhile and, in particular, have not made any meaningful contribution to financial market development (Keith, 2007).

A financial institution the larger the institution, the greater the likelihood is more vulnerable to the loss of public confidence as the lack of trust and confidence in the viability of its business generally ends its operational and economic survivability. The public trust in financial institutions is generated by their economic functions. These are, among others, the intermediary functions of maturity transformation, size transformation, currency transformation and most importantly the function to provide the real economy with the necessary liquidity (credit) to facilitate economic growth (Wolf, 2015).

Loan default, credit risk, non-performing loans are expressions with same connotation described as among the biggest source of bank worries (Haq, 2010). In addition to this, Akwaa-Sekyi, (2018) noted that Credit risk, usually measured by non-performing loans is a transformed set of defaulted Loans. Series of loan defaults will make the portfolio non-performing before it gets to the stage of credit risk. Unpaid loans transform into default, and then prolonged default graduates into non-performing loans which leads to credit risk and eventually the effect on related market participants could lead to financial crisis.

According to Eastern Caribbean Central Bank (2009), credit risk management is the process of controlling the impact of credit risk-related events on the financial institution and involves the identification, understanding, and quantification of the degree of potential loss.

Non-performing loans 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 has been left unpaid for at least 90 days (Fofack, 2005). According to the International Monetary Fund (IMF, 2009), a non-performing 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.

According to National Bank of Ethiopia's Directive No.SBB/69/2018 "Asset Classification and Provisioning" Directive on 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 in question and when principal and/or Interest is due and uncollected for 90 (ninety) consecutive days or more beyond the scheduled payment date or maturity.

The Development Bank of Ethiopia is a specialized state-owned development financial institution since its establishment in 1909 has played significant role in providing loans and supporting key strategies and policies set by different regimes. the current mandate to extend investment credits to credit worthy borrowers and projects that have received a thorough appraisal and that are found to be financially profitable economically viable and socially desirable along with technical support through mobilizing resources from domestic and foreign sources used to finance large projects in different priority sectors of economy through project financing such as Commercial Agriculture, Agro processing and Manufacturing and extractive industries and another important new scheme introduced to support the small and medium enterprises (SMS) which has no access loans from private and/or government banks in providing loans in the form of lease financing such as Agriculture & Agro processing, Manufacturing, Construction, Mining and Tour Operation. The bank also provide loan for micro finance sector with less interest rate and for rural electrification program.

The state set priority areas which is highly risk and that cannot handle by other private banks to promote the development agenda but by its nature of such mega projects require long range in time horizon to pay back their debts, entailing high default risk to the bank With ever growing credit supply, it is not abnormal to expect a proportional increase in default rate. But it has already become evident that raise in default rate paves a hatch-way for bump of the non-

performing loans (NPLs) position of the bank. NPL is a double sword weapon which significantly affects not only the scarce resource of the country, but also erodes its reputation in the finance industry. This study, therefore, concentrate on the factors that affect defaults in project financing within the project stages that are under the Bank loan processes and implementation and measures their significance in order to help the Bank in developing a strategy and mitigating measures to reduce project defaults.

1.2. Statement of the problem

Bank financed projects can fail due to the Bank Specific Characteristics such as lack of internal control; poor credit management system, corruption, poor follow up and monitoring system, insufficient evaluation methods weak technical support and implementation of repressive credit policies, manuals, procedures. in the other hand projects can be default through Borrower Characteristics such as; misuse of resources for intended purpose, poor Management practice, hardly use technology, and due to external factors that are related to political environment such as political intervention, political unrest and instability, beside this lack of infrastructure and Low market Practice system un stability and political unrest are the causes of defaults according to theoretical literatures indicated. However, the significance of these explanatory variables is not studied in particular case of DBE and but few studies conducted research studies in the case of other Banks as reviewed in empirical literature.

poor credit assessment, failed loan monitoring, Underdeveloped credit culture, lenient credit terms and conditions, aggressive lending, Compromised integrity, weak institutional capacity, unfair competition among banks, wilful Default by borrowers and their knowledge limitation, fund diversion for unintended purpose, Over/under financing by banks ascribe to the causes of loan default, however the survey conducted to bank employees' and officials' personal perception and officially disclosed financial data of banks (Wondimagegnehu,2012).

Any loan granted by investment lending institution is generally provided at a cost, referred to as interest on the debt, for employment generation, foreign currency generation and /or saving and generate revenue income for the government in the form of income tax, as the primary incentive for the lender to engage in the provisioning of long term and /or medium-term loan. And in such loan, each of these obligations and restrictions is enforced by a contractual agreement or loan

covenants between these stakeholders that clearly states the rule of the game agreed upon by both parties on the different aspects including the purpose, disbursement schedule, implementation period, repayment period and the charges associated with the loan as per the appraisal study (Ayele, 2015). However, Endeshaw(2017), credit project appraisal and evaluation parameters don't genuine for the realization of the project, the commodity research data are not reflecting realistic facts, the project appraisal financial projections are exaggerated and unrealistic.

the Non-performing loan (NPL) i.e. loan which couldn't meet their debt obligation as per the agreed terms and conditions) against the total portfolio outstanding ratio of the bank for the last Five consecutive years 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 shows 8.2%, 12.54%, 17.71%, 8.2%, 24.98% and 39.34 % respectively. Although Development Bank of Ethiopia strives to reduce these ratios using, NPL's resolution strategy, the ratio of non- performing loan against the total outstanding loan portfolio is growing from year to year, and still it is above the bank's tolerance limit (Annual Report of DBE, 2017/18).

Determinates of loan repayment performance have been studied by, Fikirte (2015), emphasized on Commercial Bank of Ethiopia, in project financing borrowers, bank characteristics and external related factors aspects, Adamu(2013), and Arega (2016), under Development Bank of Ethiopia which focused on borrower's characteristics, project characteristics, Macro economy factors, specific sub sector, Regional and specific branch aspect, while Endeshaw(2017), and Simeon(2018), also under the Development Bank of Ethiopia which focused on policy induced aspect, loan provision evaluation criteria, source of equity contribution and nature of commodity aspects.

Akwaa-Sekyi (2018), Concludes that, factor leading to business loan default falls under the categories of ownership characteristics, borrower characteristics, loan characteristics, lender characteristics and macroeconomic factors.

The numbers of defaults increasing from year to years currently the ratio of Default loans are 40% in 2018/19 according to DBE Annual Report 2018/19, this show larger than the standard set by the National bank of Ethiopia a 15% maximum for development banks. However the bank is

in highly risk for ensuring its sustainability and contradicts in unbelieving vision of the bank which is 100% Success for All Financed Projects by 2020.

Asia Financial crisis of 1997, euro recession and us crisis shows Internal supervision and auditing are very important components of risk management in banking. Due to the changing nature of business through evolving organizational structure, personnel quality, processing procedures, internal supervision and auditing cannot be accomplished with only data (Yang et al, 2001).

The government owned mass media , higher officials of the regulatory body as well as the private press have repeatedly reported and claimed that the Development Bank of Ethiopia were facing serious problems with loan defaults for a variety of reasons, Low productivity of commercial farm land that the bank extended loans to, intermittent rain fall, the Forex crunch, management problems and political unrest lack of financial discipline such as (wilful defaults) and outright breach-of-contract cases etc;. Fortune Newspaper (2016) maintained that the magnitude of the total bad debts of DBE had reached the staggering up to 39.40 percent bad debts/loans ratio.

Although DBE has been following these steps in its long journey of project finance using different organizational arrangements, it has been frequently exposed to liquidity problem, poor asset quality, reduced its reputations and customer frustration as a result tendency of loss of its sustainability due to high rate of default .Therefore, this study focuses to assess the factors that influencing the default of project financing related the borrower's specific characteristics, Bank Related specific characteristics and the Loan specific characteristics in the customer point of view.

1.3. Objective of the study

1.3.1.General objective of the study

The main objective of the study is to investigate the Factors Influencing Default Project Financing: the case of Development Bank of Ethiopia

1.3.2. Specific objective of the study

- ❖ To measure the borrowers' characteristic that contributes to default project finance.
- ❖ To identify Bank Specific Characteristics leading to Project Loan Default.
- ❖ To Measure the Loan Specific Determinants of Project Loan Default.

1.4. Research Questions

- ❖ To what extent the borrower's characteristics that contribute to default project finance that contributes to default in project financing
- ❖ Does the Bank Specific characteristics that contributes to default in project finance
- ❖ To what extent the Loan Specific characteristics of Project Loan Default that contributes to default in project finance

1.5. Significance of the study

Research Studies regarding development Bank of Ethiopia related Bank Specific, Borrower Specific and loan specific related causes of default is difficult to found and particularly in DBE project financing there is no study carried so far, the factors that influencing loan default in customer perception. this study contributes as a research material for interesting researchers focused in DBE in addition to this it contributes in preparing policies and strategies for policy makers and strategist in considering the causes of defaults in perception of customers. Finally this paper enables identifying major Factors of loan default for DBE financed projects and measuring their significance for Project financing loan defaults will help the Bank to select the focus areas in Internal Control, improve the loan processing system to reduce Loan Default by applying in its project due diligence assessment, appraising, implementation and Follow-up process.

1.6. Scope and Limitation of the Study

This study conducted focusing only from Customer perspective; however, this study were not included the opinions credit Performers who directly involve in project financing and project rehabilitation and loan recovery in Bank side. The scope of the study focuses on the project financing under the direct management of head office.

1.7. Organization of the paper

The final report of the research paper was organized as follows. The first Chapter was comprised introduction part of the paper explaining the background of the study, statement of the problem, objectives and research questions and hypothesis used in the study. All theoretical perspectives review literature, empirical literature review and conceptual frame work of the study presented in the second chapter of the report while third chapter of the paper presented the methodology followed in the study to achieve the objective of the study and the fourth chapter discussed on data presentation, analysis and interpretation. Finally, the fifth chapter finalized the study by Summary of Findings, conclusion and recommendations.

CHAPTER TWO LITERATURE REVIEW

Well understanding the concept project, project financing, project life cycle and causes of defaults are very interesting to appreciate the need for studying Bank financed projects loan defaults. Therefore, studying of factors that affect loan defaults gives opportunity for reduction of default loan Rate by taking different mitigations to take action from previous mistakes and improve the decision-making process by the bank itself, regulatory body, the Government and other stake holders.

These sections have four parts which is the theoretical literature, empirical literature, Summary & research gap and conceptual frame work so as to analyze and identify the factors that affect loan defaults in project finance.

2.1. Theoretical Literature

2.1.1. Project definitions and characteristics

There are several definitions of projects in the literature, among them Weiss and Wysocki (1992): project s can be defined as Complex and numerous activities, Unique a one-time set of events, Finite having with a beginning and ending date with Limited resources and budget that involves Many people usually across several functional areas in the organizations in a Sequenced activities for Goal-oriented end product or service must result.

A project is defining a work system designed to go out of existence after producing a particular product Work system are aggregates of nine elements: work practices, Participants, Information, Technologies, Customers, Products & services, Environment, Infrastructure, and strategies. (Alter, 2005)

According UNIDO Manual (1972) projects have the following unique characteristics investing some scarcer resources while its Planning process for Investment of some resources but the invested resources to be capable of analysis and evaluation as an independent unit, achievement of some specific objective(s); confirms its Costs/benefits or returns on the projects its Time dimension in the immediate or future time The size of the project; Risk and uncertainty; Amount/cost of the investment; Impact/outcomes: it must solve problem or meet certain needs of the society.

Regarding the coordination between different project tasks, Mintzberg, (1983), defines the following mechanisms: Mutual adjustment, direct supervision, Standardization of work processes, Standardization of outputs, Standardization of skills, and Standardization of norms.

2.1.2. Project life cycle characteristics

Risk and uncertainty are highest during the beginning stages of a project and reduces gradually as the project continues. In the cost of correcting an error increases as the project goes along. The first basic model of project cycle developed by Baum (1970), and world bank adopted and recognized that Identification, Preparation, Appraisal and selection Implementation While 1978, the author has added another fifth stage called “Evaluation “.

According to Prasanna C. (2002), A series of industrial phases generally accepted sequence is pre-feasibility (validation of concepts), feasibility (detailed investigation of viability), design, contract (procurement), implementation, commissioning, handover and operation. In generally Project life cycle defines as the tasks to be accomplished in each phase or sub- phase and the team responsible of each of the phases defined

2.1.3. Project finance definition and characteristics

Project finance is a financing mechanism where a firm (project sponsor) forms a separate legal project company whose assets and cash flows are separated from the firm and provides equity business (Zinat, 2010).

Project Finance offers not only a superior setting for finance, management and IT research. It also instigates important theoretical contribution for both disciplines, Interdisciplinary perspectives; In particular, can help to advance our understanding of financing and management of risk investement.PF involve the most complex and challenging project of our time often in high risk environments. It has repeatedly challenged the frontiers of financing and management practice, and it is time that research makes appropriate use of PF in order to test the boundary condition of existing theories (Milliner, 2017).

Three important structural characteristics of project finance companies are first the legal independence, secondly concentrated equity and debt ownership and thirdly non-recourse

leverage, (Zinat,2010) while, projects financing is funded with unbalance of equity contribution,(.Esty and Megginson2003), in Connection to this Project finance involves the creation of a legally independent project company financed with nonrecourse debt for the purpose of investing in a capital asset, usually with a single purpose and a limited life. And it involves in both an investment decision of a capital asset and a financing decision. Inline to this the Economic Motivations for Using Project Finance differs from traditional risk management strategies because it involves a change in organizational form rather than the use of financial instruments or derivatives (Esty,2003).

Project finance reduces asymmetric information by eliminating the need to value assets-in-place.Esty,(2003). Similarly, the project financing structure solves important agency costs that are inherent in the creditor/borrower relationship, and that PF is a very effective method of providing monitoring for large projects with relatively transparent cash flows.

Concluding, it can be summarized that PF offers not only a superior empirical setting for Finance, Management and Information business research. It also provokes interesting theoretical contributions for both disciplines. Interdisciplinary perspectives, in particular, can help to advance our understanding of the financing and management of risky investments(Muller, 2017).Finally in the context of Development Bank of Ethiopia the government set as apriority area considering being as project financing of DBE focused on Commercial Agriculture, Manufacturing and Mining Extraction and Agro Processing.(DBE, Annual Report,2016).

2.1.4. Project default definition and concepts

According to the standard of Basel II (2001), project is concede as default if A payment is past due more than 90 days on any material credit obligation, On the contrary A project is resolved After default if a project loan(s) resumes scheduled payments on a regular basis (i.e., it returns to performing),Following restructuring work out, scheduled payments resume based on restructured debt service, The lender sells or transfers the defaulted debt instrument, Liquidation proceeds have been distributed to creditors, Bankruptcy process is completed and the guarantor submitted extra capital support for covering some amount of scheduled debt service.

According to Moody's definition: un planned or missed disbursement of a contractually-Committed interest or principal defines in credit agreements and indentures, A bankruptcy filing or legal Consideration by the debt issuer or obligation and The exchange has the effect of allowing the obligor to avoid a bankruptcy or payment default in the future).and A change in the payment terms of a credit. Similarly, the loan agreement in the project finance sets some possible "events of default" that allow lenders to take action against the project company. These events do not put the project in default automatically. A decision pass by the lender after the event of default has occurred. In the Advocacy of Yescombe (2002) the events of default its due date as per the agreement ,does not fulfill any of undertakings under the finance documentation while there is any change in the ownership or control of the project company prior to an agreed date, in case of the project company is subject to a court judgment for more than a certain amount, insufficient funding remains to complete construction of the project, any permit or license is revoked, the project is abandoned and any party defaults under a project contract.

2.1.5. Non-Performing Loans (NPL)

A non-performing loan (NPL) is defined as a customer that fails to pay the borrowed money to the lender as per the scheduled payments for at least 90 days. A nonperforming loan is either in default or close to being in default. Once a loan is Nonperforming, the ratio of the probabilities of an event happening that it will be repaid in full are considered substantially lower. If the debtor starts making payments again or the lender makes rescheduling, write off some portion of payment on a nonperforming loan, it becomes are-performing loan, even if the customer has not repay all the missed payments, Saba *et.al*, (2012).

As per the National bank of Ethiopia Directives of Asset Classification and provisioning (5th replacement) directive No SBB/69/2018 a non-performing loan (NPL) is defined; "Nonperforming loan and advances are a loan 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 advance is in question"

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

The Directive added that the Bank shall classify all loans and advances into Five Classification categories using the criteria described below:

- Pass Loans: - Loans and advances in this category are fully protected by the current financial and paying capacity of the borrower and are not subject to criticism.
- Special Mention: - ; Loans or advances and Over drafts with pre-established repayment programs past due 30(Thirty) days or more, but less than 90(ninety) day;
- Sub-standard: - Loans or advances and Over Drafts with pre-established repayment programs past due 90(ninety) days or more, but less than 180(one-Hundred Eighty) days;
- Doubtful Loans: -Loans or advances with pre-established repayment programs past due 180(one-Hundred Eighty) days or more, but less than 360 (three hundred sixty) days;
- Loss: Loans or advances with pre-established repayment programs past due 360 (three hundred sixty) days or more;

2.1.6. Definition and concept of project failure

Different authors define project failure from different perspective and context hence there is no commonly accepted definition for project failure. McConnell (2017), Project failure is when you do not get what you expect at the end of your project. According to him Project failure defines as a situation when a given project, which consumes human, material and financial resources, fails to deliver an acceptable Return on Investment (ROI), the project terminated before the schedule the project forced to terminated before the completion, in sufficient value is produced, and no income is delivered to the customer. This project is considered “failed” when it does not produce results as per the plan excess use of budget, and out of schedule and does not met the required specification in.

Following this definition of project failure, he concludes that a project fails when it does not meet the following criteria:

- It performed beyond the schedule of time.
- It is delivered un planed budget.
- It is delivered beyond scope.
- The product does not meet its expectation plan.

2.1.7. Causes of Project Failure

McConnell (2012) investigated why most projects fail and what are the five top reasons for project failure.

- Lack of Customer Involvement: is the primary reason for project failure. Customer does not participate during planning, implementation and evaluation of the project.
- Poor Requirements Set: Project failure due to poor requirements management takes place without having any real knowledge of the requirements.
- Scope Creep: project scope does not correlate with other constraints like time and cost do not change, the project is likely to be delivered over-budgeted and delayed.
- No Change Control System: Uncontrolled changes will cause project failure, the primary task is to create a document flow for change requests and implement a system to exchange and process change requests.
- Poor Testing: poor requirement set, insufficient of internal control lack of internal staff training, and shorting of time for testing.

According to Stewart, (2018) through his experience as of project management consultant identified the following Top Ten list of Reasons Why Projects Fail,

- Scope Creep: either the ability of doing everything or not going to do.
- Over allocated Resources: with a scarce resource working bulk projects at the same time.
- Lack of Communications: there is no interpersonal Communication beyond the project manager.
- Weak Stakeholder Management: inappropriate stakeholder management. Depending to their interest.
- Inappropriate Estimates: Unreliable estimation under or over estimation happened
- Lack of Risk Management: Every project has not properly managed its risk management since every project is unique and Complex.

- Project Culture not supported: project management culture always improves through training and sufficient tools.
- The Accidental Project Manager: every project need successor during implementation.
- Lack of Team Planning: poor working in team during planning.
- Monitoring and Controlling: every project needs close follow up.

Bank failures happened in future of the project life but past failures should resolve at the highest cost to the societies, as with many things, the cost could be reduced through planning ahead in good times and having a well-developed, credible, and widely publicized plan ready to be put into action by policymakers when the need arises. The plan should be widely used for both banks and their consumers, as well as regulators can take it into account in their planning and behavior and so it will not be a surprise that is likely to upset people who might then claim that they were treated unfairly Wolf, (2015)

2.2. Empirical Results and Facts

Various determinates of non-performing loans have been identified by various literature and researches in euro zone, Asian and Kenya banks among them (Makri,et. al., 2013) on “Determinants of Non-Performing Loans: The Case of Euro zone.” The researchers used panel regression methods for data analysis and also implement different Generalized Method of the Moments estimation. The result of the analysis shows strong correlation between NPL and various macroeconomic factors such as public debt, unemployment, annual percentage growth rate of gross domestic product and bank specific risk such as capital adequacy ratio, rate of nonperforming loans and return on equity (ROE), Beside this the study revealed that non-performing loans of commercial banks in Kenya are positively correlated with inflation rate 31.6%,while negatively correlated with real interest rate 46.8%) and growth rate in loans (-0.013) respectively. Further the study indicated the adjusted R square 55.3% of variation in the dependent variable in the regression model is due to independent variables while 44.7% are due to error term, chance or unexplained. The researcher added that F- Statistics found 23.409 were significant.

Similar study also conducted by Skarica (2013) on the determinants of NPLs in Central and Eastern European countries. fixed Effect model adopted for analyzing the data taken from 2007-

2012 periods, the study found that the loan growth, real GDP growth rate, market interest rate, unemployment and inflation rate as determinants of NPLs. The results show that both GDP growth rate and unemployment rate have statistically significant negative Correlated with NPLs.

So far, there are few relevant researches at Ethiopian banks worked by Zelealem, (2013) on the determinant of Non-Performing loan, Empirical Study on Ethiopian Commercial Banks, the study used both primary and Secondary data for analyzing, the researcher also adopted (structured review of documents) in-depth interviews. The study conducted in a private and state-owned financial record of eight commercial banks in Ethiopia and relevant data on macroeconomic factors considered from 2000 to 2011 periods. the researcher used descriptive statistics, correlation matrix and multiple linear regression analysis. The findings of the study show that, loan growth, financial performance, operational efficiency, effective exchange rate, inflation rate and gross domestic product have negative and statistically significant relationship with banks' NPLs. On the contrary, variables like bank size and state ownership have a positive correlation and statistically significant relationship with banks' NPLs.

However, the relationship for average lending rate and income diversification were found to be statistically insignificant. Fikirte, (2015) determinants of default in project finance in the case of Commercial Bank of Ethiopia. Adamu, (2013) on the determinants of failure for project financed by development bank of Ethiopia were reviewed. The study conducted 122 projects financed for the periods of five years at least one year operational through stratified sampling method. Both descriptive and explanatory analyses are conducted. Explanatory analysis using logit model is employed to analyze the determinants of failure or success and DBE financed projects.

Furthermore Fikirte, (2015), both qualitative and quantitative approach were adopted data gathering instruments survey used, document review and an in-depth interview. Structural questionnaire was distributed to all 52 credit performers who directly involved in the credit performance in Commercial Bank of Ethiopia, but only 77% of the populations were involved in the survey.

2.2.1. Factors that influencing loan default in project financing

Determinates of Defaults in project financing have been studied by, Fikirte (2015), focus on government owned commercial bank of Ethiopia, in project financing borrowers characteristics

,bank characteristics and external related factors aspects,The researcher found that ; weak credit assessment made by the bank to know their customer, Poor credit negotiation, poor Appraisal work on the feasibility of the project, in adequate skill of the Bank employee, starvation in finance, Weak monitoring and follow-up, shortage of foreign currency supply, unwillingness to give the real information, unplanned and ambitious business expansion, lack of Customer commitment, lack of understanding their project, Weak management Skill, poor Financial management, willful default, Poor data Base to appraise project loan, inflation, Lack of foreign currency , and poor credit culture in the industry, as a significant cause of defaults loans in project financing while (Adamu,2013) under development bank of Ethiopia Determinants of failure or success in project financing the finding of this study described that the statistical significance for variables in marketing problem and manpower recruitment variation in t project more severe failure, but project implementation time run past exceed to decrease project failure Moreover, DBE's project planning capacity and exchange rate change are found statistically significant in increasing project failure from DBE's credit management and macroeconomic explanatory variables respectively. Among socio-political variables, population size and literacy level in which the projects are working are found to be statistically significant in decreasing project failure as both variables increasing. in the other hand (Endeshaw,2017) and Simeon(2018) also studied the determinants of defaults in project financing under development bank of Ethiopia which focused on policy induced aspect, loan provision evaluation criteria, source of equity contribution nature of commodity aspects the same result were found credit project appraisal and evaluation parameters don't genuine for the realization of the project, the commodity research data are not reflect realistic facts, the project appraisal financial projections are exaggerated and unrealistic, and finally there is no prudent lending practice in banks

Akwaa-Sekyi(2018), Concludes that, factor leading to business loan default falls under the categories of ownership characteristics, borrower characteristics, loan characteristics, lender characteristics and macroeconomic factors. The finding revels that multiple borrowing, diversion of purpose (borrower characteristics), Underfunding (lender characteristics ,large loans are lower risk, probably because the borrower is normally a large company and the operation has been studied in greater detail and the Purpose of loan, age of loan, repayment plan, loan price

According to the above empirical review and facts ,done by different researchers of the study can be summarized into Three categories these are; bank specific determinants of default, borrower specific determinants of default and loan specific factor determinants of default are summarized against the literatures and presented as follows.

2.2.2. Bank specific factors leading to project loan default

According to Colquitt (2007), credit risk arises whenever a Bank is making visible to loss from a borrower, or counterparty who fails to pay their debt honestly as per the agreement within the time frame work. For lenders who extend credit in the form of loans, credit risk is extrinsic in all their business activities and is an element in virtually every product and service that is provided. Loan agreement process. includes loan evaluation, loan disbursement, loan repayment, and loan protection from default risk.

2.2.3. The impact of loan processing on loan defaults

Loan Processing Cycle Time (LPCT) is the total sum of the durations it takes to process an application processing starting from the loan application to transfer of money. As LPCT extends, the banks loss its customer, reputation as well as it has a huge risk. Studies confirms that the interest rate is determined by the demand for and supply of loanable funds which is a prerequisite component in the evaluation of credit requirements in the economy Jilcha1, et .al. (2019).

(DBE) Balance Score, (2012). Carried out the Study on Core Process of the Bank, has set a goal to reduce LPCT and improving customer satisfaction within 33 days. But due to internal and external factors the stated date not fulfills a result the customer dissatisfaction and frustrations happened.

Similarly, Ayle (2012), defines the Loan processing Time (LPCT) is the time taking from credit application to first disbursement. To complete the process the Bank have passed the following four steps of functions have been undertaken such as due diligence assessment (Knowing Your Customer), credit appraisal study, credit approval and Credit Documentation/disbursement.

2.2.3.1. Due diligence Assessment

The empirical study made by Fikiret (2015), indicates the existence factors in connection with credit processes i.e. poor due diligence assessment to know the customer (KYC), Lack of proper

skill of the loan officers and weak credit negotiation have found to be the major determinant of loan default as per the results obtained from the survey and Confirms through in depth interview.

This first steps of analysis of the borrower characteristics to go to the next step. Through conducting in-depth analysis of the creditor the credit officer either accept or reject the credit application based on the Bank criteria set, and, this is due to potential risk involved in a potential investment, a due diligence assessment is essential to the pre-funding commitment. The biggest investment a lender or creditor can make in a business is taking the time to determine the key aspects of the business environment, from the day-to-day operations practices, to human resource considerations, to the necessary practices to maintain customers. A due diligence assessment provides the answers to these questions, allowing creditors and lenders to decide if they are willing to proceed given the existing factors. As such, it is a helpful tool in making a more informed credit or investment decision.

Due diligence assessments also provide brief history of the customer ,behavior, its relationship social interaction and source of fund ,experience of the investor information which can be used when crafting lending or investment instruments for the benefit of lending or investing entities. Although the structure of each engagement is unique, projects typically focus on answering the following questions: Market positioning, including competition, capabilities, market dynamics by segment Execution capabilities, including strategy, management capabilities, cost structure, customer service, quality, product innovation Attainability of business plan and projections Cash flow forecast, quality of earnings and debt service capabilities Focus Management Group rapidly assesses a company to identify key issues and drives; drawing conclusions regarding the advisability of the lender/investor to proceed with the transaction under consideration.

2.2.3.2. Credit appraisal study

According to the Wondimagegnehu, (2012), over financing due to poor credit assessment, compromised integrity of credit operators was cause for incidences of Default. On the contrary Herrington and Wood (2003), reported that shortages in the amount applied for by the borrower could bring about default. When financial institutions analyze an amount lesser than what the applicant sought for, the purpose for which the loan was intended becomes difficult to accomplish and borrowers exposed to divert the purpose of the loan and as a result the project

become in a failure position and possible default. Meanwhile Underfunding lender related characteristics significantly determined the probability of business loan default. Akwaa-Sekyi, (2018).in connection to this Gebru,(2015)also confirms that poor credit analysis and unsound lending practices are the major determinant of defaults.

Adamu, (2013), considered operational projects and estimated the significance of cash flow over estimation for project failure. Loan appraising capacity and technical support were mentioned causes of as project success. while Endeshaw (2017),Simeon,(2018) argues that Credit evaluation criteria during project appraisal have a significant and negative impact on the financial loan default the researcher added DBE's credit project appraisal and evaluation parameters don't genuine for the realization of the project, the commodity research data are not reflect realistic facts, the project appraisal financial projections are exaggerated and unrealistic, and finally there is no prudent lending practice in banks, were statically significant determinant of loan default.

2.2.3.3. Credit approval

According to Faulkender (2006), reported that the timing of loan approvals plays critical role in the repayment capabilities of borrowers. While Fikiret (2015) confirms through In-depth interview was made with senior credit directors that due to external pressure without providing the necessary required document and analysis there are management intervention on the loan approval especially in case of FDI /Foreign Direct Investment/.

2.2.3.4. Credit documentation/disbursement

Credit documentation and disbursement is another aspect of credit assessment process. It encompasses the conduct of key exposure control measures that ensures securities and documentation is obtained before funds are disbursed, and that modification on all credit facilities is approved within credit policy. It also includes the maintenance of orderly updated credit files and the imposition of relevant fee's, updating of records and prompts notification of credit reviews and renewal dates (McNaught on et al, 1996) Loan documentation involves the legal drafting, document review, collateral checks and the waiver of terms. While the disbursement function involves checking the validity of notes as well as ensuring that the documentation for the credit facilities are properly executed. Loan documentation defines the

necessary security and covenant before the loan is made. It provides risk protection by providing grounds for the Bank to take legal action when borrowers fail to honor their obligations (Dayetal, 1996).

2.2.3.5. Monitoring and Evaluation

Credit monitoring/ follow-up plays pivotal role to ensure loan collection failure to do this properly was also found to be causes for sick loans. In fact cases of under financing loan requirement that meant shortage of working capital or not being able to meet planned targets were associated with defaults (Wondimagegnehu, 2012). The same result found by (Gebru, 2015), that lack of focused loan monitoring and follow-up, as the major factors that contribute to loan default.

Monitoring is methods of control for under implementation projects and/or separate evaluations and evaluating and communicating in adequacies (McNally, 2013). The Basel Committee on Banking Supervision, (2010) added that It is expected the executive management and the board demonstrate capacity to ensure that internal control systems through the managerial tool used to monitor the organization is the reporting of material system for internal control weakness. Monitoring Activities involve a process that assesses the quality of the internal control system's performance over time. Monitoring assesses and seeks to mitigate the risks that internal controls within an organization will not provide reasonable assurance that the operational, reporting and legal/regulatory objectives are met (COSO, 2010).

2.2.3.6. Borrowers Specific Characteristics Loan Default leading to Project

The location or distance between borrower and lending institution was used as determinant of demand for collateral (Jiménezatet al, 2009), the age of the borrower was also determined by (Mokhtaret al, 2012) as possible cause of default. Furthermore the size of the business can determine loan default. Usually, small businesses default more frequently than large ones (Brehanu, 2008), Size of business, multiple borrowing, diversion of purpose (borrower characteristics) (Akwaa-Sekyi, 2018).

Borrower specific causes are in effective utilization of fund/budgets that leads to loan diversion, poor management practice, low productivity, unwilling to pay, under invoice sales and

mischief's, lack of use technology and technology adaptation, implementation delay, poor credit culture of customers, willful defaulting (Joseph *et al*, 2012, Wondimagegnehu, 2012; Keeton, 1987).

On the other hand, Asfaw,*et.al.* (2016).argues that poor credit culture of customers, lack of knowledge the credit terms, willful default in purchasing other asset beyond the contract agreement, loan purpose diversion, and weak project management capacity are the major customer specific causes of NPLs.

A less experienced borrower has less ability to manage a business loan and therefore is not creditworthy (Devaney, 1984; Robinson, 1962; Hunte, 1996). This implies that there are big risks associated with the financed project.

2.2.3.7. Use of Technology and Technology Adaptation on defaults

According to Hall, (2003), the contribution of new technology to economic growth can only be realized when and if the new technology is widely diffused and used. Venkatesh et al. (2003) added the technological innovations need to be accepted and actually used. For Dias (2002) also explore the electronic way represents a new model in the dissemination of the information and should be explored on a full way. But Nathan Rosenberg argued in his 1972 article, the skill level of workers and the state of the capital goods sector are two of the important determinants of diffusion of a technology in private firms, because both employee and capital goods are crucial for successful implementation and operation of a new invention.

Lavison(2013),urges that Technology the basic information that allows some duties to be accomplished more easily, some service to be delay in manufacture of a product .in connection to this Technology itself is aimed at improving a given situation or changing the status quo to a more desirable level. Similarly (Bonabana-Wabbi 2002), confirms that assists the applicant to do work easier than the absence of the technology as a result it helps save time and labor

Technology Adoption on the other hand is also defined by Loevinsohnet *al.*, (2013),as the integration of a new technology into existing practice and is usually proceeded by a period of 'trying' and some degree of adaptation. in line to this Bonabana-Wabbi(2002), defines adoption as a mental process an individual passes from first hearing about an innovation to final utilization

of it. Adoption is in two categories; rate of adoption and intensity of adoption. The relative speed with which farmers adopt an innovation, has as one of its pillars, the element of 'time'. On the other hand, intensity of adoption refers to the level of use of a given technology in any time period. Characteristic of a technology is a precondition of adopting it. Trial ability or a degree to which a potential adopter can try something out on a small scale first before adopting it completely is a major determinant of technology adoption (Doss, 2003).but the precondition of the adaptation is the perception of the user (Margaret *et al*, (2015). Perception of farmers towards a new technology is a key precondition for adoption to occur.

2.2.3.8. Willful defaults

According to Reserve Bank of India, (2002) "A wilful default would be deemed to have occurred when a unit has defaulted in meeting its payment obligations to the Bank and if any of the following events is register":

- a. It had the capacity to state of being morally upright the said obligations but unwilling to pay.
- b. It had not utilized the finance for the loan purpose but has diverted to other form.
- c. It had transferred the loan - neither utilized for the purpose availed nor are funds available in the form of other fixed or movable assets.
- d. It had disposed of or removed the movable fixed assets or immovable property given by it for the purpose of securing a term loan.

Studies from the corporate literature have used exogenous variables to assess the financial capacity of firms (Giroudet. et al, 2012), and in this way to group the defaulters into financially constrained (non-strategic) defaulters and financially unconstrained (strategic) defaulters

Asimakopoulos et al (2016), have inferred that some borrowers may find it economically more attractive not to pay off their loans or renegotiate the loan on better terms, either use the fund for other form of activities or make them as pawnbroker.

2.2.3.9. The influence of loan diversion on defaults

Fikirte(2015), factors in connection with the character of the borrower, lack of integrity of the borrower, fund diversion for unintended plan and wilful default. Similar result also found by

Wondimagegnehu(2012), diverted loans advanced for unintended purpose and at same times made a wilful default, Similarly Gebru(2015), conditions, compromised integrity, and fund diversion as the major factors that contribute to loan default. In addition to this Akwaa-Sekyi(2018), confirms that diversion of purpose as borrower related characteristics as possible cause of default. Diversion of funds are found as the main factor of loan default Kousthupamany(2015),in line to this dishonesty of the borrowers causes an upward trend in non-performing loans on Zimbabwe Commercial Banks attributing to the growth in the loan book by increasing the cost of loans charged on the borrowers leading to NPLs. (Joseph et al., 2012).

2.2.3.10. Borrower's organizational capacity on defaults

Selection of unsuitable and unviable schemes and projects are found to be the cause of default as per the empirical study made (Fikirte, 2015). In connection with management capacity problem, knowledge limitation of the borrower and performance of the entrepreneur as cause of loan default (Fikirte,2015). In addition to this Customer related factors such as poor- business knowledge, poor record maintenance, and wilful defaulter were the main reason for the NPLs. (Kousthupamany, 2015).

2.2.3.11. Loan specific determinants of project loan default

The results of this study as regards the maturity and size of loans reveals the importance of know your customer (KYC) during screening process by institutions. Long-term loan period of (over five years) implies a lower credit risk than medium-term lending (1 to 5 years) or very short-term lending (less than 3 months). This highlights the fact that such loans receive more careful analysis on account of the potential risk of lending over such a long period. Similarly, large loans are lower risk, probably because the borrower is normally a large company and the operation has been studied in greater detail and the purpose of loan, age of loan, repayment plan, loan price (Akwaa-Sekyi, 2018).

2.2.3.12. Amount of loan (AL)

Defined as the amount of the loan in which the Bank releases to the respective borrowers. It is assumed that if the size of the loan is large, it would increase the interest and charges on the production process and affect the repayment performance negatively. In the contrary Bekele

(2003) noted that, if the production capacity of the project can utilize the loan efficiently, it increases the loan repayment performance. Hence, the actual impact of the variable been determined in the analysis. This is also supported (Muluken, 2014).

2.2.3.13. External factors determinants of project loan default

Fikirte, (2015), the government policy, Political Intervention in the credit performance has major factors for loan default but not supported by the survey result, While, (Adamu, 2013), argues that Political regions and religion dominancy, found statistically insignificant

In the other hand Salas and Saurina (2002), also showed for Spanish banks that, real GDP growth and credit growth, credit growth, capital ratio and market power give a sufficiently detailed about variations in NPLs.

There were few studies that have been conducted on the determinant of Non-performing Loan in Development Bank Of Ethiopia focus on determine successful loan repayment performance under Development Bank Of Ethiopia by, Ayle,(2016),determinant s of Failure in project financing by, (Adamu,2013), Determinant of Default in project finance by (Endeshaw,2017), (Simion, 2018) However, the following gaps are identified in the literatures;

- Most of the studies are conducted mostly in Euro Zone, Asian Banks and some in developing Countries Ghana and Kenya. But very few studies are conducted in the Ethiopian context.
- The study conducted in Ethiopia is in all Private and Government owned Commercial banks and no special focus is given to Development Bank Of Ethiopia though it is the only bank which is government owned bank that has a great exposure and reputation in project Financing loan.
- Most of the studies that are conducted on the overall credit performance determinants of Non Performing Loan related to the bank specific Characteristic most the survey carried out to bank employees' and officials' personal perception and officially disclosed financial data of banks but the opinion of the borrower not including in the survey.
- Most of the studies that are conducted on the overall credit performance including service sector, microfinance rural electrification export credit guarantee determinants of

Non Performing Loan. However, very few studies conducted specifically on the project financing loan related to the bank specific Characteristic.

Considering the above gap, this study therefore try to focus on Borrower Specific /Customer related, Bank/lender specific factors and Loan specific factors that influencing on the default of project financing in DBE.

2.3. Conceptual Framework

The main aim of this study is to identify the major borrower-specific, Loan Specific and Bank Specific causes for the occurrence of Defaults loan in project financing of DBE Head Office since most of mega projects, commercial agricultures and FDI projects in huge amount of fund mobilization in Corporate Level. Accordingly, based on the objective of the study, the following conceptual model has been framed. Default loans are affected by, Borrowers Specific Characteristics, customer specific and Loan specific factors as discussed in the literature review part. Bank specific factors include weak due diligence assessment and poor quality credit monitoring , credit size, unplanned loan, internal and external intervention in approving loan and bank's great risk desire for, high interest rate, lack of knowledge of the employee whereas customer/borrower specific causes are in effective utilization of fund/budgets that leads to loan diversion, poor management practice, low productivity, unwilling to pay, under invoice sales and mischief's, lack of use technology and technology adaptation, implementation delay, poor credit culture of customers, wilful defaulting (Joseph *et al.*, 2012; Wondimagegnehu, 2012; Keeton and Morris, 1987; Rajiv & Dhal, 2003; Pashaand2005; Saurina, 2005). Therefore, the following conceptual model summarizes the main focus of this study.

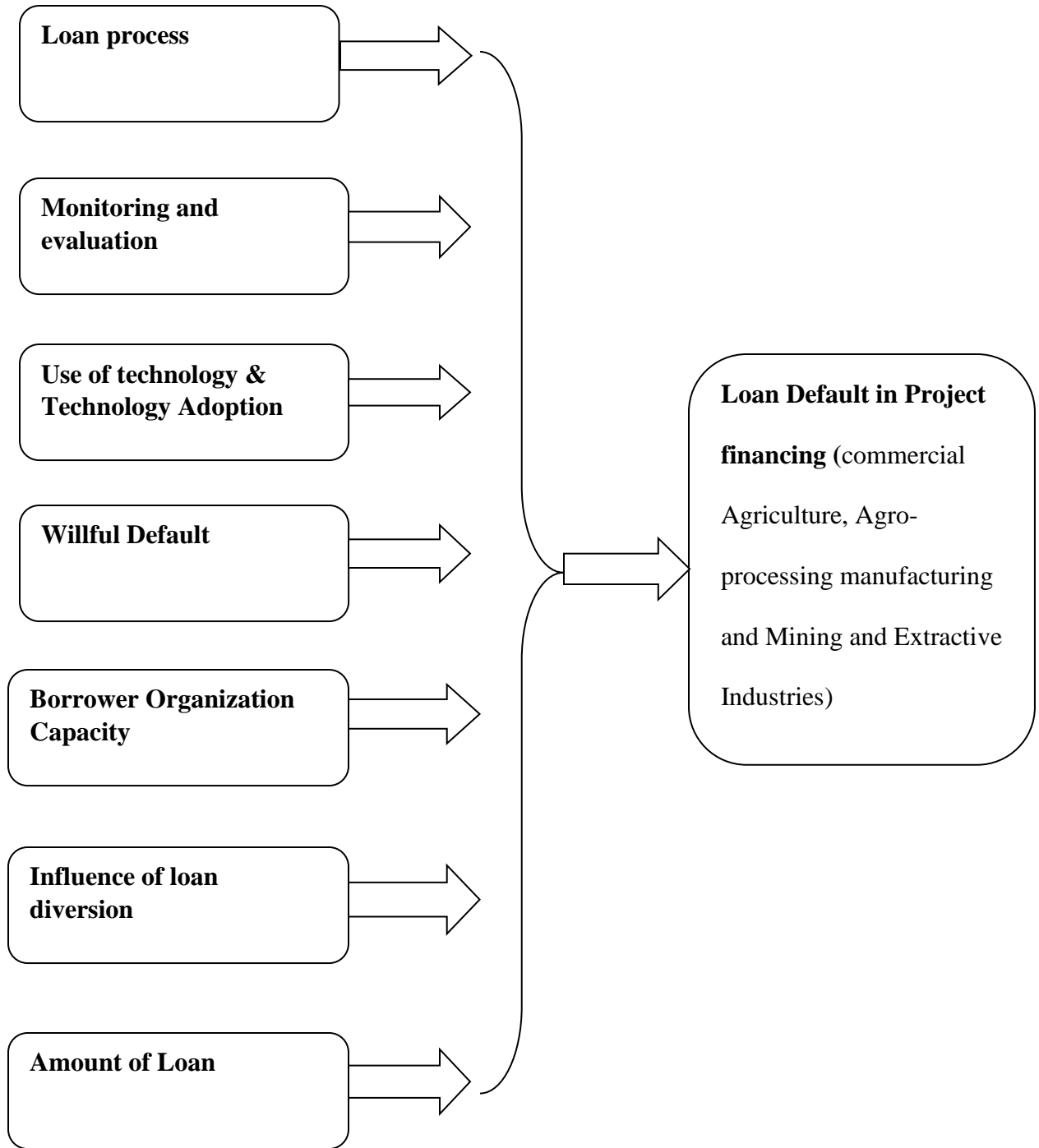


Figure 1: Conceptual Frame work (Source: Own review)

CHAPTER THREE

RESEARCH METHODOLOGY

This section discussed about methodology of the research adopted in order to actualize objectives of the study. The research design, data sources, data collection method, research procedure and data analysis technique that was used are included in the chapter.

3.1. Research Design

The research design sets the conceptual structure with in which a study is conducted. It constitutes the blue print for collection, measuring, presentation and analysis of data collected. In this study, both descriptive and explanatory analyses were used. Descriptive statistics like table, mean, percentage, etc. used to describe the data. Explanatory analysis using econometrics multiple linear regression models were employed to analyze cause-effect relation between Factors that influencing Loans of default in DBE financed projects. Setting of major determinants of default for DBE financed projects will be done based on literature review and factors unique to DBE projects. The researcher collected the data using Likert five scale questioner data to know the Factors of default in project finance from the Customer's point of view.

3.2. Research Approaches

According to Cooper et al. (2003) research design define as the process of focusing on the researcher's perspective for the purpose of a particular study. Leedy and Ormrod (2005) define a research methodology as a means to extract the meaning of data.

3.2.1. Quantitative research approach

This approach is used to answer question about relationships among measured variables with the purpose of explaining, predicting and controlling phenomenon. Quantitative research approach has two strategies of inquiry. The first is survey design which provides a quantitative or numeric description of trends, attitude or opinion of a population by studying a sample of that population. From the sample the researcher generalizes about the population. The second type of design is experimental design used to test the effect of intervention on an outcome, controlling all other factors which may influence that outcome. In experiment design researcher may also identify a

sample and generalize to a population (Creswell, 2009).The analysis is made based on deductive reasoning, beginning with certain theory or hypotheses and drawing logical conclusions from it.

3.2.2. Qualitative research approach

Quantitative research, qualitative research consists of a body of research techniques that do not attempt to measure, but rather seek insight through a less structured and more flexible approach (Gray, 2004)

Exploratory research is conducted when there are few or no earlier studies, which can be referred to. In exploratory research the focus is on gaining insight into the subject and to become familiar with the subject area for more rigorous investigation later (Cooper & Schindler, 2003).

3.2.3. Mixed research approach

According to Creswell, J. W. (2003) mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research. The researcher used mixed approach method helps to learn more about the research problem. Researchers are given permission to use all of the tools of data collection available rather than being restricted to the types of data collection typically associated with qualitative research or quantitative research. Based in the above classification and due to the nature of the study the researcher used a mixed approach.

3.3. Target Population and Sample Size Population

The target populations of the study were all the projects/Customers in head office Development Bank of Ethiopia. The project selection criteria for this study require that the project to be selected has been operational and financed by DBE in project financing such as Commercial Agriculture, Agro Processing and Manufacturing Mining & Extraction within the last Five years A project that has been operational are considered, because it is important to assess the factors that affect defaults in implementation delaying, Capacity management practices, market access problem and financial performance. Project financed within the current Five years are preferred in order to focus on the factors that affect still important for project failure after the bank commenced implementing the BPR Balanced Score(2010), in its credit processing the core operation of DBE.

According to the Data Base of DBE/ Credit Performance Report information, there are 214 Priority projects financing that are financed after the bank introduced a new reform in BPR all the projects started operation.

According to simplified formula for proportions sample size determination at 95% confidence level, Israel (2009) Out of 214 Customers of Project Financing that are financed by DBE at head office level through all the country.

Equation 1: Sample Size Formula

$$n = \frac{N}{1+Ne^2} \quad (1)$$

Where **n** is the sample size, **N** is the population size, and **e** is the level of precision. By using this formula at 95% confidence level and 5% level of precision the sample size were obtained as follows:

Equation 2: Sample Size calculation

$$n = \frac{214}{1+214*(0.05)^2} \quad (2)$$

$$n = 140$$

Out of 140 sample Size, 80 Samples all default loans under Rehabilitation and recovery and all Customer Relation Directorate I-IV in the status of Defaults (Loss, Doubtful and Substandard) According to National Bank of Ethiopia Directive are failed while the remaining 60Samples are loans in the version of successful under the Customer Relation Directorate I-IV in the status of (pass, and Special mentions)

3.4.Sampling Procedure

Stratified sampling method is used in selection of projects for this study to ensure the inclusion of projects from all strata. First, projects are stratified by Sector in which they are operating as (Manufacturing, Agro processing and Commercial Agriculture), economic sectors in which they are categorized and project status (Pass, Special mention, as successful while Sub Standard, Doubtful and, Loss as Default /failed). Knowing the numbers of defaults financed by DBE Then, the required numbers of projects are selected from each stratum randomly.

3.5.Types of Data

Both primary and secondary data are collected and systematically presented and analyzed in this paper. Primary data are collected through questionnaires distributed to respondents and Secondary data are obtained from Customers File, Follow Up reports, project appraisal reports, internal audit reports; publications of Annual Reports, magazines of DBE and National Bank of Ethiopia.

3.6. Method of Data Collection

Primary data are collected through questionnaires distributed to respondents to randomly selected customers while Secondary Data are directly gathered from records of each DBE under sample study. The data collected include aggregate loans outstanding balances, its status from central data base, the follow up, the technical support carried out by the bank the methods and the mitigation taken to rehabilitate and to recover the default, the respond of the bank to the customer's request.

3.7. Data Collection Instrument and Procedures

The data collection instrument relatively dependence on standard questionnaires prepared by Swaminathan (2004) which was prepared in the form of Likert five scales. However, to measure the Factors that influencing of default will test the reliability and check the dependability. For the purpose of data collection, the researcher used closed-ended structured questionnaires. Closed-ended questionnaires were prepared on the basis of factors of default variables from the customer perception. Thus, closed ended questionnaires Response choice can clarify the question text for the respondent, improves consistency of response and easy, quick and less cost to analyze. Easy and quick to answer.

3.8. Methods of data analysis

After the data collecting from primary source checked and edited were undertaken to detect errors that has omitted by the respondents. Then, the edited data were coded and manually entered in to statistical package for social science (SPSS) version 20 software.

3.8.1. Descriptive analysis

Descriptive data analysis approach is one in which the investigator often makes knowledge

claims based primarily on the multiple meanings of individual experiences, socially and historically constructed meanings, participation in issues, collaboration or change oriented with an intent of developing a theory or pattern (Creswell, 2003). In contrary to empirical data analysis, descriptive approach is embedded upon the philosophy of phenomenology, representative interactionism and is based on naturalistic, grounded, constructivist, interpretive and participatory perspectives (Creswell, 2003).

Hence, the descriptive analysis is presented through various statistical techniques, like means, median, percentages, standard deviations, frequency distribution and the association of dependent and independent variables of the values. A correlation matrix is used to examine the relationship between the dependent variable and explanatory variables to investigate multicollinearity problem between independent variables. The main purpose of analyzing and interpreting the descriptive data is to better explain those factors, which are found and to have an empirical nature and support to the inference. Once the data is organized and presented, it is analyzed to form meaning about the research questions and draw appropriate recommendations.

3.8.2. Quantitative analysis

The quantitative analysis is done using a multiple regression analysis. The regression model is specified as follows.

Equation 3: Equation of the Model

$$\widehat{DL}_i = \beta_0 + \beta_1 LP_i + \beta_2 ME_i + \beta_3 UT_i + \beta_4 WD_i + \beta_5 ILD_i + \beta_6 BOC_i + \beta_7 AL_i + \varepsilon_i \quad (3)$$

Where:

DL: is the dependent variable loan default in project financing

LP: Loan processing,

ME: Monitoring and evaluation,

UT: Use of technology and Technology Adoption,

WD: Willful Default,

BOC: Borrower Organization Capacity,

ILD: Influence of loan diversion, and

AL: Amount of Loan

3.8.3. Definition and terms of variables

3.8.3.1. Dependent (explained) variable

The dependent variable in this research is factors influencing default project financing. The loan default of the bank characterized by any deviation from the agreed terms and conditions will be considered as an event of default; Events of default may occur when one or more of the following events are detected: Misappropriation of investment (Project) funds, Over invoicing, Presentation of falsified documents, Misrepresentation, Entering into other loan agreements with other financial institutes for the same project without the consent of the DBE, Adverse material changes which affect the execution or implementation of the project, Unless otherwise agreed by the Bank and failure to perform according to the agreed implementation plan.(DBE loan Manual,2014).the researchers design both open ended and closed ended questions for dependent variable to know the events of defaults. The model developed was multiple linear regression since the results of the explained variables in the form of five option. Hence, the researcher uses the outcome code one for strongly disagree, two Disagree, three Neutral, four Agree, and five Strongly Agree. it abbreviated as “EXPQ”

3.8.3.2. Independent variables

In the study, there are seven independent variable that explains the dependent variable such as The Impact of Loan processing (LP), Monitoring &Evaluation (ME), Use of Technology& Technology Adaptation (UT), willful Defaults (WD), the influence of loan Diversion on Defaults (IDL), Borrowers Organizational Capacity (BOC) and the Amount of Loan (AL). There are different types of behavioral questions to address the problem in different direction using the Likert 5 scale method. In order to avoid the biasness, the median is used for analysis instead of mean, since mean exposed to the highest value instead of the reality.

3.9. Ethical considerations

Participants of the study were assured that the information collected had no harm up on them, and their business; rather it has a contribution for better bank’s portfolio management and in assessing the current Factors Influencing Default Project Financing Bank specific factors, borrowers’ specific factors and Loan specific factors in the Bank’s operation and management decision. It was also explained that, the right to withdraw from the study if not interested and written/verbal consent was obtained from each borrower based on their willingness before Questionnaires filled.

CHAPTER FOUR

DATA RESULTS ANALYSIS AND DISCUSSION

This chapter presents the study findings based on objectives to identify the Factors Influencing Default Project Financing: the cases of Development Bank of Ethiopia, these data were collected from the customers of Development Bank of Ethiopia. Multiple linear regressions were used to determine the influence of loan processing, monitoring and evaluation, use of technology and technology adoption, willful default, Influence of loan diversion, borrower's organizational capacity and the amount of loan on default project financing.

4.1. Descriptive analysis

The researcher was interested in the distribution of respondents by, age, gender, marital status, educational level, investment sector, Business Form, and their role in the business work. These characteristics are further discussed in the following sub-themes.

Likert scales are widely used in survey studies. In particular, the questionnaires propagated by the five or seven grading approach are based on Likert scales. A number of researchers have provided empirical evidence suggesting that using median to approach Likert scale variable to generate new variable from group of variables which are also Likert scale type (Rainer *et al.*, 2007).

4.1.1. Respondents' Demographic characteristics

Concerning to the age of the respondents, 32.1% respondents' are between the age of 21 to 30 years, while 25.4% of the respondents' are between the age of 31 to 40 years old, 24.6% of the respondents' are between 41 to 50 years and 17.9% of the respondents' at the age of above 51 years old. On the other side regarding to gender of the respondent 62.7% of the respondent are male and the remaining 37.3% of the respondent are female. Furthermore, the educational backgrounds of the respondents', 11.6% Diploma Level, 32.1% have at least First Degree, 50% have at least a master's degree and 6% have PhD holder beside this the marital status of the respondents 28.4% single, 61.2%.Married, 8.2 % divorced, and only 2.2% as widow (See Table1).

Table 1: Demographic characteristic of respondent

Characteristics	Values	Frequency	Percentage
	21to 30 Years	43	32.1
	31 to 40 Years	34	25.4
	41 to 50 Years	33	24.6
	More than 50 Years	24	17.9
		84	62.7
Gender	Male		
	Female	50	37.3
	Diploma	15	11.2
	1 st Degree	43	32.1
Educational level	2 nd Degree	67	50.0
	PhD	8	6.0
	Others(Certificate)	.7	.7
	Single	38	28.4
	Married	82	61.2
Marital Status	Divorced	11	8.2
	Widow	3	2.2

Source; Own Survey 2020.

4.1.2. Respondents' form of business and role

In regarding the investment sectors of the respondents 14.9% of the respondent are Commercial Agriculture sector, 68.7% of the respondent from Manufacturing & Mining sector and 16.4% of the respondent from Agro Processing sectors. Inline to this 37.3% of the respondents are Sole Proprietorship, 57.5% of the respondents are Private Limited Company, 4.5% of the respondents are Partnership and the remaining .7% of the respondents was corporation. In the other hand the role of the respondent in the business shows 46.3% of the respondents are Employee Manager and 53.7% of the respondents are owner and manager. See Table 2.

Table 2: Form of Business and Role

Description	Values	Frequency	Percentage
	Commercial Agriculture	20	14.9
Investment sector	Manufacturing	92	68.7
	Agro processing	22	16.4
	Sole Proprietorship	50	37.3
Business Form	Private Limited Company	77	57.5
	Partnership	6	4.5
	Corporation	1	.7
	Employee Manager	62	46.3
Role in the Business	Owner and manager	72	53.7

Source; OwnSurvey2020

4.1.3. Descriptive Statistics for Dependent variables

Table 3: Summary Statistics for Dependent variables

Description	Code	Frequency	Percent
Loan Default	Strongly Disagree	3	2.2
	Disagree	16	11.9
	Neutral	36	26.9
	Agree	42	31.3
	strongly agree	37	27.6
	Total	134	100

Source; Own Survey 2020

From the above Table 3, 2.2 % of the respondents were Strongly Disagree, 11.9% of respondents' Disagree, 16.9% of the respondents were Undecided 31.3% were Agreed while 27.6% of the respondents were Strongly Agreed. the resulted revealed that 58.9% of the respondents are under the categories of agree that faced an incident of loan default for the last two years where, not pay their debt as per the schedule and the loan default increasing in alarming rate while 26.9% were undecided but 14.1% of the respondents' were disagree on the concept of loan defaults, (Median = 4, S.D = 1.069).

4.1.4. Descriptive Statistics for independent variables

From Table 4 below, in regarding the loan processing 8 variables were assessed the result found (Median=2,S.D=0.654) ,moreover the monitoring and evaluation 6 variables were assessed the result revealed with (median value=2,S.D=0.592) ,in the other hand the use of technology 4 variables were assist with (Median=4,S.D=0.792) ,considering willful defaults Four variables were assessed with (Median=4,S.D=0.907), moreover the impact of found that loan diversion 4 variables were assessed the result with (Median=4,S.D=0.630), Furthermore the Borrowers organizational Capacity with (median= the Median=2,S.D=1.129) finally under the Amount of loan 4 variables assessed the result found that with median (3, S.D 1.115).

Table 4: Descriptive statistics for independent variables

	Loan processing time	Monitoring & Evaluation	Use of Technology	Willful default	Loan diversion on defaults	Borrowers organizational capacity	Amount of Loan
Mean	2.99	2.36	2.69	3.99	2.82	2.57	2.84
Median	3.00	2.00	2.00	4.00	3.00	2.00	3.00
Std. Deviation	1.055	.844	.945	.741	1.225	1.265	.908
Variance	1.113	.713	.894	.549	1.502	1.601	.825

Source: Own Survey 2020

4.1.5. Factors that influencing loan default in project financing

4.1.5.1. Bank's related factors influencing loan default

4.1.5.1.1. The impact of loan processing on loan defaults

As show in Table 5 below, eight factors are assessed such as; loan processing cycle time performs as per the standard of the bank set in balanced score which is 33 days the appraisal works Genuine and there is no under or over finance, project appraisal bases are on up-to-date data similar to your feasibility study/proposal ,Re Appraisal carried out through the bank for cost overrun due to delay in loan processing ,The Bank realize disbursements timely after all conditions and agreements fulfill, The Bank approves project financing without external and internal Pressure DBE Approaches in well manner to Know you and your source of equity during credit assessment and Employees are all round knowledge, have relevant information and supporting you during the loan processing.

As per the SPSS output from the survey data in the above table factors in connection with loan processing 3.7% of the respondents' strongly Disagree, 35.8% of the respondents' were Disagree,27.6% of the respondents' undecided ,while 23.9% of the respondents' Agree and 9 % of the respondents' were strongly agreed on the cycle time set by the Bank and only 9% of the respondents Strongly Agree . Almost 40 % of the respondents' are under the Categories of Disagree hence the lengthy loan cycle time contribute cost Escalations, exposing for foreign currency price fluctuation leads to cost overrun of machinery price as well as input cost due to the delay of loan cycle time customers faced to frustrate and forced to money boundary this have contribution for loan default while there is under and over finance during appraisal, the bank not used updated data for appraisal ,the bank not carried reappraisal work due to cost overrun, weak

technical support and have limited knowledge on the expertise while 27.6% are under the categories of Neutral while 32.9% of the respondents' were agreed.

4.1.5.1.2. Monitoring and Evaluation influence of default

Under such sub-category, Six factors are assessed such as; DBE strictly Monitoring and Evaluate the projects and the loan without your request for disbursement, Early default can protect the bank through monitoring and evaluations, DBE mitigates check and balance mechanism during monitoring an evaluation through different officers, Technical valuations audited by the bank during monitoring and evaluation The Credit and Portfolio Management Send the file timely for resolution to Rehabilitation and Loan Recovery ,Bank Managers, executives and the board are responsible for solution based on the monitoring and evaluations activity of project finance's contribution for default perspective have been considered factors in connection with Strictly Monitoring and evaluation without the request for disbursement and Early Default Protections through monitoring and evolution.

The results revealed that 9% of the respondents' Strongly disagree, 59% of the respondents' were Disagree, 21.6 %of the respondents' were Neutral, while 8.2% of the respondents' were Agreed and 2.2 Strongly agree almost 68% of the respondents' Believes that the Bank were not perform the strictly Monitoring and Evaluation projects and the loan through its own schedule to protect from defaults but only 10.4% of respondents' were disagree and 21.6 % are undecided.

Table 5: Bank's Specific related factors

	Description	Frequency	Percent
Loan processing time	Strongly Disagree	5	3.7
	Disagree	48	35.8
	Neutral	37	27.6
	Agree	32	23.9
	strongly agree	12	9.0
	Total	134	100.0
Monitoring & Evaluation	Strongly Disagree	12	9.0
	Disagree	79	59.0
	Neutral	29	21.6
	Agree	11	8.2
	strongly agree	3	2.2
	Total	134	100.0

Source: Own Survey 2020

4.1.5.2. Borrower's Related factors Influencing Loan Default

4.1.5.2.1. Use of Technology and Technology Adaptation on defaults

From Table 6 below, under such sub-category, Four factors are assessed such as; use new technology and technology adoption to enhance productivity, the employee trained, upgrade themselves for adoption and ran the existing technology, the degree use of websites, internets for market opportunity, knowledge sharing, and customers who don't use the updated technology have exposed to loan default The results revealed that 19.4% of the respondents were Strongly Disagree ,17.9 % of the respondents' were Disagree, while 32.8% of the respondents' were neutral ,20.9% of the respondents' were Agreed and 9% of the respondents' Strongly agreed 29.9% of respondents' Believes that the using technology and technology adaptation to enhance productivity whereas 37.3 % of the respondents' disagree and 32.8% of the respondents' undecided.

4.1.5.2.2. Willful defaults influencing of default

Under such sub-category, Four factors are assessed such as Customers have the capacity to repay as per the agreement made between the bank, Had not utilized the finance for the purpose lent but has diverted the same for other purposes, Your Purchasing other Asset From the Intended purpose of loan supports as additional income to your projects, and Unwilling and Carelessness of customers to pay debt influencing loan defaults

The result showed that 3.7% of the respondents' were Strongly disagree ,53% of the respondents' were Disagree while 17.2% of the respondents' were Neutral ,23.9% of the respondents' were Agree but 2.2% of the respondents 'were Strongly Disagree based on this 56.7 % of the respondents 'were under the categories of Disagree this shows that most of the respondents' have not adequate knowledge experience while 17.2 % of the respondents' undecided and 26.1% of the respondents' were under the categories of Agreed.. See Table 6 below.

4.1.5.2.3. The Influence of loan diversion on defaults

Under such sub-category, four factors are assessed such as Implementation delay happened due to loan diversion influencing loan defaults, lack of working capital decreases the productivity

due to loan diversion, unwilling to pay the debt due to loan diversion for other purpose, and loan Diversion influence planned loan

The result showed that 11.2% of the respondents were Strongly disagree ,47.8% of the respondents' were Disagree while 32.1% of the respondents' were Neutral ,9 % of the respondents' were Agreed and 59% of the respondent not believes that implementation delay happen due to loan diversion, while 32.1 %of the respondent undecided but only 9% agreed. See Table 6 below.

4.1.5.2.4. Borrower's Organizational capacity on defaults

Under such sub-category, four factors are assessed such as there are lack of adequate knowledge and experience on credit terms as well as its management there is usually lack of experience of project managers from borrower side not well-prepared feasibility study presents by the promoter influencing loan default. Borrowers, and do not have a strong Culture to effectively pay their credit per the agreed schedule has a relationship for loan default.

The result showed that 20.8% of the respondents were Strongly disagree ,38.1% of the respondents' were Disagree while 14.2% of the respondents' were Neutral 17.2% of the respondents' were Agreed and 9.9% of the respondent ,58.9% of the respondent believes that there is lack of knowledge and experience, not knowing the credit terms 14.2. %of the respondent undecided but 26.9 % of the respondents' were agreed. See Table 6 below.

Table 6: Borrowers Related factors

Description		Frequency	Percentage
Use of Technology	Strongly Disagree	26	19.4
	Disagree	24	17.9
	Neutral	44	32.8
	Agree	28	20.9
	strongly agree	12	9.0
	Total	134	100.0
Willful default	Strongly Disagree	5	3.7
	Disagree	71	53.0
	Neutral	23	17.2
	Agree	32	23.9
	strongly agree	3	2.2
	Total	134	100.0
Loan diversion on defaults	Strongly Disagree	15	11.2
	Disagree	64	47.8
	Neutral	43	32.1
	Agree	12	9.0
	Total	134	100.0
Borrowers organizational capacity	Strongly Disagree	28	20.9
	Disagree	51	38.1
	Neutral	19	14.2
	Agree	23	17.2
	strongly agree	13	9.7
Total	134	100.0	

Source: Own Survey 2020

4.1.5.3. Loan related factors influencing loan default

4.1.5.3.1. Amount of loan (AML)

Under such sub-category, Four factors are assessed such as either an Excess amount of Loan in our organizations, The sufficient Amount of loan helps to use the fund efficiently and protect from default, Bank approves equivalent to the amount of loan requested by the promoter is important to protect the project from loan default and Small Amount of loan performs well and pay their Debt regularly

The result showed that 6% of the respondents' were Strongly disagree ,32.1% of the respondents' were Disagree while 33.6% of the respondents' were Neutral 28.4% of the respondents' were Agreed.

The results clearly show that 38.10% of the respondents confirms that there is no excess amount of loan in their organization believes that sufficient Amount of loan helps to use the fund

efficiently and protect from default, the bank not approve the required amount of loan and while 33.6 undecided and 28.4 % of the respondents' were agreed.. See Table 7 below.

Table 7: Amount of Loan

Description	Frequency	Percent
Strongly Disagree	8	6.0
Disagree	43	32.1
Neutral	45	33.6
Agree	38	28.4
Total	134	100.0

Source: Own Survey 2020

4.1.6. Trend analysis/ document study

In addition to the primary data collected through questionnaires the researcher had tried to assess through examining the documents and archival records of the Customers File to collect the secondary data. The performance of the As at December 31, 2019 the total loan portfolio of the Bank reported by Credit Performance report of the bank, with a total loan Balance of birr 68.46 billion with commitment balances and birr 51.35 billion without commitment balances. In terms of lending units, of the total loan portfolio mentioned above, birr 48.58 billion (70.97%) and birr 35.08 billion (68.32%) with and without commitment balance respectively is under the direct management of head office and birr 19.86 billion (29.01%) and birr 16.26 Billion (31.66%) with and without commitment balance is under the direct management of districts. The remaining amount birr 13.32 million (0.02) is constituted under unknown loaning units and regions. In terms of foreign borrowers based on data obtained from 18 loaning units that submit their reports, 49 loans with loan portfolio amount of birr 12.37 billion (24.09%) and birr 10.77 billion (20.97%) with and without commitment balance respectively are loans extended to foreign borrowers. The largest five borrowers of the bank accounted for birr 10.11 billion (19.69%) and birr 10.10 billion (19.68%) of the bank's loan portfolio with and without commitment balance respectively. The largest twenty borrowers of the bank also account for birr 24.23 billion (47.18%) and birr 21.03 billion (40.95%) of the bank's loan portfolio with and without commitment balance respectively.

Regarding the Non-performing loan (NPL) i.e. loan which couldn't meet their debt obligation as per the agreed terms and conditions) against the total portfolio outstanding ratio of the bank for the last Five consecutive years 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 shows 8.2%, 12.54%, 17.71%, 8.2%, 24.98% and 39.34 % respectively. Although Development Bank of Ethiopia strives to reduce these ratios using, NPL's resolution strategy, the ratio of non-performing loan against the total outstanding loan portfolio is growing from year to year, and still it is above the bank's tolerance limit (Annual Report of DBE, 2017/18).

The NPLs ratio of the bank as at December 31, 2019 stood at birr 20.29 billion (39.51%). This Ratio is far beyond the planned target of the bank's 26.35 % ratio. Share of Sector NPLs to total portfolio for Manufacturing, Agriculture and mining and Energy is 22.54%, 15.94 % and 0. 48 respectively

The loan portfolio concentration of the Bank by economic sector shows that manufacturing accounted for Birr 33.68 billion (65.58%) followed by agriculture that accounted of birr 10.30 billion (20.05%) both excluding commitment balance. Out of this Gambella District 27.53% percentage share of Rain fed NPLs to Agriculture sector outstanding percentages hare to total portfolio of the bank 6.31%.

A high amount of default recorded in the bank loan in related Rain fill Commercial Farm Agriculture and Foreign Directive Investment ,According to the RFCAFPs classification criteria stated in the exit strategy only 10% of the projects are performing under normal operation which of the total outstanding loan amount i.e. Birr 738.6 million. About 60% of outstanding loan amount under stress condition (Birr 4.43 Billion) of the total RCAFP portfolio. In the meantime, 29% of outstanding loan amount i.e. Birr 2.14 Billion and are under abandoned category.

Most of DBE financed Rain Fed Commercial farms are operating under different levels of Operational environments and various levels of risks, encountered with interwoven challenges and problems, which have brought their effectiveness and productivity under question and concurrently and seriously affected their profitability as well as financial viability and hence, leading them for default as well as not fulfilled other financial and social obligations.

4.1.7. Major problems and challenges

Development banks (DBs) are very important financial agencies established so as to alleviate the market failure in the provision of long-term finance. Though DBE remains to be the sole investment Bank in the country, every effort will be made to improve its operational system to maintain its sustainability. To this effect, DBE has been operating under multifaceted challenges and constraints, which could be categorized into internal and external challenges and constraints.

4.1.7.1. Internal

- Poor Project Administration
 - Poor KYC
 - Inadequate follow up
 - Inadequate collateral registration
 - Inadequate insurance Policy Coverage and renewal. Many of the collateral asset's insurance policies are not renewed.
 - Unable to strictly follow the Bank policy
- Failure to prepare action plans by Bank to undertake follow up activity and Full-fledged project follow up activity of the Bank has been adversely affected by the public unrest.etc.
- The required manpower for Rain-fed task Force, Sub-task Forces and loaning units are not as per the plan (That is, the required manpower has been down-sized), and also shortage of technical staff, mainly agro-engineers and agro-economists that have adequate knowledge farms.
- A number of machineries and equipments whose disbursement was effected 100% .But, the machinery and equipments have not yet arrived to the project site and made under operation. Moreover, the existence of collateral properties whose registration has not yet completed and collateral properties whose Title deed (libre) have not yet collected/submitted to the Bank..
- **Secondhand Machinery Financing and Valuation** Regarding in-kind equity contribution, the Bank's credit policy allows foreign borrowers to import second hand or used machinery as promoter's equity. The Bank, in its assessment found out that poor condition, quality and damaged imported second hand machinery (as promoter equity)

contributed to lower productivity and low foreign currency generation, which threatened export, foreign exchange generation and thereby loan repayment. Concerning second hand or used machinery valuation, second hand machinery values presented by project promoters are exaggerated and far higher than that of machinery prices valued by DBE engineers

- **National Bank of Ethiopia (NBE) Directive on Working Capital Loans** Recent NBE Directive prohibits DBE from providing additional working capital loans to its operational projects
- **Shortage of Foreign Currency for Projects** It is obvious that significant portion of approved projects 70% of the loan in case of project finance and 100% of capital machinery lease amount in case of lease finance is foreign exchange component. Once the loan or lease contract is signed and when we are trying to start project implementation, the project is forced to be interrupted due to lack of foreign exchange (inability of the Bank to generate adequate foreign currency). This problem will further seriously affect loan disbursement as well as loan approval activities in the pipeline

4.1.7.2.External

- Lack of cooperation by Regional Government, i.e. farm land financed by DBE has been taken over without the knowledge and consent of the Bank.
- Failure to invest to the intended purpose as per the loan contract by the borrowers.
- Lack of commitment and willingness on the part of borrowers to repay their loans as per the loan repayment schedule. This emanate from lack of awareness.
- Failure to hire Agronomist and other required professionals as per the project feasibility study. As a result, absence of farm and financial operation records.
- Low production and productivity as a consequence of failure to use modern technologies like improved farm inputs and conducting agricultural activities as planned.
- Lack of infrastructural facility such as road, telecommunication, utility services
- Absence of research data on hand, soil profile and characteristics, rainfall temperature, altitude soil PH, vegetation and other relevant agro-climatic conditions that are very important for land provision ,crop production and investment decisions.

4.2. Assumption tests for regression analysis

4.2.1. Test linear relationship between the dependent variable and the independent variables

The first assumption of multiple regression is that the relationship between the independent variable and dependent variable. It can be checked by characterized by a straight line. A simple way to check this is by producing scatter plots of the relationship between each of our independent variable and our dependent variable. See Figure 2 below.

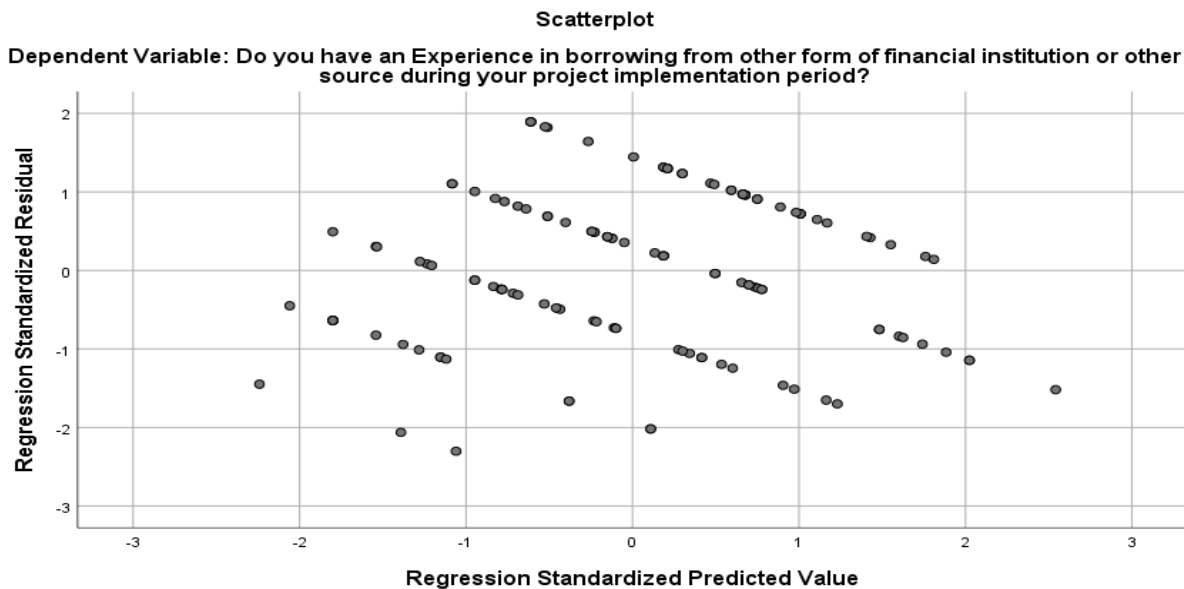


Figure 2: Linear dependency of all variables

4.2.2. Test of multicollinearity

This is the essentially the assumption that predictors are not too highly correlated with each one another. Or they are must be independent like their name. In this section, the correlation between the explanatory variables is discussed. A correlation matrix is used to evaluate the correlation between the explanatory variables. Maddala (1992) suggested that a correlation coefficient above 0.50 between explanatory variables should be correlated because it is a sign of multicollinearity problem. Malhotra (2007) argued that the correlation coefficient can be 0.50. In addition, considering VIF value of each independent variable is less than 10 or Tolerance statistics scores also greater or above 0.2. All the results of correlation analysis show that, all the independent variables used in the empirical analysis do not have a multicollinearity problem. Hence, the researcher has used all the variables for analysis purpose. A correlation coefficient is a statistical

measure of the degree to which changes to the value of one variable predicts change to the value of another (Greene, 2012). See Table 8 & 9 below.

Table 8: Correlation Matrix of independent variables

	Loan processing time	Monitoring & Evaluation	Use of Technology	Willful default	Loan diversion on defaults	Borrow organizational capacity	Amount of Loan
Loan processing time	1	-.028	.161	.173*	-.043	-.118	-.128
Monitoring & Evaluation	-.028	1	.217*	.004	.019	.146	-.014
Use of Technology	.161	.217*	1	.050	-.140	.018	-.075
Willful default	.173*	.004	.050	1	.081	-.068	-.069
Loan diversion on defaults	-.043	.019	-.140	.081	1	.231**	.089
Borrow organizational capacity	-.118	.146	.018	-.068	.231**	1	.052
Amount of Loan	-.128	-.014	-.075	-.069	.089	.052	1

Own Survey 2020

Table 9: Variance Inflation Factor

Variable	Collinearity Statistics	
	Tolerance	VIF
Loan processing time	.922	1.084
Monitoring & Evaluation	.930	1.075
Use of Technology	.902	1.109
Willful default	.953	1.049
Loan diversion on defaults	.909	1.100
Borrow organizational capacity	.909	1.100
Amount of Loan	.971	1.030

Own Survey 2020

4.2.3. Test independency of values the residuals

To check the independency or uncorrelated of model residuals, Durbin-Watson statistic is used. This statistic can vary from 0 to 4. However, the residuals independent satisfied when the value of Durbin-Watson statistic close or equal to two. For the values below 1 and above 3 are cause for concern and may render the analysis invalid (Malhotra, 2007). As shown in Table 8 above, the value of Durbin -Watson test statistics is 2.373 and which is close or approach to two and concludes that there is no collinearity between each residual values of the model or all are independent to each other.

4.2.4. Tests the homoscedasticity

This test of homoscedasticity which is the assumption that the variation in the residuals or amount of error in the model is similar at each point of the model or observation as show in Figure 3, the patter is irregular or has no any comment patter. And hence, it is an indication of homoscedasticity or there is no heteroscedastic. The residuals have constant variance throughout the model.

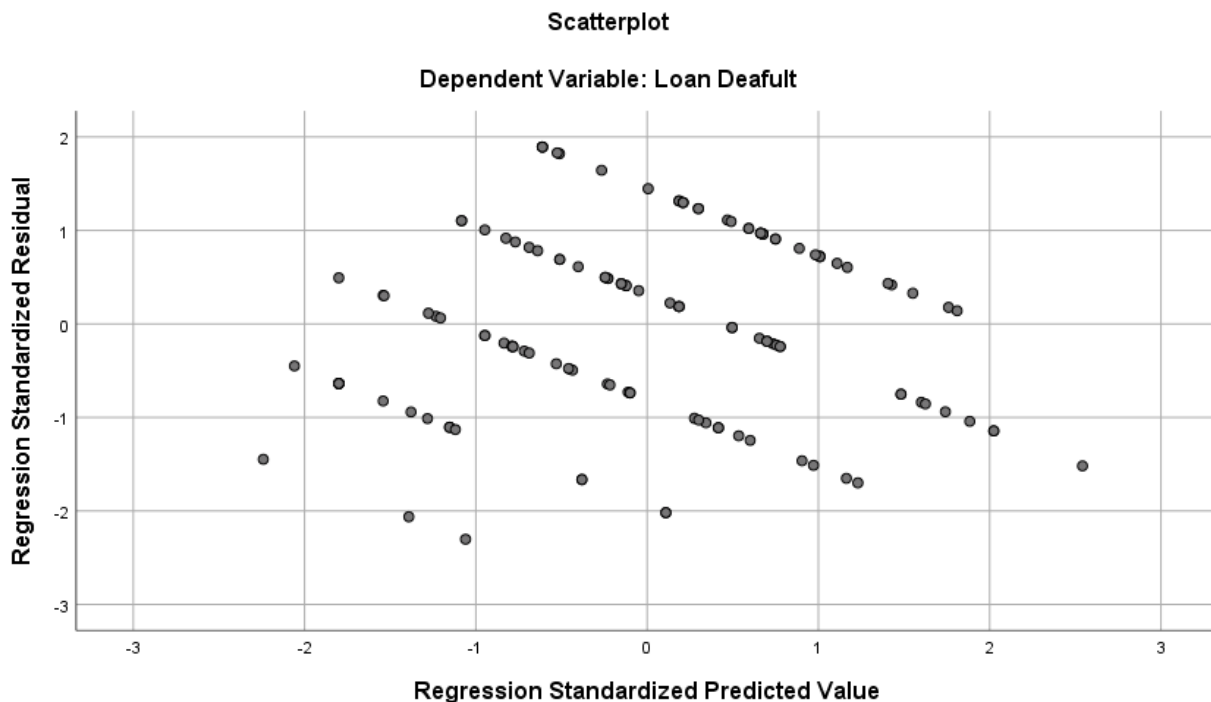


Figure 3: Test of Homoscedasticity

4.2.5. Normal distribution of model residuals value

This assumption can be tested by looking at the P-P plot for the model. The closer the dots lie to the diagonal line, the closer to normal the residuals are distributed. From Figure4 below, the value of all residual hardly touches or closes to the diagonal line and hence, the residuals are normally distributed in the model.

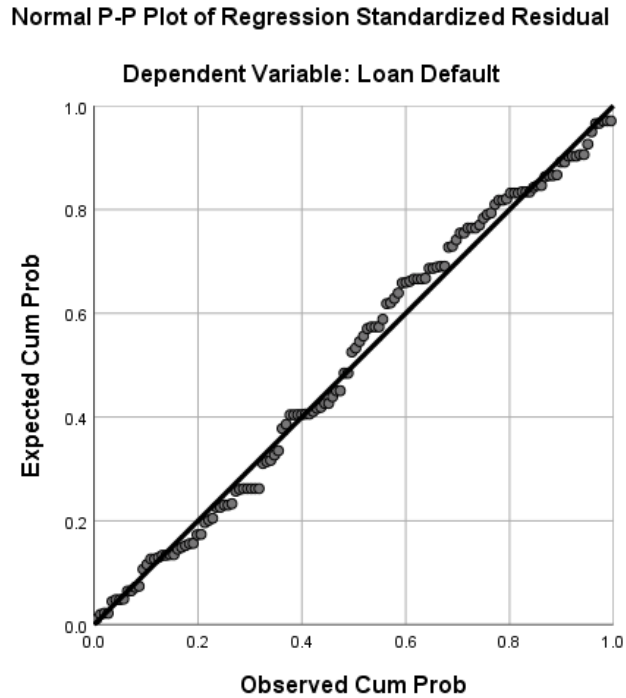


Figure 4: Normality Distribution for Residual

4.2.6. Test of influential cases biasing of the model

This was test checked Cook's Distance statistic for each participant. Any values over 1 are likely to be significant outliers, which may place undue influence on the model, and should therefore be removed and the analysis rerun. In this case, no such instances have occurred, and it suggesting that individual cases were not unduly influencing the model. See Figure5.

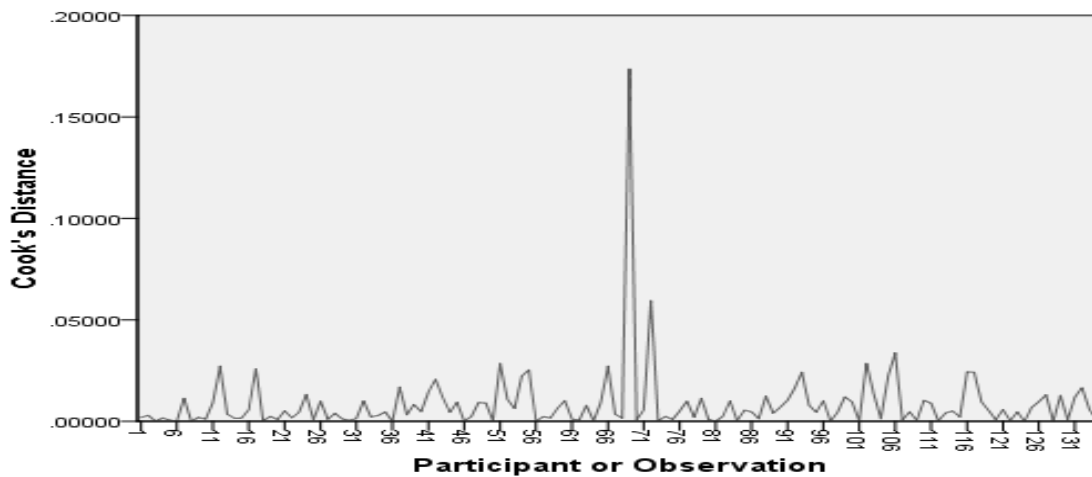


Figure 5: Cooks Distance

4.2.7. Reliability Test (Cronbach Alpha)

The Table 10 below examines the properties of measurement scales and the variables that compose the scales. Ideally, the Cronbach alpha coefficient should be about 0.7 (Long, 1994). The Cronbach coefficient based on all variables for the study is good with a value of 0.752 and this indicates that the scales and the items of the research instrument show an average measure of internal consistency.

Table 10: Cronbach Alpha

Variable	Cronbach Alpha
Loan Processing	0.750
Monitoring and evaluation	0.839
Use of Technology	0.736
Will full	0.796
Loan Diversion	0.813
Borrower Organization	0.833
Amount of Loan	0.720

Source: Own Survey 2020

As showed in the above table reliability statistics for the questionnaires was resulted 75.2% based on all variables in the procedure. Thus, the result implies that the questionnaires were reliable.

4.3. Quantitative Analysis

The outcome models can be continuous, binary, count, or non-negative. Continuous outcomes can be modeled using linear regression; binary outcomes can be model using logit, probit, multinomial logistic or heteroskedastic logit regression; and count and non-negative outcomes can be model using Poisson regression. For this study, as discussed under chapter three, the multiple linear econometric model was selected based on the property of selected data that is the dependent variable.

After selecting the appropriate model, which is multiple linear regression model for the study, prior to running the regression analysis explanatory variables were checked for the existence of co linearity and the degree of association using a correlation coefficient or VIF. As all the independent variables considered for this study have no multicollinearity problem, all are used for analysis purposes. See Table 9 below for further reference.

To determine the independent variables that are good predictors of factors influencing loan default of project financing in the case of Development Bank of Ethiopia, the multiple linear regression model was estimated using the Maximum Likelihood Estimation Method and analysis of Variance. The results of the analysis are presented in Table 11.

From Table 12, the overall model is good model due to the fact that the F statistic is significant at 1% level of significance and it tell us that at least one independent variable has significant effect on the dependent variable in this case loan default of project financing or there is a difference between model without independent variables and model with independent variables (Chan, 2005 and Bayaga, 2010). In addition, it is an indication that the data was ideal for making a conclusion on the population parameters. The predictors used in the model, overall have a capacity to explain the loan default of project financing by about 32%.

Table 11: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.586 ^a	0.343	0.306	0.891

Source: Own Survey 2020

Table 12: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	52.136	7	7.448	9.392	.000 ^b
Residual	99.923	126	.793		
Total	152.060	133			

Source: Own Survey 2020

Table 13: Model Summary

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients Beta		
(Constant)	3.473	.625		5.553	.000
Loan processing	.324	.077	.320	4.193	.000
Monitoring & Evaluation	-.145	.080	-.136	-1.807	.073
Use of Technology	-.159	.066	-.183	-2.425	.017
Willful default	.220	.084	.196	2.632	.010
Loan diversion on defaults	.067	.097	.051	.692	.490
Borrowers organizational capacity	-.202	.064	-.239	-3.162	.002
Amount of Loan	.027	.071	.028	.388	.698

Source: Own Survey 2020

Equation 4: Regression Model

$$\widehat{DL}_1 = 3.473 + 0.324LP - 0.145ME - 0.159UT + 0.220WD + 0.067ILD - 0.202BOC + 0.027AL \quad (4)$$

As shown Table 13, out of the seven independent variables hypothesized the factors influencing loan default of the project financing, five of them were found to be statistically significant factors influencing the loan default of DBE's financed project at their cherished level of significance. On the other hand, the coefficients of two independent variables, namely Influence of loan diversion on defaults (ILD) and amount of loan (AL) were found not to have significantly related to loan default of DBE's financed projects in this study. From all independent variables, Monitoring and evaluation (ME), use of technology (UT) and Borrowers organizational capacity (BOC) have a negative or opposite sign to the dependent variable. This result shows that there is an inversely relationship of dependent variable with independent variables.

Monitoring & Evaluation (ME) is negatively relationship with loan default and significantly as 90% confidence interval related to loan default. A close Monitoring and evaluation a vital for project financing to prevent from default by taking institutional mitigation through quality follow up by giving the feedback to the promoter and to the banks management for resolution. Another most important reason for NPLs is lack of tight credit monitoring. The delegated monitoring theory says, the bank plays an intermediation role to invest the depositors 'funds to financial claims of the corporation or individual. As part of the intermediation role bank has to be monitored the investment on behalf of depositors (Saunders and Cornett, 2003). Agresti et al. (2008) stated that it would help ensure a sound financial system and thereby prevent systemic crises that otherwise would lead to loan default.

Poor project follow up and monitoring contributes for increment of project default, in appropriate follow up format is and the report do not enables the Bank's top management doesn't apart of solution had a significant and positive impact on the loan default in project financing Simion,(2015). The same result also shows from the secondary data reviewed in adequate follow up, even though the bank carried out some follow up reports there is no significant contribution for decreasing default rates.

Improving use of new technology and proper technology adaptation with skilled manpower to run the technology decreasing the loan defaults and vis-à-vis., the same result found by Goodwin and Mishra (2004) a use of technology have a negative impact on adoption of another

technology such as zero grazing technology. Similarly some studies also shown a negative influence of farm size on adoption of new agricultural technology customers with small land may adopt land-saving technologies such as greenhouse technology, zero grazing among others as an alternative to increased agricultural production (Yaron, Dinar and Voet, 1992; Harper et al, 1990)

According to Bandiera and Rasul (2002) propose an inverted U-shaped individual adoption curve, implying that network effects are positive at low rates of adoption, but negative at high rates of adoption Since the experience within the general population about a specific technology is limited, more information induces negative attitudes towards its adoption, in use information technology exposes an even bigger information vacuum hence increasing the risk associated with it (Bonabana- Wabbi 2002).Further more Tadael (2017) confirms in his research that a unit increase in technology adoption would lead to increase in performance of Employee saving and credit services by factors of 0.166

The same result also shows from the secondary data reviewed the Bank's credit policy allows foreign borrowers to import second hand or used machinery as promoter's equity. The Bank, in its assessment found out that poor condition, quality and damaged imported second hand machinery as promoter equity contributed to lower productivity and low foreign currency generation, which threatened export, foreign exchange generation and thereby loan repayment. Concerning second hand or used machinery valuation, second hand machinery values presented by project promoters are exaggerated and far higher than that of machinery prices valued by DBE engineers, further more the use of second hand machineries exposed the company for additional maintenances cost as result the bank exposed to default.

Improving Borrowers Organizational Capacity in their experience of the borrower's management, with adequate Knowledge by knowing the credit terms Decrease the Loan Default and vis-à-vis. Fikerte, (2015) confirms that poor business knowledge and management skills of borrowers are the main reason for NPLs. Furthermore lack of entrepreneurial culture for unsustainable business efforts are the main reasons that the entrepreneurs fail to ensure the success of the business. Selection of unsuitable and unviable schemes and projects are found to be the cause of default as per the empirical study made (Fikirte, 2015). In connection with management capacity problem, the researcher added knowledge limitation of the borrower and

performance of the entrepreneur as cause of loan default the same result were found by Ayle(2015) and Wendemagen (2013). In addition to this Customer related factors such as poor-business knowledge, poor record maintenance, were the main reason for the NPLs. (Kousthupamany, 2015).

Similarly as project manager gets more experience, the quality of decision making has to be enhancing and also has a positive impact on the sustainability of the project. Therefore, loan repayment performance of the project would be improved. This also substantiate the results of Oladeebo (2008), Wongnaa and Awunyo (2013) and Mulugeta (2010),Muluken (2014).

The result from secondary data obtained shows that most of the customer not hire the professionals' as per the appraisal study some of them also employee below the qualification ,lack of knowledge and experience to run the project and as a result the project exposed to loan default.

Whereas, others variables have a positive or same direction with the dependent variable. Concerning the magnitude (probability) effect of independent variables on the dependent variable (non loan default), the variables that have large magnitudes in decreasing order are Loan processing (LP), Willful default (WD),Borrowers organizational capacity (BOC) ,Use of Technology& Technology adaptation (UT), Monitoring & Evaluation (ME), Influence of Loan diversion on defaults (ILD), and Amount of Loan (AL). Which indicate the amount of each independent variable influencing the dependent variable in the case of DBE.

The model estimates and confirms that the loan processing time taking to process a loan has significant and positive impact on loan default of project financed by DBE, Other things being remain constant, the likelihood of being defaulter increases by a factor of 0.324 as loan processing increase by unit. This might be due to the fact that, since the bank is a policy bank owned by the state projects fails under internal and external pressure during approval the project this might leads out of the appropriate feasibility study beside this weak capacity of the officers, management also the main problem to default as the time of loan processing increases beyond the planned/scheduled time for the project, it could bring interruption of all activities planned for the project like production period, marketing and distribution of the project product all these having negative impact on the smooth operation of the project. As a result, borrowers

who have got the loan in longer delayed, lead to failed the repayment of loan according to the contractual agreement.

In addition to this most of the customers file shows that weak due diligence assessment poor know your Customer (KYC) analysis; the appraisal result does not reflect its reality there is over and under financing, outdated commodity used by the bank, approves the loan with internal and external pressure, extended loan process cycle as a result exposed to implementation delay, foreign currency shortage and cost overrun based on this the project exposed to loan default

The Number of project follow-up (monitoring & evaluation) is an important institutional factor, which is negatively related to loan default and is also significant at 10% level. Increasing a number of Supervision visits on the financed projects, the loan Default Decrease by 0.145. This means that the more credit officers visit the financed project borrowers to control how the project is used for the intended purpose as per the study, the better borrowers' loan success abilities and vis-à-vis. In other words, this means that the financed project borrower has more accesses to technical assistance and guidance on project activities during the visit has able to use their loan as promised than those who had less or no visiting at all.

The use of technology and technology adaptation has significant factor, which is negatively related to loan default and is also significant. Improved technology and technology adaptation for the financed project, by a unit change the financed project becoming a loan default also decreased by 0.159. the result reveals that the use of improving new technology by the customer as a result the loan default decreases and vis-à-vis .in the other hand that the more use of second hand technology the company is more become defaulted, because of the higher portion of the company asset is using for maintenance cost, poor productivity in efficient and ineffective use of resources diverting to other purpose than being financed by creditors, the bad borrowers' loan default abilities and vis-à-vis. In other expressions, the financed project borrowers will take more responsibility and it brings less of loan diversions of the on project and precaution activities has been undertaken at each operation of the project.

According to the result of the model, Willful default of the financed project has a negative impact on non-loan default of DBE's financed project borrowers and it is statistically significant. Increasing willful by one or more action decrease the financed project borrower by 0.220 unit.

This means that the likelihood of the financed project borrower able to deliberate pay the loan will decrease when the number of activities increases and vis-à-vis.

The same result shows from secondary data review most of the Customers have capacity to pay but unwilling to pay , some of them also purchase other asset out of the appraisal study, and divert the loan from the intended purpose to other form of project as a result exposed to default

The model confirms that the loan diversion on non loan defaults has the only insignificant and but positive impact on non loan default of project financed by DBE. Other things being constant, as the loan diversion frequency increase by unit the non loan default increase by a factor of 0.067amount.

As per the secondary data reviewed there is an indication of loan diversion since some customers completely change the loan type and purpose due but not supported by the survey since the survey focused on customer perception .

Regarding borrower organizational capacity has a negative coefficient and it is statistically significant at 5% level of significance. Increasing borrower organizational capacity of project by one-unit result on the financed project borrower been able to decrease defaulter loan by 0.202unit. This means that the likelihood of the financed project borrower able to pay the loan from planned project will increase when the quality of organizational capacity of the project improved by a unit, the planned project has become non default increase and vis-à-vis. The implication is that borrower organizational capacity could probably lead to proper utilization the financed project and inputs and this could have a positive effect on the magnitude of project profit. Similarly, as project borrower organizational capacity gets more experience, the quality of decision making has to be enhancing and also has a positive impact on the sustainability of the project. Therefore, loan non default would be improved.

Amount of loan is one of the factors which has insignificantly and positive determine the loan default of project financed borrower of DBE. The econometric model results revealed that, other things being constant, if the amount of loan increase, the probability of being successful projects increase by a factor of 0.027and vis-à-vis.

CHAPTER FIVE

SUMMARY OF FINDINGS CONCLUSIONS AND RECOMMENDATIONS

In this chapter the major findings of the study are summarized, conclusions are drawn based on the finding, and recommendations are forwarded for Development Bank of Ethiopia, the regulatory body and policy decision makers at macro-economic level.

5.1. Summary

Development Bank of Ethiopia was established for the sole purpose of providing project finance to strategic projects as well as support technical services and advice for those projects in which established by DBE. Provisioning of credit only could not support the economic development of the country unless it is going along with the existence of factors necessary for efficient utilization of the fund in order to repay the loan in accordance with the agreement.

The main objective of this study was to investigate factors influencing loan default in project finance. Specific objectives were to investigate the borrowers' characteristic that contributes to default project finance, to identify bank specific characteristics leading to project loan default, and to measure the loan specific determinants of project loan default. To this end, a Multiple Linear Regression model was adopted to determine as to whether the several explanatory variables, have much to do with the loan default of financed and assisted projects.

The data gathering instruments used was questioner survey. The questionnaire is distributed to the selected sampling of customer 140 DBE, but only 134 have completed and returned successfully. Hence around 95.1% of the distributed survey is collected.

The analysis of the study shows that out of the seven independent/explanatory variables, which were hypothesized to show factors influencing loan default of projects financed by DBE, five were statistically significant in explaining the variation in loan default. These variables are loan processing (LP), monitoring & evaluation (ME), use of technology (UT), willful default (WD), and borrower's organizational capacity (BOC). In contrast, the remaining two were less powerful.

Non default loan is positively related to loan processing, willful default, influence of loan diversion and amount of loan on defaults. The possible explanation is that as the time of loan

processing time exceeds the planned time, the project may mismatch of harvesting period, market problems for seasonal products, price escalation problem and disturbance of production schedule. This in turn has a negative impact on both sustainability and or profitability of the project and loan default status. Similarly, loan diversion has increasing the loan default of the bank as they divert the original planned loan prepared by the bank. As the willful default deliberately increases the loan default also increases. The remaining variables are negatively influence on default loan such as monitoring & evaluation, use of technology, and borrower's organizational capacity. Regarding the monitoring and evaluation practices cared out by the bank were not effective as its purposes rather it was conducted just for fulfill the formality of the bank. To be effective in monitoring and evaluation the bank has considering the report as mandatory. As to use of outdate technology, the borrowers of the bank did not purchase machineries as per the original plan due to this fact loan default of the bank increase as they purchase old technology. This factor also results from lack of proper monitoring and evaluation activities of the bank. As of the Borrower's organizational capacity increases on the experience of the managers, the knowledge of the credit terms as a result the loan default decreases as those variables change from their current status or unit the change in the dependent variable is also change with the opposite direction.

5.2. Conclusions

Based on the findings it can be concluded that loan processing, monitoring & evaluation, use of technology, willful default, and borrower's organizational capacity on defaults have significant impact on loan default; which means any increase (decrease) on the value of these variables leads to an increase (decrease) on loan default of Development Bank of Ethiopia.

5.3. Recommendations

This study has a potential to support the policy makers of Development Bank of Ethiopia to take corrective measures on the most important factors influencing loan default of credit assisted financing projects. The possible policy implications, arisen from the study, are forwarded below.

Firstly One of the vital policy implications has much to do with the strong significant relationship existing between the loan processing and loan default. This positive relationship suggests that the Bank should, improve its loan processing cycle time, use updated research

commodity to realize the project loan upgrade the capacity of officers to give viable technical support, the bank shall avoid over and under financing ,and the loan approval should be free from internal and external pressure.

Secondly the vital policy implication has much to do with the strong significant relationship existing between the monitoring and evaluation practices and loan default. This Negative correlation suggests that the Bank should, at all times, require project follow up activities or report should be mandatory before starting the next activities rather doing it just to fulfill the number of follow up made per year. In this regard, the bank shall develop system that considering monitoring and evaluation as a primarily criteria for individual and operation performance management in better way. The Bank shall put in place strong monitoring and follow-up mechanism by consistently visiting the business site and maintaining good communication with the customer about the use of fund and the project's performance.

Thirdly a main policy implication has much to do with the strong relationship existing between the borrower organizational capacity and loan default of borrowers. This negative correlation suggests that the Bank should, at all times, require project owners to establish well functional organization capacity. In this regard, the Bank should include enforcing and tangible system exercised by the borrower.

Fourthly a main policy implication has much to do with the strong relationship existing between the willful default and loan default of borrowers. This Positive correlation suggests that the Bank should, control the borrowers to use the fund for intended purpose the bank shall exert strong internal control policy to avoid willful default.

Fifth a main policy implication has much to do with the strong relationship existing between the use of technology and technology adoption and loan default of borrowers. This negative correlation suggests that the Bank should, at all times, require project owners to establish well appropriate technology as per the detail study and the Bank shall skilled man power available in the projects to run the technology. The bank shall avoid second hand machinery using policy as part of project financing since its cost overrun high and maintenance cost also expensive.

5.5. Recommendations for further studies

On the whole of the studies are conducted in Euro Zone, Asian Banks and a few in developing Countries. But very few studies are conducted in the Ethiopian context. the focus of this study was Bank Specific Characteristics, Borrowers Specific Characteristics and Loan Specific Characteristics of Factors that affect default Project, it is, therefore, recommended that a similar study be conducted on Internal Control, External Factors and Board Characteristics of the Bank

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APPENDIX I (QUESTIONNAIRE)

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS MASTERS OF SCIENCE IN MANAGEMENT

Questionnaire to know the Factors Influencing Default Project Financing: the case of Development Bank of Ethiopia

Dear Respondents,

This questionnaire is prepared to collect data from Development Bank of Ethiopia (DBE) Customers/borrowers to undertake thesis paper for partial fulfillment of MSC in Management on the title, Factors Influencing Default Project Financing in the, Customer and Bank's daily operation and management decision. The information that you provide will be used only for the analysis of the study which I am conducting as partial fulfillment of the MSC degree in MSC in Management.

I kindly request you to respond freely and honestly as your response has great value in assessing the current Factors Influencing Default Project Financing Bank specific factors, borrower specific factors and Loan specific factors in the Bank's operation and management decision.

I assure you that all your responses will be kept strictly confidential and used only for academic purpose. Thank you, for your cooperation and response in advance.

General Direction:

- You are not required to write your name
- Please put (√) mark in the box that best describes your response
- Write your opinion on the blank space provided and for some items you can use

Other sheets of paper if the space provided is not sufficient.

PART-I: GENERAL INFORMATION OF RESPONDENTS

1. Age:

- | | |
|-----------------------------|----------------------------|
| 1. Less than 20 years | 4. 41-50 years |
| 2. 21-30 years | 5. Greater than 50 years |
| 3. 31-40 years | |
| 2. Gender | |
| 1. Male | 2. Female |
| 3. Marital status | |
| 1. Single | 3. Divorced |
| 2. Married | 4. Widow |
| 4. Educational level: | |
| 1. Diploma | 4. PhD |
| 2. 1 st Degree | 5. Other(Specify): ----- |
| 3. 2 nd Degree | |
| 5. Investment sectors | |
| 1. Commercial Agriculture | 3. Agro processing |
| 2. Manufacturing and mining | |
| 6. Business Form | |
| 1. Soleperporater | 2. Private limited Company |
| 3. Coperation | 4. Corporation |
| 7. Business role | |
| 1. Owner | |
| 2. Employee Manager | |
| 3. Owner and manage | |

PART-II: Bank Specific Factors influencing loan default of Project Finance in the case of Development Bank of Ethiopia

1. Please indicate your degree of agreement or disagreement to the statements pertaining to loan processing and the influence loan defaults

Sr. No.	Description	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
1.1	DBE's loan processing cycle time performs as per the standard of the bank set in balanced score which is 33 days					
1.2	DBE's appraisal works Genuine and there is no under or over finance					
1.3	DBE's project appraisal bases are on up-to-date data similar to your feasibility study/proposal					
1.4	Re Appraisal carried out through the bank for cost overrun due to delay in loan processing					
1.5	Do you agree that DBE's realize disbursements timely after all conditions and agreements fulfill					
1.6	DBE's Approves project financing without External and Internal Pressure					
1.7	DBE's Approaches in well manner to Know you and your source of equity during credit assessment					
1.8	DBE's Employees are all round knowledge, have relevant information and supporting you during the loan processing					

2. Please indicate your degree of agreement or disagreement to the statements pertaining to Credit Monitoring and Evaluation and the influence loan defaults

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2.1	DBE strictly Monitoring and Evaluation the projects and the loan without your request for disbursement					
2.2	Early default can protect the bank through monitoring and evaluations					
2.3	DBE mitigates check and balance mechanism during monitoring an evaluation through different officers					
2.4.	Technical valuations audited by the bank during monitoring and evaluation					
2.5.	Bank Managers, executives and the board are responsible for solution based on the monitoring and evaluations					

2.6.	The Credit and Portfolio Management Send the file timely for resolution to Rehabilitation and Loan Recovery					
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Part III. Borrower related Factors for default of Project Finance in the case of Development Bank of Ethiopia

3. Please indicate your degree of agreement or disagreement to the statements pertaining to Use of Technology and Technology Adoption and the influence loan defaults

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
3.1	Do you think that your project use new technology and technology adoption to enhance productivity					
3.2	Do you think that your employee well trained, upgrade themselves for adoption and ran the existing technology					
3.3	Use of Second hand Machinerics influence for loan defaults					
3.4	Those customers who don't use the updated technology have exposed to loan default at DBE					

4. Please indicate your degree of agreement or disagreement to the statements pertaining to willful default and the influence loan defaults

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
4.1	Customers have the capacity to pay your debt as per the agreement made between the bank					
4.2	Had not utilized the finance for the purpose lent but has diverted the same for other purposes.					
4.3	Your Purchasing other Asset From the Intended purpose of loan supports as additional income to your projects					
4.4	Unwilling and Carelessness of customers to pay debt influencing loan defaults					

5. Please indicate your degree of agreement or disagreement to the statements pertaining to the influence loan diversion on defaults

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
5.1	Implementation delay happened due to loan diversion influencing loan defaults					
5.2	lack of working capital decreases the productivity due to loan diversion					
5.3	Unwilling to pay the debt due to loan diversion for other purpose					
5.4	Your loan Diversion happened due to lack of suitable study					

6. Please indicate your degree of agreement or disagreement to the statements pertaining to the Borrower Organizational Capacity

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
6.1	Loan Default happened due to the promoter's lack of adequate knowledge and experience credit terms well					
6.2	Lack of Experience of the project manager leads to loan default					
6.3	Not Well-prepared Feasibility Study Presents by the promoter influencing loan default					
6.4	Borrowers, Culture has a relationship for loan default					

Part III. Loan related Factors for default of Project Finance in the case of Development Bank of Ethiopia

7. Please indicate your degree of agreement or disagreement to the statements pertaining to the Amount of Loan

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
7.1	Excess amount of Loan affect the loan repayment					
7.2	The sufficient Amount of loan helps to use the fund efficiently and protect from default					
7.3	The Bank approves equivalent to the amount of loan requested by the promoter is important to protect the project from loan default					
7.4	Small Amount of loan performs well and pay their Debt regularly					

Part IV. Loan Default (Dependent Variable)

8. Please indicate the degree of agreement or disagreement to the statements pertaining to the extent of loan default in your organization.

		Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
8.1	Your company paying its loan on time for the bank, there is no an incidence of loan default for the last two years.					
8.2	Your company have high amount of loan default and amount of the loan default increasing					
8.3	Your company not responsive to pay the loan on time. There is problem to the Bank if your debt pays regularly from other source of income					
8.4	Your company increasing fail to keep its payment schedule for the bank, have an Experience in borrowing from another financial institute during project implementation					

Thank You!!