EFFECT OF CREDIT ASSESSMENT PROCESS ON LOAN REPAYMENT: A CASE STUDY ON DEVELOPMENT BANK OF ETHIOPIA, WEST REGION

A THESIS SUBMITTED TO JIMMA UNIVERSITY, COLLEGE OF BUSINESS AND ECONOMICS, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR AWARD OF DEGREE OF MASTERS OF BUSINESS ADMINSTRATION (MBA)

BY

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Effect of credit assessment process on loan repayment: ***A case study on Development Bank of Ethiopia, west region***

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I, Yosef Asefa, declare that this thesis entitled "effect of credit assessment process on loan repayment, a case study on Development Bank of Ethiopia, west region" is my own original work, which has not been presented for degree in this or any other universities and that all sources of materials used for the thesis have been properly acknowledged.

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Abstract

The bank's loan repayment is influenced by a number of factors, and few studies have been conducted to examine the factors that can affect the loan repayment performance of banks in various countries. This study was therefore, conducted with the objective of analyzing the effect of credit assessment process on Development Bank of Ethiopia, west region, using primary data collected through structured questionnaire and secondary data collected through document analysis.

The result of logistic regression show that document screening, due diligence assessment, credit appraisal assessment, loan approval review, credit policy and loan monitoring and follow up are important and significant factors that enhance the odds to loan repayment performance of DBE, west region. The findings of this study clearly indicated that probability to repayment resulted from screening process, detail due diligence assessment (know your customer), credit appraisal, appropriate credit policy and project monitoring and follow up. Any problem with those credit assessment processes will leads to delay in loan repayment. According to these findings, Development Bank of Ethiopia, west region is recommended to see into these factors with care and design a better lending strategy focusing on quality screening process and due diligence assessment through collecting detail information about the borrower, quality credit appraisal assessment by assigning skilled personnel, effective follow up and supervision, training and approval of appropriate loan size so as to minimize the loan default problem observed. Moreover, the processes should be worked out to identify borrower capacity and any obligations that may interfere with loan repayment.

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List of abbreviation and acronyms

NPL	Non Performing Loan
DBE	Development Bank of Ethiopia
KYC	Know Your Customer
ETB	Ethiopian Birr
CP	Credit Process
5cs	Capacity, Capital, Collateral, Condition and Characteristics
LAT	Loan Approval Team
ITC	Information Theory of Credit
FICO	Fair Isaac Company
PRLRT	Project Rehabilitation and Loan Recovery Team
NBE	National Bank of Ethiopia
SPSS	Software package for social sciences

CHAPTER ONE: INTRODUCTION

1.1 Back ground of the study

Pazarbasioglu (1999) believes that the best warning signs of financial crises are proxies for the vulnerability of the banking and corporate sector. He showed that full-blown banking crises are associated more with external developments, and domestic variables are the main leading indicators of severe but contained banking distress.

According to Gatonye (1995), the banking industry plays three broad roles in an economy. These include; financial intermediation between savers and borrowers, implementation of government policies by way of money supply management, and facilitating the flow and interaction of various economic activities. Of these the role of Development bank of Ethiopia is providing financial service to priority economic sectors as government policy proclamation.

Development bank of Ethiopia (DBE) is one of the financial institutions engaged in providing short, medium and long term development credits. DBE's distinguishes feature is its "project" based lending tradition. Project financed by the Bank are carefully selected and prepared through appraised, closely supervised and systematically evaluated.

It has played a vital role in the economic resource allocation of the country in financing development contributing commercial projects. Its lending is guided by credit policies which are guidelines and procedures put in place to ensure smooth lending operations.

Bank lending if not properly assessed, involves the risk that the borrower will not be able or willing to honor their obligations (Feder & Just 1980). Financial performance of banks has critical implications for economic growth of countries. On the other hand, poor bank performance leads to banking failure and financial crisis. It is obvious that banks undertake lending activities in order to generate revenue.

According to Waweru and Kalani (2009), customer failure to disclose vital information during the loan application process is considered to be the main customer specific factor. The study further found that lack of an aggressive debt collection policy is perceived as the main bank specific factor, contributing to the poor loan repayment.

From early its establishment, Development bank of Ethiopia has been providing loan facility to prioritized sectors as policy amendment made by government from time to time. In the last five years, the bank has continued to lend money with a proportionate increase in provision of outstanding loan position. In its lending activity the bank uses different tools and policy procedures to be taker of any default or delay in repayment of the loan disbursed. This process includes among others document screening, due diligence assessment /KYC/, credit appraisals, disbursement, monitoring and follow up are the main credit assessment process in order to recover the loan properly. The credit granting process leads to a choice between two actions; to give the new applicant credit or to refuse. Based on the overall assessment, the bank determines the feasibility of the loan requested. Beyond the urge to extend credit and generate revenue, they have to recover the previously outstanding principal amount in order to ensure safety of national fund disbursed from public account and to avoid capital erosion for further reimbursement. The money lent to customers are often paid late or not paid at all leaving the bank exposed to default risk.

The major motivation of the researcher to undertake this study is poor loan repayment of the bank despite huge loan approval and disbursement injected in the economy from year to year. A study by done in Nigeria by Njoku, et al, (1991) revealed that borrowers who diverted funds to other projects other than those originally approved were likely to default on loan repayments. Here, the gap that the researcher observed from those related studies is that the major emphasize given in poor loan repayment caused due to money diversion. However, beyond this fact poor loan repayment caused by poor internal credit assessment process like lack of detail information to know history of the applicant (poor due diligence assessment), poor credit policy, lack of monitoring & follow up and poor credit appraisal assessment.

Here, it is important to note that despite the rigorous screening undertaken in the credit assessment process; huge portfolio exists in non-performing balance as well as the loan repayment status shows less amount as compared with loan approval, disbursement and the outstanding balance in Development bank of Ethiopia, west region.

As indicated in credit operation report 2010/2011 to 2013/2014, Development Bank of Ethiopia, west region for the past four years has continued to lend money with radical increase in loan outstanding but low loan collection performance due to increase in provision and bad debts written off. Hence, this study will going to assess the effect of credit assessment process used by

Development bank of Ethiopia west region on its loan repayment performance to determine their level of impact on loan repayment.

1.2. Statement of the problem

Credit decisions in financing projects are an important issue for insuring the loan repayment in banking industry. Development Bank of Ethiopia has played a great role in providing much medium and long-term credit to viable projects in the country. In view of this, the bank has taken a number of actions in the past years in the areas of capacity building, resource mobilization and credit operations (Zena 2009/10). The banks financing decisions, which are mainly made by the lending units, are highly affected by various factors directly or indirectly. The credit policies and procedures are designed to guide lending and ensure prudent lending operations. Among rigorous credit assessment process, banks use proof that customer does not have other credit obligation, analysis of their account performance, reliability of their source of equity, commitment and ability to pay and credit appraisal feasibility study to check credit worthiness of the project (International Credit Manual, 2003). Despite rigorous credit assessment processes used, DBE, west region was faced with poor management of its loan portfolio (DBE, 2014).

This was caused due to poor loan repayment and as a result majority of Development Bank of Ethiopia, west region loans subjected for re-scheduling.

Kithinji (2010) assessed the effect of credit risk management on the profitability of commercial banks in Kenya. The findings revealed that the bulk profits of commercial banks are influenced by the amount of credit and non-performing loans; therefore, suggesting that other variables other than credit and non-performing loans impact profits.

The financial records of DBE, west region showed that bad debts written off increased from time to time as the loan remain unsettled. The balance for bad debt loans written off during the fiscal period ended, 2013/2014 showed that Br.18, 347,069.94 which is 2% of the total portfolio cancelled from both principal and other charge balance (DBE June, 2014) despite the bank uses different credit assessment process towards successful loan repayment.

In Ethiopia, the research study on the effect of credit assessment on loan repayment performance of Development Bank of Ethiopia is not yet extensively investigated. Majority of the empirical studies conducted in other countries focused on external factors and interest rate level as factors of loan repayment. The study conducted by Kibrom (2010) on determinants of successful loan repayment in case of Development Bank of Ethiopia, north region considered demographic characteristics of the borrowers as basic factors of loan repayment. Beyond those factors and above all, the credit assessment process used by the bank has significant effect on loan repayment of banking industry. Likewise, the empirical evidence suggests that there is significant industry influence on loan repayment performance. For instance Dorothy (2014) noted that “banks credit assessment process like document screening, credit appraisal, loan approval review, credit policy, monitoring and follow up has impact on loan repayment performance”. Hence, provision of loan to borrowers require a careful examination of credit assessment to make loan repayment successful, which otherwise will lead to poor investment projects, raises costs, erodes the fund that would be available for future investment and reduce the lending capacity of the bank.

The success or a failure of DBE, west region credit operation as well as its financial position relies on its loan recovery performance, which again depends on various internal and external factors that determine loan repayment performance. DBE, west region has been lending huge investment loans with increasing outstanding portfolio dominantly for commercial agricultural projects in which default risk is high. Therefore, the researcher intended to conduct a study on the effect of credit assessment process on loan repayment by taking Development Bank of Ethiopia, west region as case study.

1.3. Research Questions

This paper is conducted to answer the following three specific research questions.

i. What are the procedures/credit assessment processes followed by Development Bank of Ethiopia, west region in granting loan?

ii. How and to what extent a certain credit assessment like document screening & due diligence assessment, credit appraisal, loan approval review, credit policy and monitoring & follow up determines loan repayment performance of Development Bank of Ethiopia, west region?

iii. What is the trend of loan default in DBE, west region from the total portfolios?

1.4. Objective of the study

1.4.1. General objective:

The main objective of the study is to assess the effect of credit assessment process used by DBE, west region on its loan repayment performance.

1.4.2. Specific objectives:

i. To assess the appropriateness of credit assessment process used by DBE, west region on loan repayment.

ii. To describe the effect of credit assessment process on loan repayment of DBE, west region.

iii. To describe the relationship between credit assessment process and loan repayment.

1.5. Scope and limitation of the study

Geographically, the study covered branches in Development Bank of Ethiopia, west region. According to the bank's regional classification, only those branches found under direct administration of DBE west region were assessed in this study. Regarding the subject scope, the study was focused only on the effect of credit assessment process on loan repayment performance of Development Bank of Ethiopia, West region.

The researcher excluded those customers who were not started loan repayment because since they do not started repayment they couldn't have exposure to exactly compare the credit assessment process with loan repayment performance. The researcher also included only internal factors of credit assessment process affecting loan repayment by excluding different external variables like macro economic variables.

There are several variables that might lead to the variation in loan repayment across banks and factors that might influence the loan repayment performance of DBE, west region are may come from both internal and external environments. But, due to a certain limitations relating with those of external factors like availability of data, scarcity of time, this study has concentrated only on internal factors of loan repayment performance of DBE west region which includes document screening and due diligence (KYC), credit appraisal assessment, loan approval review, credit policy and loan monitoring and follow up. Furthermore, the time period covered under this study for secondary data is only five years ranging from 2010/2011 to the third quarter of 2015, due to unavailability of organized data for long period of time.

1.6. Significance of the Study

The central purpose of this research study is to find out and examine the effect of credit assessment process on loan repayment a case study on Development Bank of Ethiopian, west region. The findings of the research add to the existing knowledge on the study area.

Specifically, the study merit to many people, organization, Government, and policy makers as follows:

- It allows the identification of the concept and frameworks on the effect of credit assessment on loan repayment performance of Development Bank of Ethiopia.
- It provides empirical data for policy makers that assist towards formulating appropriate policy for the operations of Development bank of Ethiopia
- The study also contributes to future researchers as literature review in the area of the study.
- It will contribute to future researchers to get know-how on banking credit assessment process and loan repayment concept.

1.7. Hypothesis of the study

The central issues hypothesized in this study were the following five investigative ideas:

- ❖ Hypothesis$_{1:}$There is no significant relationship between credit assessment processes and loan repayment
- ❖ Hypothesis$_2$: There is no significant effect between credit assessment process and loan repayment performance.

1.8. Organization of the research paper

This study focus on examining the effect of credit assessment process on loan repayment on Development Bank of Ethiopia, west region. This research report is organized into five chapters. Chapter one deals with the introduction part of the study. The second chapter presents the review of related literature on the theoretical framework of credit assessment process, loan repayment and prior empirical findings on the determinants of loan repayment. Then, the third chapter explores about the research methodology and the adopted research design for the study. Chapter four presents results and analysis of findings. To provide further elaboration of the results this section is supported by a series of tables and graphs. Finally, chapter five presents the conclusions and recommendations of the study which is drawn from the findings of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

In this chapter, information relating to the objectives of this study is reviewed. It will involve a critical assessment of important issues so as to determine the current facts. It forms the link between the current study, past studies and future studies that may need to be explored in deepen knowledge. This literature review is mainly on the credit assessment process and loan repayment. According to Ssewagudde E. (2000), to assess financial viability any credit institution depends critically on selecting applicants who have a high probability of repayment and rejecting those who have a high probability of default. In doing selection, the credit officers and managers of the lending bank play a great role from early application receiving to final loan approval. Therefore, the specific area reviewed by this study includes the theoretical and empirical reviews of credit assessment process and bank loan repayment.

2.2. Theoretical framework

2.2.1. Information theories of Credit

Credit is defined by the Economist dictionary of economics as "the use or possession of goods or services without immediate payment" and it "enables a producer to bridge the gap between the production and sale of goods" and "virtually all exchange in manufacturing, industry and services is conducted on credit", (Colquitt 2007). It is a contractual agreement in which borrowers receive something of value now and agree to repay the lender at some later date (http://www.investorwords.com). Credit generates debt that a party owes the other. Certainly the debtor will have to pay an extra amount of money for delaying the payment.

According to Stiglitz (1981), information theories of credit refer to the amount of credit to firms and individuals would be larger if financial institutions could better predict the probability of repayment by their potential customers. The more banks know about the credit history of prospective borrowers, the deeper credit markets would be. Public or private credit registries that collect and provide broad information to financial institutions on the repayment history of potential clients are crucial for deepening credit markets.

The information that each party to a credit transaction brings to the exchange will have important implications for the nature of credit contracts; the ability of credit markets to match borrowers and lenders efficiently and the role played by the rate of interest in allocating credit among borrowers.

Walsh (2003), stipulates that the nature of credit markets can lead to distinct roles for different types of lenders and different types of borrowers. Stiglitz, et al, (1981) argue that when lenders know more about borrowers, their credit history or other lenders to the firm, they are not as concerned about the "lemons" problem of financing non-viable projects, and therefore extend more credit. Legal origin also has implications for financial developments.

Credit risk has been defined as the distribution of financial losses due to unexpected changes in the credit quality of a counter party in a financial agreement. Earlier, in both Europe and America, businessmen seeking credit information had occasionally hired agents or organized in local associations to share information and protect themselves from credit losses. The credit granting process leads to a choice between two actions; to give the new applicant credit or to refuse. Credit scoring tries to assist this decision by finding what would have been the best rule to apply on a sample of previous applicants. This is the basis of credit scoring approach where a decision to accept or reject an application is made Thomas, et al (2002). It allows for case by case risk management assessment when appraising a loan application.

2.2.2. Theory of Credit Scoring and Competitive pricing of default Risk

Lenders use credit scores to regulate the extension of consumer credit. People with high scores are offered credit on more favorable terms. People who default on their loans experience a decline in their scores and, therefore, lose access to credit on favorable terms. People who run up debt also experience a decline in their credit scores and have to pay higher interest rates on new loans limited credit or credit at higher interest rates following default arises from the lender's optimal response to limited information about the agent's type and earnings realizations. The lender learns from an individual's borrowing and repayment behavior about his type and encapsulates his reputation for not defaulting in a credit score.

While this exogenous exclusion restriction is broadly consistent with the empirical facts, a fundamental question remains. If lenders believe that bankruptcy signals something relatively permanent about the household's unobservable characteristics, then it may be optimal for lenders to limit future credit. But if the circumstances surrounding bankruptcy are temporary like a transitory, adverse income shock, those individuals who have just shed their previous obligations may be a good future credit risk.

Competitive lenders use current repayment and bankruptcy status to try to infer an individual's future likelihood of default in order to correctly price loans. There is virtually no existing work embedding this inference problem into a quantitative, dynamic model. Given commitment frictions, it's important for a lender to assess the probability that a borrower will fail to pay back. That is, assess the risk of default. In the U.S, lenders use credit scores as an index of the risk of default. The credit scores most commonly used are produced by a single company, the Fair Isaac and Company and are known as FICO scores. These scores range between 300 and 850. Where a higher score signals a lower probability of default are considered high risk, often called "subprime."

2.2.3. Theoretical Model of Equilibrium

The theoretical model of equilibrium with credit rationing follows from the pioneering work of Stiglitz, et al (1981) the model is based on imperfect credit markets characterized by information asymmetry, which makes it too costly for banks to obtain accurate information on the borrowers and to monitor the actions of the borrowers. The model assumes the existence of many banks that seek to maximize their profits through their choice of interest and collateral (thereby reducing the probability of default on their loans) and many potential borrowers who seek to maximize their profits through the choice of projects.

The probability of success of the projects is unknown to the bank but known to the firms due to information asymmetry. In addition the borrowers may choose to shift from safe projects that yield normal returns to high risk projects that promise high returns but with a low probability of success and the bank has no control over such actions of the borrowers. All projects yield the same value if they fail. Banks therefore compete by choosing interest rate and also use interest rates as a screening device for distinguishing bad risks from good risks. The borrowers are assumed to demand loans of fixed sizes to finance projects that have the same expected returns.

Under this scenario, high risk borrowers are willing to pay a higher interest rate for a loan. Increase in interest charged by the bank may actually lead to a decline in the expected profit of the bank due the adverse selection effect and the incentive effect which results from a change in the behavior of borrowers to shift from safe to high risk projects.

Banerjee (2008), argues that equilibrium with credit rationing therefore occurs at the interest rate at which the bank maximizes the expected profit. Under conditions of imperfect credit markets characterized by information asymmetry, interest rates fail to play the market clearing role of equating demand and supply. But rather the banks adopt the strategy of credit rationing using the non-price mechanisms so as to maximize their expected profits. The bank's credit rationing behavior may theoretically be influenced by a number of factors which include the borrower's observable characteristics (age, gender, wealth, experience, credit history), firm characteristics (business experience, risk profile, earnings), and loan characteristics (amount demanded, loan maturity, collateral offered, interest rate).

Lapar, et al (1988) argued that the bank's credit rationing behavior against the firm's loan demand can be categorized into three stages: the screening stage, the evaluation stage, and the quantity rationing stage. At the screening stage, the bank manager interviews the potential borrower to determine their eligibility for credit. The manager then decides whether the applicant is sufficiently qualified to apply for a loan or not. At the evaluation stage, the loan officer undertakes a detailed analysis of the viability of proposed investment project including detailed investigations of the credit history, the type and value of proposed collateral, management of the firm, and probability of repayment.

Based on this information, the loan officer makes a decision as to whether it will be profitable for the bank to grant a loan or not. The borrowers deemed to be not creditworthy will be denied loans completely. At the quantity-rationing stage, the bank determines the optimal loan size for a borrower at a given interest rate. The optimal loan size will be determined by the bank taking into account the bank's evaluation of the probability of repayment, the marginal cost of granting the loan, and the value of collateral offered.

Quantity rationing here refers to a scenario where some borrowers are granted loan amounts that are less than what they had applied for. It is at quantity- rationing stage that the bank fine tunes the loan contract to reflect the bank's subjective evaluation of the riskiness of the loan and of the borrower and the impact of these risks on expected profit . According to Hoff, et al (1990), the degree of risk of a firm also has an influence on the willingness of banks to offer bank loans. Firms for which the repayment of the loan is more uncertain are more risky for the bank, and hence are more likely to be credit rationed. The risk for the bank implies the default risk, being the risk that the firm can't fulfill its obligations to the bank. The degree of risk of the firm may be inferred from the credit history of the borrower, the expected returns of the project, business experience of the firm. According to Guido (2008) also argued that credit rationing may also originate from a lender's inability to classify loan applicants in proper risk categories, which effect is particularly strong when novel technologies are involved.

2.2.4 Type and Nature of credit

Like any product, credit has features that define it. And, just as anyone who offers a product should know its features, you as a loan professional should know the features of credit. You should also know how these features benefit members. All consumer credit is either closed-end or open-end, and either unsecured or secured. Credit is further defined by interest rates, maturities, and terms of repayment. Together, these types and characteristics determine how the products you offer fit members' borrowing needs. There are four distinct types of credit, with several characteristics common to each other.

Closed-end credit is so-called because it is not continuous. The exact amount of money that will be advanced is determined at the outset. The credit ends when the loan is repaid. If members want to borrow additional money or purchase more goods, they must complete a new application and set up a new loan.

This credit is also known as installment credit if the loan is repaid on a regular basis with a fixed amount, or installment.

Open-end credit: as its name implies, open-end credit is continuous. Under an open-end plan, members make a one-time application and may obtain credit from time to time. Some open-end plans, such as a credit card or overdraft line, have a specified credit limit; members can use up to the limit without further open-end plans offer various credit features, some of which have credit limits and others that do not. These open-end plans are referred to as multi-featured open-end plans. Open end credit further divided into revolving and lines of credit.

Unsecured loans are made without collateral. The member's promise to pay is only guaranteed by the member's signature. Such loans are often called signature loans, since the member simply signs an agreement to pay. Unsecured, or signature loans, increase the credit union's risk. When a member defaults on an unsecured loan, a credit union may not be able to collect by claiming any of the member's personal property (except for shares on deposit at the credit union) unless the member consents or a court orders it.

Secured loans require the member to provide collateral for the loan. Collateral, also known as security, is a possession of tangible value which secures the loan until the loan is repaid. Collateral limits the credit union's risk in two ways. First, members are more likely to repay loans when their possessions are at stake. Second, if a member defaults on a loan, the credit union may repossess the security, sell it, and apply the proceeds to the loan balance.

According to Greuning and Bratanovic (2009, P.161) credit is always risk associated and has always been the biggest threat to any bank's performance. Therefore, a sound credit risk management framework is indispensable to a healthy and profitable banking institution. The Credit control policy has also been noted to influence the loan repayment as it determines the criteria of selecting loans. Credit is the general guideline governing the process of giving credit to bank customers. The policy sets the rules on who should access credit, when and why one should obtain the credit including repayment arrangements and necessary collaterals. A firm's credit policy may be lenient or stringent. In the case of a lenient policy, the firm lends liberally even to those whose credit worthiness is questionable. With the stringent credit policy, credit is restricted to carefully determined customers through credit appraisal system. This minimizes costs and losses from bad debts but might reduce revenue earning from loans, profitability and cash flow Payle (1997). Greuning, et al (1999) observed that the lending policy should be in line with the overall bank strategy and the factors considered in designing a lending policy should include; the existing credit policy, industry norms, general economic condition and the prevailing economic climate.

2.2.5. Definition of Credit Assessment

According to Nsereko (1995), credit assessment is the process through which the credit applicant presents the necessary documentations to the bank in order to obtain a loan. In case study of this paper, Development bank of Ethiopia uses the credit assessment process from early application receiving to approval of the requested loan.

According to Stiglitz (1981), information theories of credit refer to the amount of credit to firms and individuals would be larger if financial institutions could better predict the probability of repayment by their potential customers. The more banks know about the credit history of prospective borrowers, the deeper credit markets would be. Public or private credit registries that collect and provide broad information to financial institutions on the repayment history of potential clients are crucial for deepening credit markets.

The information that each party to a credit transaction brings to the exchange will have important implications for the nature of credit contracts; the ability of credit markets to match borrowers and lenders efficiently and the role played by the rate of interest in allocating credit among borrowers. Credit assessment is the first stage in loan processing. Hence, this credit assessment may encompass different stages:

2.2.5.1. Due diligence Assessment (KYC)

Due diligence assessment is a process through which the banks make further investigation up on the new applicant to know credit worthiness of the applicant from different circumstances. Walsh (2003), stipulates that the nature of credit markets can lead to distinct roles for different types of lenders and different types of borrowers. Stieglitz, et al (1981) argue that when lenders know more about borrowers, their credit history or other lenders to the firm, they are not as concerned about the “lemons” problem of financing non-viable projects, and therefore extend more credit.

According to loan manual of (DBE 2014, P.51) due diligence or KYC assessments shall be undertaken by the Bank mainly to identify the integrity of all borrowers.

It is undertaken to protect the Bank from entering into relationships with inappropriate borrowers and to check borrower’s credit worthiness and compliance with financial compliance directives.

The financial viability of any credit institution depends critically on selecting applicants who have a high probability of repayment and rejecting those who have a high probability of default

(Ssewagudde,2000). Development Bank of Ethiopia also undertakes this due diligence assessment to know the overall back ground about the customer before entertaining loan grant. The purpose of this assessment is to accept or reject the loan application received based on the result of the finding obtaining during due diligence assessment as per the criteria set by the bank. Development bank of Ethiopia shall undertake customer due diligence exercises when establishes business relations with customers or accepts loan requests from potential customers.

Due diligence assessment or know your customer/ refers the actual characteristics of the credit applicant against the document received. According to Matovu and Okumu (1996), banks should base their credit analysis on the basic 5cs principles of lending which are Character, Capacity, Capital, Collateral and Conditions. Hence in doing so, the bank's credit policy, procedures and directives guidelines bind the assessment process.

2.2.5.2 Credit appraisal assessment

After due diligence assessment completed and if the applicant found credit worthy as per the assessment, the applicant's document forwarded for further appraisal of the loan request to verify its financial viability, technical viability and economical feasibility. Anjichi (1994) describes it as the 'heart' of a high quality portfolio management. Banks use the appraisal process to properly determine the techno-economic feasibility, financial profitability and soundness, economic benefits and social desirability of the project. This involves assessing the overall loan request, determining the debt and equity amount, undertaking market and marketing assessment, determining the viability of the project from different scenarios.

The bank's credit policy, commodity study, procedures and directives guide the credit this appraisal process. It is designed to ensure lenders take actions which facilitate repayment or reduce repayment or default likely problems.

The information or result obtained from credit appraisal enables the bank to take remedial actions or precaution in loan approval decision (Stieglitz and Karla, 1990).

When a financial institution does not do it well, its loan repayment performance is highly affected. The appraisal or credit analysis determines the repayment, disbursement and implementation of the project going to be established by the loan grant. If those variables not exactly determined based on the real factors prevailing, there will a risk of failures.

Edminster (1980) stressed the importance of credit analysis in financial institutions' loan granting process.

The critical issue to be considered in credit appraisal is waiting time taken to accomplish credit analysis of the customer within proper season of the customer request and practical nature of the project implementation time. Hunte (1996) included the length of time taken to process applications, credit appraisal to the loan approval. Long waiting time may result elapse in appropriate implementation season which in turn leads to greater risk of credit rationing and low loan repayment.

2.2.5.3. Loan approval

Loan approval is a stage at which the final decision/approve or rejection to be given up on the loan request once the credit appraisal of the project finalized. In this Process the loan approval team deliberates and decides on the project appraisal report to accept or reject the loan proposal. Once a positive decision is passed by the loan approval process, the case then goes back to the CP for subsequent actions (DBE, 2014).

The credit granting process leads to a choice between two actions; to give the new applicant credit or to refuse. Credit scoring tries to assist this decision by finding what would have been the best rule to apply on a sample of previous applicants. This is the basis of credit scoring approach where a decision to accept or reject an application is made (Thomas, et al, 2002). It allows for case by case risk management assessment process when appraising a loan application.

The approval team submits its general and specific findings and comments to projects regarding loan approval and in connection with the Credit policy to further minimize the risk of lending the loan if any suspicion. In case of DBE, the whole credit assessment process reviewed against the policy issues at approval stage. This stage is a critical stage to properly analyze and determine the future fate of the project for which the loan to be granted.

Thakor (1996) argues that imperfect information on loan applicants can cause credit rationing, and increase on the credit risk exposure to banks. According to Wiley (1998), imperfect information on creditors also can cause credit rationing. Hence, it is obvious that if the precaution not taken during passing loan approval decision, the consequence will result default.

Credit policies and procedures, credit analysis and credit review help to prevent poor lending decisions and protect company investments (Franklin J. 2012).

2.2.5.4. Credit documentation process

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 up dated credit files and the imposition of relevant fees, updating of records and prompt notification of credit reviews and renewal dates (McNaughton, et al, 1996).

Loan documentation involves the legal contract agreement registration, document review, collateral registration, equity blocking and the fulfillment of terms and conditions. While the disbursement function involves checking the validity of previous utilization as well as ensuring that the documentation for the utilization of previous funds 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 (Day, et al, 1996).

Credit documentations clearly states the credit terms which are the conditions attached to the loan after the borrower's loan application has been favorably appraised has got approved. These include among others collateral registration, loan contract agreement registration, equity contribution blocking and fulfillment of other terms and conditions set during approval decision if any.

Most banking industry request borrower’s for collateral to be pledged before extending loans to customers. The collateral is always higher value than the loan taken to ensure that the loan is paid back. The use of groups as collateral is accepted by some banks (Yunus, 1996). When one member fails to pay, the other group members pay on their behalf. Thus, this system makes it possible for group members to monitor one another thus leading to improved loan repayment. However, some studies have found out that group members don't want paying for others and they also don't like others paying for them (Antonio, 2000). Despite to this fact, development bank of Ethiopia does not request any collateral out of the project to be pledged except the fixed assets of the project which are included in investment finance of the project during investment cost determination.

2.2.5.5. Loan disbursement

Disbursement on the other hand ensures that money is not availed until all approvals and documentation requirements are met. It also ensures that security and other required documentations are obtained before funds are disbursed. Msi (1994) and Nsereko (1995) have noted, if disbursement control is weak, the whole integrity of the credit process can be weakened and abused. Thus, documentations and disbursement are important in the management of credit because they ensure that the bank has proper documentation, collateral and guarantees.

These are important in the advent of the clients' inability to pay because the bank would be properly secured and have legal recourse to ensure the settlement of debt. This would ultimately decrease the amount of bad debts the banks may have.

2.3. Loan repayment and its determinants

After the credit assessment and disbursement is done, the credit customer is expected to payback the installment as per agreed schedule in the loan contract. Each bank has a different repayment mechanism. Based on the specifics of the bank, customers can pay weekly, bi-weekly monthly, quarterly, semi-annually or annual installments (Odongo, 2004). However, most of long term loans expected to be repaid on semi-annual and annual installment basis.

The recovery of loan advanced to bank creditors can be attributed many factors which may range from economic conditions, credit management and administration, and interest rate. One of key determinants of loan repayments depend on the robustness with which credit appraisal systems can intelligently and efficiently manage customer credit lines. Credit appraisal minimizes on the risk to borrowers' exposure to bad debts, over-reserving and bankruptcies (Sindani, et al, 2012). The credit assessment gives the banks an insight into the customer's financial strength, credit score history and payment patterns.

The effectiveness of the credit appraisal system depends on the procedures and methods applied in the credit evaluation (Glen, 1996). According to Horne (20007), credit appraisal methods used in banks range from simple subjective or informal techniques to fairly complex approaches such as the use of simulation and computer generated models. The aim of these procedures is to ensure that customers are thoroughly scrutinized before advancing credit.

The ability to repay loans can be influenced to a large extent by the level interest charged on borrowed funds. Kariuki (2010) argue that when interest rates are low, borrowers are able and willing to service their loans. High interest rates on the other hand discourage payments and loan applications. Borrowers are more likely to default on loan repayment when the rates of interest increase faster than the consumer's income.

It has been observed that policies guiding credit management and administration influence loan repayments.

According to Kariuki (2010) loan repayments can be improved if loan recovery from slow payers. He argues some of the bad debts incurred by banks arise because of lack of appropriate policies that can accelerate recovery. This is necessary because some customers would simply decide not to repay loan if bank conditions allow.

According to Pandy (2008), economic conditions greatly influence loan repayments. He argues that businesses undergo economy wide fluctuation or cycles which may disrupt the ability of customers to repay their loan as earlier planned for several months or years. The credit policies on disbursement and recovery of funds should therefore factor such considerations into their planning. In order to ensure good repayment, Banks have to ensure proper monitoring and follow up actions. To this end, Develop bank of Ethiopia uses follow up and monitoring mechanisms to enhance proper implementation and loan repayment of projects financed.

2.3.1. Monitoring and Follow up

According to Robinson (1962) and Anjichi (1994), many of the agonies and frustrations of slow and distresses credits can be avoided by good loan supervision. Supervision helps keeping a good loan good. It may be visiting the borrowers' premises to investigate the general state of affairs: the proper implementation of the project as per the schedule, proper utilization of the loan for the intended purpose and maintenance of plant and equipment. Inadequate maintenance, delay in implementation schedule are often an early sign of financial distress. Also to be observed is the state of employee morale and the physical stock of materials and finished goods.

The general business policy and technical advice is considered. If a bank is sanitizing to business development it can revise its own credit and loan polices as well as advising its customers.

According to loan manual (DBE, 2014), the bank undertakes project supervision and follow-up activities using both on-site and off-site supervision methods. The purpose of project follow-up is to ensure that financed projects are properly implemented and operating.

Project follow-up also serves as a means for the provision of technical assistance as and when required. All projects financed by the Bank should be properly monitored and complete follow-up reports undertaken on the project at least twice a year.

Off-site supervisions using periodic reports or returns from borrowers can be made based on prior agreements between the two parties. Projects deemed NPLs should be monitored (followed up) more frequently at least once in three months.

2.3.2. Portfolio Management

Portfolio management is an important aspect of credit assessment process. It is relationship management process that focuses on measuring and containing individual credit risk within strategic guidelines. It involves the administration of the credit facility to ensure orderly and full payment, monitoring of the credit facilities as well as the workout strategies in situations when the credit actually deteriorates. The need of portfolio management is to assess the quality of the collateral held and the ability of the borrower's business to generate necessary cash (Greuning, et al, 1999). It involves the aspects of asset classification. Asset classification is a process whereby an asset is assigned a credit risk grade that is determined by the likelihood that the debt obligation was serviced and the debt liquidated according to contract terms. In general, all assets for which a bank is taking risk should be classified.

The credit administration process involves on- site visit, regular contact as well as checking for compliance with covenants in the loan agreements. Borrowers who change their behaviors and those who do not supply timely and accurate information, presents the most difficult monitoring challenge (Sinkey, 1998). During credit administration, the credit officer or the lender can detect early warning signals of non-compliance or deterioration. These symptoms help to maximize the effects of corrective actions and to minimize the potential loss of the bank. Thus, credit assessment process should be properly undertaken to minimize risk of NPL and to enhance loan repayment.

2.4. Loan provisions and Classification

According to NBE, though provisioning for non-performing loans is the jurisdiction of the PRLRT, the CP and branches shall undertake provisioning for all performing loans. Loan classification and assessment of provision requirement is to be undertaken in compliance with Asset Classification and Provisioning Directives of the NBE for Development Finance Institutions (NBE Directive No SBB/48/2010 which was in use since August 5, 2010 and the amended NBE Directives No 52/2012 which came into force starting on January 19, 2012);

In accordance with the NBE directives cited above, the DBE shall classify all its loans into five categories of pass, special mention, substandard, doubtful and loss based on the following criteria:

2.4.1. Pass

Loans in pass category are fully protected by the current financial and paying capacity of the borrower and are not subject to any criticism. Accordingly, given the nature of the

Bank and based on the directives of NBE, the following loans shall be classified as pass loans:

1) Short term loans past due for less than 30 (thirty) days;

2) Medium and long term loans past due for less than 180 (one hundred eighty) days; and

3) Any loan, or portion thereof, which is fully secured, both as regards to principal and interest, by cash or cash substitutes, regardless of past due status or other adverse credit factors.

2.4.2. Special Mention

The following loans at a minimum shall be classified as special mention:

1) Short term loans past due for 30 (thirty) days or more, but less than 90 (ninety) days;

2) Medium and long term loans past due six months or more, but less than 12 (twelve) months.

2.4.3. Substandard

The following non-performing loans at a minimum shall be classified substandard:

1) Short term loans past due 90 (ninety) days or more, but less than 180 (one-hundred-eighty) days;

2) Medium and long term loans past due 12 (twelve) months or more, but less than 18 (eighteen) months.

2.4.4. Doubtful Loans

The following non-performing loans at a minimum shall be classified doubtful:

1) Short term loans past due 180 (one-hundred-eighty) days or more, but less than 360 (three-hundred-sixty) days;

2) Medium and long term loans past due 18 (eighteen) months or more, but less than 3 (three) years.

2.4.5. Loss

The following non-performing loans at a minimum shall be classified loss:

1) Short term loans past due 360 (three-hundred-sixty) days or more;

2) Medium and long term loans past due three years or more.

Without prejudice to the classification criteria used for the substandard category herein above, renegotiated non-performing loans shall be categorized as *"substandard"* unless the equivalent of all past due interest is paid by the borrower in cash at the time of renegotiation and the following payments are made by the borrower on a consistent and timely basis in accordance with the restructured terms of the loan:

a. In the case of loans with monthly or quarterly installment, at least *three* consecutive repayments;

b. In the case of loans with semi-annual installment, at least *two* consecutive repayments;

c. In the case of loans with annual installment, at least *one* repayment.

2.5. Empirical Studies

Wanjira (2010) studied the relationship between non- performing loans management practices and financial performance of commercial banks in Kenya. The study concluded that there is a need for commercial banks to adopt non-performing loans management practices. Such practices include ensuring sufficient collaterals, limiting lending to various kinds of businesses, loan securitization, ensuring clear assessment framework of lending facilities and use of procedures in solving on problematic loans among others. The study further concluded that there was a positive relationship between nonperforming loans management practices and the financial performance of commercial banks in Kenya which implies that the adoption of non- performing loans management practices leads to improved financial performance of commercial banks in Kenya.

Ochola (2009) conducted a study of the relationship between credit risk management and non-performing loans. The objective of the study was to establish the degree of effect of employing different credit management techniques on the level of non- performing loans. In assessing this, the study sought to establish the relationship between credit risk and management and non-performing loans by pursuing a survey in the Kenyan banking sector. The research found that in Kenyan setup, a combination of intensive credit risk management practices by the banks coupled with close supervision by Central Bank has greatly enhanced the decline of non- performing loans ratio in the banking sector. Analyzing the asset quality of the financial sector for 2003 to 2008, the ratio of gross non- performing loans to gross loans declined from a high 35% in 2003 to a low of 9.23% in 2008. The decline of this ratio confirms a close relationship between non-performing loans and credit risk management.

Vigano (1993), in his study on determinants of loan default risk, employed a credit scoring model for commercial Banks a case of the Development Bank of Burkina Faso, found out that customer's characteristics, enterprise characteristics and customer's activity, profitability and revenue stability, asset value and composition, financial situation, loan use, bank-customer relationship, contractual conditions and credit risk control, quality of information and the customer's banking behavior influenced the bank's credit risk. The study revealed that being women, married, aged, proximity to the bank, use of better technology and being flexible to adjust to market changes, proper use of the loan, project diversification, frequency of loan maturity, collateral, personal guarantee and being a pre-existing depositor are negatively related to loan default risk. Loans in kind, long waiting period from application to disbursement and being younger firm, past default, existence of other loan are those positively related to loan default rate.

A study made on loan repayment determinants under the Social Emergency Loan Scheme in Nigeria by Njoku, et al, (1991) indicated that poor loan repayment performance was due to late release of loan funds, cumbersome loan application procedures, disbursement procedures, and emphasis on political considerations in loan approvals.

The Credit control policy has also been noted to influence the loan repayment as it determines the criteria of selecting loans. Credit is the general guideline governing the process of giving credit to bank customers. The policy sets the rules on who should access credit, when and why one should obtain the credit including repayment arrangements and necessary collaterals.

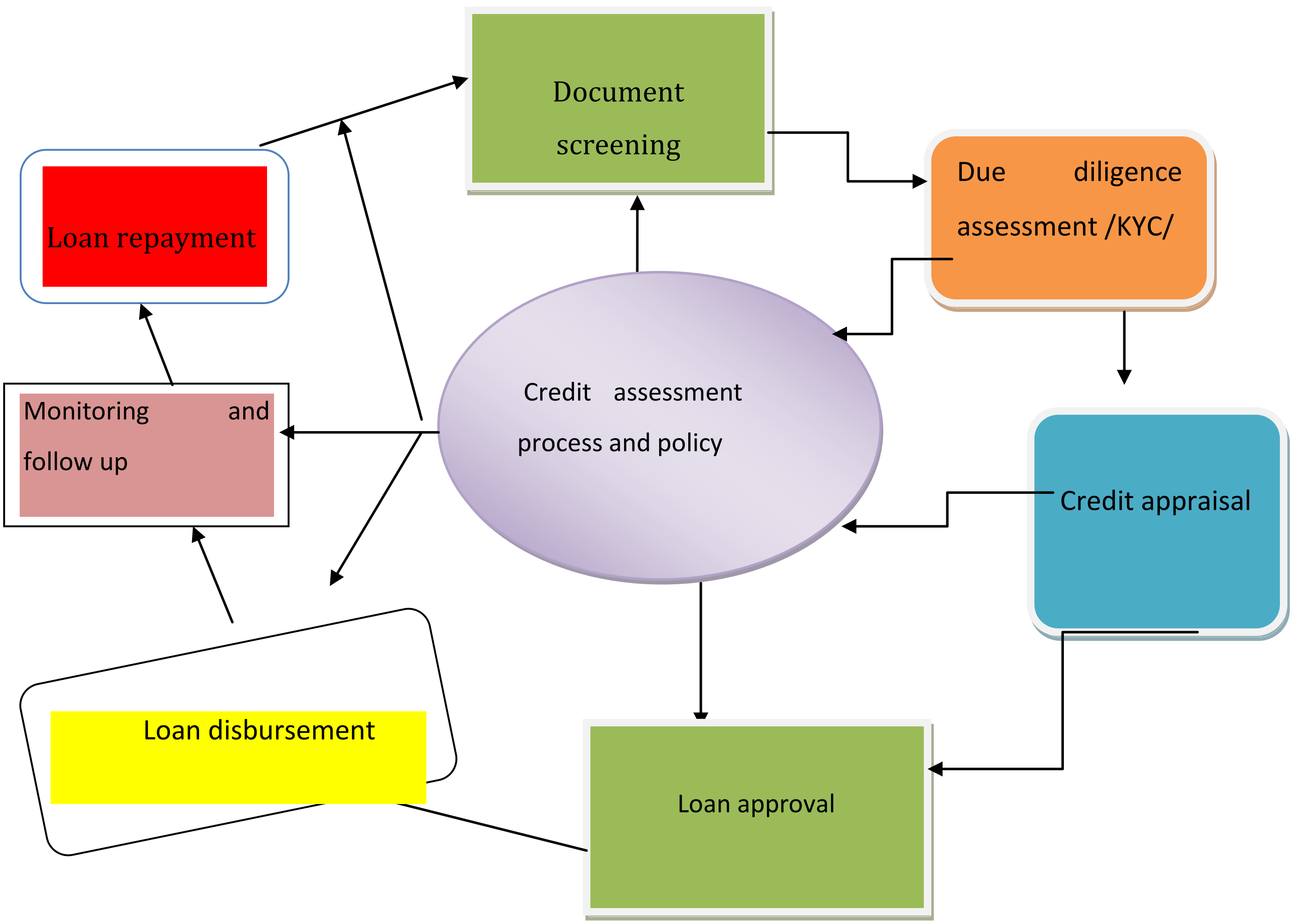
A firm's credit policy may be lenient or stringent. In the case of a lenient policy, the firm lends liberally even to those whose credit worthiness is questionable. With the stringent credit policy, credit is restricted to carefully determined customers through credit appraisal system. This minimizes costs and losses from bad debts but might reduce revenue earning from loans, profitability and cash flow (Payle, 1997). Greuning, et al (1999) observe that the lending policy should be in line with the overall bank strategy and the factors considered in designing a lending policy should include; the existing credit policy, industry norms, general economic condition and the prevailing economic climate.

A study done in Nigeria by Njoku, et al, (1991) revealed that borrowers who diverted funds to other projects other than those originally approved were likely to default on loan repayments. This finding therefore is a clear signal to development banks that the credit appraisal should be tied to the loan intended purposes. In the same study it was observed that poor loan repayment was caused by the giving of loan based on political considerations.

Karanja (2012), in his study on the effect of credit risk management on the level of non-performing loan, the information offered to bankers by customers is not accurate and lack of sufficient capital is a major cause for non-performing loan and low repayment rate.

A study by done in Nigeria by Njoku, et al, (1991) revealed that borrowers who diverted funds to other projects other than those originally approved were likely to default on loan repayments. This finding therefore is a clear signal to banks that the credit appraisal should be tied to the loan intended purposes. To sum up here, the gap that the researcher observed from those related studies is that the major emphasize given in poor loan repayment or default is money diversion caused due to lack of follow up, poor customer screening. However, beyond this fact poor loan repayment caused by poor collection policy and giving loan based on political considerations. Here DBE uses highly flexible approach in credit assessment process in which large number of borrowers entertained and poor mechanisms of loan repayment. Thus, this study will overcomes the limitations through developing structured questionnaires on the gap observed to get opinion from responds by analyzing it accordingly.

Figure 2.1 conceptual frame works



Source: DBE loan manual (revised 2014) and own work

The conceptual frame work shows a framework of relationship between components of credit assessment process and loan repayment. The framework chart also shows that the basic credit assessment variables like document screening, due diligence assessment/KYC/, credit appraisal, loan approval, credit documentation and monitoring and follow up are the main important things which directly affect loan repayment of the bank.

The framework constitute that the bank can undertake any assessment through those different phases of credit assessment process to reduce a risk of loan default/NPL/. Document screening checks the fulfillment of necessary documents against the loan check list of the bank as well as it is used as input for due diligence assessment for further investigation about the applicant credit worthiness. The result of due diligence assessment report is used as an input for further appraisal study of the project. Again the final credit appraisal will be used for further approval decision of the proposed loan. Once the proposed loan has been approved, loan going to be disbursed which in turn should be followed by subsequent monitoring and follow up.

As indicated in the above flow chart, poor credit assessment process will result poor loan repayment efficiency or it might be result to increase in NPL due to different internal factors like delay in implementation schedule, delinquency, inappropriate repayment schedule, in appropriate financial projection and etc. Similarly, careful critical and exhaustive qualified credit assessment process will result to effective and timely loan repayment of the bank. Monitoring and follow up is a critical credit administration tool after loan disbursement effected.

2.5.1. Empirical study in Ethiopian case

In Ethiopian case there are no such extensive research undertaken in the area of effect of credit assessment process on loan repayment. Kibrom (2010) made a research on determinants of successful loan repayment on private borrowers a case study of Development bank of Ethiopia, North region. He used age, gender, education, loan diversion, loan repayment period, availability of source of income, sector, household size, purpose of loan and type of labor to examine determinants of successful loan repayment. In his study he tried to analyze the effect of customer demography, characteristics, project character and loan characteristics on loan repayment performance.

The estimation results of the descriptive statistics showed that education, gender, repayment period, other source of income, sector, purpose of loan and type of labor have positive relationship with loan repayment performance while age, loan diversion and experience have negative relationship with successful loan repayment performance.

Abraham (2002) made a research on factors behind loan defaulters which was a case study of private borrowers financed by Development Bank of Ethiopia Zway Branch.

In his research methodology, he also employed a logit model to find the factors behind loan defaulters. The independent variables include, age of borrowers (years), educational level of borrowers, loan diversion, sex of borrower, ratio of equity to total investment, ratio of value of collateral to loan amount, repayment period (years), availability of other source of income, household size (number), experience in related economic activity and sector.

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

Jamal (2003) made a research on Microfinance and loan repayment performance, which was a case study of the Oromia Credit and Savings Share Company (OCSSCO).

In his research methodology, he employed a logit model to find the factors influencing on loan repayment performance in the micro finance institution.

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

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

The above Empirical researches on loan repayment performance in Ethiopia mainly focus on micro and small enterprises as well as on micro finance institutions in Oromia region, in which most of the borrowers are short term borrowers and hence no as such loan payment problem encountered.

The research conducted by Abraham (2002), on Development Bank of Ethiopia, however is limited to small scale enterprises in Zway in which again most of the borrowers were granted low loan amount. Furthermore, the study undertaken by Kirbrom (2010), was basically limited demographic characteristics of the borrowers and nature of the loan in assessing determinants of successful loan repayment.

In his study on ''determinants of loan repayment performance'', Firafis (2014) revealed that saving habits of borrowers, loan size, perception of borrowers on loan repayment period, source of income, availability of training, family size, business experience, business type and purpose of saving were influencing loan repayment performance as they are statistically found significant. He has concluded that probability of loan default increases as when the borrower has negative perception about loan repayment period, less training, low business experience, poor saving habits and having single source of income.

Zelalem, et al. (2013) in their study on ''determinants of loan repayment performance of smallholder farmers'' found that expenditure on social festivals has a negative and significant effect on loan recovery rate while land holding size of the family, total livestock holding, number of years of experience, purpose of borrowing and source of credit variables have a significant positive effect on loan repayment performance of smallholder farmers.

According to Tihitina, (2009) basically, the non- performing loans are a result of the compromise of the objectivity of credit appraisal assessment and poor screening and know your customer assessment. The problem is aggravated by the weakness in the accounting, disclosure and grant of additional loans. In the assessment of the status of current loans, the borrower's credit worthiness and the market value of collateral are not taken into account thereby rendering it difficult to spot bad loans. From these all empirical studies, it can be concluded that loan repayment performance of financial institutions affected by industry specific and customer specific factors.

However, beyond the above prior empirical study findings in Ethiopia, there are credit assessment processes which may affect loan repayment performance of Development Bank of Ethiopia since many changes and policy amendments made at different time then after. For instance, the loan sanction limit of the lending units/branches increased from Br.15,000,000 to Br.25,000,000 which may needs critical investigation of borrowers' capacity to repay the loan on time.

The quality and proper application of credit assessment processes and policy implementation has a great implication on loan repayment performance of any financial institution.

Hence, beyond the above empirical studies, the researcher interested to examine the effect of credit assessment process on loan repayment performance hoping that this research will fill the gap by focusing specifically on the effect of credit assessment process used by Development Bank of Ethiopia, west region on its loan repayment performance.

This is because despite rigorous credit assessment process used by the bank to reduce risk of credit default, credit operation performance of the bank shows poor loan recovery rate. Furthermore, there is no research conducted on the effect of credit assessment process on loan repayment performance in Development Bank of Ethiopia, west region so far in which huge loan portfolio exists.

2.6. Summary of Literature Review

There is no unique theory of credit assessment which provides a unifying framework for the study of determinant of loan repayment. Most researchers conducted on this area were concluded that, the determinants of loan repayment in banking industry are not outside bank-specific factors, industry-specific factors and macroeconomic factors. However, bank-specific factors are the most frequently occurred determinants of loan repayment. The board and management of commercial banks establish policies and procedures which ensure that the bank has a well documented credit granting process, a strong portfolio management approach, prudent limits, effective credit review and loan classification procedures and an appropriate methodology for dealing with problem exposures. Because, lending represents the central activity of banks and underpins their profitability, loan pricing tends to be the focal point of both revenues and costs.

Borrowers are screened by banking institutions in form of credit assessment. Collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening as indicated by asymmetric information theory. Screening is important in reducing a risk of money advanced in exchange for the promise of future repayment. This is controlled by asymmetric information between borrower and a bank through collecting sufficient information on which to base loan decisions.

A study done in Nigeria by Njoku, et al (1991) revealed that borrowers who diverted funds to other projects other than those originally approved were likely to default on loan repayments. This finding therefore, is a clear signal to Development Bank of Ethiopia that the credit appraisal should be tied to the loan intended purposes. In the same study, it was observed that poor loan repayment was caused by the giving of loan based on political considerations.

According to Kibrom(2010), poor loan repayment in Development Bank of Ethiopia, north region basically originated from three factors which are borrowers characteristics, project characteristic and loan characteristics. The finding obtained from his study showed that education, gender, repayment period, other source of income, sector, purpose of loan and type of labor have positive effect loan repayment performance of DBE, west region.

Wanjira (2010) studied the relationship between non- performing loans management practices and financial performance of commercial banks. The study concluded that there is a need to adopt non-performing loans management practices. Such practices include ensuring sufficient collaterals, limiting lending to various kinds of businesses, loan securitization, ensuring clear assessment framework of lending facilities and use of procedures in solving on problematic loans among others. The study further concluded that there was a positive relationship between nonperforming loans management practices and the financial performance of commercial banks in Kenya which implies that the adoption of non- performing loans management practices leads to improved financial performance of commercial banks in Kenya.

Hunte (1996) argues that default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare agencies, instead of a viable financial institution. It incorrectly penalizes creditworthy borrowers whenever the screening mechanism is not efficient.

Loan default may also deny new applicants access to credit as the bank's cash-flow management problems augment in direct proportion to the increasing default problem.

Increasing defaults in the repayment of loans may lead to very serious implications. For instance, it discourages the financial institutions to refinance the defaulting members, which put the defaulters once again into vicious circle of low productivity. Therefore, a rough investigation of the various aspects of loan defaults, source of credit, purpose of the loan, form of the loan, and condition of loan provision are of utmost importance both for policy makers and the lending institutions (Kelly, 2005).

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

This chapter presents the research design and methodology. It spells out the techniques and methods of data collection, sampling, processing and analysis.

3.1 Research Design

This study is a case study on Development Bank of Ethiopia, west region. Descriptive survey and quantitative method were employed in conducting this research. This type of research method is used to acquire data relating to the existing status of a given phenomenon in order to define what already exists in the status. Furthermore, this method is chosen for the researcher to have the opportunity to describe systematically, the facts, qualities and characteristics of the given population as factual and accurately as possible (Olaleke et al, 2010).

A survey carried out to seek the opinion of different credit related staffs and customers of the bank on the effect of credit assessment process on loan repayment.

3.2. Population and sample size of the study

Cooper and Emory (1995) define population as the total collection of elements about which the researcher wishes to make inferences. Population of the study is all credit related Development Bank of Ethiopia; west region staffs members and existing borrowers who were already started loan repayment before or as of June, 2014. The customers of the Development Bank of Ethiopia, west region comprise those from Jimma and Nekemt branches. Therefore, during the study conducted there were 37staff members involved in credit process in Development Bank of Ethiopia, West region including region manager and branch managers, senior credit analysts, loan officers and junior credit officers.

Thus, the total population of the study was 154 comprising of 37 Development Bank of Ethiopia, west region credit related staffs and 117 customers of the bank who were started loan repayment during the specified period.

3.2.1 Sample size of the study

From the total 154 population of the study, the researcher used 111 respondents as sample. The researcher has totally taken 37 credit related staffs to increase the quality of data.

From the total 117 customers of Development Bank of Ethiopia, West region, 74clients were selected at 95% confidence interval level. The Sample Size determination for respondents is based on the following formula Yamane (1967, P.886):

Where,

N = Population

$\alpha = alpha$ 5%: the level of sig. which can be obtained as 1-ß

n = Sample Size

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

$$n = \frac{154}{1 + 154(0.05)^2}$$

$$n = 111$$

Customer = 111-37

= 74

Total sample size (n) = 111

3.3 Sampling Design

The researcher used both purposive and probability sampling techniques in determining the sample. This is because the purposive sampling enables the researcher to select only the credit related staff members among different other staffs of Development Bank of Ethiopia, west region. In other case, probability sampling techniques used to select respondents from customers of the bank during the specified period of time. Using both techniques 111 questionnaires were distributed to target respondents.

3.4 Data Sources and tools used in data collection

The researcher used both primary and secondary data in undergoing the research preparation**.** However, to meet the objective of the study, the researcher highly relied on primary data.

3.4.1. Primary Data

Primary data were collected through questionnaires which were distributed to the respondents.
The structured questionnaire which involved both closed and open ended questions were developed from an extensive review of literature and designed on the basis of the research objectives. The researcher distributed 111 questionnaires and finally only 102 completed questionnaires were collected directly from the respondents. From the total questionnaire distributed, 9 respondents were not totally returned the questionnaire and the researcher excluded it from analysis.

3.4.2. Secondary Data

The researcher also used secondary data beside primary data used in this study. Secondary data were collected thorough document analysis from Development Bank of Ethiopia, annual credit operation report, credit procedure manuals, credit policy, brochures and loan manuals.

3.5. Statistical Analysis and Tool

In each questionnaire except for demographic, summated scales (or Likert-type scales) was developed by utilizing the item analysis approach where in a particular item is evaluated on the basis of how well it discriminates between those persons whose total score is high and those whose score is low. The respondent indicated his/her agreement or disagreement with each statement in the instrument. However, since the nature of dependent variable is dichotomous, the respondents provided with 'yes' and /or 'no'.

In a Likert scale, respondents were asked to respond to each of the statements in terms of five degrees: Strongly agree, (ii) agree, (iii) neutral, (iv) disagree, (v) strongly disagree.

In order to carry out inferential analysis, statistical methods used under this study include frequencies, descriptive statistics, univariate and multivariate logistic regression analysis.

3.6. Method of data Analysis

The researcher used both descriptive survey and quantitative method of data analysis to show the effect of credit assessment process on loan repayment performance of DBE, west region.

The data collected were analyzed using SPSS 20 version software package. Data obtained described and arranged in the form of tables of frequencies, percentages and charts. The study examined and find out the relationship between credit assessment process and loan repayment which were answered by adopting both quantitative and qualitative method of data analysis. A binary logit, model which best fits the analysis for factors that affects loan repayment was employed. The logistic model specification to determine the effect of credit assessment process on loan repayment performance of Development Bank of Ethiopia, west region therefore, given as:

$LOREPYT = \alpha + \beta DSDD + \beta 2CAPA + \beta 3\ LAR + \beta 4CPP + \beta 5MoFoU + \varepsilon$ ----------------------- (1)

Where;

LOREPY T= probability of loan repayment

DSDD = document screening and due diligence assessment

CAPA= credit appraisal assessment

LAR = loan approval review

CPP = credit policy and procedures

MoFoU = monitoring & follow up

α= is the constant term.

β = are coefficients

ε is the error terms

3.7. Variables Description and related Hypotheses

The study aimed to conduct a research study to investigate the effect of credit assessment process on loan repayment in Development bank of Ethiopia, west region. On the basis of research objectives one dependent variable against five independent variables were investigated in this study. Variables examined in this study and their measurements are formulated from existing literatures and it has been useful for the meaningful comparison of the last findings with these and other prior empirical studies.

The description of both dependent and independent variables with related hypothesis is discussed below;

3.7.1. Dependent Variables

The dependent variable for the logit analysis is of dichotomous nature representing loan repayment, which is the capacity and commitment of the customers to pay the debt as per the loan contract agreement signed. In this study the researcher investigated the relationship between loan repayment and the five explanatory variables.

3.7.2. Independent Variables

As independent variables the researcher has tested a total of five explanatory variables i.e. document screening & due diligence, credit appraisal, loan approval review, credit policy and monitoring and follow up.

3.7.2.1 Document screening and due diligence assessment

Due diligence or KYC assessments is continuous variable which is undertaken to protect the Bank from entering into relationships with inappropriate borrowers and to check borrower's credit worthiness. According to Stieglitz et al, (1981) when lenders know more about borrowers, their credit history and background, they extend more credit. Thus, positive relationship between document screening and due diligence assessment has been hypothesized for this study. This is supported by different prior empirical study like Dorothy (2014) and Mulondo (2011).

3.7.2.2. Credit appraisal

Credit appraisal assessment is a process to properly determine credit worthiness of customers, economic feasibility, financial profitability and soundness, economic benefits and social desirability of the project. The information or result obtained from credit appraisal enables the bank to take remedial actions or precaution in loan approval decision (Stieglitz and Karla, 1990). Different studies support positive relationship between credit appraisal and loan repayment. For instance, Anjichi (1994), described it as the 'heart' of a high quality portfolio management. Thus, in this study positive relationship between credit appraisal and loan repayment hypothesized.

3.7.2.3. Loan approval

The loan approval process makes the necessary decision, i.e. approval or rejection on the loan. In this process the LAT deliberates and decides on the project appraisal report to accept or reject the loan proposal. According to Thomas, et al, (2002), this is the basis of credit scoring approach where a decision to accept or reject an application is made. Based on such empirical studies, the researcher hypothesized positive relationship between loan approval review and loan repayment of Development Bank of Ethiopia, west region.

3.7.2.4. Credit policy and procedures

In this study credit policy means the guiding principles in lending and borrowing process in DBE, west region. According to Dorothy (2014), the credit control policy has also been noted to influence the loan repayment as it determines the criteria of selecting loans, arranges loan repayment schedule and set obligation in timely repayment. A policy formulated in accordance with appropriate credit assessment process and effective for repayment can lead to positive loan repayment performance. In contrary, in appropriate credit policy can lead to poor loan repayment indicating negative relationship. From both issues, in this study positive relationship between credit policy and loan repayment formulated compared with same support from prior studies.

3.7.2.5 Monitoring and follow up

In order to ensure good repayment, banks have to ensure proper monitoring and follow up actions. It may be visiting the borrowers' premises to investigate the general state of affairs: the proper implementation of the project as per the schedule, proper utilization of the loan for the intended purpose and maintenance of plant and equipment. As noted by Robinson (1962) and Anjichi (1994), many of the agonies and frustrations of slow and distresses credits can be avoided by good loan supervision. Thus, supported by various empirical studies, the researcher hypothesized positive relationship between credit follow up and loan repayment in this study.

3.8. Reliability Tests

The researcher used Cronbach alpha to determine the consistency of scales used to measure study variables. According to the Cronbach coefficient the reliability of the questionnaire for the study variables were 0.709 implying that the scales used to measure the effect of credit assessment process on loan repayment performance were consistent and therefore, reliable as shown in the table 3.1 below:

Table 3.1: Reliability test

Reliability Statistics

Cronbach's Alpha	N of Items
.709	6

CHAPTER FOUR: DATA ANAYLSIS AND DISCUSION

The study examined the effect of credit assessment process on loan repayment a case study on Development Bank of Ethiopia, west region. The sample for the study contains both credit related staffs and existing customers of the bank who were started loan repayment up to June, 2014 fiscal period.

In examining the effect of credit assessment process used by the bank on its loan repayment, the researcher used a regression analysis to test the effect of five independent (explanatory) variables on the dependent (explained) variable.

Thus, in this study the researcher used logistic regression analysis, in which tests have been made to examine whether one or more independent variables influence the dependent variable. In relation to this, the researcher also examined whether the independent variables have a positive or negative effect on the variations of the dependent variable.

4.1. The demographic profile of respondents

The researcher interested to know the demographic profiles of the respondents taken in this study. The respondents were therefore, required to indicate their age, gender and their level of education as follows:

4.1.1 Gender category of respondents

The researcher wanted to know gender categories of the respondents from the total sample taken. This is important to know sex category of the respondents along with their participation. According to table 4.1 stated below, 94.1% percent of the respondents were male and the remaining 5.9% were female. This indicates that majority of the respondents were male.

Table 4.1 Gender group of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	96	94.1	94.1	94.1
	Female	6	5.9	5.9	100.0
	Total	102	100.0	100.0	

Source: Survey questionnaire, 2015

4.1.2 Age category

Age level is a predictor of the ability to understand well the issues that were the subject of the study. The respondents were therefore requested to indicate their age category.

As indicated in the following table 4.2, majority of the respondents' age (48%) falls in the range of 31 to 40 years. This indicates that the highest percentage (48%) of the respondents is within young age. The same source indicates that 28.4% of the respondents are between ranges of 20-30 years. This accounts the second largest age category from the table. Again respondents between 41 to 50 years age category accounts 19.6% obtaining the third rank. The other age category is above 51years, which accounts 3.9% the least frequency.

The finding indicates that the majority of the respondents lie between the ages of 31 to 40years which may incorporate majority of young people. The age category between 20 to 30 years accounts 28% from the total sample. This highly indicates that a number of respondents exist below 31 years, the youngest age category though the percentage is relatively low as compared with age category between 31 to 40 years.

Table 4.2 Age category of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30 years	29	28.4	28.4	28.4
	31-40 years	49	48.0	48.0	76.5
	41-50 years	20	19.6	19.6	96.1
	above 51 years	4	3.9	3.9	100.0
	Total	102	100.0	100.0	

Source: Survey questionnaire, 2015

4.1.3. Educational qualifications

The researcher was interested to know about the educational qualifications of the respondents. This is important for the research study because education level is a predictor of the ability to understand well the questions raised in the study. The respondents were therefore, requested to indicate their educational level.

According to table 4.3, there were a total of 39(38.2%) respondents whose education qualification was university degree. There are 30(29.4%) respondents who were attended less than grade 12th. From the respondent 18(17.6%) were certificate holders. The same finding also indicated that 8(7.8%) respondents were diploma holders and the remaining least percentage 7(6.9%) were masters holders and above. The researcher was therefore; satisfied that the respondents were knowledgeable enough to provide information that would be relevant to answer the questions raised under the study.

Table: 4.3 Educational level of the respondent

Educational level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than grade 12th	30	29.4	29.4	29.4
	Certificate	18	17.6	17.6	47.1
	Diploma	8	7.8	7.8	54.9
	first degree	39	38.2	38.2	93.1
	masters and above	7	6.9	6.9	100.0
	Total	102	100.0	100.0	

Source: Survey questionnaire, 2015

4.2. Descriptive statistics

The table 4.4 below shows the descriptive statistics of the dependent variable loan repayment and five independent variables (document screening and due diligence assessment, credit appraisal, loan approval review, credit policy and monitoring & follow up. The result indicates that among the explanatory variables document screening and due diligence assessment has highest mean 19.8 which indicates document screening and due diligence contributes more to loan repayment performance. Credit appraisal assessment accounts the second factor contributing for effective loan repayment with mean value of 18.9 among the other variables considered in this study. Monitoring and follow up takes the third rank among variables contributing for effective loan repayment with mean value of 18.55. The other variable credit policy and procedures accounted 17.60 mean values indicating the fourth ranked contributing for effective loan repayment among the five credit assessment variables analyzed in this study. Finally, according to the statistical result obtained, loan approval review contributes less for effective loan repayment performance of Development Bank of Ethiopia, west region with mean value of 13.54. The detail is explained in the table 4.8 below:

Tabl: 4.4 descriptive statistics

Statistics

		Loan Repayment	Document screening and Due diligence Assessment	Credit Appraisal Assessment	Loan Approval Review	Credit Policy and Procedures	Monitoring and Follow up
N	Valid	102	102	102	102	102	102
	Missing	0	0	0	0	0	0
Mean		23.28	19.18	18.90	13.54	17.60	18.55
Median		23.00	19.00	19.00	14.00	17.00	19.00
Std. Deviation		1.942	2.195	2.472	1.447	2.495	2.028
Minimum		20	14	14	10	12	14
Maximum		28	25	24	18	23	23

Source: Survey questionnaire, 2015

4.3. Logistic regression analysis

From univariate logistic we observed that the value of 1- β for document screening and due diligence assessment is 0.21. This shows that as the quality of document screening and due diligence assessment increases, the odds to repay loan per unit increase for DSDDA by 21%. This finding is consistent with the logical argument of loan repayment performance, there must be +ve relationship between loan repayment and document screening and due diligence assessment. This is because as the bank undertakes quality document screening as well as knows its customers detail background, credit history, trustworthiness, the chance of credit default may be reduced and hence loan repayment increases. Therefore, the positive relationship between loan repayment and document screening and due diligence assessment obtained in this study is supported.

In contrast a unit change for LAR and CAPA can increase the odds for repay by 18% and 27.8% respectively at 5% level of significance.

Wanjira (2010), studied the relationship between credit appraisal and loan repayment performance of banks. He concluded that there was a positive relationship between credit appraisal assessment and loan repayment. This also logically supported as the credit appraisal techniques strongly determines loan repayment performance of banks. The loan approval further assess fulfillment of terms and conditions and compliance with the bank required standard of lending, in terms of approval assessment, the bank more improves the loan repayment performance. Thus, the finding of this study is also consistent to the previous study.

Likewise, unit increase for CPPs and MoFoU can increase the odds for repayment by 34% and 26% resp. To secure the debt, the financial institutions (i.e banks) should provide suitable and clear credit policy and procedure. This finding is supported by Greuning et al (1999) and Scott (1977).

The monitoring and follow up of the bank has a strong positive effect on its loan repayment performance. This is because as the monitoring and follow up of the lending bank increases, the more commitment and initiation of the borrowers to pay the debt.

From the logistic regression analysis, however, considering the five variable all at time the significant variables are CPPs and CAPA accounts 37% and 11.6% increase in odds to pay the loan respectively.

Table 4.5: logistic regression analysis

	Univariate logistics				Multivariate logistic regression			
	Exp(B)	95% C.I.for EXP(B)		p-value	Exp(B)	95% C.I.for EXP(B)		p-value
		Lower	Upper			Lower	Upper	
DSDDA	0.793	0.64	0.983	0.035	.944	.715	1.246	.682
LAR	1.187	0.857	1.644	0.303	1.136	.767	1.684	.524
CPPs	0.667	0.533	0.835	<0.001	.631	.473	.841	.002
MoFoU	0.74	0.582	0.94	0.014	.866	.633	1.185	.368
CAPA	1.278	1.040	1.570	.019	1.450	1.116	1.883	.005

Source: Survey questionnaire, 2015

4.3.3. Hypothesis Testing & Discussions

The result reveals that there is a positive relationship between all explanatory variables; document screening and due diligences assessment(KYC), credit appraisal, loan approval, credit policy and procedures, monitoring and follow up and loan repayment performance of Development bank of Ethiopia, west region.

Of the total independent variables tested in this study under logistic analysis , document screening and due diligence (KYC), credit appraisal, credit policy and monitoring and follow up have found as significant variables that affect the loan repayment performance of DBE, West region.

This logistic equation can be used to predict the odds to pay loan. For instance, the odds to repay the loan increases for DSDD by 21% . This indicates that on average, an increase in quality of document screening and due diligence assessment (KYC) by can increase loan repayment performance of DBE, West region by 21%. Similarly, LAR and CAPA can increase the odds for repay by 18% and 27.8% respectively at 5% level of significance. This indicates that as the quality of loan approval review and credit appraisal increases the probability to pay the loan can increase. Similarly, an increase in credit policy and monitoring and follow up by one unit respectively lead to an increase the odds to loan repayment performance of DBE, West region by 26%.

In the next section the effect of each variable tested under this study is discussed and analyzed based on the theoretical predictions, prior empirical studies and hypothesis formulated for this study.

Document screening and due diligence assessment (KYC)

Information theory of credit stated that the amount of credit to firms and individuals would be larger if financial institutions could better predict the probability of loan repayment by the potential customers through due diligence assessment (KYC). According to this theory, positive relationship between bank's document screening and due diligence assessment and loan repayment performance is expected because, as banks more carefully asses their customers thoroughly prior to granting loan, the risk of loan default is low which directly leads to loan repayment increase. The prior empirical study suggested that there is positive relationship between due diligence assessment and loan repayment.

According to Derban, et al (2005), borrowers should be screened especially by banking institutions in form of credit assessment to reduce the risk of loan default. According to their argument, collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening as indicated by symmetric information theory. In this study, the logistic model result shows there is a positive relationship between due diligence assessment of DBE and repayment performance. Thus, from the result it can be conclude that as the quality of document screening and due diligence assessment increase, Development Bank of Ethiopia can enhance its loan repayment performance. Therefore, this result is consistent with the hypothesis formulated for the study of the study.

Credit appraisal

According to Rupp (2002), shows direct relationship between credit appraisal and loan performance. Credit appraisal assessment involves a series of steps; identifying and analyzing loss exposures through the appraisal technique, measuring loss exposures, selecting the technique or combination of techniques to be used to handle each exposure, implementing the techniques chosen and monitoring the decisions made and making appropriate changes. Thus, this conceptual frame concluded that there is positive relationship between credit appraisal and loan repayment. Consistent to prior study, in this study it is found that there is a statistical significant positive relationship between credit appraisal and loan repayment performance of Development bank of Ethiopia, west region.

The univariate logistic coefficient result of this study shows a significant positive relationship between credit appraisal assessment of Development bank of Ethiopia and its probability to loan repayment performance with p-value of 0.19. This indicates that DBE, west region needs to undertake more quality credit appraisal assessment to have relatively high loan repayment performance. Because, credit appraisal assessment involves detail technical analysis of the borrowers and basic assumptions of loan financing and repayment factors. Consistent with this finding, Mulondo (2011), also empirically found significant positive relationship between credit appraisal assessment and loan repayment performance of banks. Most empirical studies support this positive relationship between credit appraisal assessment and loan repayment performance for example, Dorothy (2014) and Mulondo (2011).

Loan approval review

An information asymmetry theory of credit indicates positive relationship between loan approval review and loan repayment performance. According to this theory, the more banks know about the credit history of prospective borrowers, the deeper credit approval assessment would be done in which it reduces risk of loan default. According to stiglitz (1981), information the credit refer to the amount of credit to firms and individuals would be larger if financial institutions could better predict the probability of repayment by their potential customers. According to theory of credit scoring and competitive pricing of default risk, people with high scores are offered credit on more favorable terms. People who default on their loans experience a decline in their scores and, therefore, lose access to credit on favorable terms. Thus, this theory suggests positive relationship between loan approval review and loan repayment review.

As it is suggested by credit scoring theory, in this study, loan approval review and loan repayment performance is positive but it has insignificant effect, because majority of the loan review activities done during due diligence assessment and credit appraisal assessment of credit assessment process. The loan approval is only to check the compliance against the policy set. This study under univariate logistic estimation result reveals that there is insignificant positive relationship between loan approval and probability to repayment performance with P- value of 0.303.

Credit Policy and Procedures

As it is suggested by prior empirical studies, in this study also, there is a positive relationship between credit policy and loan repayment performance.

According to Dorothy (2014), the credit control policy has also been noted to influence the loan repayment as it determines the criteria of selecting loans. This study result under univariate logistic estimation revealed that there is significant positive relationship between credit policy and probability of loan repayment performance with P- value of 0.001. Thus, the t-statistic and P-value of the estimation result shows that variable have statistically significant relationship, it can be conclude that the credit policy significantly explains the probability of loan repayment performance of Development bank of Ethiopia positively.

Prior empirical studies like Dorothy (2014), Greuning, et al (1999) and Gladys (2012) also supported positive relationship between credit policy and loan repayment. Therefore, the result of this study is also consistent with prior empirical studies.

Monitoring and Follow up

The power theory of credit emphasizes that financial institutions would be more willing to extend credit if, in case of default, they could easily enforce contracts by forcing repayment or seizing collateral. According to (Djankov, et al, 2005), when lenders can more easily force repayment, seize grab collateral or even gain control of the firm; they are more willing to extend credit. In this study, the regression coefficient estimation result reveals that there is significant positive relationship between monitoring and follow up and loan repayment performance with a univariate logistic P- value of 0.014. Thus, consistent to prior empirical studies, this study result shows that variables have statistically significant positive relationship. Therefore, it can be concluded that monitoring and follow up has significant positive effect on loan repayment performance of DBE. This is because as the frequency and quality of monitoring and follow up of lenders increase, borrowers will give emphasis to their loan payment prior to due date. Thus, strong monitoring and follow up expected from DBE to enhance its loan repayment performance since it has positive effect on loan repayment.

Prior empirical studies like Gladys (2012), Dorothy (2014) and Mulondo (2011) also reported positive relationship between monitoring and follow up and loan repayment.

4.4. Comparison of the test result with expectations

Table 4.6 below summarizes the comparison of the test result for Development bank of Ethiopia, west region with the expectations. Therefore, as the table shows the test result of the variables are consistent with the hypothesis formulated for the study.

Table 4.6: Comparison of the test result with expectations

Variables	Expected Relationship with Loan repayment	Test result for DBE
Document screening and due diligence assessment	+	**+(ITC)**
Credit appraisal	+	+Dorothy(2014) & CRT
Loan approval review	+	+
Credit policy	+	+
Monitoring and Follow up	+	+ Dorothy(2014)

4.5. Performance of Development Bank of Ethiopia West Region

The credit operation of the bank shows how much the bank is performing in terms of disbursing and collecting loans from period to period.

Table 4.7 Credit operations of DBE west region

	Operation periods (In '000 Birr)				
Description	2010/2011	2011/2012	2012/2013	2013/2014	March, 2015
Loan approval	113,963	170,101	372,541	469,349	1,753,115
Loan disbursement	51,190	122,418	243,483	377,095	830,576
Loan outstanding	264,866	420,304	475,266	804,945	1,651,311
Loan collection	65,497	62,565	83,003	77,345	51,875
NPL balance	176,655	147,870	91,861	115,526	173,455
NPL ratio	66.7%	35%	19%	14%	11%

Source: DBE annual credit operation report for each respective year.

The above table 4.6, revealed that after 2011/12 fiscal year there were radical increase in loans approval and disbursement, as a result loan outstanding balance was also increased. During the same period, loan collection was stayed stagnant inverse to loan approval and disbursement increased. The table also shows that the NPL ratio during 2010/11 and 2011/12 fiscal period were 66.7% and 35% respectively. Similarly, 19% and 14% NPL ratio were recorded during 2012/13 and 2013/14 fiscal period in credit operation of Development bank of Ethiopia, west region. Though the NPL ratio seems like decreasing, loan repayment or collection performance was remained stagnant through the five years. Though the percentage for NPL is huge, it seems decreasing because;

a) The amount of new loan approval and disbursement highly increased during the period which increased the total portifolio. Here, it leads to decrease the ratio of NPL as the denominator increased.
b) The loan classified as NPL, if it has past due for around one year. Unless otherwise it is not recorded as non performing loan though it has huge arrears balance.

What can be concluded here is that, though the loan approved and disbursed in the bank is increasing from time to time, there are borrowers who do not repay their loan successfully. This is due to lack of proper implementation of credit assessment factors analyzed in this affect loan repayment performance of the borrowers.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

This study aims at conducting an empirical study to examine the effect of credit assessment process on loan repayment performance a case study of Development Bank of Ethiopia, west region. The study used both primary data and secondary data. The primary data were collected through questionnaire from Development Bank of Ethiopia credit related staffs and customers. Furthermore, the secondary data were obtained from annual credit operation report of the bank for each perspective fiscal years from 2010/11 to March, 2015.

- The quality level of document screening & due diligence assessment of Development bank of Ethiopia, west region affects loan repayment performance positively, which supported by prior empirical studies and the hypothesis formulated for this study. Thus, from the result it can be concluded that loan repayment performance of Development Bank of Ethiopia, west region is more likely relied on the quality of document screening and due diligence assessment (KYC). This result is consistent to information theory of credit 'the more the lender assesses history of the borrowers, the less credit default probability'.
- Consistent with the argument of information theory of credit and credit rationing, the study found a significant positive relationship between credit appraisal and loan repayment performance of Development bank of Ethiopia, west region.
- Loan approval review of Development Bank of Ethiopia, west region has a positive relationship with its loan repayment. However, the effect of loan approval review is insignificant on probability of loan repayment performance of the bank. This is because as the bank increase quality of due diligence assessment and credit appraisal assessment done to the required level, the contribution of loan approval review on minimizing the risk of credit default is low. However, as due diligence and credit appraisal assessment quality increased the loan approval increases. This is indicates why positive relationship among those variables found in this study.
- Credit policy and procedures of Development Bank of Ethiopia have a positive effect on probability of loan repayment performance. The estimation result showed it

is statistically significant. This is because clear and appropriate credit policy leads to effective loan repayment, if properly implemented.

- Project monitoring and follow up found having strong statistically significant to affect loan repayment probability of the bank. It can be concluded that, as the frequency and quality of supervision increased, the probability of loan repayment increases.
- The result obtained from secondary data indicated that loan collection performance rate stay stagnant though the loan approval and disbursement were radically increasing from time to time. Similarly, the result also indicated that relatively large NPL ratio recorded each year which reveals that huge loan exists in arrears from total outstanding. This might be due to poor document screening & due diligence assessment, poor credit appraisal, lack of appropriate credit policy and lack of project monitoring and follow up culture and/or lack of knowledge about significant positive relationship between the variables like document screening & due diligence assessment, credit appraisal, monitoring & follow up, credit policy and explained variable (loan repayment).

Generally, the estimation result revealed that document screening & due diligence assessment, credit appraisal, credit policy and monitoring and follow up of Development Bank of Ethiopia, west region are the significant variables that explain the variations of loan repayment performance.

In contrast, though it has positive relationship with loan repayment, loan approval review of Development bank of Ethiopia west region has insignificant effect on its loan repayment performance.

5.2 Recommendations

Depending on the findings of the study, the researcher forwarded the following recommendations:

- In order to minimize the possible risk of loan default or to maximize loan repayment performance, Development Bank of Ethiopia should undertake quality document screening and due diligence through collecting detail information about back ground of the borrower to verify credit worthiness of the applicant.
- Strengthen its management information systems to produce up-to-date credit/loan repayment statements for borrowers and to enable early detection of potential default problems. Doing so will help the DBE, west region to aware its borrowers take the status of their loan before getting due.
- Better if the bank toughens its staff on developing mechanisms of effective loan repayment by providing different training, workshops and seminars related to credit operation.
- It is recommendable to provide enough awareness to its clients on the impact of credit default through short term training, semi-annual and annual meeting, visiting project site and preparing forum.
- Better to intensify its follow-up on borrowers to improve recovery of outstanding loan balances by preparing action plan in each quarter.
- It is recommendable increase the quality of credit appraisal by updating the research data's and parameters used for credit appraisal.
- It needs also assigning professional credit analyst and fixing the coefficients used in financial determination in order to avoid manipulation of ratios in determining loan and equity amount. The bank should determine how much debt the borrower can handle comfortably, his or her income streams, and any other obligations that might interfere with repayment through market and research development.
- It is better to revise credit policies and procedures from time to time based on trend analysis of challenges faced on loan repayment in actual practice by involving credit staffs in formulation and revision of credit policies. This will enables the bank to clearly identify the policy problems from the root and it gives better opportunity to design it wisely.

5.3 Suggestions for further studies

The researcher recommends further research on loan repayment in the following areas: -

This study conducted on internal factors affecting loan repayment performance of DBE, west region. Therefore, further study can be conducted on external micro and macro economic factors affecting loan repayment performance.

Micro finance institutions play an important role in the mobilization of credit for development of the country. The client specifications and profiles may be different and the operating conditions of the lending institution. Therefore, a study can be carried out to determine the impact of credit assessment process on loan repayment among microfinance institutions in Ethiopia.

A study on the influence of credit monitoring and follow up can be done to determine its influence on loan repayment. The influence of credit risk monitoring on loan repayment of Development Bank of Ethiopia will yield important information on why loan once advanced are challenge to repay.

Further research needs to be done to determine the influence of 5cs credit appraisal techniques on loan repayment.

Furthermore, the time period covered under this study especially for secondary data is only five years ranging from 2010/2011 to third quarter of 2015, due to unavailability of organized data for long period of time. Thus, future researchers could extend this period of time in examining the effect of credit assessment process on loan repayment of Development Bank of Ethiopia over long period of time and can produce more reliable and better result.

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APPENDICES

Annex-1: Questionnaire for staff

JIMMA University

Faculty of Business and Economics

Department of Management

Graduate Program (MA.) in Business Administration

Dear Sir/Madam

This questionnaire is prepared for partial fulfillment of MBA on "**effect of credit assessment process on loan repayment, a case study on Development Bank of Ethiopia, west region**". The quality of the result of this research is based on the accuracy of the information you provided. Eventually, I promise you, the information you will provide me is going to be used only for completion of the study and utmost care will be taken for its confidentiality.

I would be really grateful if you assist me in my research by answering the following questions. Indicate your response by putting a tick (✔) in the provided box

Thank you for your cooperation,

Section I. Demographic questions (Biography)

1. Gender Male ☐ Female ☐

2. Age group 20-30 years ☐ 31-40year s ☐ 41-50 years ☐

Above 51years ☐

3. What is your educational back ground?

Certificate ☐ diploma ☐ first degree ☐ Maters and above ☐

Has no formal education ☐

Section II. Credit assessment process and loan repayment performance

This section concerns credit assessment process used by the bank. Kindly, indicate your level of opinion on the following credit assessment process and loan repayment performance measures which are put as scale of:

1= strongly agree (SA)

2= agree (A)

3= neutral (N)

4= disagree (DA)

5= strongly disagree (SD)

1. Loan repayment performance

Loan repayment measures	yes (1)	no (0)
The existing credit assessment processes are appropriate for effective loan repayment.		
The bank takes immediate legal action in case loan default		
The screening criteria have encompassed the basic factors affecting loan repayment.		
The bank has strict and effective loan repayment policy.		
The bank gives enough grace period to start loan repayment		
The loan extended used for the intended purpose properly.		
Past credit history given due attention in granting loan		
Reliability of customers' source of equity properly assessed		

2. Document screening and due diligence assessment

5c are capacity, capital, collateral, condition and character

Document screening and due diligence assessment parameters	SA (1)	A (2)	N (3)	DA (4)	SD (5)
The 5Cs carefully assessed before granting loan.					
Document screening process is computerized program that helps credit officers in decision making.					
All customers provide fact information about their credit history and background honestly					
Document screening and due diligence assessments have done with the required quality.					
Due diligence assessment predicts the real loan repayment capacity.					

3. Credit appraisal assessment

Parameters	SA (1)	A (2)	N (3)	DA (4)	SD (5)
Credit appraisal techniques and parameters has accuracy in determining periodic loan repayment					
The projection of financial statements has reality assumptions to predict cash flows and repayment capacity of the project.					
Financial capacity of the applicant is strongly assessed in determining debt equity ratio					
Seasonality issues properly assessed before financing project					
implementation schedule set with appropriate priority of tasks					
Loan disbursement schedules are timely and based on activity breakdown.					
The required loan thoroughly determined and hence no anticipated financial shortfall					
The loan requested appraised on time					

4. Loan approval review

Measures	SA (1)	A (2)	N (3)	DA (4)	SD (5)
The approval team decision is free of internal/or external influence					
Necessary assessment undertaken by Approval process loan repayment enhancement					
LAT always ensure full compliance with bank credit policy					
The conditions and terms set by loan approval team strictly followed and fulfilled before loan disbursement.					
The LAT decision making process is just on time					

5. Credit policy and procedures

Measures	SA (1)	A (2)	N (3)	DA (4)	SD (5)
The existing credit policy provides suitable opportunity for effective loan repayment					
The credit policy invites all credit related officers, managers and customers to get sufficient training on credit related concepts					
The credit policies and guidelines disclosed to customers to make clear understanding about the credit facility, responsibility with loan repayment and other					
The credit policy in place makes it difficult for non qualifying applicants to get loans					
The credit policy in place is clear in practical implementation					

6. Loan Monitoring and follow up

Parameters	SA (1)	A (2)	N (3)	DA (4)	SD (5)
Frequent technical advice given to borrowers during implementation and operational activity of the project					
The bank undertakes follow up to check proper utilization of funds released for the intended purpose					
Strong awareness creation made before loan gets due					
Strong loan collection campaign made to keep loan repayment timely.					
The status of loan informed to respective customers periodically					

Section iii. Suggestion

1. Please state what strategy to be done to improve credit assessment process and loan repayment performance by Development Bank of Ethiopia, west region?

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Annex-2: Questionnaire for customers

JIMMA University

Faculty of Business and Economics

Department of Management

Graduate Program (MA.) in Business Administration

Dear Sir/Madam

This questionnaire is prepared for partial fulfillment of MBA on “**effect of credit assessment process on loan repayment, a case study on Development Bank of Ethiopia, west region**”. The quality of the result of this research is based on the accuracy of the information you provided. Eventually, I promise you, the information you will provide me is going to be used only for completion of the study and utmost care will be taken for its confidentiality.

I would be really grateful if you assist me in my research by answering the following questions. Indicate your response by putting a tick (✔) in the provided box

Thank you for your cooperation,

Section I. Demographic questions (Biography)

1. Gender Male ☐ Female ☐
2. Age group 20-30 years ☐ 31-40year s ☐ 41-50 years ☐

Above 51years ☐

3. What is your educational back ground?

Certificate ☐ diploma ☐ first degree ☐ers and above ☐

Has no formal education ☐

Section II. Credit assessment process and loan repayment performance

This section concerns credit assessment process used by the bank. Kindly indicate your level of opinion on the following credit assessment process and loan repayment performance measures which are put as scale of:

1= strongly agree (SA)

2= agree (A)

3= neutral (N)

4= disagree (DA)

5= strongly disagree (SD)

1. **Loan repayment performance**

Loan repayment measures	yes (1)	No (2)
The existing credit assessment processes used by the bank is appropriate for your effective loan repayment.		
The bank takes immediate legal action in case your loan being default		
The screening criteria used by the bank have encompassed the basic factors affecting loan repayment.		
The bank has strict and effective policy in enhancing loan repayment.		
The bank gives you enough grace period before starting loan repayment		
The loan you granted from the bank used for the intended purpose properly.		
Your past credit history given due attention in granting loan		
The reliability of your source of equity properly assessed		

2. Document screening and due diligence assessment

5c are capacity, capital, collateral, condition and character

Document screening and due diligence assessment parameters	SA (1)	A (2)	N (3)	DA (4)	SD (5)
Your 5cs carefully assessed before granting loan.					
Document screening process is computerized program that helps credit officers in decision making.					
You provide fact information about your credit history and background to the bank honestly					
As your observation, document screening and due diligence assessments done by the bank has quality in determining your credit worthiness.					
As your observation, due diligence assessment predicts your real loan repayment capacity.					

3. Credit appraisal assessment

Parameters	SA (1)	A (2)	N (3)	DA (4)	SD (5)
As your observation, credit appraisal techniques and parameters used by the bank has accuracy in determining periodic loan repayment.					
The projection of financial statements used by the bank has reality assumptions to predict cash flows and repayment capacity of the project.					
Your financial capacity is strongly assessed in determining debt equity ratio					
As your observation, seasonality issues properly assessed by the bank before financing project					
As your understanding, the bank set appropriate implementation schedule of the project with priority of tasks					
As your observation, loan disbursement schedule of the bank is timely and based on activity breakdown.					
Your loan request thoroughly determined and hence no financial shortfall encountered					
Your loan request is appraised on time					

4. Loan approval review

Measures	SA (1)	A (2)	N (3)	DA (4)	SD (5)
As your observation during your loan processing, the approval team decision is free of internal/or external influence					
As your observation, necessary assessment undertaken by approval review committee for loan repayment enhancement					
As your observation during your loan processing, the approval decision always ensure full compliance with the bank credit policy					
During your loan processing, you are strictly enforced to fulfilled the conditions and terms set by loan approval team before loan disbursement					
The approval decision making process is just on time					

5. Credit policy and procedures

Measures	SA (1)	A (2)	N (3)	DA (4)	SD (5)
The existing credit policy provides suitable opportunity for effective loan repayment					
As far as your experience in the bank, the credit policy invites you and credit related officers, managers to get sufficient training on credit related concepts					
The credit policies and guidelines disclosed for your consumption to make clear understanding about the credit facility, responsibility with loan repayment and others					
As your opinion, the credit policy in the bank makes it difficult for non qualifying applicants to get loans					
As your opinion, the credit policy in place is clear in practical implementation					

6. Loan Monitoring and follow up

Parameters	SA (1)	A (2)	N (3)	DA (4)	SD (5)
The bank given you frequent technical advice during implementation and operational activity of the project for which you borrowed loan.					
The bank undertakes follow up to check proper utilization of funds released for the intended purpose					
The bank gives you strong awareness before your loan gets due					
The bank undertakes strong loan collection campaign to keep your loan repayment timely.					
The bank informs the status of your loan periodically					

Section iii. Suggestion

Please state what strategy to be done to improve credit assessment process and loan repayment performance by Development Bank of Ethiopia, west region?

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