ASSESSMENT OF THE PERFORMANCE OF PROJECT FINANCING: A STUDY ON SELECTED PRIVATE COMMERCIAL BANKS IN ETHIOPIA

A Thesis Submitted to the School of Graduate Studies of St. Mary's University in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Business Administration (MBA)

BY

GETACHEW ARGAW ANTERO

Under the Guidance of

AREGA SEYOUM (PhD)

ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MBA PROGRAM

June, 2016
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APPROVED BY BOARD OF EXAMINERS

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Advisor	**Signature**
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External Examiner	**Signature**
_____	_____
Internal Examiner	**Signature**

DECLARATION

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

_____ _____

Name Signature

St. Mary's University, Addis Ababa June, 2016

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

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Advisor Signature

St. Mary's University, Addis Ababa June, 2016

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Abbreviations

- AB - Abay Bank S.C
- AdIB - Addis International Bank S.C
- AIB - Awash International Bank S.C
- BCA - Basel Capital Accord
- BIB - Bunna International Bank S.C
- BOA - Bank of Abyssinia
- BrBI - Birhan International Bank S.C
- CBE - Commercial Bank of Ethiopia
- CoBO - Cooperative Bank of Oromia
- DAB - Dashen Bank S.C
- DGB - Debub Global Bank S.C
- EB - Enat Bank S.C
- LGD - Loss Given Default
- LIB - Lion International Bank S.C
- NBE - National Bank of Ethiopia
- NCA -National Credit Act
- NIB - Nib International Bank S.C
- NPLs - Non Performing Loans
- OIB - Oromia International Bank S.C
- PD - Probability of Default
- SPV - Special Purpose Vehicle
- WEB - Wegagen Bank S.C
- ZB - Zemen Bank S.C

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Abstract

The study was focused on the Assessment of the Performance of Project Financing in Private Commercial Banks in Ethiopia. Cross sectional survey design was employed. Using a case study involving 108 respondents comprising of all the technical staff from Six Private Commercial Banks in Ethiopia, namely, DAB, AIB, BOA, WEB, UNB and NIB, a descriptive and correlation analysis was used to investigate the relationship between loan appraisal, financial viability, technical feasibility, credit rating, credit follow-up, risk transfer, risk diversification, risk retention and loan performance. The findings indicated that loan appraisal, credit rating, financial viability, technical feasibility; credit risk management had a positive and significant relationship with loan performance or in other word there exist significant negative correlation between the factors and NPLs of project loans. Finally, it is recommended to the Private Commercial Banks in Ethiopia to give a due emphasis on project Loan Appraisals with different approaches from traditional financing and take an appropriate credit follow-up procedures after disbursement of the project loan since failing to do so will be adverse on performance. Similarly, it is also recommended that private banks should minimize risks on this newly entered financing through employing various credit risk management techniques, including transfer, diversification and technical retention.

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CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

A healthy and vibrant economy requires a financial system that helps in effective and efficient allocation and utilization of scarce resources. The banking sector is the largest component of the financial system, and its roles impinge on all aspects of the economy (Falkena et al, 2004).

Banks are financial institutions that accept deposit and make loans. Commercial Banks in Ethiopia extend credit (loan) to different types of borrower for various purposes. For most customers, bank credit is the primary source of available debt financing and for banks; good loans are the most profitable assets (Frederic S. Mishkin, 2004, pp 8-9).

In Ethiopian context, the financial system is dominated by banking industry, and yet, it is amongst the major under-banked economy in the world. Banks performances are governed largely by macroeconomic performances than competitive parameters as high (low) performances coincided with good (bad) macroeconomic conditions. The Ethiopian banking industry can be characterized as highly profitable, concentrated and moderately competitive. In most cases, the dominant bank (Commercial Bank of Ethiopia) still seizes quasi-monopoly power. In terms of contestability, the Ethiopian banking industry can be characterized as incontestable as entry in the industry is difficult, due to legal, technological and economic factors. Competition in terms of price is relatively weak in the Ethiopian banking industry. There is monopolistic competition among banks in terms of prices. In a nut shell, banks in the Ethiopian case are competing in terms of service quality and efficiency (including use of technological advances), branch network expansions, advertising and prices, put in the order of their significance. (Zerayehu Sime et al, 2013)

Banks play a key role in improving economic efficiency by channeling funds from resource surplus unit to those with better productive investment opportunities. Banks also play key role in trade and payment system by significantly reducing transaction costs and increasing convenience (NCA, 2006). In less monetized countries, like Ethiopia, whilst financial sector is dominated by banking industry, effective and efficient functioning of the latter has significant role in

accelerating economic growth. To enhance the role of banks in an economy, competition is an important driving force; without competition, it is improbable to bring about efficiency and foster financial sector development. In other words, insufficient competition may result in substantial social losses on account of higher price, higher transaction cost, lower credit supply, lack of innovation and poor service quality.

In Ethiopian context, one cannot confidently argue that there has been rigorous banking competition. During the pre-1975 imperial era, there had few banks (dominated by foreign ownership) and the absorptive capacity of the economy was too low even to accommodate moderate competition. In the Derge regime (1975-1991), private banks were fully nationalized and left no room for competition. After the down fall of the Derge regime in 1991, private banks were again allowed to operate consistent with the ideology of market oriented economic policy. Accordingly, new private banks were established and their role and position in the industry have been flourished from time to time. (Alemayehu, 1986).

Following the liberalization, private commercial banks are, among others providing various types of loan facilities to their customers. The National Bank of Ethiopia also classifies these loan facilities in to different sectors based on the purpose, the tenure of the loan and terms and conditions stipulated in the normal contractual obligations signed between the banks and the borrowers. Even though the private commercial banks were primarily facilitating short term and working capital loans to their borrowers, it is now more common for them to lend for a project loan financing in the country. (NBE Bill Purchased Directive No.MFA/NBEBILLS/002/2013)

Project Financing discipline includes understanding the rationale for project financing, how to prepare the financial plan, assess the risks, design the financing mix, and raise the funds. In addition, one must understand the cogent analyses of why some project financing plans have succeeded while others have failed. (DBE Credit Policy, 2009)

Project finance is finance for a particular project, such as a mine, toll road, railway, pipeline, power station, ship, hotel or other profit oriented ventures, which is repaid from the cash-flow of that project. Project finance is different from traditional forms of finance because the financier principally looks to the assets and revenue of the project in order to secure and service the loan. In contrast to an ordinary borrowing situation, in a project financing the financier usually has

little or no recourse to the non-project assets of the borrower or the sponsors of the project. In this situation, the credit risk associated with the borrower is not as important as in an ordinary loan transaction; what is most important is the identification, analysis, allocation and management of every risk associated with the project. In a no recourse or limited recourse project financing, the risks for a financier are great. Since the loan can only be repaid when the project is operational, if a major part of the project fails, the financiers are likely to lose a substantial amount of money. The assets that remain are usually highly specialized and possibly in a remote location. If saleable, they may have little value outside the project. Therefore, it is not surprising that financiers, and their advisers, go to substantial efforts to ensure that the risks associated with the project are reduced or eliminated as far as possible. It is also not surprising that because of the risks involved, the cost of such finance is generally higher and it is more time consuming for such finance to be provided. (DBE Credit Policy, 2004)

1.2. Statement of the Problem

Stability in banking industry is a necessity and some market power is imperative to be best positioned to resist shocks to the balance sheet (Northcott, 2004). Currently the banking business is so sensitive because more of their income (revenue) will be generated from credit (loan) given to their customers (Jeoitta Colquitt. 2007). This credit creation process exposes the banks to high credit risk which leads to loss. Without effective credit risk management good bank performance or profit will be unthinkable.

Monetary and Banking proclamation No.83/1994 and the Licensing and Supervision of Banking Business No.84/1994 laid down the legal basis for participation of the private sector in banking business, which had been completely prohibited during the Derge regime. These private commercial banks were intended, among other purposes, to provide short term working capital loans to the financial market.

Despite the initial intention, however, private commercial banks are now granting corporate long term loans and project financing in addition to short term working capital. However, this kind of financing is different from the ordinary working capital loan financing both in scope, and management methods. It requires a different approach than the ordinary kind of working capital loan financing.

It was only through the state owned Banks that project financing was principally undertaken in the country. Development Bank of Ethiopia was the prime advocates in this regard. However, since DBE's credit policy, is now purely aligned with financing projects in line with government priority areas, it is now concentrated its loan portfolio to Commercial Agriculture, Agro-processing, manufacturing and extractive industries only. So the other project financings are left to the rest of market participants, including the CBE and other private commercial banks. The DBE, however, was facing tremendous challenges in sustaining the quality of the loans granted for several years, though currently a remarkable improvement is observed after the Bank undertakes both a strategic as well as a structural change towards the overall lending system and policy (DBE, annual reports, 2006/07-2014/15).

In addition to this, due to increase in competition as a result of significant increase in number of both private and public Banks, mandatory compliance to the National Banks Directives which necessitated diversification of the loan portfolios and in an intention to participate and assist in the overall development of the country in general and capital investment projects in particular, nearly all private commercial banks are now involved in facilitating loans to small to medium and large scale projects. (NBE's Directive No.SBB/43/2008)

In spite of the fact, major problems are being observed in different private commercial banks in relation to the project financing and management, as reviewed from the annual and internal reports of banks and preliminary survey conducted by the researcher at NIB International Bank. These are described in wide ranging features. These include, refinancing the project for second and several times during grace period and before commencing operation, delay in implementation of the project period, difficulties in realization of the proposed project output and most importantly significant non performing loan records. These problems are observed by the researcher through direct discussion with Bank officials, credit customers and promoters of projects and as an employee of the credit appraisal department to one of the private commercial bank in Ethiopia. (Observation by the researcher).

The project failure attributed to whatever source, it will increase the sunk cost of the country since fixed investments of the projects are specific to intended purpose and difficult to liquidate or require high switching cost. Moreover, it depletes the fund available for loan that the bank

could finance other projects that may have significant importance for economic growth of the country. (Admasu Legesse, 2013) Since the project loans are relatively a recent phenomenon in private commercial banks, no study is so far conducted that assess the project loan financing practices and its challenges in commercial banks of Ethiopia, particularly in private commercial banks. However, various research studies have been conducted on the challenges and prospects of credit risk management in general in Private Commercial Banks of Ethiopia.

1.3. Research Questions

The intent of this paper is to answer the following questions;

1. What type of relationship is observed between the appraisal process, as illustrated by basic appraisals, financial appraisals, technical feasibility and credit risk rating techniques, and the performance of project loan financing in the Ethiopian private commercial Banks?

2. What type of relationship is existed between the credit follow-up and performance of project financing in Ethiopian Private Commercial Banks?

3. What type of relationship is observed between the credit risk management techniques i.e. risk transfer, diversification and retention and performance of project financing in Ethiopian Private Commercial Banks?

1.4. Research Objectives

1.4.1. General Objective

The general objective of this study is to assess the Performance of Project Loan Financing in Private Commercial Banks in Ethiopia.

1.4.2. Specific Objectives

The specific objectives of the study are;

- To assess the relationship between credit processing, analysis and appraisal of the project and the performance of project financing in the Private Commercial Banks of Ethiopia. In doing so, basic appraisals, impact of assessing 5C's (Character, Capacity, Capital,

Condition and Collateral) and other background information of the borrowers are assessed.

- The research is also intended to see the relationship between financial and technical feasibility with the performance of project financing and assess the impact of credit rating on NPLs.
- To assess the relationship between the project loan follow-up and monitoring practices and the performance of the project financing in the private commercial banks.
- To view the relationship between credit risk management techniques of project financing, as explained in terms of risk transfer, diversification and retention in the private commercial banks and its impact on the credit performance.

1.5. Significance of the Study

This study is expected to assist existing as well as new private commercial banks, to be established in the future, to perform effective lending practices of Project loans and develop workable guidelines. So, the paper will play its role in minimizing the risks of nonperforming loans in the banks and ultimately improve Performance of Private Commercial Banks in Ethiopia. Moreover, the paper also adds knowledge for credit appraisal, credit follow up and credit risk officials by identifying the solutions towards project loan financing and management problems after wards.

Besides, this study will help to enrich literatures on the subject matter. This is mainly because there is no as such comprehensive study that was made on the practical challenges and prospects of new project loan financing in the Ethiopian Private Commercial Banks.

1.6. Scope of the Study

Project financing is a broader concept in principle. It includes big public infrastructure projects, social projects intended in improving lively hoods and profit oriented commercial projects. It is also understood that projects can be in the form of initial start up, expansion and renovations. This paper is however delimited to the commercial projects which are financed in the discretion of the Ethiopian Commercial Banks with a profit target. For the research purpose only the start up or new project financing are considered and no expansion as well as renovation project financing are taken as a sample.

The study is also concerned with medium to large scale projects to the extent of the single borrower limit exposures of the selected private banks. Private Banks are not allowed to finance more than 25% of their capital and reserve amount for a single borrower. (NBE Directive No.SBB/53/2012)

1.7. Limitations of the Study

It would have been the researcher interest to evaluate and assess all the private commercial banks in Ethiopia. However, six out of the sixteen private commercial banks are included in the study. There is always a constraint in finance as well as time. It has been tried to select most representative banks and in fact those with the earliest establishment and with higher loan portfolio are selected for researcher's analysis.

It was also difficult to get specific loan exposures to projects in some Private Banks. The researcher tried to use indirect approach to estimate the project loan exposures of these Private Commercial Banks and hence there might exist a marginal deviation in accuracy of data.

The empirical review is also made only on DBE's project loan practice and past performance report based on annual reports, relevant books, articles and journals. Since the issue of Project Financing in Private Commercial Banks is new, it was not able to obtain previous studies made on the subject matter.

1.8. Organization of the Study

The study is organized in to five chapters;

Chapter one: Introduction

The first chapter addresses the general statement of the research problem and specific research questions to be answered, the aim and objectives, coverage and scope of the study. The chapter also included back ground of the study and limitations faced during the study.

Chapter Two: Review of Related Literature

Under this chapter both theoretical and empirical reviews have been undertaken. The chapter discusses the historical establishment of Private Commercial Banks in Ethiopia, the Performance

of Private Commercial Banks since the liberalization and other related issues under the theoretical reviews. The chapter also tries to review some empirical information.

Chapter 3: Research Methods

This chapter presents the research design and data collection techniques employed for both qualitative and quantitative information. The sampling type, the size of population, and the data processing system are mentioned in this chapter.

Chapter 4: Data presentation and Analysis

This chapter presents the data in accordance with the methodology laid down, analyses and discusses the findings of the research and interpreted. The results of the interviews as well as the focus group discussion in comparison to the literatures are discussed at this chapter.

Chapter Five: Summary, Conclusion and Recommendation

This chapter summarizes the overall findings. The chapter also draws the conclusion of the research results which is in substantive to the presented evidences. And finally recommendations are made.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. Introduction

In this chapter a critical review of related literature is carried out. The chapter discusses both the theoretical and empirical reviews in accordance with the objectives and factors considered in the study.

Since the information between banks (as lenders) and borrowers is asymmetric, lending is a risky activity. Banks need to monitor their borrowers to ensure the credit extended will be reimbursed in accordance with the pre-agreed terms and conditions.

The issue of problem loan remains crucial for economies of the world countries. For instance, according to the Koizumi Cabinet, «One of the underlying causes of Japan's prolonged economic stagnation is the non-performing or bad loan problem». Park (2002), states in a study that according to the Financial Agency Services, the total sum of bad loans extinguished from the book for the entire banking industry of Japan since 1992 amounted to nearly 69 trillion yen, but the new bad loans cropped up faster than the ones retired.

These figures show that problem loans have become a serious concern and finding a solution is becoming serious. The problem is not restricted to only Japan; it concerns the whole world. According to the McKinsey Quarterly, in 2002, European banks were owed $900 billion of non-performing credits. The daily also noted that dealing with bad loans has become so worrying for banks that some of them have discerned the seeds for a new business. Some banks and other companies are now specializing in debt recovery. If banks, which are supposed to be debt specialists, start outsourcing the recovery of their bad debt, depositors may be frightened and doubtful about the safety of their deposits. In 2000, the weighted average cost of bad debt as share of total profits in Europe was 48%.

Banks are also of much exposed to credit risks while financing new investment ventures as a project. Project finance transactions typically involve the direct financing of agricultural, service, infrastructural, industrial projects and similar other investment ventures. If not managed properly, the business, environmental and social risks can result in disrupting or halting project operations and lead to legal complications and reputational impacts that threaten the overall success of the project and the bank as well. Because anticipated project

cash flows typically generate the necessary resources to repay the loan, any disruption to the project itself, regardless of the financial standing of the Banks involved, poses a direct financial risk to the financial institution or particularly to the bank.

2.2. History of Private Commercial Banks in Ethiopia

History of using modern money in Ethiopia can be traced back to more than 2000 years (Pankhrust in Belay, 1990). This had flourished in what is called the Axumite era which can stretch from 1000BC to around 975 AD. Leaving that long history aside, modern banking in Ethiopia started in 1905 with the establishment of Abysinian Bank based on a 50 years agreement with the Anglo-Egyptian National Bank. In 1908 a new development bank (named Societe Nationale d'Ethiope Pour le Development de l' Agriculture et du Commerce) and two other foreign banks (Banque de l'Indochine and the Compagnie de l' Afrique Oreintale) were also established (Pankhrust (1968) cited in Befekadu, 1995). These banks were criticized for being wholly foreign owned. In 1931 the Ethiopian government purchased the Abysinian Bank, which was the dominant bank, and renamed it the 'Bank of Ethiopia' – the first nationally owned bank on African continent (Belay, 1990: 83; Befekadu, 1995: 234).

During the five-years of Italian occupation there was an expansion of banking activity. In particular the Italian banks were active. After independence from Italy's brief occupation (of 1933-1941) where the role of British was paramount owing to its strategic consideration in World War II, Barclay's bank had established and was in business in Ethiopia from 1941 to 1943 (See Belay 1990; Befekadu, 1995). Following this, in 1943, the Ethiopian government established the 'State Bank of Ethiopia'. The establishment of this Bank by Ethiopia was a painful process since Britain was against it (See Befekadu (1995) for an interesting neo-colonial story). This bank was operating both as commercial and central bank until 1963 when it was dissolved into today's National Bank of Ethiopia (the central bank, re established in 1976) and 'The Commercial Bank of Ethiopia', CBE henceforth. After this period many other banks were established.

All privately owned financial institutions including three commercial banks, thirteen insurance companies and two non-bank financial intermediaries were nationalized on 1 January 1975. The nationalized banks were reorganized and one commercial bank (the

Commercial Bank of Ethiopia), a National Bank (recreated in 1976), two specialized banks (the Agricultural and Industrial Bank – renamed recently as the Development Bank of Ethiopia; and a Housing and Saving Bank – renamed recently as the Construction and Business Bank) as well as one insurance company – Ethiopian Insurance Company were formed. Following the regime change in 1991 and the liberalization policy in 1992, these financial institutions were reorganized to work on market-oriented policy framework. Besides, new privately owned financial institutions were also allowed to work along the publicly owned ones.

Proclamation No. 84/1994 that allows the private sector (owners have to be Ethiopian nationals, however) to engage in the banking and insurance businesses marks the beginning of a new era in Ethiopia's financial sector. Following this proclamation the country witnessed a proliferation of private banking and insurance companies. Currently, there are 16 new private banks (with more than 700 branches) in operation (NBE 2013, quarterly bulletin). These private banks and their establishment year are presented in the following table;

Table 1 List of Private Commercial Banks in Ethiopia

No.	Name of the Private Banks	Year of Establishment
1.	Awash International Bank S.C.	1994
2.	Bank of Abyssinia S.C.	1996
3.	Dashen Bank S.C.	2003
4.	Wegagaen Bank S.C.	1997
5.	United Bank S.C.	1998
6.	Nib International Bank S.C.	1999
7.	Cooperative Bank of Oromia S.C.	2005
8.	Lion International Bank S.C.	2006
9.	Oromia International Bank S.C.	2008

10.	Zemen Bank S.C.	2009
11.	Bunna International Bank S.C.	2009
12.	Berhan International Bank S.C.	2010
13.	Abay Bank S.C.	2010
14.	Addis International Bank S.C.	2011
15.	Debub Global Bank S.C.	2012
16.	Enat Bank S.C.	2013

Source: NBE Annual Report, 2011/12

Despite the proliferation of such privately owned companies, their relative share is still extremely small. The dominant position in terms of saving mobilization is held by the public sector in general and the CBE in particular. These banks in particular account for about a quarter of the total banking capital in the country. This took place in a matter of 15 years. In the past 15 years more than fifteen private commercial banks have been established and their market share has grown substantially.

During this period, total assets, loans and deposits of the banking system increased by an average annual growth rate of about 20 percent each.

In sum, the private banks are catching up relatively faster with the public banks in almost all activities of banking. The disaggregation of the disbursed credit by institutional category also shows the increasing role of the private sector that can chiefly be attributed to the ongoing liberalization. The general trend is that private banks are catching up quickly with the public ones. Clearly the trend of the existing data shows that the share of the private banks both in deposit mobilization and lending could increase significantly in the years ahead.

2.3. Definition, Characteristics and Advantages of Project Finance

2.3.1. Evolution and Definition of Project Finance

Project financing is largely an exercise in the equitable allocation of a project's risks between the various stakeholders of the project. Indeed, the genesis of the financing technique can be traced

back to this principle. Roman and Greek merchants used project financing techniques in order to share the risks inherent to maritime trading. A loan would be advanced to a shipping merchant on the agreement that such loan would be repaid only through the sale of cargo brought back by the voyage (i.e. the financing would be repaid by the 'internally generated cash flows of the project', to use modern project financing terminology).

The term project finance refers to the financing of an economic unit by banks in which a lender looks initially to the cash flow and earnings of that economic unit as a source of funds from which a loan will be repaid and to the asset of economic unit as collateral for the loan (Nevitt, 1989)

In accordance with the economic literature and professional practice, the Basle Capital Accord (2006, p. 53) defines project finance as a method of funding in which the lender looks primarily to the revenues generated by a single project, both as the source of repayment and as security for the exposure. The lender is usually paid solely or almost exclusively out of the money generated by the contracts for the facility's output. The borrower is usually a special purpose vehicle that is not permitted to perform any function other than developing, owning, and operating the project.

The terms 'Project Finance' and 'Limited Recourse Finance' are typically used interchangeably and should be viewed as one and the same. Indeed, it is debatable the extent to which a financing where the Lenders have significant collateral with (or other form of contractual remedy against) the project shareholders of the borrower can be truly regarded as a project financing. The 'limited' recourse that financiers have to a project's shareholders in a true project financing is a major motivation for corporate adopting this approach to the investment.

Project finance has proven to be a useful financing technique throughout the world and across many industry sectors (Buljevich & Park, 1999; Esty, 2002, 2003; Fabozzi & Nevitt, 2000; Gatti, 2008). As argued before, project finance is an innovative model of financing projects. This leads to emphasize the unique attributes of project finance.

2.3.2. Characteristics of Project Finance

According to Buljevich & Park, 1999 the unique attributes of project financing can be summarized by the following points:

a. Cash flows of the project must be legally isolated by other activities (ring-fence). It usually is, but not necessarily, realized through the establishment of a corporate vehicle (special purpose vehicle-SPV) to isolate assets in a separate entity;
b. Financing decisions are based on the cash flows that the project is expected to generate. The project is financed as a stand-alone entity rather than as part of a corporate balance sheet;
c. Expected cash flows must be sufficient to meet debt service (appropriate cover ratios are identified);
d. The risks of the project, that are reflected in a more or less variability of costs and revenues of the project, must be identified, analyzed, evaluated, and distributed among various parties involved in the project. The risk sharing should be realized through a complex system of contracts which reflects a process of negotiation between different stakeholders.
e. Projects usually have two main distinct phases (construction and operation) characterized by different risks and cash flows structures.

As discussed by Esty, 2002, the general characteristics of project financing can also be described by the following nine terms;

Capital-intensive: Project financings tend to be large-scale projects that require a great deal of debt and equity capital, from Tens of millions to billions of dollars. Infrastructure and other big investment projects tend to fill this category.

Highly leveraged: These transactions tend to be highly leveraged with debt accounting for usually 65% to 80% of capital in relatively normal cases.

Long term: The tenor for project financings can easily reach 10 to 20 years.

Independent entity with a finite life: Similar to the ancient voyage-to-voyage financings, contemporary project financings frequently rely on a newly established legal entity, known as the project company, which has the sole purpose of executing the project and which has a finite life "so it cannot outlive its original purpose." In many cases the clearly defined conclusion of the project is the transfer of the project assets.

Non-recourse or limited recourse financing: The project company is the borrower. Since these newly formed entities do not have their own credit or operating histories, it is necessary for

lenders to focus on the specific project's cash flows. That is, "the financing is not primarily dependent on the credit support of the sponsors or the value of the physical assets involved." Thus, it takes an entirely different credit evaluation or investment decision process to determine the potential risks and rewards of a project financing as opposed to a corporate financing. In the former, lenders "place a substantial degree of reliance on the performance of the project itself. As a result, they will concern themselves closely with the feasibility of the project and its sensitivity to the impact of potentially adverse factors." Lenders must work with engineers to determine the technical and economic feasibility of the project.

Controlled dividend policy: To support a borrower without a credit history in a highly-leveraged project with significant debt service obligations, lenders demand receiving cash flows from the project as they are generated. This aspect of project finance recalls the Devon silver mine example, where the merchant bank had complete access to the mine's output for one year. In more modern major corporate finance parlance, the project has a strictly controlled dividend policy, though there are exceptions because the dividends are subordinated to the loan payments. The project's income goes to servicing the debt, covering operating expenses and generating a return on the investors' equity. This arrangement is usually contractually binding. Thus, the reinvestment decision is removed from management's hands.

Many participants: These transactions frequently demand the participation of numerous participants. It is not rare to find over ten parties playing major roles in implementing the project. The different roles played by participants are described in the section below.

Allocated risk: Because many risks are present in such transactions, often the crucial element required to make the project go forward is the proper allocation of risk. This allocation is achieved and codified in the contractual arrangements between the project company and the other participants. The goal of this process is to match risks and corresponding returns to the parties most capable of successfully managing them. For example, fixed-price, turnkey contracts for construction which typically include severe penalties for delays put the construction risk on the contractor instead on the Project Company or lenders.

Costly: Raising capital through project finance is generally more costly than through typical corporate finance avenues. The greater need for information, monitoring and contractual agreements increases the transaction costs. Furthermore, the highly-specific nature of the financial structures also entails higher costs and can reduce the liquidity of the project's debt.

Margins for project financings also often include premiums for country and political risks since so many of the projects are in relatively high risk countries. Or the cost of political risk insurance is factored into overall costs.

2.4. Project finance vs. other types of bank finance

Another means of understanding project finance is to relate it to corporate finance and other types of finance. Kensinger and Martin (2009) draw this comparison, generally when a corporation chooses to undertake an investment project, cash flows from existing activities fund the newcomer; and management has the option to roll over the project's capital into still newer ventures within the company later on without submitting them to the discipline of the capital market.

With project financing, by contrast, the assets and cash flows associated with each project are accounted for separately. Funding for the new project is negotiated from outside sources, and creditors have recourse only to the assets and cash flows of a specific project. As the project runs its course, furthermore, the capital is returned to the investors, and they decide how to reinvest it. Most actual projects probably fall somewhere between the two theoretical definitions

When evaluating a project, however, it is useful to think of it falling somewhere along a Corporate Finance-Project Finance Continuum.

Table 2 Difference between project finance and other types of financing

Dimension	**Normal corporate finance**	**Others (Corporate finance)**
Financing vehicle	Multi-purpose organization	Single-purpose entity
Type of capital	Permanent - an indefinite time horizon for equity	Finite - time horizon matches life of project
Dividend policy and reinvestment decisions	Corporate management makes decisions autonomous from investors and creditors	Fixed dividend policy - immediate payout; no reinvestment allowed
Capital investment decisions	Opaque to creditors	Highly transparent to creditors
Financial structures	Easily duplicated; common forms	Highly-tailored structures which cannot generally be re-used
Transaction costs for	Low costs due to competition from	Relatively higher costs due to

financing	providers, reutilized mechanisms and short turnaround time	documentation and longer gestation period
Size of financings	Flexible	Might require critical mass to cover high transaction costs
Basis for credit evaluation	Overall financial health of corporate entity; focus on balance sheet and cash flow	Technical and economic feasibility; focus on project's assets, cash flow and contractual arrangements
Cost of capital	Relatively lower	Relatively higher
Investor/lender base	Typically broader participation; deep secondary markets	Typically smaller group; limited secondary markets

Source: Kensinger and Martin (2009)

2.5. Project Financing vs. Working Capital Finance

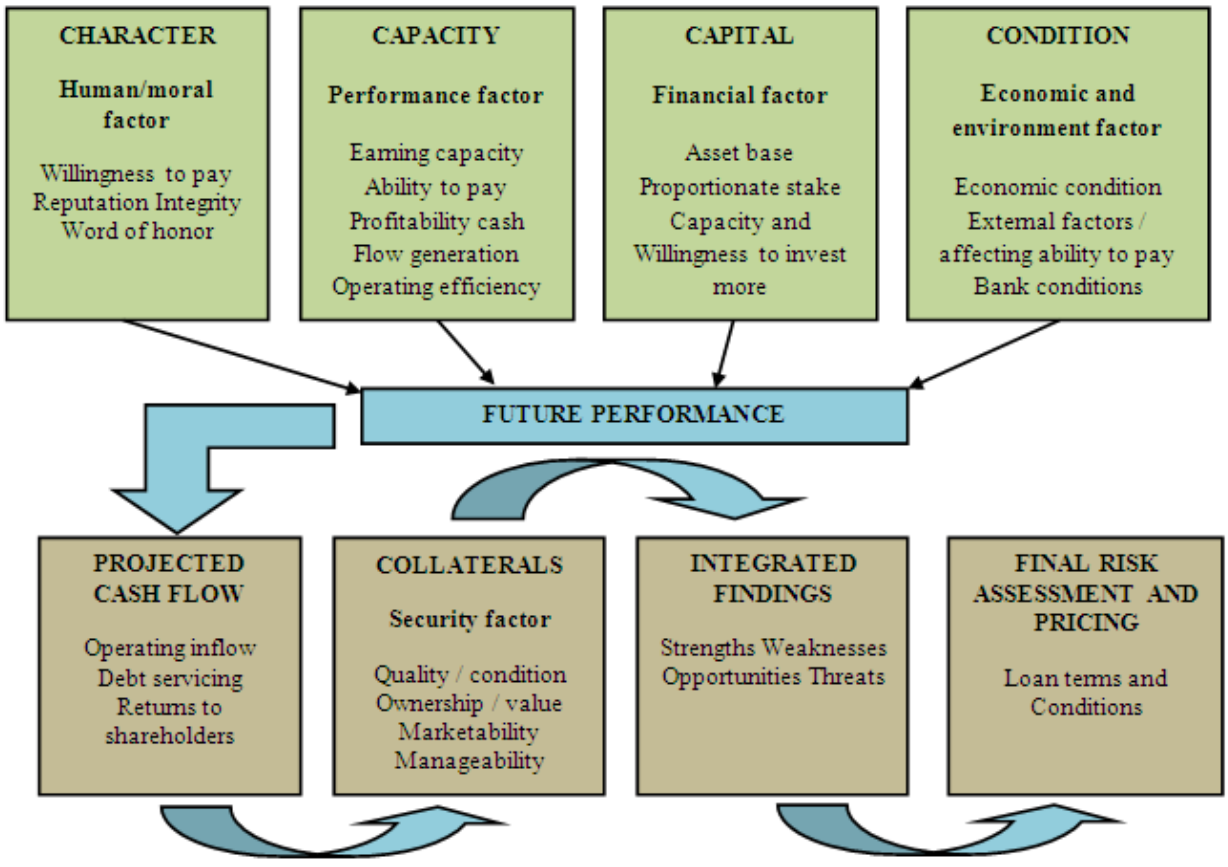
The term working capital has several meanings in business and economic development finance. In accounting and financial statement analysis, working capital is defined as the firm's short-term or current assets and current liabilities. Net working capital represents the excess of current assets over current liabilities and is an indicator of the firm's ability to meet its short-term financial obligations (Brealey & Myers, 2002). From a financing perspective, working capital refers to the firm's investment in two types of assets. In one instance, working capital means a business's investment in short-term assets needed to operate over a normal business cycle. This meaning corresponds to the required investment in cash, accounts receivable, inventory, and other items listed as current assets on the firm's balance sheet.

In other words, unlike project finance, which is long term and fixed investment by nature, working capital refers to the funds needed by a business to conduct its daily operations, such as payment of wages, purchase of raw material, covering overhead costs and offering credit services. Working capital can be subdivided into two areas: regular working capital that provides a steady base for overall business objectives; and short-term working capital used to facilitate the day-to-day business operations. Sources of finance for working capital include bank loans,

retained earnings, credit from suppliers, long-term loans from financial institutions, or proceeds from sale of assets.

In this context, working capital financing concerns how a firm finances its current assets. A second broader meaning of working capital is the company's overall non-fixed asset investments. Businesses often need to finance activities that do not involve assets measured on the balance sheet. For example, a firm may need funds to redesign its products or formulate a new marketing strategy, activities that require funds to hire personnel rather than acquiring accounting assets. When the returns for these "soft costs" investments are not immediate but rather are reaped over time through increased sales or profits, then the company needs to finance them. Thus, working capital can represent a broader view of a firm's capital needs that includes both current assets and other non-fixed asset investments related to its operations. (Brealey & Myers, 2002)

Figure 1 Basic factors of credit in traditional financing



Source: Brealey & Myers, (2002)

2.6. Advantages of project finance

Given the previous discussion the advantages of project finance as a financing mechanism are apparent. It can raise larger amounts of long-term, foreign equity and debt capital for a project. It protects the project sponsor's balance sheet. Through properly allocating risk, "it allows a sponsor to undertake a project with more risk than the sponsor is willing to underwrite independently." It applies strong discipline to the contracting process and operations through proper risk allocation and private sector participation. The process also applies tough scrutiny on capital investment decisions.

By involving numerous international players including the multilateral institutions, it can provide a kind of de facto political insurance. Kensinger and Martin (2003) further argue that the finite life and fixed dividend policy aspects of project finance "mean that investors rather than managers get to make the decisions about reinvesting the cash flows from the project."

On the other hand, the financing technique also presents certain disadvantages. It is a complex financing mechanism that can require significant lead times. High transaction costs are involved in developing these one-of-a-kinds, special-purpose vehicles. The projects have high cash flow requirements and elevated coverage ratios. The contractual arrangements often prescribe intrusive supervision of the management and operations that would be presented in a corporate finance environment.

2.7. Project Appraisal

Credit risk management is a process that 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. It is also the support, control systems and other practices necessary to manage the outstanding risk assets, normal repayment and to monitor business risk. The appraisal technique involves credit initiation, evaluation, negotiation, and approval of facility. As an important step in initiation process, credit officer should visit the potential customer to gather information on client's business, mode of operation, management, and financial situation. Banks should base their credit analysis on the five C's principals of lending. The 5Cs as discussed by Pandey, (1997), Van Horne, (1998), Sinkey, (1998) and Allyn Bacon, (1996) include the customer's character as

determined by their honesty and ethical reputation. It also refers to the capacity of the client as determined by their cash flows, and capital as determined by the client's real net worth. The collateral pledged for the credit facility is another aspect, and the condition, that is the vulnerability of economic fluctuations. In credit evaluation, a consistent and rating scheme to all investment opportunities should be applied if credit decisions are to be made in consistent manner which results in aggregate reporting of risk exposure Santomero, (1996). Several authors (Santomero (1996), Bannet (1984) and Harrison (1996) agree that credit scoring should be used in the appraisal process to predict the credit worthiness of would be borrowers. However, external factors like competition, economic cycle, natural disasters, technological advances, regulatory changes, industry changes, demographic factors affect the credit evaluation process and this at times results in problem loans Wayne, (1998).

Project appraisal is an important function in loan management. It refers to the critical evaluation of proposals in the aspect of various types of risks and returns. In the past the appraisal system was not effective because bankers used to lend on the basis of the securities offered by the borrower. But according to changing environment and situation, the banker's attitude and style of lending have been changed. The competition is in increasing way but a prudent hanker cannot accept any investment proposal unless it is convinced that the project is sound. So for this purpose they have to appraise the proposals in good way. The methods and techniques to appraise proposals depend upon the nature of banks. But some general methods and mechanisms of appraisal for loan proposal are as follows:

(1) Technical appraisal:

Technical appraisal is one of the methods and mechanisms for appraisals of loan proposal by the bank. Under this loan approval process in bank, the following requirements should be appraised,

- Location of the project and infrastructure.
- Legal aspects – law banned or incentive given by the government.
- Technology – quality, availability, price, stability for project.
- Plant & equipment efficiency – suitability, price, efficiency, repairs & maintenance etc.
- Investment in research and development.
- Production process.
- Technical competence of the technicians.

(2) Commercial appraisal:

Commercial appraisal is another methods and mechanisms appraisal of loan proposal by the bank. The capability of the borrower depends upon the sale of product at his estimated price. Under this loan approval process in bank, so bank should consider the nature of products, style, desirability, quality, consumer's demand, substitutes, competition, advantages, market share, ability to expand, distribution system, advertising and promotional activities, socio-political factors, government regulations & economic conditions.

Under commercial feasibility the bank should consider the following elements:

- Sources and supply of raw materials
- Quality and types of customers
- Credit terms and policies
- Aging schedule
- Anticipated economic condition
- Market Risk

(3) Managerial appraisal:

Managerial appraisal is one of the methods and mechanisms for appraisals of loan proposal by the bank. It is the appraisal of management which plays a deciding role to forge ahead of competitors. Under this loan approval process in bank, bank evaluates the following:

- Quality of managers
- Performance: growth, consistency, flexibility, adaptability, judgment, outstanding performance, relations with staff etc.
- Philosophy: aggressive, conservative, public minded, secretive etc.
- Capability: Managerial, technical, financial, planning, marketing etc. -

(4) Financial appraisal:

Credit risk rating, According to Treacy & Carey, (2000), in large U.S. Banks and development finance institutions are becoming increasingly important in credit risk management. They argued that credit rating summarizes the risk of loss due to failure by a given borrower to pay as promised. However, each development finance institutions' rating systems differ significantly from the other both in architecture and operational design as well as in the uses to which ratings are put. One reason for these differences is that, ratings are assigned by bank personnel and are

usually not revealed to outsiders. For large development banks, whose borrowers may number in the tens of thousands, internal ratings are an essential ingredient in effective credit risk management. In short, risk ratings are the primary summary indicator of risk for banks' individual credit exposures and risk rating are provided mainly by risk rating agencies. Credit rating agencies gather and analyze all sorts of pertinent financial and other information, and then use it to provide a rating of the intrinsic value or quality of a security as a convenient way for investors to judge quality and make investment decisions Hickman, (1996). Hickman showed that during the twentieth century in the United States, ratings provided investors with information that reflected the likelihood that an issue would go into default and guidance as to the loss consequences of such events. How well did ratings agencies perform in assessing probabilities of defaults in the state and local debt markets is the question that all stake holders always seek an explanation. Hempel, (1971) studied 264 agency-rated issues that defaulted in the great depression era in the United States and came up with the finding that although these issues were small in numbers compared to the total defaults of that era, they did represent more than three-fourths of the dollar value of defaulted state and local debt. However, Partnoy, (1999) takes a cynical view of the use of rating agencies. They argue with some vehemence that the agencies are in the business of selling regulatory licenses. This view is less a critique of the agencies per se than it is of financial regulatory authorities that adopt and use agency ratings in their regulatory procedures. On the other hand, Firdson, (1999), a proponent of the newer view of the independent rating agencies, argues that by prohibiting the asset managers from investing in or retaining bonds of less than a specified rating, asset-owners and asset-guarantors can significantly limit their risk through use of ratings, even though they lack the expertise to quantify that risk themselves. According to Fridson, it is hardly a perfect system, but it is a method of constraining and disciplining the behavior of asset managers and issuers at a low monitoring cost.

2.8. Credit Follow-Up and Portfolio Management

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 and maintenance of plant and equipment. Inadequate maintenance is often an early sign of

financial distress. The observation may also consider the state of employee morale and the physical stock of materials and finished goods.

Regular monitoring of loan quality, possibly with an early warning system capable of alerting regulatory authorities of potential bank stress, is essential to ensure a sound financial system and prevent systemic crises. (Agresti et al., 2008).

The need to give due attention to borrower thus need not be overemphasized in order to ensure loan performance. There is a tendency by borrowers to give better attention to their loans when they perceive they got better attention. Some of the loans defaults ascribe to lower level of attention given to borrowers. It is advised that banks keep up with their loans timely (Mayers, undated).

Banks rarely lose money solely because the initial decision to lend was wrong. Even where there are greater risks that the banks recognize, they only cause a loss after giving a warning sign (Machiraju undated). More banks lose money because they do not monitor their borrower's property, and fail to recognize warning signs early enough. When banks fail to give due attention to the borrowers and what they are doing with the money, then they will fail to see the risk of loss. The objective of supervising a loan is to verify whether the basis on which the lending decision was taken continues to hold good and to ascertain the loan funds are being properly utilized for the purpose they were granted.

In order to meet these objectives banks need to see whether the character of the borrower, its capacity to repay the loan, capital contribution, prevailing market conditions and the value of the collateral that was taken during loan approval time continues to remain the same (George G, 2004).

As has been mention above a bank can use different ways to monitor the borrower, follow up the financial stability of a borrower can be done by periodically scrutinizing the operations of the accounts, examining the stock statements and ascertaining the value of security. Visiting the borrower periodically to have understanding of the progress of the borrower's business activity and thereby give advice as necessary is also among the methods Banks adopt to follow up their loans.

It is clear that effective credit monitoring involves looking into various operations of the company including operations of the loan, checking whether the company is properly managed, and the environment in which the company is carrying out its business is satisfactory.

In this connection, Portfolio management is also 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 Success of Banks depends on its ability to adapt to changing circumstances (Kagwa, 2003). Institutions should have a culture of handling funds that must be repaid. They should be prepared to seize the client collateral if necessary (Garber, 1997). The organization should have a system of tracking late payments or real losses, deploy staff or collection agencies to collect these loans in order to maximize return of resources.

The purpose of portfolio management is to assess the likelihood that the credit is repaid, as well as whether or not the classifications of the loan proposed by the bank is adequate. Other considerations are the quality of the collateral held and the ability of the borrower's business to generate necessary cash (Greuning et al, 1999) Portfolio administration 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. Assets are classified at the time of origination and then reviewed and reclassified as necessary (according to the degree of risk) a few times per year. The review should consider the loan service repayment, borrower's financial conditions, economic friends and changes in respective markets and the performance (Greuning et al, 1999).

Credit administration involves the management of the financial situations, covenants, collateral, and repayments as well as credit review. It focuses on ensuring that creditworthiness of the clients earlier on established is maintained. Once a loan is on the books, it must be managed actively to ensure that it does not deteriorates and that it is repaid.

Good loan management can rarely overcome poor judgment, but many good credits become problem loans because lending officials did not heed the warning that arose over life of the loan.

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 (moral covenant) and those who do not supply timely and accurate information (asymmetric information), presents the most difficult monitoring challenge (Sinkey,1998). During administration, the credit officer can detect early warning signals of non-compliance or deterioration. These signals help to maximize the effects of corrective actions and to minimize the potential loss of the bank. Some of the signals may include lower deposits, persistent failure to keep appointments, persistent rolling over credits, and requests for short term facilities on top of current facilities as well as requests for increments without retiring the previous facility.

2.9. Credit Risk and Risk Management in Project Financing By Banks

2.9.1. Credit Risk in Project finance

Lending to a project exposes banks to credit risk. It is the typical risk in lending business. It refers to the borrower's ability to service its debt. The borrower is usually a special purpose vehicle (SPV) that is not permitted to perform any function other than developing, owning, and operating the project. Such credit risk exposure involves every kind of loans in project finance. Credit risk is most simply defined as the potential that a bank borrower will fail to meet its obligations in accordance with agreed terms. In a limited meaning of the "credit risk", it affects the extreme case of insolvency, namely the fact that debtor does not meet his payments.

Credit risk definition can be enlarged including the reduction of creditworthiness. Even this reduction does not automatically translate into insolvency; however, it could increase the probability of insolvency. The payment may ultimately be made, but credit risk is a concern because the delay in receiving payments is costly.

In a wider perspective, credit risk refers to the likelihood that the borrower will default or fail to make timely payments of principal and interest. Credit risk should be measured not with reference to a single binomial distribution ("default" vs. "no default") but with reference to a distribution of different levels of insolvency probability, in which the insolvency event is only the extreme event that could occur in the future.

Generally, the loan agreement in the project finance sets some possible "events of default" that allow lenders to take action against the project company. Once an event of default has occurred,

the project company is no longer able to manage the project without lender involvement. These events do not put the project in default automatically. A decision has to be made by the lender after the event of default has occurred. As correctly argued by Yescombe (2002, p. 319) typical events of default could be the followings:

- the project company fails to make any payment under the financing documentation on its due date;
- the project company does not fulfill any of its covenants or undertakings under the finance documentation;
- there is any change in the ownership or control of the project company prior to an agreed date;
- the project company is subject to a court judgment for more than a certain amount;
- insufficient funding remains to complete construction of the project;
- any permit or license is revoked;
- the project is abandoned;
- Any party defaults under a project contract.

Over the past, banks have invested a lot of resources in modeling the credit risk arising from their loans to project finance business. The supervisory regulation aims to strengthen the soundness and stability of banks by adopting more risk sensitive capital requirements. It imposes a strict control over the bank lending policies. A significant innovation is the greater use of risk assessments provided by bank's internal rating systems. It has promoted the adoption of stronger risk management practices by banks. These advanced risk management practices aim to produce quantified measures of risk and economic capital, allowing banks to use internal credit risk models for regulatory capital purposes.

2.9.2. Credit Risk Management in Project Finance

Due to its unique financial characteristic, the credit risk assessment in project finance lending is particularly complex than other ordinary credit. Basically, the credit risk of project finance loans is affected by the timing and uncertainty of project cash flows. The main components of credit risk (probability of default, loss given default, and exposure at default) are closely connected with the nature and characteristics of the project, the economic sector of the project, the guarantees afforded to creditors, the potential alternative use of the assets that belong to the special purpose vehicle.

Project finance loans are structured in such a way that repayment of the loan depends principally on the cash flow generated by the asset rather than the credit quality of the borrower (Basle Committee on Banking Supervision, 2001). For this reason loans possess unique loss distribution and risk characteristics. Such credit exposures are treated separately from the corporate exposure. Basle Committee on Banking Supervision has proposed a specific regulatory treatment for these exposures (specialized lending).

In contrast with corporate and other working capital loan exposures, there is no common industry standard for the estimation of credit risk in project finance lending. Every project has unique characteristics, unique financing schemes and different risk sharing mechanisms that allocate risks among different parties involved (Esty, 2004). In addition, to calculate rigorous probability of defaults is necessary to base such calculations on valuable databases. Nevertheless, historical loan performance data for project finance exposures are scarce. Furthermore, defaults in project finance are quite rare because the failure of the project company generally involves a debt restructuring or a takeover by a new project company. Project finance exposures are characterized by few time series of defaults and losses. So, it is unlikely that a bank may rely on historic estimates of probability of defaults (PD) and loss given defaults (LGD) for the portfolio of project finance loans. Project finance operations usually have a complex structure. It implies that project finance rating is primarily based on future cash flows expectations rather than on historical data.

The project finance has two sources of funds: debt and equity. Debt capital is usually provided by commercial banks and international investment banks. Equity capital is usually provided by project promoters or sponsors and outside equity investors, such as commercial banks, investment funds specializing in project finance equity, venture capital and private equity vehicles. Banks are the largest providers of debt capital in project finance and the financial structure of the project (leverage ratio) is very important in convincing bankers to provide capital. It implies that banks must pay particular attention to the evaluation of the credit risk of the project. The failure of the project, and the subsequent borrowers' insolvency, may damage lenders heavily.

Project finance is characterized by high leverage financing scheme. It is possible to achieve much higher leverage ratios than promoters could sustain on their own balance sheets. In

addition, project finance loans on average have a longer term than corporate loans. The traditional debt-based financing model is the bank loan. It is the traditional way to raise long-term funding for long-term projects. A new debt-based financing model is the issue of project bonds (Scannella, 2012). Using financial techniques and financial market conventions for project appraisal, design, and financial structure, project bonds might represent an innovative way to perform the function of financial intermediation instrument and long-term project financing instrument.

The assessment of economic and financial feasibility of the project made by the banks should primarily evaluate the expected economic return of the project on medium and long term, rather than focusing on collaterals provided by sponsors or third parties. To assess the "bankability" of a project is necessary to carry out a feasibility study. A bank, before starting the assessment process, has to evaluate the existence of key (base) elements to participate in a project finance. Banks have to differentiate bankable projects from not bankable ones.

Preliminary test of project practicability (viability test) is the first step for banks. The project should be technically feasible and economically viable (Esty, 2003; Fabozzi & Nevitt, 2000; Yescombe, 2002). A "static" analysis of the project focuses on assets characteristics, tangibility and marketability of corporate assets, as well as firm's solvency ratios. In the standard corporate lending the lender has security over tangible assets. A "dynamic" analysis is necessary in funding project finance because lender's primary security is the future revenue stream of the project. It is a different type of analysis that focuses on the expected economic and financial returns associated with the project. In particular, a lender should deeply evaluate the degree of innovation of the project, the professional skills of people who will execute and manage the project, the capabilities, competences, and knowledge of firms involved in the project, the reaction of the target market to the introduction of new services and products. The implementation of a dynamic perspective of analysis of projects to be finance implies a "paradigm shift" in the bank lending assessment process (standard corporate lending vs. project finance lending).

2.10. Credit Risk Management Techniques

Risk Transfer

According to the International Association of Insurance Supervisors (2003), Financial Services Authority (2002), and Rule (2001b) who examined credit risk transfer between banks and non-bank financial sectors, including the insurance sector argue that banks are shifting credit risks from their balance sheets to insurance companies, amongst others, and insurance companies are issuing catastrophe bonds that are being sold to institutional investors such as investment funds and other end-investors. Although risk transfer markets have the potential to enhance financial stability by diffusing exposures, there are concerns that they may equally lead to more concentrated and non-transparent risks, Andersen, (2001). This was supported by Häusler, (2004) who discusses how the blurring of boundaries between insurance and other financial institutions implies heightened importance of insurers for financial stability. It is also in line with the work of Podpiera, (2003) who explored the potential for the insurance sector to affect the vulnerability of the financial system, focusing on the banking-type activities that life insurance companies have increasingly taken on, as well as risks stemming from the possible failure of a large reinsurer. To achieve the risk transfer, use of derivatives has gained significant importance in the financial sector as Standard and Poor's (2003b) and Fitch Ratings, (2004) provide a review of the factors underlying banks' use of credit derivatives.

Rule, (2001) pointed out that that banks and insurance companies are exposed to various credit, market and insurance risks in the course of their business, and they can manage these risks in three ways: Arrange for another entity to take on the risk at the outset. For example, a bank might arrange a bond issue for a corporate customer rather than lending itself; or an insurance company might arrange for a customer to 'self-insure' by establishing a captive insurance company rather than buy insurance cover.

They can also retain risks on their balance sheets and seek to control them through careful monitoring, pricing and diversification and hold the risk only temporarily before selling it into a secondary market, hedging it with another offsetting transaction or repackaging it in order to sell/hedge it. In principle, firms can use risk-transfer methods to disperse risks making them less vulnerable to particular regional, sectoral or market shocks.

Banks have tended to take on a bundle of risks attached to term lending but more crucial among them all is the credit risk since it affects borrower's willingness and ability to pay.

Risk Diversification

Brannan, (2000), argued that diversification is the primary tool for lenders to control borrower risk, and highlighted the fact that risks arise well before default occurs and warned against the construction of "bullet-proof" portfolios that can under perform. Jose Lopez, (2000), supported this by discussing that there was value in diversification of credit portfolios and pointed out how this value can be measured. However, there are several factors that contribute to the degree of diversification for a credit portfolio and because these factors vary over time, the measurement of credit diversification is particularly challenging. Wilson, (1998), brought out the benefits of diversification in credit portfolios. The finding indicate that there is a significant difference in performance of portfolios concentrated in one region from that diversified to different economies. Therefore, Wilson's argument focuses on advocating for diversification of loan portfolios across nations where the benefits are much stronger than they are when diversification occurs across sectors in a given economy. However, the above argument is criticized by Campbell *et al.* (2001), who discussed that the degree of diversification for a credit portfolio will depend on several other factors like; Size of the portfolio, and issues of maturity variation.

Risk Retention

According to Sanderson, (1991), today's business environment demands lean, cost efficient operations with no waste. As an important part of this process, risk managers seek to reduce the economic impact of risk on their organizations through opting for greater levels of risk retention. Risk retention analysis will help you decide how much risk you are able to retain which could be accomplished through risk rating models Amato et al, (2004). Gordy's, (2003) work shows that, knowing the right amount of risk to retain promotes financial efficiency**.** Risk retention analysis provides you with answers to the following question; How much risk is there in my current loan structure? This provides you with a risk retention capacity for your organization or financial institution. Consideration is given to a number of factors in order to derive an estimate of the ability to retain risk. These include; Historical financial information from reports & accounts, future financial projections for the organization, market conditions and economic trends. As a

result of this, the rate of interest charged should be adjusted to reflect the level of risk being retained. It should be noted that risk retention review should be a never-ending process for the risk management professional. It should be noted that the decision to retain risk is a function of the materiality of the risk, its predictability, and the transfer costs avoided. The measure of a successful risk financing program is its responsiveness to a substantial occurrence. In a publicly traded organization, the reason for retaining added risk is to increase earnings, and earnings are a substantial factor in determining the price of the equity shares of the company and the company's overall value

2.11. Causes of Project Failure and Mitigation

In any project, risks are unavoidable. Project participants are exposed to various kinds of risks. One of the causes that lead to project failure is the inappropriate allocation of risks to the parties in the project. Understanding the causes for failure and the description of the various risks is to prerequisite for an efficient risk identification, allocation and mitigation.

Only about 20 percent of the projects that are seriously considered are successfully completed. Some of the causes for this failure are the following (Nevitt, 1998)

- Delay in completion, with consequential increase in the cost
- Financing and delay in the contemplated revenue flow
- Capital cost overrun
- Technical failure
- Financial failure of the contractor
- Government interference
- Un-unsecured casualty losses
- Increased price or shortage of raw materials
- Technical obsolescence of the plant
- Loss of competitive position in the market place
- Poor management
- Overly optimistic appraisal of the value of pledged securities
- Financial insolvency of the borrowing bank

For a project financing to be successfully achieved, these causes must be properly considered, monitored and avoided throughout the life of the project. The following is checklist that should be considered in order to achieve a successful financing package, as suggested by Nevitt (1998)

- A credit risk rather than equity risk is involved
- The cost of product or raw material to be used by the project is assured
- A supply of basic raw materials and inputs are assured
- The contractor for building part is reliable
- A stable political environment exists, licenses and permits are available
- Currency and foreign exchange risk have been addressed
- The promoter have made an adequate equity contribution
- Adequate insurance coverage is contemplated
- Force majeure risk has been addressed
- Cost overrun risk has been addressed
- The project will have an adequate ROE, ROI, and ROA for the investors

The above successful financing packages are discussed detailed by Nevitt (1998) as follows:

1. Credit Risk

An objective of many projects is high leverage of the debt to equity ratios. However, more than a lending risk is involved when the borrower approaches the lender. A spread in excess of about 30 points over labor is generally considered by most projects lenders as excessive lending risk is involved. Low credit risk makes it easier to raise equity capital and loans for projects.

2. Cost of product or raw material

Supply source and contracts for feed stocks or raw materials to be used by a project must be assured at a cost consistent with the financial projections.

3. Availability of basic materials

The actual cost of basic materials should be consistent with the estimated cost.

4. Experience and reliability of management personnel

Good management personal as well as experienced operating personnel are needed to operate a project. The general management of a project company makes the basic policy decisions, arranges the financing and is responsible for monitoring the project company.

7. Contractual agreement among joint venture partners, if any.

If the project is a joint venture, the agreements between the partners are of considerable concern to lenders, who want assure as the identity of the companies and entities which will own and operate throughout the life of the loan.

8. Stable political environment

The need for a stable political environment is a necessary for a successful project financing.

9. Currency and foreign exchange risk

Availability of foreign currency and the incidental foreign current exchange devaluation or appreciation should be mitigated through different techniques.

10. Adequate equity contribution by the key promoters

The key project promoters must make equity contributions consistent with their capabilities and risk of the project. Lenders will require promoters of the project to have sufficient financial interest in the project so that it will difficult the promoter to abandon or ignore the project. Usually lenders require an equity contribution of 30% on average as an indication of sponsors' commitment of the project.

11. Adequate insurance coverage

An insurance coverage is important during construction and operation of the project. This provides protection against risk.

12. Force Majeure risk

Force majeure risks results from events beyond the control of the parties in the project. These events may include fir, flood, war, expropriation and political interference.

13. Cost over-run and construction delay risks

Cost over-run risk occurs when the cost of construction or completion of project facility in larger than the original estimation. This creates a serious problem because the ability of the expected revenues to cover operating costs and amortize debt is dependent upon the assumed cost of the project. Overrun risk can be covered in a variety of ways: additional capital by sponsors, standby credit facility, fixed price contracts, and sponsor's escrow funds for completion.

14. Adequate ROE, ROI, and ROA for the investor

The return on equity, return on investment, and return on assets are useful measures used by lenders and investors in estimating the return in a project.

Although it is difficult to alter the risk of a project, the allocation of the various risks to the parties best able to handle them reduces the project risk. (Nevitt, 1998)

2.12. Empirical Evidence

2.12.1. Studies in other countries

So far, the researcher found one relevant article worked by Mubila et.al (2000) on Africa Development Bank. Due to shortage of research studied on evaluating the performance of project financing, the researcher is compelled to consider similar studies conducted on different projects related issues. With this understanding, the project failure surveys on IT projects done by two organizations (The Bull Survey (1998) and The Chaos Report (1995) were reviewed.

The Bull Survey (1998)

In 1998, the French computer manufacturer and system integrator, Bull, requested on independent research company, Spike Cavell, to conduct a survey carried out on IT projects were identified missed deadlines (75%), exceeded budget (55%) and inability to meet project requirements (37%) as causes of project failure. The key findings of the survey reveals that the major causes of project failure during the lifecycle of the project are a breakdown in communications (57%) a lack of planning (39%) and poor quality control (35%).

The Chaos Report (1995)

The scope and approach of this landmark survey had been conducted among 365 IT managers from companies of various sizes and in various economic sectors. The project evaluation criteria had considered cost overruns, time overruns and content deficiencies. The key findings of the opinion survey indicated that incomplete requirements 13.1%, lack of user involvement 12.4%, lack of resources 10.6%, unrealistic expectations 9.9%, lack of executive support 9.3%, changing requirements and specifications 8.7%, lack of planning 8.1%, didn't need it any longer 7.5%, lack of IT management 6.2%, technology illiteracy 4.3% and other 9.9% were the project impair factor.

Mubila and et.al (2000)

Mubila and et.al (2000) had worked more or less the same study on African Development Bank. They used project size, implementation delay, investment cost overrun, economic rate of return of the project and human development index as measure project specific success or failure determinant in their study. In this model, they have used projects specific explanatory variables

such as total project cost (to proxy project size), cost overrun in percent, time overrun in percent and dummies for economic sector. Moreover, they considered macroeconomics performance of the country, such as increases in energy prices, GDP, inflation rate, and domestic and regional politics as important influencing determinant in the study. Variables to capture the domestic economic environment-the average growth rate of the economy, the size of population as well as dummies for regional distribution of customers included for the implementation period 1974 to 1994 to find it these variables have any relation to project success. The result of their analysis regarding project internal cause have shown that large projects are less likely to fail, and cost and time overruns had negative impacts on project success. As far as sectoral factor, projects in agriculture, industry and transport sector have a higher probability for success, where as those in the social sector shown a probability of failure.

Christodoulou (2008) "Factors of success for the effective implementation of lean manufacturing projects with Banking sector in South Africa". The problem was lack of understanding the concept and dynamics behind lean manufacturing. The objective was to identify success factors in implementation. The researcher used qualitative research method using questionnaire and interview for 20 prominent bank officials and finds top five success factors. These are executive support, skills and expertise of project resources, clear shared understanding of project objectives, buy-in from staff, and a cultural readiness for the change required. Finally the researcher recommended knowledge based customer service excellence, operation, process efficiency and quality management should be given due attention in implementation.

2.12.2. Studies in Ethiopia

Admasu Legesse (2013): Determinants of failure for projects financed by DBE. This explanatory research is made to investigate the major determinant of failure for projects financed by DBE assuming that the causes of project failures emanates from project specific, credit management system of the bank, macro-economic and sociopolitical factors. In this study both descriptive and explanatory analysis using econometrics regression model is employed to analyze cause-effect relation between determinants of failure of the projects. The findings are the country's traditional market system inefficiency and marketing knowledge gap of our local entrepreneurs, manpower below required knowledge, skill and number, investment cost overrun which largely caused by change in exchange rate have positive relation with the failure of the

project. However, the attention of the bank about its projects planning capacity: because the model result for correction measures used for solving problems esteem from project planning (loan rescheduling, weaving and fund reallocation) found significant with negative effect to project failure. This means that DBE's project planning lack to consider the unique nature of the projects during disbursement and repayment scheduling, fund allocation etc. Finally the researcher proposes some of the corrective measures that should be considered by concerned stake holders in order to reduce project failure regarding financed projects with regard to the market problem the bank need to be involved in finding of market destination for the output of projects and advising the promoter and DBE has to recruit professionals from different profession and train about project appraisal technique.

Feleke Tsegaye (2015): The Performance of Project Rehabilitation and Loan Recovery Process (PRLRP) in the case of DBE: The main objective of the study was evaluating the impact of monitoring and follow- up activities, government policy and performance measurement criteria on performance of PRLRP at head office level in DBE during the year 2009 to 2014. In this research analysis, descriptive and inferential statistics were applied for the result obtained. The findings are performance measurement criteria, monitoring and follow-up and government policy had positive statistically significant relationship with the performance of PRLRP at 1% level. The researcher recommended that qualification of staffs to be employed in the project should be considered on the credit policy of the bank as a basic requirement for loan provision and as well minimizing the entrance of new default projects.

Shimelis Tesfaye (2015): Manufacturing Project Financing by Commercial Bank of Ethiopia: Challenges and Prospects: The study investigates the problem of manufacturing project financing by Commercial Bank of Ethiopia. The sampling technique that used in the study is non probabilistic purposive sampling in representing sample members from the target population. The non probabilistic sampling method is suitable for handling descriptive research with qualitative data. With the respect to the customers, poor credit culture, quality of project proposal submitted and lacks required skills and knowledge were among the major problems. The share of manufacturing project financing loan advanced from the total loan portfolio of the Bank covers 13.4 %, 28.8%, 35 %, 48.4% and 45 % for the periods 2009/10-2013/14 fiscal year for five years under study respectively. The findings reveals that of the total loan disbursed, the share of public manufacturing project financing loan approved increase yearly on average by 74 % while the

private sector was 26 % during the study period. The major challenges faced while appraising manufacturing project financing by CBE are basically related to customers, employees, Bank and the County. Even though the customers are not included in the questionnaires, the related challenges and prospects had been reviewed through the document review. In addition to this the absence of adequate data and information in CBE credit processing, lack of research unit to support credit process of the bank; less availability of data and up to date information with regard to the appraising process; lack of skilled employees to properly evaluate and appraise manufacturing project financing requests are also among the major one.

The prospects of manufacturing project financing are many among these the major one are: increase in income and profit for the bank, benefit for the country in import substitution, foreign currency generation by exporting manufactured goods, employment opportunity, technological transfer, foreign direct investment and finally facilitates the countries development plan towards industrialization.

2.13. Conclusion and Knowledge Gaps Emerged from Empirical Reviews

To conclude the empirical evidences, the Bull survey and the Chaos report used the data collection and analysis method is survey methods and descriptive statistics which are appropriate for qualitative data collection and analysis. In statistical analysis of project success determinant, Mubila et.al, (2000) and the rest local researches applied the Ordinary Least Square (OLS) regression model to correlate economic rates of return at appraisal (AERR) with economic rate of return at completion (CERR) in a scatter diagram since they considered projects completed the project cycle for their study.

Evaluating the performance of project financing in private commercial banks was not a focus area of research as it is shown in empirical literature review. Further it is difficult to found any research work in case of private commercial banks in particular as far as the knowledge of this researcher. Even though, the unique nature of projects requires evaluating the performance of project financing in relation to Credit appraisal, monitoring and follow-up and risk management technique of the banks under consideration.

To assure that and to evaluate the performance level of project financing in private commercial banks must be studied. We cannot tell the performance level from the scratch or simply from the

theory. Evaluating the performance level of project financing is needed, to make bank's credit department well aware about their position and its impact towards profitability of their business. Further it is also very much important for policy makers. It is well known that banks in our country are profitable for the time being, however to sustain their profit in the future and even to make them more profitable than before, the performance level of their project financing must be evaluated and corrective action must be taken in advance. When the researcher says corrective action, it's referring appropriate project financing mechanisms to the banks. This study, therefore, will fill the research study gap in the area of evaluating project financing in general and serves as initial study for private commercial banks in particular. In contrary to the above local project related studies, this study has focused on start up or new projects and many new explanatory variables are added based on their relevance.

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Introduction

The researcher was intended to assess the performance of the project loan financing in private commercial banks. The performance was particularly assessed against three factors of loan appraisal i.e. approval process, credit follow up activities and credit risk management. The research and methods employed investigated so as to obtain detail evidence on the subject matter. This helped, according to the researcher's opinion, to give a deepest understanding to the subject matter as well as to address the main problem of the study.

An utmost effort was rendered to make the data and information collected through various instruments representative of the overall picture of the industry or population of the survey.

This part, therefore, presents details of the research design in terms of the data source, population and sampling procedure, data gathering instrument and gathering procedure, measurement of variables or dimensions in the study, validity and reliability of the study instruments, the method of data analysis and finally the limitations to the methodology used.

3.2. Research Design

A research design is a master plan that specifies the methods and procedures for collecting and analyzing needed information. It is essentially a statement of the object of the inquiry and the strategies for collecting the evidences, analyzing the evidences and reporting the findings. The intention of the research design that can be formulated was based on the objectives of the research and research problem questions. (Zikmund et al, 2009). Quantitative research defined by Cooper (2006) as the accurate sum of behavior, knowledge, opinion or attitude.

The research design was used cross sectional survey design. Both descriptive and cross sectional correlation analysis is employed. The research was also made based on both qualitative and quantitative data. The researcher used the research design effectively so as to ensure that the evidence obtained enables to answer the research question as unambiguously as possible. The researcher took full caution in preparation of the data; assured familiarity with the data; used

appropriate design for interpreting the data; verifying the data and also makes the data representative.

The employed research design was used criteria for sample selection, data sources, instruments used for data collection, data processing, and analysis. It identified elements of credit processing, appraisal; follow up and credit risk management and examined how they affect project loan performance in Private commercial banks in Ethiopia.

3.3. Population and Sampling Procedure

3.3.1. Population of the Study

According to Diamantopoulos (2006), a population is a group of items that a sample will be drawn from. The target population of the study was all private commercial banks operating in Ethiopia which are currently 16 banks. NBE divided these 16 private banks as peer 1, peer 2 and peer 3 based on their time of entry to the market. Peer 1 consists of (AIB, DB, BOA, WEB, UB, NIB), peer 2 consists (CoBO, LIB, ZB, OIB, BrBI, BIB) and peer 3 consists (AB, AdIB, DGB,EB) (NBE Report 2011/12). Out of these, six banks were selected purposively; all from peer one, considering the number of years' these six banks have been in operations, relatively having high volume of project loans in their loan portfolio, having better lending capacity as the project financing requires substantial amount of money and these banks are more involved in the project loan financing. Thus the researcher believes the selected samples were representative for the survey.

The participants for the study were those employees of the six privately owned commercial banks with their three respective departments, namely Credit Appraisal Department, Credit Follow-up Department and Credit Risk Management Department, in fact Customer Relationship Management Department were also considered, where available. Those expert staffs in the departments were selected to fill the questionnaire and the respective department managers were selected for interview. The total target participants of the study were therefore all employees of these six banks, in the four departments mentioned. Other employees of the bank, including branch loan officers and branch managers were excluded from the target participant even though they participate in the loan appraisal process at branch level. They were excluded, because, since

the researcher was particularly concerned with the project financing, and such financing, almost in all the six Banks were appraised in their respective Head Office.

3.3.2. Sample Design and Size Determination

A sample was drawn as a result of constraints that make it difficult to cover the entire research population (Leedy and Ormord,2005).The six private commercial banks were selected using purposive sampling design and the participants for questionnaire and interview were selected using from the three and in some banks four departments, again purposively. Data was collected through questionnaire from 50 technical staff from credit appraisal department, 30 technical staff from credit follow-up department, 27 technical staff from risk management department, and 13 from customer relationship management department, from the six privately owned Commercial Banks in Ethiopia. Hence the total sample size selected for questionnaire was 120 using the formula $n=N/1+N(e^2)$ where n is number of sample, N is number of population and e is error. All the department employees and technical staff were targeted to respond to the questionnaire. Another six management staffs were selected for interview from the six banks.

With regard to usage of structured interview, purposive sampling was used as it basis consideration of ample knowledge in the area. Thus, managers of credit, follow-up and risk departments of each bank were targeted.

Table 3 Types of respondents, population size, sample size, sampling techniques & tools of data collection of six selected private commercial banks.

No	Respondents	Population size	Sample Size	Sample Technique	Tools of data collection
1	Credit Appraisals Team	90	50	convenience	Questionnaire
2	Credit Relationship Managers	15	13	convenience	Questionnaire
3	Risk Management Officers	32	27	convenience	Questionnaire
4	Credit Follow-Up Officers	35	30	convenience	Questionnaire
	Sub Total	**172**	**120**		
5	Directors of the Credit Appraisal, Customer	18	6	Purposive sampling	Interview

	Relationship Management and Risk Management Department				
	Total	**190**	**126**		

3.3.3. Source of data

In order to achieve the stated research objective, the study used both primary and secondary data sources. Primary data was obtained using structured questionnaire, close ended questions and structured and unstructured interviews, with the intention of meeting ultimate objective of the study. Secondary data was obtained from journals, internal reports and annual reports of the six banks which were collected aimed at addressing the issues that cannot be obtained otherwise.

3.4. Data gathering Instruments

Primary Data

- **Questionnaire**

Primary data was collected using questionnaire which are distributed to different staff members in the six banks particularly those either with a credit function or have prior experience in credit operations or those with a function connected to credit appraisal department, follow-up department and risk management department. The questionnaire was standardized and adopted from previous related studies made by Feleke Tsegaye (2015): The Performance of Project Rehabilitation and Loan Recovery Process (PRLRP) and Shimelis Tesfaye (2015): Manufacturing Project Financing by Commercial Bank of Ethiopia: Challenges and Prospects. The questionnaire had two parts. The first part was about the general characteristics of the respondents and the second part captured elements of the appraisal namely technical feasibility, financial viability, and credit rating, components of credit follow-up and other risk management techniques namely; risk transfer, risk diversification, and risk retention.

- **Interview**

Structured and unstructured interview questions were presented to the three management staffs of the three departments (credit appraisal, Credit follow-up and credit risk management).

Secondary Data

Secondary data was collected using ten years audited financial statement of the six private commercial banks, quarterly and annual reports, magazines, journals as well as the bank's websites.

3.5. Procedures of Data Collection

Secondary data was collected from five years annual audited financial report of the six Banks, from 2009/2010 to 2014/2015. Different journals, bulletins, books and conference papers pertaining to the subject matter were used.

With regard to primary data collection, different data collection methodologies were used. Questionnaire was used to pinpoint the performance and challenges of the project loan financing. The questionnaire was arranged in standardized five point Likert's scale. In order to strengthen the quality of data; structured interview was conducted for purposively selected Management staff members of the three departments.

Procedures;

Step1: Questions that are believed to be addressing all factors/variables essential to respond the research questions was incorporated. The questions were commented by Bank Professionals who are working in the credit and risk management area. Validity of the data was assured by this process in addition to the Content Validity Index.

Step 2: Both the questioner and interview prepared was reviewed by the Advisor.

Step 3: Reliability test was conducted using the questionnaires, which will be distributed and the questionnaire was tested using Cronbach's Alpha.

Step 4: Researcher direct visited to the banks office for distribution and collection of the data.

3.6. Measurement of factors or variables

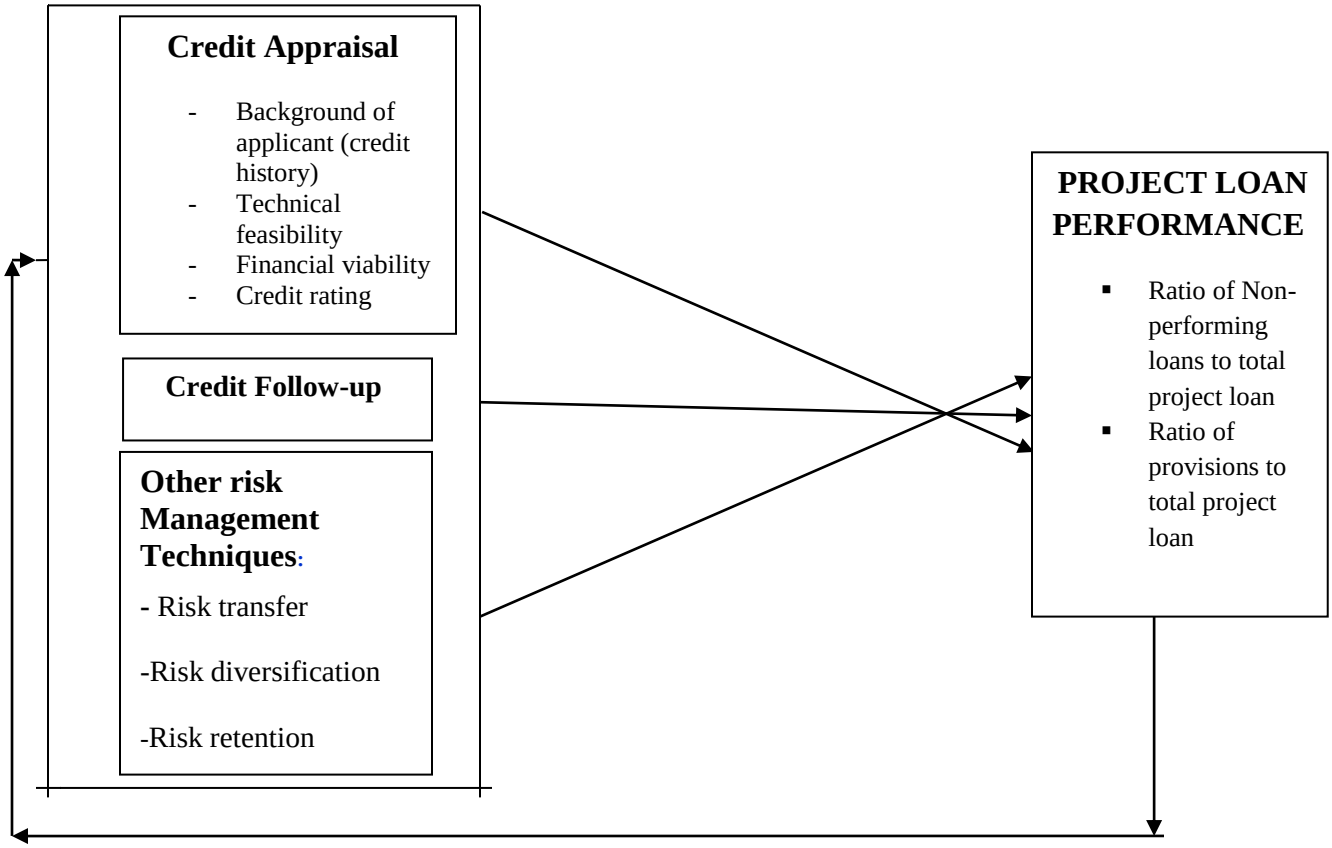
- Appraisal was measured as a composite of General background of the customer, 5c's, technical feasibility, financial viability, and credit rating using attitude statements of a 5 – point Likert – scale ranging from strongly agree, agree, uncertain, disagree and strongly disagree.

- Credit follow-up was measured using attitude statements of a 5 – point Likert – scale ranging from strongly agree, agree, uncertain, disagree and strongly disagree.
- Risk management techniques was measured as a composite of risk transfer, risk diversification, and risk retention using a 5–point Likert scale ranging from strongly agree, agree, uncertain, disagree and strongly disagree.
- Loan performance was measured by ratio analysis using secondary data obtained from the annual reports of the six private commercial banks. The two ratios used were: ratio of non – performing project loans to total project loan advances, and ratio of provisions to total project loan advances. This was because non performing project loans and provisions may be exist due to the default of project loan extended to the customers. According to NBE's Directive No. SBB/43/2008, all commercial banks should kept provision 1% for loans under pass status, 3% for special mention, 20% for sub- standard, 50% for doubtful and 100% for loss status loans. Since provision includes healthy (pass) loans, ratio of non – performing project loans to total project loan advances is relatively better measurement of performance. However, most banks use both ratios to measure success or failure of their project financing.

3.7. Conceptual Frame Work

The model below explains the relationship between Credit Appraisal, Credit Follow-up and Credit Risk Management and loan performance as developed by McNaughton (1996). In this model, credit risk is divided into three components namely: the appraisal component, the credit follow-up and monitoring and other risk management techniques. Appraisal has three elements namely: technical feasibility, credit rating, and financial viability. On the other hand, other risk management techniques has elements namely; risk transfer, risk diversification and risk retention. The two components form the basis for monitoring and managing credit risk as explained by Harrison, (1996). The two components of risk management if properly applied in a financial institution will lead to favorable loan performance. Loan performance has indicators like ratio of non- performing project loans to total project loan advances, and ratio of provisions to total project advances.

Figure 2 Conceptual Framework



Source: McNaughton (1996).

3.8. Validity and Reliability Tests

Validity test

Content validity test index (C.V.I) was used to test for validity of questionnaire. A four point scale of relevant, highly relevant, quite relevant, somehow relevant and not relevant was used by two experts to rate the relevancy of questions on the questionnaire on the study variables. The questionnaire was also commented by the experts in the financial industries, mainly in the banking sector and academia.

Reliability tests

Reliability analysis is used to test how well the items in a set are positively correlated to one another. Cronbach alpha is used to determine the consistency of scales used to measure study

variables. The internal consistency reliability is higher if the Cronbanch's alpha is closer to 1. (Sekaran, 2003). The Cronbanch's alpha value is used to measure the reliability of the instrument which well exceeded the recommended criteria point of 0.7.(Sekaran,2003). In order to analyze the performance of project financing of the banks' under consideration, secondary data was used solely. The variables that were used in this research are Performance of project financing was dependent variable and Credit appraisal, Credit follow-up, and Risk management technique were independent variable.

To compute the correlation between dependent variable (Performance of project financing) and the independent variables (Credit appraisal, Credit follow-up, and Risk management technique), the most common correlation coefficient called Pearson r were applied.

Cronbach alpha was used to determine the consistency of scales used to measure study variables. All the Cronbach alpha coefficient for the variables under the study were above 0.7 implying that the scales used to measure project loan performance were consistent and therefore reliable. The following table shows details of the reliability test results;

Table 4 Reliability Tests

No.	Description of factors	No. of items in the factor	Cronbach's Alpha	Cronbach's Alpha Based on Standardized item
1.	General Appraisal	20	0.874	0.897
2.	Financial Appraisal	11	0.875	0.883
3.	Technical Appraisal	10	0.703	0.839
4.	Credit Rating	8	0.704	0.825
5.	Follow-up	15	0.785	0.785
6.	Risk management	17	0.841	0.843

Source: SPSS Output from Survey Date & own computation (2016)

3.9. Method of Data Analysis

The method of data analysis was both qualitative and quantitative. Descriptive and correlation analysis was used. The collected quantitative data was edited, sorted, coded for completeness, processed and analyzed using computer software called the Statistical Package for Social Scientist (SPSS). This was chosen because it is able to compute all the statistical quantities that required for the interpretation of the data that was collected from the questionnaire.

The qualitative data was collected from the management staffs are also analyzed along with document analysis and discussed with quantitative data as deemed necessary.

On the other hand, project loan performance was measured using ratio analysis i.e., the ratio of nonperforming loan to total project loan advances, and the ratio of provisions to total project loan advances.

In the process of data analysis, data in the Likert's scale was processed by reducing it to the ordinal level. This was done by combining all "Strongly Agree", "Agree", "Undecided (Neutral)", "Disagree", and "Strongly Disagree" in turn within their categories. The responses were processed into categories of accept and reject a proposition. The rating so recorded was assigned rating values ranging from 5 to 1 respectively.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter covers areas including presentations of results obtained through both primary and secondary sources, interpretation of the results and analysis of the results in line with the theoretical and empirical literatures presented in chapter two. The results are presented, interpreted and analyzed according to study objectives which were: evaluation of the practices and impact of credit processing, analysis and appraisal of the project loan requests on the Performance of Project loans in the Private Commercial Banks in Ethiopia, assessment of the impact of follow-up practices of project loans on the credit performance in private commercial banks against the recommended practice and policies and procedures of the banks, Review the credit risk management of project financing and its effect on credit performance in the private commercial banks.

The chapter begins with a background description of statistics and then ends with factor analysis which was used to extract and examine factors that measure the credit appraisal, credit follow-up and credit risk management dimensions and its relationship with the performance of the project loans. The performance is mainly described as the ratio of NPLs on this project loans to the outstanding balance of respective project loan balances.

4.2. Characteristics of the Respondents

The results that follow show the background characteristics of the respondents that were involved in the study. 120 questionnaires were administered and dispatched to respondents in the six banks namely DAB, AIB, BOA, WEB, UNB and NIB. Overall, 108 responded to the questionnaires which represented a response rate of 90% as reflected in the table 6 below.

4.2.1. Distributed Questionnaire and response rate

Table 5 Distributed questionnaire and Response Rate from the six Banks

Ser. No	Distributed questionnaire	Distributed Banks	Usable Questionnaires	Frequency	Percentage of response
1	23	DAB	21	21	91.3%
2	19	AIB	17	17	89.5%
3	20	WEB	18	18	90%
4	18	BOA	15	15	83.3%
5	15	UNB	14	14	93.3%
6	25	NIB	23	23	92%
Total	**120**	**6**	**108**	**108**	**90%**

Source: Own Computation, from primary data (2016)

According to the results in the table 6 above, the greatest number of respondents was from Nib Bank (23 respondents) representing 21.3% of the total number of respondents. On the other hand highest response rate was obtained from UNB, fourteen respondents from 15 employees, 93.3% rate and lowest in BOA, 15 responses from 18 professional staffs (83.3%). Furthermore, both structured and unstructured interview was made with the department managers from the six Banks. From each Bank, one of the three department managers was interviewed.

4.2.2. Gender of Respondents

Frequency tables were used to study the status of respondents' distribution by gender. The frequency distribution presented illustrates that there is a huge gap in the distribution of male and female professional staffs in the work areas under consideration. The following frequency table demonstrates the fact.

Table 6 Gender Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	83	76.9%	76.9	76.9
	Female	25	23.1%	23.1	100.0
	Total	108	100.0	100.0	

Source: *SPSS Output from Survey Data, 2016*

Results in the table 7 above show that majority of respondents were males representing about 76.9% and about 23.1% of those responded to questioners were females.

4.2.3. Educational Qualification of Respondents

The status of respondents with respect to the highest qualification attained was obtained using frequency distribution table and the findings are indicated in the table 8 below:

Table 7 Educational Qualification of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	90	83.3%	83.3	83.3
	Masters	18	16.7%	16.7	100.0
	Total	108	100.0	100.0	

Source: *SPSS Output from Survey Data, 2016*

As clearly indicated in table 8 above, majority of the respondents were having first degree (about 83.3%). On the other hand, 18 (16.7%) of the respondents had a postgraduate qualification. The fact that all of the department staffs are holding first degree and above clearly signifies the qualification required for these positions are relatively high.

4.2.4. Working Experience in the Bank

Frequency distribution was used to obtain the working experiences of respondents in each bank as indicated in the table 9 below.

Table 8 Working experience in the Bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 less than 1 year	9	8.3%	8.3	8.3
	2 One-Three years	15	13.9%	13.9	22.2
	3 four-six years	22	20.4%	20.4	42.6
	4 greater than 6 years	62	57.4%	57.4	100.0
	Total	108	100%	100.0	

Source: *SPSS Output from Survey Data, 2016*

Regarding the work experience of respondents, as depicted in table 9 above, about 77.8% of the respondents have more than four years of banking experience, implying that most of the respondents are senior staffs. On the other hand, the figure can demonstrate that the positions selected are staffed with those who have more experience compared to other positions in the bank.

4.2.5. Work Experience in their present position

Table 9 Experience in their current position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 less than 1 year	29	26.9%	26.9	26.9
	2 One-Three years	40	37.0%	37.0	63.9
	3 four-six years	27	25.0%	25.0	88.9
	4 greater than 6 years	12	11.1%	11.1	100.0
	Total	108	100.0	100.0	

Source: *SPSS Output from Survey Data, 2016*

From the table above it can be shown that more than 63.9 % of the respondents have less than three years of experience in their existing credit and project financing related positions, implying the recent commencement of the sectors in the private commercial banks. On the other hand,

some departments or divisions like CRM are recently opened in these private banks and yet there are also three banks which do not yet opened.

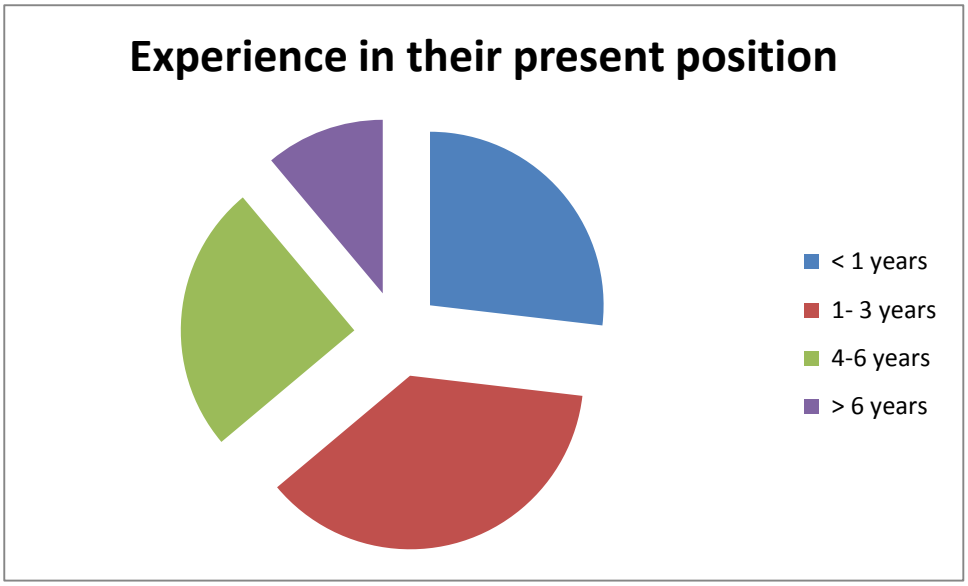


Figure 3Experience in their present position

Source: SPSS Output from Survey Data, 2016

As the above figure clearly demonstrates, unlike the experience of the professional staffs in the banking industry, by which majority of the respondents have more than four years of experience, majority of the respondents have less than three years of experience in their present positions of "Credit Appraisal and Risk Management related positions". This may be explained, following interview response obtained from higher officials, that these positions are, in most banks a point of transitions from professional to supervisory positions. Many of the professional staffs are well experienced with credit and other related experience at branch level, with adequate knowledge. Hence, this may be one of the clarifications obtained otherwise.

4.2.6. Position of Respondents in each Banks

Cross tabulation is used to show the position of respective respondents in each bank. The cross tabulation is considered by taking Positions on the row variable and present positions in the column. The following table clearly presents the relationship.

Table 10 Position of respondents in the six Banks

			BANK						Total
			1 DAB	2 AIB	3 BOA	4 WEB	5 UNB	6 NIB	
POS	1 CREDIT APPRAISAL (ANALYST)	Count	9	6	7	5	7	10	44
		% within BANK	42.9%	35.3%	38.9%	33.3%	50.0%	43.5%	40.7%
		% of Total	8.3%	5.6%	6.5%	4.6%	6.5%	9.3%	40.7%
	2 FOLLOW UP OFICER	Count	6	4	4	4	4	4	26
		% within BANK	28.6%	23.5%	22.2%	26.7%	28.6%	17.4%	24.1%
		% of Total	5.6%	3.7%	3.7%	3.7%	3.7%	3.7%	24.1%
	3 RISK OFFICER	Count	6	4	3	6	3	6	28
		% within BANK	28.6%	23.5%	16.7%	40.0%	21.4%	26.1%	25.9%
		% of Total	5.6%	3.7%	2.8%	5.6%	2.8%	5.6%	25.9%
	4 CRM	Count	0	3	4	0	0	3	10
		% within BANK	0.0%	17.6%	22.2%	0.0%	0.0%	13.0%	9.3%
		% of Total	0.0%	2.8%	3.7%	0.0%	0.0%	2.8%	9.3%
Total		Count	21	17	18	15	14	23	108
		% within BANK	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	19.4%	15.7%	16.7%	13.9%	13.0%	21.3%	100.0%

Source: *SPSS Output from Survey Data, 2016*

From the table above, majority of the respondents are from Credit Appraisal (analysis) department, 44 respondents (40.74%) signifying that most of the credit work is accomplished under this section. On the other hand, only 10 respondents, (9.2%) were found in only three Banks from CRM department as the department is under formation in some private commercial banks only. This also confirms that project financing is still at its development stage in the private commercial banks. To illustrate the situation, the following chart describes details of the compositions in each bank.

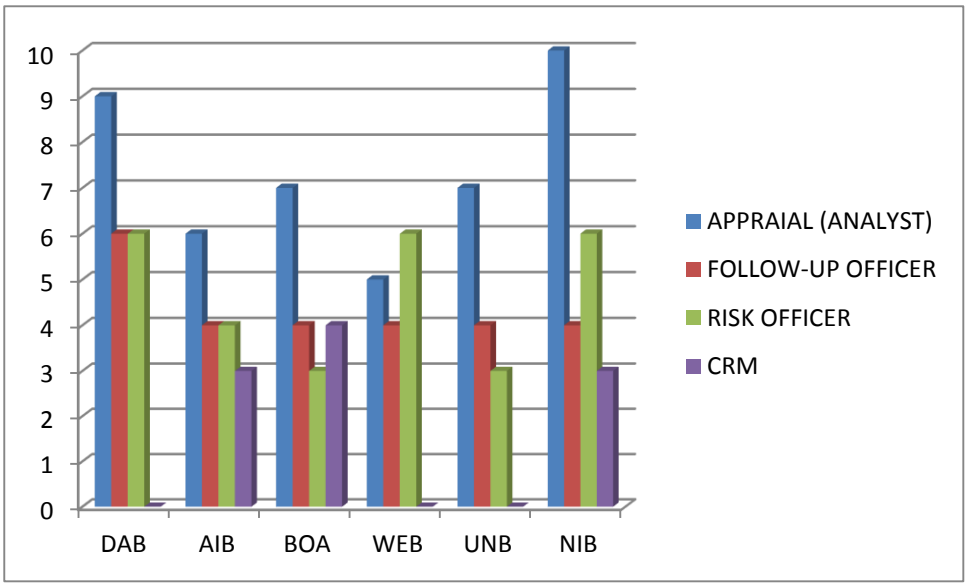


Figure 4 Position of respondents in the six Banks

Source: *SPSS Output from Survey Data, 2016*

Assessment of the Factors

4.2.7. Appraisal

4.2.7.1. Background information of the customer, 5C's and Basic Appraisals

The response obtained on Background information of the customer, 5C's and Basic Appraisals reveals that the mean value for the category on average is 3.78. This implies that the overall average response for the basic appraisal task including the 5c's are considered in Project loan, which is to the extent of above average. Among the variables under the category, collection of all the necessary documents from client before credit process, proper analysis of the feasibility study to identify risk exposure, looking at relevant experience of the loan applicants, consideration of cash flow projections of a given project before financing, consideration of capacity of the loan applicants, consideration of the past track record of repayment, if any, looking at the character of loan applicants and looking at the credit trustworthiness of loan applicants have got relatively higher rates as described by a mean score of above 4.0.

On the other hand, from the 20 items in the category of basic appraisals, availability of separate credit procedure for project financing, existence of separate division for project financing in the

structure and requirement for certified feasibility study from all project clients/ borrowers have got mean of less than average. Their scores are 2.88, 2.44 and 2.99 respectively. Implying that the private banks are not yet fully taking separate concern for the project financing as a different kind of financing from the ordinary working capital financing.

The same result has been substantiated from the interview made with the credit department officials saying that much of the operational procedures undertaken to finance the project loan request is more or less similar to the previously used procedures and with same technical professional staffs in the credit department.

In general, as presented in table 12 below, there exist favorable basic appraisal and know your customer (KYC) identification mechanisms employed in the private commercial banks, except that there still exist no separate consideration and treatment of Project loan financing from the ordinary credit financing activities.

Table 11 Basic Appraisal Issues and 5Cs

	N	Mean	Std. Deviation	Variance
AP1: The bank has comprehensive credit policy for project financing	108	3.78	1.147	1.315
AP2: The bank has separate credit procedure for project financing	108	2.88	1.228	1.509
AP3: The bank has separate division for project financing in the structure	108	2.44	1.299	1.687
AP4: We collect all the necessary documents from client before credit process	108	4.37	.756	.572
AP5: We demand for certified feasibility study from all project clients/ borrowers	108	2.99	.891	.794
AP6: We properly analyze the feasibility study to identify risk exposure	108	4.09	.768	.589
AP7: We consider professionalism in the respective projects	108	3.74	.980	.960

AP8: We look at relevant experience of the loan applicants	108	4.07	.782	.611
AP9: We primarily consider cash flow projections of a given project before we finance it	108	4.11	.835	.698
AP10: We critically analyze and comment on assumptions employed for cash flow projection	108	3.93	.828	.686
AP11: We consider capacity of the loan applicants	108	4.21	.698	.487
AP12: We look at the long term planning horizon of every loan applicant	108	3.70	.800	.640
AP13: We look at the conditions i.e. economic, political, environmental and others, before we finance a project	108	3.97	.826	.681
AP14: We look at collateral security as last way-out for the project loan	108	3.98	1.059	1.121
AP15: We consider the past track record of repayment, if any	108	4.33	.684	.467
AP16: We look at the character of loan applicants	108	4.19	.755	.569
AP17: We look at the credit trustworthiness of loan applicants	108	4.24	.695	.484
AP18: We consider the leadership quality or capacity of managers.	108	3.91	.743	.552
AP19: The bank charge higher interest rate for project loan compared to other loans	108	3.36	1.106	1.224
AP20: Loan delivery time for project financing is longer than a month	108	3.35	1.096	1.202
Total Valid N (list wise)	**108**	**3.78**		

Source: *SPSS Output from Survey Data, 2016*

4.2.7.2. Financial Viability

Respondents were also given a chance to reflect their opinion on overall consideration of the financial viability of the project while financing. Financial viability has got a mean score of 3.79, which is above the average score. Under the category, items of looking at the quality of financial

feasibility study presented, analyzing projected financial reports, calculation of ratio analysis for profitability, efficiency, leverage and analysis of projected growth in sales of the banks borrowers got higher scores of more than 4.0. The actual mean scores are 4.12, 4.18, 4.28 and 4.28 respectively; implying good concern is being given in the analysis of financial feasibility as far as the aforementioned items are concerned.

Contrary to this fact, however, it has been noted from the response that invitation or involvement of appropriate technical experts to the bank for new or unfamiliar project request is being ranked below average, with an average score of 2.69 implying that, unlike DBE, private commercial banks are not involved in bridging the technical inadequacy gap observed in project financing by inviting appropriate experts in the area.

Table 12 Financial analysis and viability

Factors considered	N	Mean	Std. Deviation	Variance
FIAP1: We request for past financial reports from all clients for project finance, if any	108	3.91	1.028	1.057
FIAP2: We look the quality of financial feasibility study presented	108	4.12	0.794	0.63
FIAP3: We analyze projected financial reports	108	4.18	0.721	0.52
FIAP4: We calculate ratio analysis for profitability, efficiency, leverage	108	4.28	0.795	0.632
FIAP5: We analyze projected growth in sales of our clients/ borrowers	108	4.28	0.759	0.576
FIAP6: Interest coverage ratio is important before we finance	108	3.5	1.037	1.075
FIAP7: We look for sound financial management policies of our borrowers	108	3.42	1.015	1.03
FIAP8: We only finance projects with sound financial management policies	108	3.44	0.91	0.828
FIAP9: Financial analysis determines credit strength of a client	108	3.97	0.742	0.551
FIAP10: We invite technical experts if the project type is new for the bank	108	2.69	1.045	1.093
FIAP11: We consider the projected net worth of the business	108	3.91	0.902	0.814
Valid N (list wise)	**108**	**3.79**		

Source: SPSS Output from Survey Data, 2016

4.2.7.3. Technical Appraisal

Technical appraisal is vital in maintaining quality of project loans. Meanwhile, responses obtained from the six banks depicts that the mean value of the items stated under the factor is 3.81, which is sharply above average value. Besides three of the ten items in this category have scored mean value of above 4.0. Namely, we look at the location of the project, considering availability of raw material before financing a project and financing projects with potential market/ trade scored mean value of 4.21, 4.02 and 4.45, respectively. This response illustrates that private banks are more concerned with market situations, availability of raw materials and most importantly location of the project sight while financing project loans.

Despite the above facts, the item which states qualified staff to assess the level of technology" got the lowest mean score of 2.75, which is again slightly lower than the average. This implies that, Banks are relatively concerned on traditional method of technical appraisal. Since recent projects are more capital oriented, the challenge will be precipitated by not having such a professional expert who have the right know how and experience of the technology.

This fact goes more in congruence with the interview results obtained from credit officials. The interview response for the question about the availability of technical staffs that can support in explaining the technological fitness of the project items, or whether or not invitation of any external technology expert, if not available in house, was not made. Instead, the officials answered, all technical appraisals are conducted based on entirely the information given by the customer or the presented feasibility study.

Table 13 Technical Appraisal

	N	Mean	Std. Deviation	Variance
APTECK1: We finance projects with potential market/ trade	108	4.21	.670	.450
APTECK2: We look at consumption behaviors of the market	108	3.91	.849	.720
APTECK3: We look at the marketing strategy of loan applicants	108	3.91	.870	.758
APTECK4: We finance projects that use appropriate technology	108	3.30	.788	.622
APTECK5: We have qualified staff to assess the level of technology.	108	2.78	.879	.773
APTECK6: We look at access to infrastructure	108	3.80	.829	.687
APTECK7: We consider availability of raw material before we finance a project	108	4.02	.831	.691
APTECK8: We look at the implementation plan of all projects	108	3.96	.784	.615
APTECK9: We consider if the project has specialized manpower	108	3.86	.880	.775
APTECK10: We look at the location of the project	108	4.45	.974	.736
Total (Valid N (list wise)	**108**	**3.81**		

Source: *SPSS Output from Survey Data, 2016*

4.2.7.4. Credit Rating

Credit rating was assessed using eight categories of questions. The factors mean score was 3.58, which is above average; implying commercial banks are granting loans after analyzing the credit rating. From the questions responded, availability of internal rating system in the bank scored highest mean of 4.06. This is an important tool in the credit management as the rating is particularly important to quantify risk and through rating the debt capacity of the loan applicant

can be determined. The lowest, and in fact below the average rate is scored for usage of both public and private information in rating. The score was 2.81.

The same response is substantiated from the management interview in that the rating was entirely dependent on the available financial and private data. No other public information are inculcated in the rating computation. Besides, some banks are also exempting new borrowers from rating due to the fact that they only use historical financial information and presented private information, instead of using public information.

Table 14 Credit rating

	N	Mean	Std. Deviation	Variance
APRET1: The bank has an internal credit rating system.	108	4.06	1.031	1.062
APRET2: We do credit rating on all projects	108	3.76	1.040	1.082
APRET3: The bank quantifies risk through credit rating	108	3.76	1.022	1.044
APRET4: We rate the management capacity of loan applicants	108	3.80	1.001	1.005
APRET5: Our rating system predicts debt serving capacity of loan applicants	108	3.55	1.017	1.035
APRET6: The rating used can determine deteriorating / non performing loans	108	3.32	.975	.950
APRET7: We use public and private information in rating	108	2.81	.826	.681
APRET8: I know how to use rating system	108	3.64	.961	.924
Total Valid N (list wise)	**108**	**3.58**		

Source: *SPSS Output from Survey Data, 2016*

4.2.7.5. Project Loan Follow-Up

From the response obtained in the category, the follow up factor scored mean value of 3.29, which is only slightly above the average score. However, there are relatively many questions in this category that were responded below average scores indicating a crucial problem in the factor analysis.

The categories, indicated below the average mean score of 3.0 are; involvement of appropriate technical expert in project follow up, invitation of independent professional assessors if required, maintaining separate report for project loans and existence of a separate division or department to follow project loans in the bank with their respective scores of 2.82, 2.87, 2.85 and 2.77.

The response for NPLs in project finance is greater than other sectors is 2.71, indicating slight disagreements. However, this response is in contradiction to the response obtained from the interview of higher officials in the follow up departments and credit department managers as well.

While giving the response during the interview, one of the managers explained that granting loan is a simple task to the bank management compared to the challenges faced in collecting repayments. This fact is more applicable in project financing, as there are additional challenges attributing to the special features to the method of financing.

Unlike the other five sets or categories of responses, no question in this category scored a mean value of more than 4.0. Rather most of the favorable scores are also above the mean averages with a slight margin, again indicating that there are considerable challenges in the follow up activities of the project financing.

Table 3 Project loan follow up

	N	Mean	Std. Deviation	Variance
FOLL1: We look at the implementation plan of all projects	108	3.85	.915	.838
FOLL2: We periodically monitor projects financed	108	3.79	.832	.693
FOLL3: The management periodically visit the project site	108	3.21	.928	.861
FOLL4: The Bank management check the progress of project during implementation	108	3.21	.922	.850
FOLL5: Appropriate technical expert will involve in project follow up	108	2.82	.984	.969
FOLL6: We have all types of Engineers to appraise and estimate all collaterals and project assets	108	3.18	.994	.987

FOLL7: We Invite independent professional assessors if required	108	2.87	.977	.955
FOLL8: We maintain separate report for project loans	108	2.85	.863	.744
FOLL9: We know the performance of project loans in the bank	108	3.35	.824	.679
FOLL10: The bank monitors all problem loans	108	3.87	.866	.749
FOLL11: There exist a separate division or department to follow project loans in the bank	108	2.77	1.220	1.488
FOLL12: The NPLs on project loan is higher than NPLs of other sectors	108	2.71	.854	.730
FOLL13: We provide appropriate and adequate grace period for all projects	108	3.73	.903	.815
FOLL14: Interest rate during grace period is collected appropriately	108	3.73	.913	.834
FOLL15: All customers bring implementation schedule of the project	108	3.47	.891	.794
Total Valid N (list wise)	**107**	**3.29**		

Source: *SPSS Output from Survey Data, 2016*

4.2.8. Risk Management Techniques, Diversification, Transfer & Retention

The overall mean score of risk Management technique is 3.72, the study reveals, implying that it is above average. From the variables included under risk Management technique in the study, almost all items in the category scored above average of 3.0, except that availability of separate credit risk management policy scored below average, 2.72. Indicating that risk management techniques of diversification, transfer and retention is implemented in project finance in the banks. However, there is still a problem of assigning or treating the project finance as a separate business division in the risk management aspect.

Four items in the category scored high rate of more than 4.0. These are the bank has a risk management policy, the loan portfolio is invested in different sectors of the economy, diversification has reduced risk exposure in this institution and We consider equity contribution

of the borrower both in kind or investment progress and in cash with their respective score of 4.31, 4.08, 4.10 and 4.04. This implies the banks are using diversification of sectors as one of the techniques in reducing risk and unlike DBE; these banks are considering equity contribution of the borrower in kind.

In their study of publicly-traded bank holding companies (BHCs), Demsetz, (1997) found out that the larger bank holding company were better diversified across regions and loan types, such diversification reduced the volatility of banks' stock returns and improved the loan performance.

Table 16 Risk management practice

	N	Mean	Std. Deviation	Variance
RISMA1: The bank has a risk management policy	108	4.31	.805	.648
RISMA2: The bank has a separate credit risk management policy for project finance	108	2.72	.874	.763
RISMA3: The bank has pre-set concentration limits in every sector	108	3.91	.849	.720
RISMA4: The bank has pre set portfolio limits	108	3.96	.819	.672
RISMA5: The bank quickly responds to market changes	108	3.43	.969	.938
RISMA6: We use risk based pricing in our loan portfolio	108	3.54	.911	.830
RISMA7: We periodically assess credit quality of our loan portfolio	108	3.93	.872	.761
RISMA8: Our project loan portfolio is fully insured	108	3.57	.959	.920
RISMA9: Clients are requested to provide financial guarantees	108	3.33	1.032	1.065
RISMA10: Risk transfer improves loan recovery	108	3.57	.811	.658
RISMA11: The loan portfolio is invested in different sectors of the economy	108	4.08	.750	.563
RISMA12: We do not concentrate our loan portfolio in particular sectors of the economy	108	3.87	.968	.936

RISMA13: Diversification has reduced risk exposure in this institution	108	4.10	.735	.541
RISMA14: Default level have reduced due to diversification	108	3.83	.704	.495
RISMA15: We have widely used risk retention to know how much that exist in our loan portfolio	108	3.48	.779	.607
RISMA16: We consider equity contribution of the borrower both in kind or investment progress and in cash	108	4.04	.709	.503
RISMA17: Cost overrun, if any, on project cost is covered by the borrower	108	3.58	.877	.769
Total Valid N (listwise)	**108**	**3.72**		

Source: *SPSS Output from Survey Data, 2016*

4.3. Project Loan Performance

4.3.1. NPLs Ratios on the Overall loan Performance

The quality of loans disbursed is measured, among others, by the level of loan arrears accumulated after the repayment schedule. National Bank of Ethiopia for this purpose, classified the loans in to five categories, namely "pass", "Special mention", "substandard", "doubtful" and "loss". The last three classifications are termed as Non Performing Loans based on the extent of the arrears day of more than 90 days. The following table presents the NPLs ratio of the six private commercial banks in Ethiopia for the financial years starting from 2005 up to 2014.

Table 17 NPLs Ratio of the six Banks (ratio of total NPLs to total outstanding loans)

Bank	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
DAB	6.72%	6.21%	5.95%	5.89%	7.3%	2.9%	3.33%	2.4%	5.46%	1.77%
AIB	12.02%	9.56%	7.36%	8.66%	5.26%	7.35%	4.5%	4.25%	5.12%	2.3%
Abyssinia	12.40%	4.94%	10.54%	12.87%	5.25 %	3.95%	3.97%	3.76%	2.78%	1.53%

WEB	8.41%	4.85%	5.25%	8.39%	7.7 %	3.5%	3.5%	2.9%	2.71%	1.61%
UB	8.45%	4.18%	4.59%	3.98%	3.76 %	3.35%	3.35%	1.53%	2.53%	1.24%
NIB	11.22%	8.47%	5.56%	6.73%	14.1%	7.4%	5.2%	2.5%	4.02%	3.13%
Average	**9.87%**	**6.37%**	**6.54%**	**7.75%**	**7.23%**	**4.74%**	**3.98%**	**2.89%**	**3.77%**	**1.93%**

Source: *The Respective Banks Annual Reports and Researcher's Computation (2005 – 2014)*

From the table above, it can be inferred that the NPLs ratio of the six private commercial banks under considerations are reducing from year to year. This improvement is observed principally due to learning curve effect and the continuous pressure by the governor. According to the National Bank of Ethiopia, a ratio of 5% is accepted to be non-performing and the higher the ratio from the specified threshold, the worse the loan performance. Performance of loan portfolio may be measured using proxies for credit risk and measures of loan quality such as provision for loan losses, net losses or charge offs, non performing assets, return on net assets and return on equity among others.

On the other hand, the total outstanding loan of each private commercial bank under the study has been increasing rapidly as indicated in the appendix. A high proportion of loans to total assets and rapid growth of the loan portfolio are potential early warning signals of loan quality problems which indicate potential failure Sinkey (1998).

The overall improvement and gradual reduction of the NPLs ratio can be more demonstrated using the following line chart.

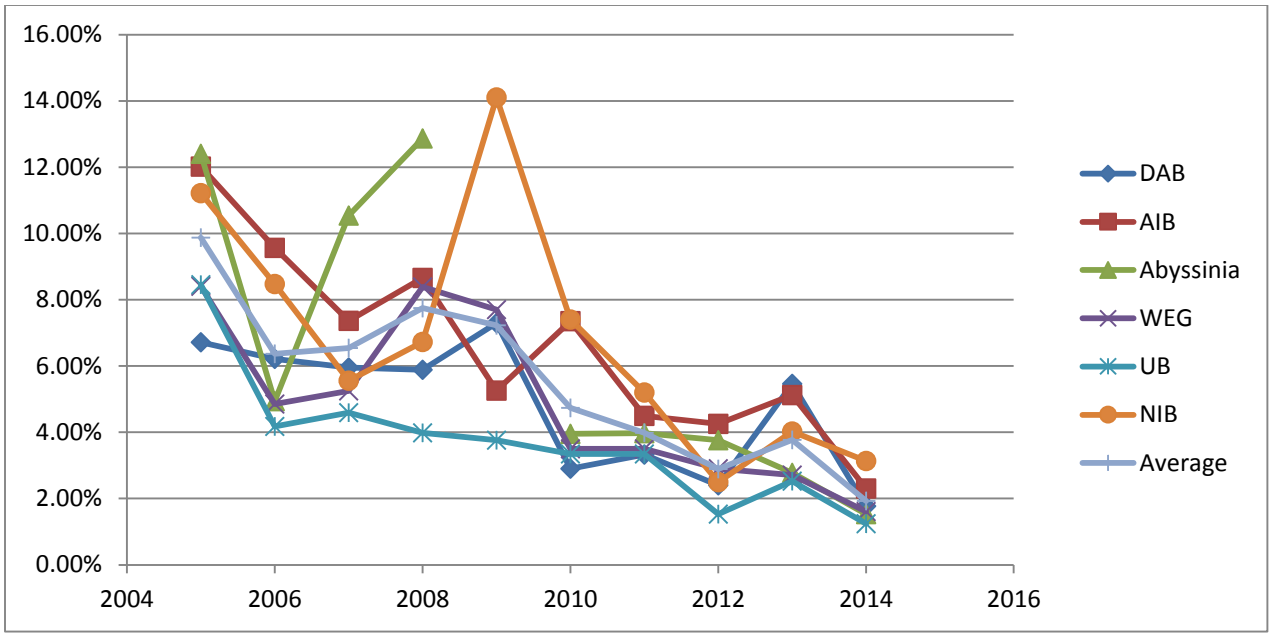


Figure 5 Overall NPLs Trend in the Six Private Commercial Banks

Source: *Computed from Annual & Internal Reports of Sample Commercial Banks (2005-2014)*

Therefore, from the figure, it can be clearly revealed that the average NPLs ratios of the six commercial banks under considerations are declining, as indicated by the average (Grid line). The figure stood at 9.87% in 2005, 6.37% in 2006, and further declined to 1.93% at the end of 2014. The NPLs performance for some private Banks had even go higher up to 14% in 2009, while in 2013 almost all private commercial Banks under the study have complied with the maximum Directive requirement of 5%, except DAB and AIB, which were at a slightly above the NBE's threshold.

4.3.2. NPLs Ratios on Project Loans

The preceding illustration considers the overall credit performance of the six banks at the total portfolio level. The report doesn't indicate the sectoral contribution to NPLs. However, from the observations and reviews made to the internal report and monthly loan return of each bank, the contribution of each sector is with varying performances. The Project loans, especially new project financing have relatively higher contribution compared to other types of financing.

Moreover, unlike the average normal loan NPLs performance, which is showing an improvement in recent years, the project performance in respect of the NPLs is increasing from time to time.

Table 18 NPLs ratio on Project loans in the six Banks

Bank	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
DAB	4.49%	3.74%	4.97%	6.02%	7.30%	5.90%	5.44%	5.99%	8.09%	9.31%
AIB	5.13%	6.56%	8.06%	9.39%	10.65%	6.52%	7.62%	6.95%	7.99%	9.4%
BOA	8.23%	10.1%	9.91%	10.87%	8.27%	9.95%	8.95%	10.22%	12.35%	10.36%
WEB	8.11%	9.43%	10.25%	8.39%	5.33%	8.35%	6.74%	8.90%	9.63%	10.56%
UB	6.31%	6.78%	5.31%	4.29%	3.77%	5.52%	6.36%	7.54%	7.68%	8.8%
NIB	6.09%	5.21%	6.59%	5.76%	10.62%	8.59%	6.98%	12.26%	9.69%	10.22%
Ave.	**6.39%**	**6.97%**	**7.5%**	**7.45%**	**7.66%**	**7.47%**	**7.02%**	**8.64%**	**9.24%**	**9.77%**

Source: *The Respective Banks Internal & Annual Reports and Researcher's Computation (2005 –2014)*

According to the time series ratio data presented in the above table, in contrary to the improvement of overall average NPLs ratios of the private commercial banks as described in the preceding section, the NPLs ratio of these banks with respect to the project loan portfolio is rising and with significant rate. The average NPLs rate of project loan throughout the ten years under considerations are 6.39% in 2005, 6.97% in 2006, 7.5% in 2007, 7.45% in 2008, 7.66% in 2009, 7.47% in 2010, 7.02% in 2011, 8.64% in 2012, 9.24% in 2013 and 9.77% in 2014. This trend signifies that, the NPLs ratio in Project financing performance is increasing from year to year.

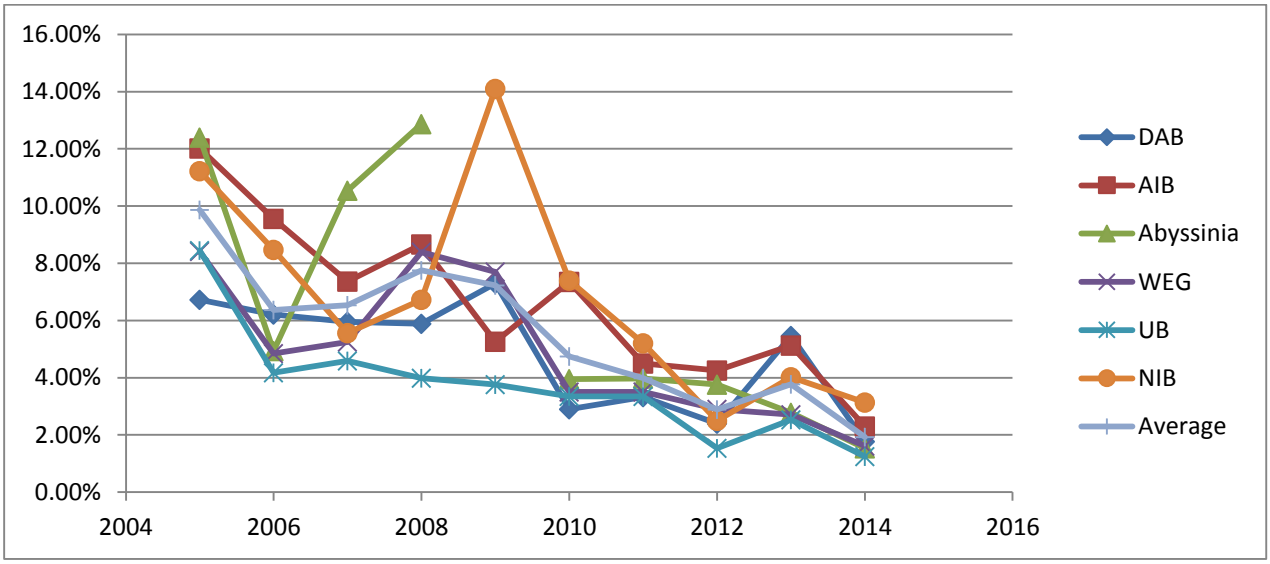


Figure 6 NPLs Trend in Project Loan Financing

Source: *Computed from Internal Reports of Sample Commercial Banks (2005-2014)*

This figure further illustrates that the NPLs performance of the project financing is slightly rising from the initial figure. This fact is however, in contrary to the response obtained from two of the higher officials, who were explaining that the project loan capacity of the Banks is improving from the previous times.

4.3.3. Provision Ratio

The provision ratio is a direct implication of the overall NPLS ratio.

Table 19 Provision ratio of the six banks (Total provision to outstanding loan portfolio)

Bank	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
DAB	3.3%	2.72%	2.28%	2.37%	2.35%	2.17%	2.03%	2.11%	2.14%	1.8%
AIB	5.5%	1%	1.2%	1.4%	5.82%	4.95%	3.77%	2.78%	2.36%	2.3%
BOA	5.24%	3.21%	4.9%	9.8%	10.90%	8.00%	3.45%	2.64%	2.03%	1.8%
WEB	5.4%	1.9%	1.5%	6.3%	6.50%	4.14%	4.76%	2.49%	2.29%	1.7%
UB	4%	2.99%	3.1%	3.67%	3.16%	3.79%	2.85%	2.39%	1.89%	1.46%
NIB	1.67%	1.64%	3.2%	4.1%	4.83%	4.06%	4.30%	2.79%	2.57%	2.1%
Ave.	**4.18%**	**2.24%**	**2.7%**	**4.6%**	**5.59%**	**4.50%**	**3.50%**	**2.50%**	**2.20%**	**1.86%**

Source: *The Respective Banks Internal & Annual Reports and Researcher's Computation (2005 –2014)*

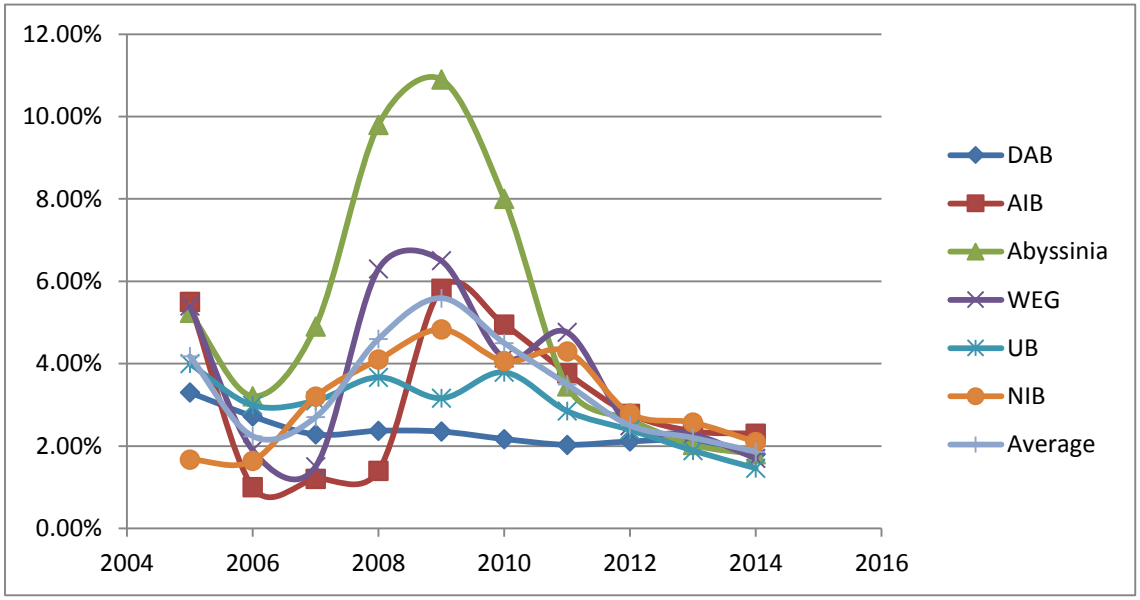


Figure 7 Provision trend of the six banks

Source: *The Respective Banks Internal & Annual Reports and Researcher's Computation (2005 –2014)*

4.4. Relationship between Factors

The Spearman's order correlation was used to find out the relationship between factors.

Table 20 Spearman's Correlation test Result

			BASAPP	FINAPP	TECKAPP	CRDTRET	FOLLTEC	CRMTECK	NPLSPRJ
Sp's rho	BASAPP	Correlation Coefficient	1.000	.837**	.735**	.597**	.568**	.568**	-.359**
		Sig. (2-tailed)		.000	.000	.000	.000	.000	.007
		N	108	108	108	108	108	108	108
	FINAPP	Correlation Coefficient	.837**	1.000	.736**	.604**	.599**	.608**	-.313**
		Sig. (2-tailed)	.000		.000	.000	.000	.000	.005
		N	108	108	108	108	108	108	108
	TECKAPP	Correlation Coefficient	.735**	.736**	1.000	.658**	.628**	.640**	-.294*
		Sig. (2-tailed)	.000	.000		.000	.000	.000	.045
		N	108	108	108	108	108	108	108
	CRDTRET	Correlation Coefficient	.597**	.604**	.658**	1.000	.559**	.630**	-.123
		Sig. (2-tailed)	.000	.000	.000		.000	.000	.206
		N	108	108	108	108	108	108	108
	FOLLTEC	Correlation Coefficient	.568**	.599**	.628**	.559**	1.000	.536**	-.531**
		Sig. (2-tailed)	.000	.000	.000	.000		.000	.002
		N	108	108	108	108	108	108	108
	CRMTECK	Correlation Coefficient	.568**	.608**	.640**	.630**	.536**	1.000	-.357**
		Sig. (2-tailed)	.000	.000	.000	.000	.000		.008
		N	108	108	108	108	108	108	108
	NPLSPRJ	Correlation Coefficient	-.359**	-.313**	-.294*	-.123	-.531**	-.357**	1.000
		Sig. (2-tailed)	.007	.005	.045	.206	.002	.008	
		N	108	108	108	108	108	108	108

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

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

Source: *SPSS Output from Survey Data, 2016*

4.4.1. Relationship between Basic Loan Appraisal and Performance of the Project Loan

In examining the relationship between the basic appraisals of the project loan, that is analyzing background information of the applicant and analyzing the 5c's, it is observed that there exist a significant negative correlation between the basic appraisal and NPL ratio of project loan financing. The correlation coefficient is r= -.359, p- value <0.01.

This implies that as the process of loan appraisal is improved and basic analyses of 5c's are done properly, the NPLs on project loan will decline and performance of loan quality will also improves. Proper loan appraisal will help identify and analyze loss exposures, use a combination of techniques to handle each exposure to ensure loan performance of any given portfolio.

These findings are in agreement with literature by Rupp, (2002) whose work asserts that the appraisal technique process helps to identify and analyze loss exposures, and this leads to select control techniques to handle these exposures. Rupp's supports the above findings by stating that the control systems enhances management of outstanding risk assets, and enhances normal repayment which helps to monitor business risk. It is also in line with the work of Santomero, (1996), Barents PLC (1998), Bannet (1984) and Harrison (1996) who argue that the appraisal process helps to predict the credit worthiness of would be borrowers. Loan appraisal process looks at the 5Cs of credit as discussed by Pandey, (1997), Van Horne, (1998), Sinkey, (1998) and Allyn & Bacon (1996) will lead to formation of good loan portfolio.

The relationship is further affirmed by the interview response obtained from the credit manager in one of the private banks, stating that maximum effort and attention is being given for appraisal work and the department as well in order to enhance the quality of loans. For this reason only experienced and with high level of educational qualified staffs are recruited for the position. This response goes in line with the basic profile of the respondents obtained using the primary data, by which most of the second degree graduates are available in the credit appraisal departments.

4.4.2. Relationship between Financial Appraisal and Performance of the Project Loan

The correlation test between financial viability, financial analysis and loan performance revealed a significant negative relationship between financial viability, financial analysis and the ratio of NPLs to total project loan advances ($r = -0.313$, $p = < 0.01$). This implies that whenever the project's financial viability improves, following proper appraisal of the financial viability of a particular project, then the NPLs of Project loans will decrease. Similarly, whenever the financial analysis of a given project is done properly, then this will lead to an improvement in the loan performance that is to say; an improvement in the ratios of non – performing loans to total advances. The finding is supported by the work of Griffith, (1985) whose work reveal that use of such ratios help in judging the attractiveness or creditworthiness of a company and can enhance loan performance. Griffiths work points out that such ratio analysis will tell more about the profitability, capital and liquidity position of a given enterprises and these are important elements for an improvement in loan performance.

4.4.3. Relationship between Technical Appraisal and Performance of the Project Loan

The correlation coefficient signifies that there was a moderately significant negative relationship between Technical Appraisal to total non – performing loans to total advances ratio ($r = -0.294$, $p < 0.05$). Implying that when the technical feasibility of a project loan is done properly, the NPLs ratio will reduce significantly. This further implies that when there is technical change in form of new technology adoption which leads to productivity, the loan performance will also improve. This is in line with the work of Fria, (2002) who discusses that technologies produce impact on the production process, and being first to adopt a new and more efficient technique means being able to enjoy productivity gains before rivals and this has an implication on the efficiency in loan servicing.

4.4.4. Relationship between Credit Rating and Performance of the Project Loan

The correlation test between financial credit rating and Project loan performance revealed an insignificant negative relationship between credit rating and the ratio of NPLs to total project

loan advances (r = -0.123, both at 1% and 5% level of significance). This is in contrary to the work of Fernando et al. (2004), who argued that ratings measure and reveal the long-term fundamental credit strength of companies, that is to say their long-term ability and willingness to meet debt servicing obligations. This may happen due to the fact that the private commercial banks are not using wide range of source of information, both private and public, in rating as explained by the primary questionnaire interview.

4.4.5. Relationship between Project Follow up and Project loan Performance

As per the correlation test observed from the relationship, there is a significant negative correlation between the credit follow-up of project loans and Non-performing loan ratio. This is illustrated by a correlation coefficient of (-0.531 at p <0.01). The coefficient is also the high degree of correlation observed from other variables under consideration. This is in agreement with the mean value analysis undertaken in the preceding discussions.

Monitoring and follow-up involved among others regular inspection and enforcement of recovery by the lending banks to ensure funds obtained have been used for the intended purpose and subsequently repaid.

The finding of this relationship is further supported by Robinson (1962) and Anjichi (1994), who stated that 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 and maintenance of plant and equipment. Inadequate maintenance is often an early sign of financial distress.

This is also in agreement with (Machiraju, 2006), who explained that banks rarely lose money solely because the initial decision to lend was wrong. Even where there are greater risks that the banks recognize, they only cause a loss after giving a warning sign). More banks lose money because they do not monitor their borrower’s property, and fail to recognize warning signs early enough. When banks fail to give due attention to the borrowers and what they are doing with the money, then they will fail to see the risk of loss. The objective of supervising a loan is to verify whether the basis on which the lending decision was taken continues to hold good and to ascertain the loan funds are being properly utilized for the purpose they were granted.

4.4.6. Relationship between Credit Risk Management and Project loan Performance

As demonstrated by the Spearman's correlation matrix, there was significant negative relationship between credit risk management with the ratio of non – performing project loans to total advances, ($r = -0.357$, $p < 0.01$). This implies that when the process of risk management is improved through both risk transfer and diversification, the loan performance will also improve. This finding is supported by Parsley (1996), McDermott (1977) and the Economist (2001), who argues that credit-derivative, helps to hedge credit exposures and will realign the portfolios. It provides insurance against default that the value of the underlying asset. It is also explained that when diversification of loan portfolio is improved then loan performance will also improve. Note that diversification of loan portfolio mean investing the loan portfolio in different sectors of the economy, or different region and this will control risk and lead to loan performance which is in line with the work of Brannan (2000), who argued that diversification is the primary tool for lenders to control borrower risk and realize loan performance. This was also supported by Wilson (1998), who advocates for diversification of loan portfolio across nations where the benefits are much stronger than they are when diversification occurs across sectors in a given economy.

4.4.7. Relationship between Independent Factors

The correlation test between factor categories of Appraisal, Follow up and Credit risk management signifies that the intra correlation between all factors are significant with a correlation coefficient of more than 0.5, at $p < 0.01$. This implies that the factors taken as independent variables are all contributing to the performance of the Project loan in the private commercial banks under consideration.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMENDATIONS

5.1. Conclusion

The broad objective of this research was to identify and examine the major factors contributing to the performance of project financing of private commercial banks in Ethiopia. For this intention, the study was intended to answer quite specific questions which were derived from this broader objective. And hence, the study focused on examining the relationship between project loan appraisal, project loan follow-up and credit Risk management with project loan performance.

Mixed research approach was used to answer the specific questions of this research and achieve the principal objective of the study. Based on the research analysis and interpretation, the findings revealed the following conclusions.

The study indicated that there is an indirect relationship between basic project loan appraisals and analysis of the 5c's with the non-performing loans of project financing ($r = -0.359$). In other words, there is a positive correlation between basic loan appraisal and project loan performance. This implies, proper appraisal of the project loan before financing is very vital for the good performance of the project loan. The financial appraisal is also found to be directly related to loan performance indicating that proper financial viability study of the project and borrowing those with satisfactory financial forecast and position will reduce the NPLs and hence improve the performance of the project loans.

The relationship between technical feasibility and non performing project loan was moderately significantly negative ($r = -0.294$, $p<0.05$). Again, indicating that technical change or technological change is an important factor that contributes to increased productivity which has strong contribution to loan performance.

The relationship between credit risk rating and loan performance was not significant as the magnitude of relationship was not strong which meant that credit risk rating is an important factor for the performance of project loan as indicated by the primary data response and mean

value of more than average score (3.58 out of 5), but has a slight contribution to loan performance. This tells that establishing an internal credit rating system is important to minimize risk of losses inherent in project financing.

In examining the relationship between the project loan follow-up and monitoring with the project financing performance, there exist strong, significant and quite remarkable relationships. This was indicated both by the lowest mean score of the responses (3.29 out of 5) and quite significant correlation coefficient obtained from the Spearman's rho ($r = -0.531$, $p<0.01$). This signifies that credit follow-up and monitoring plays a vital role in credit performance.

Finally, the relationship between credit risk management and NPLs on project loan was significant and negative ($r = -0.357$, $p<0.01$) which is expressed in terms of risk transfer, diversification and risk retention techniques. This signifies the need for banks to use insurance firms to take on risk in the form of insurance covers for project loans, the need for diversifying loan portfolio to different sectors and the need to limit amount of risk that bank take on their loan portfolio.

In recapitulating the findings, the study demonstrated that the three primary factors of Appraisal, Credit Follow-up and Risk management have significant relationship to the project loan performance.

5.2. Recommendations

Based on the in-depth examination and subsequent findings from the study, the following recommendations are forwarded;

- Private Banks should formulate an appraisal process or procedures for project financing that would encompass matters with basic identification of credit worthy customers, comprehensive credit analysis and authentic sanctioning process. Like other types of financing, the appraisal process should also capture consideration of basic 5C's, including capital adequacy, capacity of the applicant, value of the collateral, repayment history (character) and the overall business conditions. These private banks should also make use of approved and certified feasibility report of the proposed project which was suggested by appropriate technical professionals before financing.

- In project financing, it is important for Private Banks to lend to projects and promoters with profitable and strong financial positions. Banks, for such a reason should increase the capacity of the professionals in this respect in order to analyze the financial worthiness of the project more robustly. Technical experts should be invited in case of new and unusual loan requests.
- In addition, the project promoters or borrowers should be maintaining sound financial management systems that ensure accountability, efficiency, and solvency in order to be financed. It is also important to make a detailed assessment of financial viability through use of tools like ratio analysis to judge the attractiveness and creditworthiness, liquidity levels, efficiency, profitability, leverage of a given company before financing.

- Private Banks should critically consider the technology and production process of a given project both in the short and in the long term before financing. Proper Technical appraisal is mandatory in this regard both for the technological competency and locations of a project. In some instances, the private commercial banks should avoid financing complex projects until such time that their capacity warrants them to do so. Private Banks shall either employee qualified staffs to assess the level of technology in each project or invite external assessors to assure the technical feasibility of the project.

- Internal credit rating should be part and parcel of the appraisal process, project loan policy and procedure, even though the factor is not significantly correlated with the loan performance. This is because from the questionnaire response as well as information obtained from the interview; it was understand that some of the Private Commercial Banks do not use credit rating for new projects while analyzing the project. In addition technical staff should be trained to be able to conceptualize, design, and made operational an internal credit rating system that suits the banks' operations to control risk exposures.

- More importantly, Private commercial Banks in Ethiopia should make timely and proper follow-up and monitor project loans financed in order to keep the performance of the loan healthy. Borrowing money is simple compared to collection. Banks should

give special attention to project loans before and after disbursement. Proactive management is essential in reducing or minimizing the default rate of the loan, and such actions could be more addressed from the initial appraisal process of the loan. However, the post disbursement follow-up is very vital in collecting the disbursed loan in accordance with the schedule of repayment. In this regard, both the management and technical staffs should periodical visit and monitor status of projects financed. For the smooth operation of such follow up, a separate report of projects financed by the Bank and progress of each project should be maintained. It is also recommended that, at least a separate division for project financing should be established in these private commercial banks, if not at department level.

- Private commercial Banks should also increase use of risk transfers through insurance to minimize loss in case of default. Diversification of loan portfolio should be part and parcel of banks policy in an intention to spread risk. Loan portfolio should be invested in different sectors; regions. This helps to ascertain how much interest rate to charge for a given loan as it summarize and quantify risk in a given loan portfolio. Banks should pursue a balanced approach of profit maximization and risk management lest they engage in aggressive lending and unhealthy competition that would lead to selecting borrowers that would default.

5.3. Areas for Further Research

The study was only focused on the six privately owned commercial Banks in Ethiopia. However, it could be expanded to cover other commercial bank in the country. The study also concentrated on establishing the relationship between credit appraisal, follow-up and management and project loan performance. This should also be widened to establish the relationship between credit management and performance of commercial banks.

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Appendices

Appendix 1

Questionnaire

ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MBA PROGRAM

Dear respondents

This questionnaire is designed to collect data for the research to be conducted on the topic; "**Assessment of the Performance of Project Financing: A study on Selected Private Commercial Banks in Ethiopia"** which will be used as an input for the research in partial fulfillment of Masters in Business Administration (MBA).

To arrive at appropriate conclusion, you are kindly requested to provide with accurate, complete and genuine data to the best of your knowledge. I would like to assure you that all the information, written or otherwise, collected from you will remain confidential and be used for the intended purpose only.

General Direction

- There is no need of writing your name.
- To make the research more valid and reliable, your genuine responses are highly vital.

Thank you in advance for your cooperation and sacrifice of your precious time.

Note: For any enquiry please contact through this number 09 11 03 56 04

General Instructions: Please Put **(✓)** Mark in the box provided next to each choice.

I. General Information

1. Name of Your Bank _____

2. Respondent's sex

   A. Male ☐ B) Female ☐

3. Respondent's Level of Education?

   A. Diploma ☐ D. PH.D ☐

   B. First Degree ☐ E. Any other, specify _____

   C. Master Degree ☐

4. Work Experience in the Bank;

   A. < one year ☐ C. 4-6 Years ☐

   B. 1-3 Years ☐ D. > 6 years ☐

5. Current position;

   A. Analyst (Appraisal officer) ☐ C) Credit Relationship manager ☐

   B. Credit Follow-up Officer ☐ D) Any other (please specify)_____

   C. Risk Officer ☐

6. Work Experience in this position;

   A. < one year ☐ C) 4-6 Years ☐

   B. 1-3 Years ☐ D) > 6 years ☐

II. Project Financing Related Questions

SECTION I: CREDIT PROCESS AND APPRAISAL

Please respond to the following statements by indicating the extent to which you agree or disagree as per the given choices. Please circle on the number.

		5	4	3	2	1
	Variables	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
	APPRAISAL					
1	The bank has separate credit policy for project financing	**5**	**4**	**3**	**2**	**1**
2	The bank has separate credit procedure for project financing	**5**	**4**	**3**	**2**	**1**
3	The bank has separate division for project financing in the structure	**5**	**4**	**3**	**2**	**1**
4	We collect all the necessary documents from client before credit process	**5**	**4**	**3**	**2**	**1**
5	We demand for certified feasibility study from all project clients/ borrowers	**5**	**4**	**3**	**2**	**1**
6	We properly analyze the feasibility study to identify risk exposure	**5**	**4**	**3**	**2**	**1**
7	We consider professionalism in the respective projects	**5**	**4**	**3**	**2**	**1**
8	We look at relevant experience of the loan applicants	**5**	**4**	**3**	**2**	**1**
9	We primarily consider cash flow projections of a given project before we finance it	**5**	**4**	**3**	**2**	**1**

10	We critically analyze and comment on assumptions employed for cash flow projection	**5**	**4**	**3**	**2**	**1**
11	We consider capacity of the loan applicants	**5**	**4**	**3**	**2**	**1**
12	We look at the long term planning horizon of every loan applicant	**5**	**4**	**3**	**2**	**1**
13	We look at the conditions i.e. economic, political, environmental and others, before we finance a project	**5**	**4**	**3**	**2**	**1**
14	We look at collateral security as last way-out for the project loan	**5**	**4**	**3**	**2**	**1**
15	We consider the past track record of repayment, if any	**5**	**4**	**3**	**2**	**1**
16	We look at the character of loan applicants	**5**	**4**	**3**	**2**	**1**
17	We look at the credit trustworthiness of loan applicants	**5**	**4**	**3**	**2**	**1**
18	We consider the leadership quality or capacity of managers.	**5**	**4**	**3**	**2**	**1**
19	The bank charge higher interest rate for project loan compared to other loans	**5**	**4**	**3**	**2**	**1**
20	Loan delivery time for project financing is longer than a month	**5**	**4**	**3**	**2**	**1**
	FINANCIAL FEASIBILITY					
1	We request for past financial reports from all clients for project finance, if any	**5**	**4**	**3**	**2**	**1**
2	We look the quality of financial feasibility study presented	**5**	**4**	**3**	**2**	**1**
3	We analyze projected financial reports	**5**	**4**	**3**	**2**	**1**
4	We calculate ratio analysis for profitability, efficiency, leverage	**5**	**4**	**3**	**2**	**1**
5	We analyze projected growth in sales of our clients/ borrowers	**5**	**4**	**3**	**2**	**1**
6	Interest coverage ratio is important before we finance	**5**	**4**	**3**	**2**	**1**
7	We look for sound financial management policies of our borrowers	**5**	**4**	**3**	**2**	**1**

8	We only finance projects with sound financial management policies	**5**	**4**	**3**	**2**	**1**
9	Financial analysis determines credit strength of a client	**5**	**4**	**3**	**2**	**1**
10	We invite technical experts if the project type is new for the bank	**5**	**4**	**3**	**2**	**1**
11	We consider the projected net worth of the business	**5**	**4**	**3**	**2**	**1**
	Variables					
	TECHNICAL FEASIBILITY					
1	We finance projects with potential market/ trade	**5**	**4**	**3**	**2**	**1**
2	We look at consumption behaviors of the market	**5**	**4**	**3**	**2**	**1**
3	We look at the marketing strategy of loan applicants	**5**	**4**	**3**	**2**	**1**
4	We finance projects that use appropriate technology	**5**	**4**	**3**	**2**	**1**
5	We have qualified staff to assess the level of technology.	**5**	**4**	**3**	**2**	**1**
6	We look at access to infrastructure	**5**	**4**	**3**	**2**	**1**
7	We consider availability of raw material before we finance a project	**5**	**4**	**3**	**2**	**1**
8	We look at the implementation plan of all projects	**5**	**4**	**3**	**2**	**1**
9	We consider if the project has specialized manpower	**5**	**4**	**3**	**2**	**1**
10	We look at the location of the project					
	CREDIT RATING					
1	The bank has an internal credit rating system.	**5**	**4**	**3**	**2**	**1**
2	We do credit rating on all projects	**5**	**4**	**3**	**2**	**1**
3	The bank quantifies risk through credit rating	**5**	**4**	**3**	**2**	**1**
4	We rate the management capacity of loan applicants	**5**	**4**	**3**	**2**	**1**

5	Our rating system predicts debt serving capacity of loan applicants	**5**	**4**	**3**	**2**	**1**
6	The rating used can determine deteriorating / non performing loans	**5**	**4**	**3**	**2**	**1**
7	We use public and private information in rating	**5**	**4**	**3**	**2**	**1**
8	I know how to use rating system	**5**	**4**	**3**	**2**	**1**

SECTION II: CREDIT FOLLOW-UP AND MONITORING

Please respond to the following statements by indicating the extent to which you agree or disagree as per the given choices. Please circle on the number

		5	**4**	**3**	**2**	**1**
	Variables	**Strongly agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly disagree**
	CREDIT FOLLOW-UP					
1	We look at the implementation plan of all projects	**5**	**4**	**3**	**2**	**1**
2	We periodically monitor projects financed	**5**	**4**	**3**	**2**	**1**
3	The management periodically visit the project site	**5**	**4**	**3**	**2**	**1**
4	The Bank management check the progress of project during implementation	**5**	**4**	**3**	**2**	**1**
5	Appropriate technical expert will involve in project follow up	**5**	**4**	**3**	**2**	**1**
6	We have all types of Engineers to appraise and estimate all collaterals and project assets	**5**	**4**	**3**	**2**	**1**

7	We invite independent professional assessors if required	**5**	**4**	**3**	**2**	**1**
8	We maintain separate report for project loans	**5**	**4**	**3**	**2**	**1**
9	We know the performance of project loans in the bank	**5**	**4**	**3**	**2**	**1**
10	The bank monitors all problem loans	**5**	**4**	**3**	**2**	**1**
11	There exist a separate division or department to follow project loans in the bank	**5**	**4**	**3**	**2**	**1**
12	The NPLs on project loan is higher than NPLs of other sectors	**5**	**4**	**3**	**2**	**1**
13	We provide appropriate and adequate grace period for all projects	**5**	**4**	**3**	**2**	**1**
14	Interest rate during grace period is collected appropriately	**5**	**4**	**3**	**2**	**1**
15	All customers bring implementation schedule of the project	**5**	**4**	**3**	**2**	**1**

SECTION III: CREDIT RISK MANAGEMENT

Please respond to the following statements by indicating the extent to which you agree or disagree as per the given choices. Please circle on the number

	Variables	**5**	**4**	**3**	**2**	**1**
		Strongly agree	**Agree**	**Uncertai**	**Disagree**	**Strongly disagree**
	CREDIT RISK MANAGEMENT					
1	The bank has a risk management policy	**5**	**4**	**3**	**2**	**1**
2	The bank has a separate credit risk management policy for project finance	**5**	**4**	**3**	**2**	**1**
3	The bank has pre-set concentration limits in every sector	**5**	**4**	**3**	**2**	**1**
4	The bank has pre-set portfolio limits	**5**	**4**	**3**	**2**	**1**

5	The bank quickly responds to market changes	**5**	**4**	**3**	**2**	**1**
6	We use risk based pricing in our loan portfolio	**5**	**4**	**3**	**2**	**1**
7	We periodically assess credit quality of our loan portfolio	**5**	**4**	**3**	**2**	**1**
8	Our project loan portfolio is fully insured	**5**	**4**	**3**	**2**	**1**
9	Clients are requested to provide financial guarantees	**5**	**4**	**3**	**2**	**1**
10	Risk transfer improves loan recovery	**5**	**4**	**3**	**2**	**1**
11	The loan portfolio is invested in different sectors of the economy	**5**	**4**	**3**	**2**	**1**
12	We do not concentrate our loan portfolio in particular sectors of the economy	**5**	**4**	**3**	**2**	**1**
13	Diversification has reduced risk exposure in this institution	**5**	**4**	**3**	**2**	**1**
14	Default level have reduced due to diversification	**5**	**4**	**3**	**2**	**1**
15	We have widely used risk retention to know how much that exist in our loan portfolio	**5**	**4**	**3**	**2**	**1**
16	We consider equity contribution of the borrower both in kind or investment progress and in cash	**5**	**4**	**3**	**2**	**1**
17	Cost overrun, if any, on project cost is covered by the borrower	**5**	**4**	**3**	**2**	**1**

Thanks for your time and cooperation

Appendix 2

Interview questions

This interview's content is confidential and serves the purpose of collecting data for the research study. The researcher guarantees not to disclose respondents' identities in the work.

General Questions

1. Project financing is a recent phenomenon in Private Commercial Banks in Ethiopia. What are the factors attributable for your bank to enter in to such a financing? What are the major difference between your traditional lending and project financing?

2. What kind of Project is financed by the Bank?

3. In your opinion, what type of risk exists in those products?

Question related to Project financing

1. Any bank has to deal with credit risk while financing project. How is the credit risk situation that your bank is dealing with? How many types of credit risk? In your opinion, which one is the most serious risk in project financing by the bank?

2. Could you please kindly tell in detail about the bank's internal credit rating system? In your opinion, is it helpful to your bank's credit management?

3. Could you please kindly tell about bad debt rate control mechanism in your bank while financing a project? Do you have any policies related to delinquent rate control?

4. Could you please kindly provide map of lending procedure and assessment of project financing in your bank?

5. Could you please kindly provide credit risk management structure of your bank?

6. Is there any customer categorization in project financing? What are the criteria for that categorization? What type of customers is most likely to generate bad debt?

7. Did you ever have to loosen credit approval standards due to profit pressure?

8. What do you suggest for better performance of project financing in the future?