ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF PUBLIC POLICY AND DEVELOPMENT MANAGEMENT (DEVELOPMENT)

A STUDY ON MANUFACTURING PROJECT FINANCING BY COMMERCIAL BANK OF ETHIOPIA: CHALLENGES AND PROSPECTS

BY

SHIMELIS TESFAYE RETTA

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A THESIS SUBMITTED TO GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF PUBLIC POLICY AND DEVELOPMENT MANAGEMENT (DEVELOPMENT)

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER IN PUBLIC POLICY AND DEVELOPMENT MANAGEMENT (DEVELOPMENT)

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Approved by board of Examiners

______________________________ Signature ___________ Date ______________

Advisor

______________________________ signature ___________ Date ______________

Internal Examiner

_____________________________ signature _____________ Date _____________

External Examiner

____________________________ Signature ______________ Date _____________

Chair of department of Graduate programs coordinator

ACKNOWLEDGEMENT

First of all, I would like to express my appreciation to God, the Most Merciful and the Most compassionate who has granted me the ability, opportunity and willing to start and complete my study.

Mainly, I would like to thank my advisor Ast. Professor Teferi Regassa for his advice and constructive comments towards the preparation of this paper. Without his help, the thesis could not have been finalized.

The gratitude also goes to my wife Eyerusalem Birru and my children Biniyam and Natan Shimelis for their encouragement and support to reach today. I also would like to thank W/t Hana Argaw and Assegahegn Dagne for their encouragement and invaluable support during my thesis writing.

Thanks also need to be granted for Addis Ababa University College of Business and Economics Department of Public Policy and Development Management (Development). Finally, I want to send my thanks to staffs of Commercial Bank of Ethiopia especially Credit process in providing required data and information needed for the study.

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ACRONYMS

CBE	Commercial Bank of Ethiopia
CPP	Credit Process Procedure
CRM	Customer Relationship Manager
CSA	Central Statistics Authority
IT	Information Technology
GTP	Growth and Transformation Plan
KYC	Know Your Customer
MIS	Management Information System
NBE	National Bank of Ethiopia
NPL	Non Performing Loan
PD	Probability of Default
ROE	Return on Equity
ROA	Return on Asset

ABSTRACT

The importance of manufacturing project to economic growth is unquestionable in that it benefits the economy at large in terms of creating employment opportunity, increasing in the GDP of the nation, import substitution and the like. On the other hand, banks that finance manufacturing projects get large amount of income and profit if they provide loans to large and/or more number of projects. However, care should be taken as to the challenges of manufacturing project financing since they are risky and are undertaken in uncertain, forecasted business environment on the one hand and they need huge investment capital on the other. Hence, the purpose of this study is to assess the challenges and prospects of manufacturing project financing by Commercial Bank of Ethiopia and give the required recommendation as a remedy for solving or reducing the effects of the challenges and utilize the prospects in a better manner.

The study employed both quantitative and qualitative research approaches to achieve the intended objectives. Both primary and secondary data types were used to collect data from managerial and non-managerial credit performers and internal records of the bank. Review of credit documents, questionnaire and semi-structured interview were used for collecting both primary and secondary data types. Simple random and purposive sampling technique was used to select sample employee respondents of CBE. Moreover, descriptive survey method was used. All the close ended questions of the questionnaires were analyzed quantitatively using mean, frequency counts and percentages. Accordingly, the study revealed that the absence of quality and completeness of manufacturing project proposals submitted by customers and poor credit culture of customers of the bank, low level skill of credit performers, lack of support of research unit to credit process of the bank, and absence of adequate data and information in the CBE for credit processing , less availability of data and up-to-date data & information outside CBE are major challenges of the manufacturing project financing by the CBE.

In addition to this the current credit risk grading system of the CBE is found to be important for conducting credit analysis. However the challenges observed is that the parameters are subjective and broad in definition. In areas like Business risk and Management risk are found to be subjective to rate. No industry average in the sector. In Customer relationship risk especially in rating indicators like customer integrity and honesty is a challenge to rate. Finally recommendations were made based on the results of the study. Key recommendations include giving proper advice and seminars to customers, and intensive training, strengthening research& development and Management information system process of the bank, better the bank prepares its own industry average which can be used for internal rating purpose, develop and implement internal rating systems with larger numbers of grades to distinguish finer degrees of credit risk, and setting a policy of submission of project proposals done by known consultancy firms.

Chapter one

Introduction

1.1 Background

Commercial banks have always had an active role in project finance transactions. Actually, modern project finance by commercial banks is generally thought to have begun in the 1930s when a Dallas bank made a non-recourse loan to develop an oil and gas property. It "came of age" in the 1970s and 1980s with the successful financing of North Sea oil and gas projects. This day, beyond their traditional role in project finance transactions; commercial banks are developing new roles in providing advisory services; construction financing; intermediation to permanent long term fixed rate financing; commodity, currency and interest rate risk management; foreign tax absorption; and working capital financing for projects throughout the world,(Gatti, 2008).

The commercial bank of Ethiopia, when established, was known as the State Bank of Ethiopia which had assumed a responsibility to provide a commercial and regulatory role. However, in 1963 the bank was divided into the central bank, the Bank of Ethiopia and the Commercial Bank of Ethiopia. Eventually in 1980, the Ethiopian government decided to merge the Addis Bank with Commercial Bank of Ethiopia, making the CBE the country's sole commercial bank. Addis Bank was created by the Ethiopian government from the merger of the Ethiopian operations of Banco di Napoli and Banco di Romawith the newly nationalized Addis Ababa Bank (CBE, 2009/10)

CBE's credit policy is purely aligned with financing projects in line with government priority area. Those major areas of the CBE's financing include sectors like Commercial Agriculture, Agro-processing and Manufacturing

Industry. Which are identified as crucial economic sectors to bring fast and sustainable develop within the country (CBE,2010/11).

Traditionally Commercial Banks, as the name implies, specializes to give short term credits for marketing and commercial purposes. But in the case of Ethiopian Banking Business Proclamation (2008), which allows bank establishment, does not specifically restrict the banks not give long term financing. However, the National Bank Ethiopia through its Directives and Guidelines control the financial prudence of all banks in Ethiopia. Therefore, the reader should not be confused only by seeing the name commercial bank of Ethiopia.

In Ethiopia, as in many developing countries, the growing demand of investors for infrastructure and investment opportunities in agriculture, industry, construction, hotel and tourism, energy, water, transportation, and mining increases the requirement of more funds to be invested. In this regard, Commercial Bank of Ethiopia (CBE) as the largest bank in the country should be able to finance such projects. As CBE is a State bank, its plan be aligned with the country's five years Growth and Transformation Plan (2010/11-2014/2015) that necessitates new investment opportunities in the different sectors in general and in the manufacturing sectors in particular (Mulugeta,2012).

In the above background, a few questions arise. Does the CBE have sufficient expertise as to how to lend safely to Manufacturing projects? Is the mechanism to identify and measure risks during due diligence in the appraisal process in place? The absence of a straightforward answer to these questions is itself quite disconcerting. Ethiopian bankers are on a learning curve in so far as the understanding the mechanics of manufacturing financing is concerned. For that matter, so are the project promoters, policy makers and regulator.

The lack of expertise resulting in poor confidence level of lenders contributes in impending the growth of manufacturing. This call for a fresh look at the way projects are being appraised by the bankers. Most of this investment in manufacturing is structured as project financing which deviates from traditional corporate financing both in terms of financing structure and risk sharing. It seems that appraisal, primarily based on the strength of the promoter, financial viability and the security is not able to capture the entire range of financing manufacturing (Ibid).

The present research focuses on elaborating and describing the contractual, legal and structural issues in appraisal of manufacturing projects from the perspective of Commercial Bank of Ethiopia. Thereafter, the researcher examines the credit rating mechanism that CBEs use for assessment of risk and statistically examines the attitude of credit officers towards relative importance of risk variables under each factor used in credit scoring.

1.2 Statement of the problem

In Ethiopia since the last two decades banking sector has been playing important role in Economic development of the country. In Ethiopia financial intermediation is heavily depending on the Banks since there is no secondary market as such. In fact the banking sector in Ethiopia is the glue that holds the country's economy.(Tseganesh, 2012)

Most organizations pay more attention to strategic management system such as policy formulation, planning, and to other activities with broader scope. They also focus on specific projects on much investment is made which has great importance on the development, due to defective feasibility study of some project that are performed and presented by project promoters makes CBE's credit appraisal process challenged. Although proper evaluation and appraisal process will help the bank to identify the viability and feasibility of the project, to screen out the negative and positive aspects of the project promoter that required project finance and efficient allocation of scarce resources the analysis of the bank face difficulties within the domain of the proper project credit appraisal.

In addition to the above, the essence of project finance is the analysis of project risks including, among others, construction risk, operational risk, market risk (to both input and output of the project), regulatory risk, insurance risk and currency risk. These risks often are contractually allocated to the parties best able to manage through construction guaranties, power purchase agreements, and other types of output contracts, fuel and raw material supply agreements, transportation contract, indemnification and insurance policies and other contractual agreements. However, project financing in all sectors, commercial banks are exposed to significant market risk as the debt generally issued with recourse or , in some cases, with limited recourse to project sponsor .i.e. the debt often is primarily secured by the project's assets and cash flows, not by the assets or general credit of the project sponsors (Henry,2003).

Ethiopian bankers in general and CBE in particular are on a learning curve in so far as the understanding the mechanics of manufacturing financing is concerned. For that matter, so are the project promoters, policy makers and regulator. The lack of expertise resulting in poor confidence level of lenders contributes in impending the growth of manufacturing. These calls for a fresh look at the way manufacturing projects are being appraised by the CBE.

Appraising officers and experts in commercial banks, trained by decades of security backed lending, need to understand the sudden change of financing structure of projects from corporate finance to project finance. This change in structure needs a better appraisal methodology which also focuses on understanding of various project parties involved in project structure and numerous contracts and agreements.

On account of projects in manufacturing being greenfield in nature, risk identification, analysis and mitigation assumes significance. More importantly, the bankers need to reassess the credit rating mechanism which is used for rating projects, deciding on the pricing of loans and asset classification and capital adequacy norms. It is an intuition that standard credit scoring models which are just an extension of models used in corporate finance and may lead to inappropriate rating leading to inappropriate pricing decisions. It is necessary that the banks should have the required expertise for appraising technical feasibility, financial viability and bankability of projects, with particular reference to the risk analysis. Banks are also required to ensure that the individual components of financing and returns on the project are well defined and assessed.

Some of the basic research questions that will be addressed during the study are the following:

1. How much is the share of manufacturing project financing by CBE's credit portfolio and its impact to development of the country?
2. Is there any the challenges faced by CBE's credit appraisers/analysts in the process of project financing?
3. How efficient is credit risk grading system of the bank and level of awareness, attitude and experience of credit officers towards relative importance of risk variables under each credit risk grading factor?
4. What should be done to minimize challenges and utilize the opportunity in project financing by the CBE?

1.3 Objectives of the study

1.3.1 General objective

The general objective of this study is to identify and describe the problem of manufacturing project financing by commercial bank of Ethiopia**.**

1.3.2 Specific objectives

The specific objectives of the study include:

1. To review the share of manufacturing projects financing in CBE credit portfolio.

2. To assess the awareness, attitude and experience of credit officers on consulting and appraising project financing for the promoter.
3. To assess the credit rating mechanism that CBE applies for measurement of project financing.
4. On the basis of the findings the study will proposes possible suggestions and recommendations.

1.4 Significance of the study

The research main significance is to understand and to make known the problems of the manufacturing project financing for BoDs and Executive Managements of the CBE and to take corrective actions. In addition to this, other interested parties, like government, corporate customers and other who may have concern in alleviating the difficulties of project financing management process. Moreover, it may be useful for further research in related area.

1.5 Scope of the study

The paper is limited to investigate challenges and prospects in the manufacturing project financing, specifically in areas of project financing risks and the bank's role in facilitating development endeavor of the country. The research is therefore limited in the area of manufacturing project financing focused on challenges and prospects.

1.6 Methodology

1.6.1 Research design

In this research qualitative and quantitative research methods will be used by using primary and secondary data sources. The type of qualitative research technique will be through interview and the quantitative research method will be undertaken by delivering questionnaires to the target population. Descriptive method using tables, graphs, and percentages will be used to illustrate the findings.

The following flowchart explains the design:

- Assess project documents and appraisal notes of bank.

↓

- A note is prepared on Project Credit Appraisal and Risk Measurement practices. Reviewing the Bank's existing credit risk rating system with emphasis on the credit risk factors and the related credit risk parameters currently in use.

↓

- Identify challenges and prospects in the identification risk variables and the scores appraisers/analysts/managers assign to them across different sectors.

↓

- Check the risks identified above and their application on the credit rating mechanism used by appraisers/analysts/managers (risk measurement). This is done by survey on the officers who have appraised projects in manufacturing project sector.
- Identify gaps and suggest an alternate project credit appraisal and credit risk measurement technique which may be unique to a particular sector.

1.6.2 Population

The credit process of the CBE has two wings the Credit Appraisal and Credit Management. The total population is 88. An interview has been held with 2 persons, with Director of Credit Appraisal and Management. In Credit appraisal there are 33 employees, 14 experts and 19 analysts. Whereas in the Credit Management 53 relationship managers who are directly related to the subject matter. The study selected sample from each credit process team and Directors of the Credit Appraisal and Credit Management.

1.6.3 Sampling

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. Besides, this enables the researcher to choose the respondents that are most relevant and suitable for the purpose of the study plan. Therefore, 14 credit experts and 19 credit analysts from the Credit Appraisal team and 25 relationship managers from Credit Management team has been considered. In addition to this, an interview has been held with Director of Credit Appraisal and Management.

Table1. The Types of Respondents, Population Size, Sample Size, Sampling Techniques, & Tools of Data Collection.

No.	Respondents	Population size	Sample size	Sampling technique	Tools of data collection
1	Credit appraisal team(experts & analysts)	33	33	Purposive	Questionnaire
2	Credit management team(relationship managers)	53	25	Simple random	Questionnaire
3	Directors (appraisal and management)	2	2	Purposive	Interview
Total		**88**	**60**		

1.6.4 Data collection

The types of primary data that used in this research involve both open-ended and close-ended questionnaire that will be delivered to credit experts, credit analysts and credit relationship managers. The credit experts and credit analysts though they have varying ranks/grades they were doing the same tasks with different level of exposures and risks. Besides, before the BPR (Business Process Re-engineering) both of them have been doing the same tasks through rotation so the researcher uses same questions. Unstructured interview had also been made to Directors Credit Appraisal and Credit Management of the CBE. Therefore, whole population credit experts and analysts from the Credit Appraisal team and 25 relationship managers from Credit Management team will be considered in the questionnaire. In addition to this, an interview will be held with Director of Credit Appraisal and Management.

The secondary data used from the already produced sources such as: books, e-journals, credit appraisal reports, written publications and newspaper have been consulted. The project work also draw secondary data from international and domestic sources of evidence, websites and magazines and others will be used.

1.6.5 Data analysis

The data has been analyzed in descriptive method of analysis using tabulation, graphs, percentages and ratios will be used. The data will be analyzed in a form that makes it easy to understand and interpret so as to recommend and conclude the findings.

1.7 Limitation of the study

The study had limitations. Among the major one, lack of willingness to fill questionnaire on time, delayed time in filling and returning back the questionnaire by the responders and also delayed time schedule by the interviewee has taken some time. The time allotted for the research is not sufficient. But researcher try to use all the effort required of him to overcome this limitation.

1.8 Organization of the study

This study has been arranged in four chapters. The first chapter consists of the introduction that includes: background of the study, statement of the problem associated with questions, objective of the study, significance of the study, scope of the study, limitation of the study, research design and methodology, and organization of the study. The second chapter will consist of review of related theoretical and empirical literature. The third chapter covers the data analysis, interpretation and summary of the chapter. The last chapter was consisting of conclusions, and recommendation.

Chapter two

Review of Related Literature

2.1 Theoretical Literature Review

2.1.1 General Overviews; Meaning and nature of a Project

A project is a temporary endeavor undertaken to create a unique product, service or result. The temporary nature of projects indicates that a project has a definite beginning and end. The end is reached when the project's objectives have been achieved, or when the projects objectives will not or cannot be met, or when the need for the project is no longer exists,(Gatti2008).

A project may also be terminated if the client (customer sponsor, or champion) wishes to terminate the project. Temporary does not necessarily mean the duration of the project is short. It refers to the project's engagement and its longevity. Temporary does not typically apply to the product, service, or result created by the project; most projects are undertaken to create lasting outcome. For example, a project to build a national monument will create a result expected to last for centuries. Project can also have social, economic, and environmental impacts that far outlive the projects themselves. In every case, however, the duration of project is finite; projects are not ongoing efforts (Cooper et al., 2005).

Every project creates a unique product, service, or result. The outcome of the project may be tangible or intangible. Although repetitive elements may be present in some project deliverables and activities, this repletion does not change the fundamental, but unique characteristics of the project work. For example, office buildings can be constructed with same of similar materials and by the same of different teams. However, each building project remains unique with a different location, different design, different circumstances and situations, different stakeholders, and so on (Ibid).

2.1.2 What is Project Finance?

Project and project financing have been defined by different scholars in different ways. Some of the definitions given by three scholars:

- *Project finance definition #1*

Project finance is the raising of funds to finance an economically separable capital investment project in which the providers of the funds look primarily to cash flow from the project as the source of funds to service their loans and provide the return of and a return on the equity invested in the project,(Finnery, 1996,p.2.)

- *Project finance definition #2*

Project finance is the financing of a particular economic unit in which a lender is satisfied to look initially to the cash flow and earnings of that economic unit as the source of funds from which a loan will be repaid and the assets of the economic unit as collateral for the loan, (Nevitt and Fabozzi,2000,p.1).

- *Project finance definition #3*

Project finance involves the creation of a largely independent project company financed with non- recourse debt (and equity from one or more sponsors) for the purpose of financing a single purpose, industrial asset, (Esty, 2004,p.25).

Of these definitions, the third definition is a little more than other two. The same author further stated that project financing means arranging funds for the implementing a new project or undertaking expansion, diversification, modernization and/or rehabilitation of the existing projects.

In project finance the project is appraised by some competent agency while taking into consideration of the technical feasibility, managerial competency, financial and commercial viability and environmental, economic and political viability.

2.1.3 Types of Projects

Basically project can be identified based on their nature. According to Chandra (2002.12-130) can be identified as follows.

1. *New project* – the large type of project, it is designed to establish a new productive process independent of previous line of production. They often include a new organization financially independent of existing organization.
2. *Expansion project*-expansion projects that involve repeating or expanding as existing activities with the same output technology and organization.
3. *Updating projects* – these projects that involve replacing or changing some elements in an existing activity without a major change of change of output. Updating projects involve some change in technology but within the context of an existing through possibly reformulated organization.

2.1.4 Features of project

Projects have some features that made distinct from other types of financing. The following are features of project financing given by Larry (1980, p.166).

1. *Separate entity*-The borrower is usually a Special Purpose Vehicle (SPV) that is financially and legally independent from the sponsors.
2. *Long term*-The tenor for project financings can easily reach 15-20 years.
3. *Limited recourse/Non-recourse*- Lenders usually have only limited recourse (or in rare cases, no recourse at all)to the sponsors. In strict terms, non-recourse financing is rare given that there is some (limited) recourse back to the borrower/sponsor beyond the assets that are being financed. For example, full of partial pre-completion guarantees and undertakings to cover cost overrun.
4. *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 corporate financing.

5. *Capital intensive*-The amount of finance required for most infrastructure projects may run into several million US dollars.
6. *Controlled dividend policy*-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.
7. *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.
8. *Higher Risk*-Project by their very nature is risky financing types with related to their amount, long period of their payment period and the arrangement of payment of the loan. It is put in form of formula as shown below.

   Huge capital + Long maturities + Repayment structure = increased investment risk.

2.1.5 Stakeholders in a Project Finance Transaction

There are different participants who are involved in the project financing. As Chandra (2001, p. 35):

1. *Government*-is responsible for creating an enabling environment for project finance transactions through its legal system and other associated legislation (e.g. agreements, permits, property rights etc).
2. *Equity Funders*- these are the owners of the project company and contribute the riskiest portion of the total funding of the project (equity). Their contribution is usually in the order of 40 to 50 percent, as a proportion of the total funding.
3. *Nonrecourse Debt Funders*-these are the providers of Long-Term loans to the transaction. They usually contribute about 60 to 70 percent of the total funding of the transaction. These are usually commercial banks, Development Finance Institutions, Multilateral, Bilateral and Export Credit Agencies.
4. *Operator*- this is usually the Engineering Firm that is in control of the construction and operations management of the project.
5. *Construction/Engineering consultant*- this is the company responsible for engineering, procurement and construction.
6. *Equipment Suppliers*-this is the selected manufacturer of the key equipment to be used during construction of the project.
7. *Environmental Impact Assessment*-this is the specialist who assess whether the project meets the minimum standards of both national and international environment related legislation and agreements.
8. *Affected Communities*- these are important stake holders who are directly or indirectly affected by the project.

2.1.6 Why projects fail?

Not all projects that start their life continue to grow and stay for long. Some may fail because of several reasons. According to Gatti (2008), when project analysis has failed to anticipate the outcome of a project investment, a common reason has been simply poor preparation of analysis. Practice, as the same author states, has shown that as a bitter consequence of poor project preparation. Many industrial projects suffer in terms of: low capacity utilization, heavy cost overruns, deteriorated financial profitability, overestimated returns, underestimated costs, omission of necessary component, optimistic projection (yield, date), failure to consider variability of climate and optimistic calendar for implementation.

2.1.7 Risks Related To Project Financing

The risks encountered in Project Financing can be traced to the unique characteristics mentioned above. Hence the challenge of Project Financing lies in identification of the Risk factors, their sources and the effective mitigates of these Risk factors. The first step in tackling this challenge is identification of the sources of risk.

Table 2.Extracted sources of project financing risk

SOURCES OF RISK		
Sr.No.	**Unique Feature = Source of Risk**	**Risk**
1	Big Funding Requirements	• Big funding has a very big impact – positive or negative-on the Bank's Balance sheet, profit as well as on the Nation's Economy
2	Long Gestation periods	• A long gestation period means that a project's effectiveness/profitability can be known only long after spending the resources • The deviation from projected Revenue from the project can be very large

SOURCES OF RISK		
Sr.No.	**Unique Feature = Source of Risk**	**Risk**
3	Cash flows over a long period of time	• Longer the duration, higher is the uncertainty associated with the cash flow. • Some unforeseen risk parameter may have a significant impact on the cash flows in the far future
4	Unique set of Risk characteristics specific to each project	• Some risk factors like Political Risk, Force Majeure Risk, Technology Risk, Business and Legal Institutional Risk are very significant in Project financing • Structure of each project is unique leading to different Risk characteristics
5	Total Dependence on Cash flow generation from the project	• Success or failure of the project is dependent on it's cash flows

Source: Gatti (2008)

Identification of Risks

The Risks, which can have an impact on the Credit quality of the project, are termed as "RISK DRIVERS". It can be said that the 'Sources of Risk' give birth to the `Risk Drivers'. The Risk Drivers can be classified into four distinct areas as follows:

Table 3. Extracted sources of risk derivers

FOUR LEVELS OF RISK DRIVERS		
Sr.No.	**Risk Driver**	**Description**
1	Project Level Risks i. Contractual Foundation ii. Technology, Construction and Operations iii. Competitive Market Exposure iv. Legal Structure v. Counterparty Exposure vi. Financial Strength	Project Level risks are the risks intrinsic to the project's business and the industry in which it operates
2	Political risk	Political Risk is the risk arising out of Government's intervention in the project operations like expropriation, regulatory controls, etc.
3	Business and Legal Institutional Risk	Institutional Risk is the risk arising due to legal systems, lack of corporate governance, etc.
4	Force Majeure Risk	Floods and Earthquakes, Civil disturbances, strikes, catastrophic mechanical failure etc. which can disrupt a project's cash flow

Source:Gatti (2008)

The Risk drivers disrupt the cash flow of the project and can lead to default.

RISK MITIGATION:

After identification of the risks, the risk of default has to be reduced by Credit Enhancements like Guarantees, Insurance, etc. so that the Project's risk of default or the Credit Risk gets reduced.

2.1.8 Challenges of Project Financing

According to Ford (2006), No matter you are a new project manager, or an experienced leader, project management will continue to reveal itself as part art, part science , and part major headache! The list below highlights some of the top project management challenges that can affect project financing in banks:

1. *Unrealistic deadlines*- some would argue that the majority of projects have "schedule slippage" as standard features rather than an irregularity. The challenge of many mangers becomes to find alternative approaches to the tasks and schedules in order to complete a project "on time", or to get approval for slipping dates out. An "absolute" time based deadline such as government election , externally scheduled event , or public holiday forces on an on time completion (through perhaps not with 100% of desired deliverables). But, most project timelines do eventually slip due to faulty initial deadlines (and the assumption that created them).
2. *Scope changes*- As most project managers know, an evil opponent "The scope Creep" is usually their number one enemy who continually tries to take control.
3. *Communication deficit*- Many project managers and team members do not provide enough information to enough people, along with the lack of an infrastructure or culture for good communication.
4. *Resource competition*- Projects usually compete for resources (people, money, time) against other projects and initiatives, putting the project manager in the position of being in competition.
5. *Uncertain dependencies*- As the project manager and the team determine project dependencies, assessing the risk or reliability behind these linkages usually involves trusting someone else's assessment.

6. *Failure to manage risk*- A project plan has included in it some risks, simply listed, but no further review happens unless instigated by an event latter on.
7. *Insufficient team skill*- The team members for many projects are assigned based on their availability, and some people assigned may be too proud or simply not knowledgeable enough to tell the manager that they are not trained for all of their assigned work.
8. *Lack of accountability*- The project participants and related players are not held accountable for their results-or lack of achieving all of them.
9. *Customers and end users are not engaged during the project*-Project teams can get wound up in their own world of internal deliverables, deadlines and process, and the people on the outside do not get to give added input during the critical phases.
10. *Vision and goal not well defined*- The goal of the project (the reasons for doing it), along with the sub-projects or major tasks involved, are not always clearly defined. Clearly communicating these vague goals to the project participants becomes an impossible task. Project leadership is a skill that takes time to develop in a person or organization. Achieving success requires analyzing setbacks and failures in order to improve. Focusing on each project's challenges and learning from them will help to build a more capable and successful project management capability.

2.1.9 Mitigation Strategies of Project Financing

According Ford(2006) has also put some solution for the above ten stated challenges of project financing that arise from the side of project promoters.

1. *Some solutions and ideas to thrash vagueness:*-Determine which parts of a project are not understood by the team and other project participants. Ask them or note feedback and questions that come up. Check the project documentation as prepared, and tighten up the stated objectives and goals- an editor has an appropriate skills to find vague terms and

phrasing. Each project is, hopefully, tied into to the direction, strategic goals, and vision for the whole organization , as part of the portfolio of projects for the organization.

2. *Solution for scope changes*- There is no anti-scope-creep spray in our Project Management utility belts. But as with many projects management challenges, document what is happening or anticipated to happen. Communicate what is being requested, the challenges related to these changes, and alternative plans, if any, to the project participants (stakeholders, team, management and others).
3. *Solution for communication deficit*-Determine proper communication flows for project members and develop a checklist of what information (reports status, etc) needs to be conveyed to project participants. The communications checklist should also have an associated schedule of when each information dissemination should occur.
4. *Solution for the challenge of resource competition*- Portfolio management – ask upper level management to define and set the project priority across all projects. Also realize that some projects seemingly are more important only due to the importance and political clout of the project manager and these may not be aligned with the organization's goals and objectives.
5. *Solution of uncertain dependencies*-How several people-use brainstorming sessions-pick at the plan elements and dependencies, doing "what if?" scenarios. Update the list of project list items if necessary based on the results.
6. *Solution failure to manage risk*- Once the project team has assessed risks, they can either (1) act to reduce the chance of risk occurrence or (2) act or plan towards responding to the risk occurrence after it happens.
7. *Solutions for challenges insufficient team skills*- Starting with the project manager role, document the core set of skills needed to accomplish the expected workload, and honestly bounce each person's skills against the list or matrix. Using this assessment of the team, guide the team towards

competency with training, cross-training, additional resources, external advisors, and other methods to close the skill gap.

8. *Solution for challenges of lack of accountability-* Determine and use accountability as part of the projects risk profile. These accountability risks will be then be identified and managed in a more visible manner.
9. *Solution for the challenge that customers and end-users are not engaged during the project:* Discuss and provide status updates to all project participants- keep them informed! Invite (and encourage) stakeholders, customers, end-users, and others to periodic status briefings, and provide an update to those that did not attend.
10. *Solution for the challenges that Vision and goals not well-defined:* Manage the stress of "the immovable rock and the irresistible force" (i.e. the project deadline and the project issues) with creative planning, alternatives analysis, and communication of reality to the project participants. Also determine what deadlines are tied to the higher level objectives, or have critical links into schedules of other projects in the organization's portfolio.

2.1.10 The importance of project appraisal

One of the challenges before lenders of manufacturing projects lies in evaluating the viability and bankability of a project by following proper appraisal process. The key to successful project appraisal is in ensuring that the project has passed through stringent appraisal process and risk evaluation and that the lender should not feel that the decision to lend is merely based on "reduce to ashes" feeling. They have to be confident enough that the project they finance should be repaid.

From this we can see that making a cost benefit analysis is just like choosing the most viable investment proposal through systematic evaluation process. Banks play a catalytic role in the development process of the country. This is because banks are one of the independent parties which review whether each project accords with the broad development objectives and fits in to development process of the country through the appraisal process. This appraisal process also makes banks more efficient because it helps them in many aspects. Some of them are stated below: (Collier,2009).

1. It increases banks capacity of utilizing financial resources efficiency;
2. It helps them to make the best choice from many project alternatives ;
3. It ensures them a low proportion of non-performing investments;
4. It helps them to achieve the best value from their investments;
5. Provides a high probability of recovering their investment; and
6. It ensures continued bank's growth.

2.1.11 Phases of Project Appraisal Process

The development of investment project from the stage of initial idea until the plant is in operation can be shown in the form of a cycle comprising three distinct phases, the pre investment, investment, and the operational phases.

The pre-investment phase as a central point of attention, because the success or failure of an investing project ultimately depends on the marketing, technical, financial and economic findings and their interpretation especially in the feasibility study. The pre investment phase comprises several stages: (Smith &Walter, 1990)

1. Identification of investment opportunities studies,
2. Analysis of project alternatives,
3. Preliminary project selection as well as project preparation,
4. Pre feasibility and feasibility study,
5. Project appraisal, investment decision and appraisal report.

2.1.12 Definitions and concepts

Measurement of Risk

1. Identification of Risk

Risk is variability in cash flows from what has been projected. Risk can best be represented by a Chinese symbol which means both “Danger” and “opportunity”. (Damodran, 2002).

The first step in Measurement of Risk during Project Appraisal is Identification of Risk drivers. A risk driver is the factor which will have an impact on the cash flows of the project. There are several drivers of risk in a project. Some of the most important ones are listed below: (Balu, K, 2002)

1. *Project Specific Risk*: The earnings and cash flows of the project may be lower than the expected because of estimation error or due to some other factors specific to the project like quality of management.
2. *Competitive Risk*: The earnings and cash flows of the project may be affected by the unanticipated actions of the competitors.
3. *Industry Specific Risk*: Unexpected technological developments and regulatory changes, that are specific to the industry to which the project belongs, will have the earnings and cash flows of the project as well.
4. *Market Risk:* Unanticipated changes in macroeconomic factors like the GDP, growth rate, interest rate and inflation have an impact on all projects, albeit in varying degrees.
5. *Funding Risk:*In the case of foreign projects, the earnings and cash flows may be different than expected due to the exchange rate risk or political risk. *The research will essentially focus on project specific risks rather than Market risk.*

Credit Risk

Credit Risk is defined by the losses to arise in the event of default of the borrower or in the event of deterioration of the borrower's credit quality (Orgeldinger, 2002) .Credit risk can be divided into three parts, default risk, exposure risk and recovery risk

- ✓ Default Risk

1. *Default Risk*, borrower fails to service debt obligation or borrower assets are not sufficient to pay off the due debt- Measurement of Default Probability.
2. *Recovery Risk*, uncertain recovery post default- Measurement of Loss Given Default.
3. *Exposure Risk*, amount at risk in the event of default - Measurement of Exposure at Default.

- ✓ Definition of Default

There are several possible definitions of default: missing a payment, breaking a covenant, entering a legal procedure or economic default breaking a covenant such as a financial ratio subject to upper or lower bounds is a "technical default". It usually triggers negotiation, even though some technical defaults do not necessarily endanger the borrower's survival. Without waivers granted by the lender in such situations, the borrower is virtually bankrupt since he cannot survive the repayments of all funds borrowed (Bhattacharya and Thakor, 1993).

2. Measures of Risk

Regardless of the risk measure employed, there are different perspectives on risk. These are:

a) *Stand alone risk*: This represents risk of a project, when it is viewed in isolation.

b) *Firm risk*: Also called corporate risk, this reflects the contribution of a project to the risk of the firm.
c) Systematic Risk: Risk of a project from the point of view of an investor. Such risk is called market risk.

A variety of measures are used by many banks to capture different facets of risk. The most important ones are Standard Deviation and Coefficient of Variation, (Ibid).

Risk is measured according to Chandra (2002) by the following six ways:

i) ***Standard deviation***: Standard Deviation of a distribution is given by:

∑ [Probability of value * (Value – Expected value)2]1/2

If a variable is normally distributed, its mean and standard deviation contains all the information about its probability distribution. In some cases probability distribution can be defined with fairly high degree of objectivity based on past evidence. However, in real life situations, such objective evidence may not be available for defining probability distributions. Therefore in project appraisal by Banks, bankers with vast experience use their judgment to define probability distribution. These distributions are called as subjective probability distributions.

One problem with Standard deviation is that it is not adjusted for scale. Therefore sometimes coefficient of variation is used which may adjust standard deviation for scale: CV = Standard Deviation / Expected Value

ii) Sensitivity Analysis**:** It is an analysis to show the impact of the risk drivers identified earlier on risk variables like sales or investments and the resultant impact on the target variable of a project like Net Present Value (NPV), Internal Rate of Return (IRR) and Debt Service Coverage Ratio (DSCR).It is a "what if" analysis. To do sensitivity analysis only when variable is changed at a time and the rest of the variables are assumed to be constant, which is unlike what happens in the real world. It shows how robust or vulnerable a project is to changes in values of underlying variables. It also indicates what further work can be done. If the net present value is highly sensitive to some changes to changes in some factor, it may be worthwhile to explore how the variability of that critical factor may be contained. However, sensitivity analysis merely shows what happens to NPV when there is a change in some variable, without providing any idea of how likely the change will be. Therefore it remains a relatively subjective analysis

iii) Scenario Analysis: In the real world when the variables are interrelated, as they are most likely to be, it is helpful to look at plausible scenarios, each scenario representing a consistent combination of variables. Usually in order to do scenario analysis, one risk driver is selected around which scenarios are built. The drivers chosen are the largest source of uncertainty for the success of the project. Value of each variable is then calculated depending on the chosen driver. Based on what happens under the most favorable or the most adverse configuration of key variables, Best case, Normal and Worst Case scenarios are created. However this analysis does not help if we assume that a continuum exists between these three states.

iv) Simulation Analysis: Sensitivity Analysis indicates the sensitivity of criterion of merit (NPV, IRR or any other) to variations in basic factors. Though useful such information may not be adequate for decision making. The banker may like to know the likelihood of such occurrences. This information is generated by simulation analysis which may be used for developing the probability profile of a criterion of merit by randomly combining values of variables that have a bearing on the chosen criterion.

v) Break Even Analysis: A banker is always interested in knowing how much should be produced and sold at a minimum to ensure that the project does not lose money. Such an exercise is called breakeven analysis and the minimum quantity at which loss is avoided the breakeven point. The breakeven point for a project is calculated with reference to the year when the project is expected to reach its target level of capacity utilization. So it is called as Breakeven Capacity Utilization (BEPCU).

It is given by BEPCU (%) = Fixed Costs and semi fixed costs * Percentage Capacity Utilization /Contribution

***vi) Debt Service Coverage Ratio*:** The debt service coverage ratio (DSCR) is defined as:

DSCR = Profit After Tax + Depreciation and Amortization + Interest on Term Debt + Lease Rentals / Repayment of term debt + Interest on term debt+ Lease Rentals

The average DSCR is computed by taking the total of all values of the numerator and denominator for the entire period of the proposed term loan, commencing from the year in which the commercial production starts and not by taking DSCR for each year.

Average DSCR = Total Cash Accrual over the ten year period / Total debt service burden over the 10 year period.

3. Measurement of Credit Risk: Credit Rating Mechanism according Baghchi (2005):

i) Credit Scoring and Rating

Measurement of credit risk starts with the process of scoring and rating. CBE provides various products and services to its customers for achieving its strategic objectives. Among these products and services, credit is the essential one. Even though it is the crucial activity for the Bank, there are many factors that intrinsically lead to risk i.e., credit risk. Credit risk is the potential loss to the Bank when a borrower fails to meet its obligation in accordance with agreed terms and conditions. The degree of this inherent risk can be measured and differentiated by credit risk rating/grading of the borrower.

Credit risk rating /grading is a system employed by banks to differentiate the degree of credit risk of borrowers. Its basic functional purposes are assisting credit decision making process, helping monitoring and controlling the quality of loans and advances, managing timely early warning signals, maintaining application of uniform credit standards.

Credit scoring and rating is done for the borrower and facility. It involves both qualitative and quantitative data. While financial analysis covers the quantitative part, qualitative analysis covers a host of elements like management, demand and price, technological, legal and regulatory issues.

ii) Methods of Credit Rating

1. Through the cycle

In this method of credit rating, the condition of the obligor and/or position of exposure are assessed assuming the *worst point in the business cycle*. There may be a strong element of subjectivity on the evaluators' part while grading a particular case. It is also difficult to implement this method when the number of borrowers /exposures is large and varied.

2. Point in Time

A rating scheme based on current condition of the borrowers /exposure. The inputs are provided by financial statements, current market position of the trade /business, corporate governance, overall management expertise etc. Banks adopt a point in time approach because it is relatively simple to operate while at the same time providing a fair estimate of the risk grade of an obligor/exposure. It can be applied consistently and objectively. Periodic review and downgrading are possible depending on the position.

The goal of credit rating is to create accurate and consistent risk rating yet allow professional judgment to significantly influence a rating where this is appropriate.

ii) Scores / Grades in Credit Rating

The main aim of the credit rating system is the measurement or quantification of credit risk so as to specifically identify the probability of default (PD), exposure at default (EAD) and loss given default (LGD). Hence it is a tool to implement the credit rating method (generally the point in time method). The agency also needs to design appropriate methods for various grades of credit at an individual level (a close analogy is the marks obtained by a student in various subjects and the final outcome in the form of ultimate grade achieved in an exam) or at a portfolio level. These may be in the following forms:

Alphabet : AAA, AA, BBB etc.

Number : I , II, III etc.

The fundamental reasons for various grades (as an outcome of aggregate score) are to signal default risk of an exposure, facilitating comparison of risk to aid decision making, to show compliance with regulatory requirements of asset classification and risks of exposure and providing flexible means to ultimately measure the credit risk of an exposure.

Components of score

Scores are mere numbers (1, 2 etc) allotted for each quantitative and qualitative parameter - out of a maximum allowable for each parameter as may be fixed by any bank - of an exposure. The issue of identification on specific parameters, its overall marks and finally relating aggregate marks (for all quantitative and qualitative parameters) to various grades is a matter of management policy and discretion- there is no statutory or regulatory compulsion.

However the bank is guided by the sector and the product that it is offering. A basic requirement in risk grading is that it should reflect a clear and fine distinction between credit grades covering default risks and safe risks in the short run. While there is no ideal number of grades that would facilitate achieving this objective, it is expected that more granuality may serve the purpose.

The scores are assigned on the basis of cut off scores given by banks against each parameter. However there are a large number of parameters which are subjective. Also the scoring is used to rate all projects in all sectors. Based on the scores given by the bankers, a cumulative score for the borrower is calculated which is then converted into rating which is used for pricing as well as monitoring the account by creating transition matrices for ratings over a period of time. The scores and grades may appear as in Table 4.(Illustrative).

Table 4: Credit Rating Mechanism

S.No	Total Score for an exposure	Grade accorded	Implications for grades accorded
1	86 – 100	AA+	Excellent safety
2	71 – 85	AA	Very Good safety
3	61 – 70	A	Good Safety
4	51 – 60	BB+	Ordinary safety
5	41 – 50	BB	Less ordinary safety
6	36 – 40	B	Low safety
7	31 – 35	C	Unsafe
8	0 – 30	D	Low category

Source: BIS www.bis.org.

Commercial Bank of Ethiopia has been using these parameters which are Financial Risk, Business/Industry Risk, Management Risk, Account Performance Risk, and Customer Relationship Risk. These parameters are then scored based on the specifically applicable objective/subjective parameter scales of measurement and a borrower's actual score is determined. That is, each credit risk parameter is scored on Credit Risk Grading Score Sheet prepared for the purpose. The final overall Achieve Score gives the Bank measurable risk implication whether a borrower is bankable/non-bankable.

Table 5.Credit Rating Mechanism of CBE

Grade	Achieve Score	Risk implication
1	>= 85	Bankable
2	70 – 84	Bankable
3	60 – 69.9	Bankable
4	50 – 59.9	Exceptionally Bankable
5	40 – 49.9	Very exceptionally Bankable
6	30 – 39.9	Non- Bankable
7	25 – 29.9	Non- Bankable
8	< 25	Non- Bankable

Sources: (CBE: Credit Procedure Vol. I, August, 2009)

1. Risk Quality and Rating

The quality of risk covers both the default probabilities and the recoveries in the event of default. Ratings qualify the risk of losses in the event of default, a combination of default probabilities and recoveries. The ratings are rankings, not quantitative measure of risk quality. Common rating systems include from six to ten different ranks, which is sufficient to discriminate among risk classes. Ratings attached to facilities are useful whenever guarantees and agreements are attached to individual facilities.

2. Risk Mitigation

The party bearing the risk may undertake preventive measure for limiting the likelihood of risk, as well as specific measures to protect itself in whole or in part against the consequence of risk. Such agreements and contracts are called as “Risk Mitigation”. Various agreements and contracts such financing agreements, construction agreements, operations agreements will be used.

2.1.13 Project Risk Management

According to Williams (2009) arguments project risk will be managed in the following manner: In many projects, risk are identified and analyzed in a random, brainstorming fashion. Early in the preparation and planning stage, it is essential that potential risk are identified, categorized and evaluated, rather than look at each risk independently and randomly.

Categorizing risks is a way to systematically identify the risks and provide a foundation for awareness, understanding and action. Being each project will have its own structure and differences, but here are some categories that are common to most projects (to which you can add your own local, sector, or project specific, categories). Related risks and potential actions must then be documented in the risk management plan and discussed at all the key stages as the project progresses.

Those who are involved in the project have to be aware of what act or event initiates either the risk occurrence or precipitates the response strategies? And how will you respond to this risk and what actions will you take to match this response should be considered in advance. In addition to this, if the risk becomes the reality, what will you do in response as backup/contingency plan? Who are responsible/owner(s) for the risk? How much is risk tolerance level of the project? All this issues are not easy questions to be answered.

Therefore, each potential risk needs to be carefully, rigorously analyzed, by all parties participated in and need to be evaluated to determine whether there is the capability to manage that risk successfully. Where gaps in capability are identified, and then appropriate corrective action must be taken. During the project life, the capability must be constantly monitored and necessary action must be taken to return the level of capability to the required level.

Conflict over resources often arise during the middle to later stages of a project, because often unexpected other, newer demands arise which are seen as being of higher priority. This can lead to resources that were originally allocated to the project being taken away, or reduced in quantity or quality, almost certainly to the detriment of the project. The answer to this dilemma is not easy, but in essence, the project management team must include "conflict over resources during the life of the project" as a major potential risk and plan for it accordingly by securing agreements and then monitoring the situation continuously. If a dispute does arise, there is a role here for the project champion and/or the client to ensure that the allocated resources are not taken away.

The easy way to identify other individual and groups is to look at your list of stakeholders. Each one has a responsibility, to a greater or lesser degree, to help identify potential risk and give information on this to the project team. Again, the answer to managing the question of risk responsibility is to build discussion, planning and action, on this into project planning and operational activity.

2.1.14 The Ten–Golden Rules of project risk management

The benefits of risk management in projects are huge. Bart(2010, pp 216,) recommends the following ten golden rules to apply for the successful Project Risk Management.

Rule 1: Make Risk Management Part of Your Project

> The first rule is truly embed risk management in your project; in order reap the full benefits of it. Make risk management part of your day to day operations and include it in project meetings and the training of staff.

Rule 2: Identify Risks Early in Your Project

> This requires an open mind set that focuses on future scenarios that may occur. These are areas of impact, events (including changes in circumstances) and their causes and potential consequences. The aim of this step is to generate a comprehensive list of risks based on those events that might create, enhance, prevent, degrade, accelerate or delay the achievement of the project objective. It is also important to identify risks associated with not pursuing an opportunity.

Rule 3: Communicate About Risks

A good approach is to consistently include risk communication in the tasks you carry out. If you have a team meeting, make project risks part of the default agenda (and not the final item on the list!). Communication and consultation with external and internal stakeholders should take place during all stages of the risk management process.

Rule 4: Consider Both Threats and Opportunities

Project risks have a negative connotation: they are the "bad guys" that can harm your project. However modern risk approaches also focus on positive risks, the project opportunities. These are the uncertain events that beneficial to your project and organization. These "good guys" make your project faster, better and more profitable.

Rule 5: Clarify Ownership Issues

The next step is to make clear who is responsible for what risk! Someone has to feel the heat if a risk is not taken care of properly. The trick is simple: assign a risk owner for each risk that you have found. The risk owner is the person in your team that has the responsibility to optimize this risk for the project.

Rule 6: Prioritize Risks

We cannot manage all at the risks, but we can prioritize those risks that can cause the biggest losses and gains. The criteria will depend on the objectives of the projects based on the effect of risk and likelihood that it will occur. But, use it consistently and focus on the big risks.

Rule 7: Analyze Risks

Risk analysis involves developing an understanding of the risk. Risk analysis provides an input to risk evaluation and to decisions on whether risks need to be treated, and on the most appropriate risk treatment strategies and methods. Risk analysis can also provide an input into making decisions where choices must be made and the option involve different types and levels of risk. The information you gather in a risk analysis will provide valuable insights in your project and the necessary input to find effective responses to optimize the risks.

Rule 8: Plan and Implement Risk Responses

After analyzing the risk, a sound risk response plan that focuses on the big wins will help to prevent a threat occurring or minimize negative effects. Execution is a key here. Implementing a risk response is the activity that actually adds value to your project.

Rule 9: Register Project Risks

Maintaining a risk log enables you to view progress and make sure that you will not forget a risk and repeat it again. It is also helps a perfect communication tool that informs detailed issues of overall project risk management process.

Rule 10: Track Risks and Associated Tasks

Tracking tasks is a day-to-day job for each project manager. Integrating risk tasks into that daily routine is the easiest solution. Risk tasks may be carried out to identify or analyze risks or to generate, select and implement responses. Tracking risks differs from tracking tasks. It focuses on the current situation of risks. Which risks are more likely to happen? Has the relative importance of risks changed? Answering these questions will help to pay attention to the risks that matter most for your project value.

2.1.15 Project Finance in Developing Countries

In the past two decades there has been a new wave of global interest in project finance as tool for economic investment. Project finance helps finance new investment by structuring the financing around the project's own operating cash flow and assets, without additional sponsor guarantees. Thus the technique is able to alleviate investment risk and raise finance at a relatively low cost, to the benefit of sponsor and investor alike.

Though project finance has been in use for hundreds of years, primarily in mining and natural resource projects, its other possible applications- especially for financing large Greenfield projects (new projects without any prior track record or operating history); has only recently received serious attention. This is particularly so in developing markets, but here its application is also broadening, as illustrated in the following examples of International Financial Corporation (IFC)–supported projects: IFC (2009)

- ❖ In Argentina, in 2003, project finance structuring helped raise US$ 329 million to finance investment in the rehabilitation and expansion of Buenos Aires' water and sewerage services based on a new 30-year concession awarded to Agues Argentina. The investment, financed with ICF support, has helped improve water quality and service to a city of more than 6 million people. At that time, private sector participation in a water concession in a developing country was an untested idea, and there was virtually no precedent for a private company operating in such an environment raising substantial resources in international capital markets.
- ❖ In Hungary, in 1994, project finance structuring helped finance a 15 year concession to develop, install, and operate a nationwide digital cellular network. The $ 185 million joint venture project was an important part of the government's privatization and liberalization program. Because of difficulty attracting commercial financing at that time, the project relied on $109 million in debt

and equity financing from IFC and the U.S. Overseas Private Investment Corporation.

- In China, in 2007, Plantation Timber Products (Hubei) Ltd. Launched a $57 million greenfield project is install modern medium density fiberboard plants in interior China, using timber plantations developed over the past decades, to support , China's fast growing construction industry. As part of a limited-recourse financing for the project, IFC helped arrange $26 million in syndicated loans at time when foreign commercial banks remained cautious about project financing in China's interior provinces.
- In Mozambique, in 1998, project finance structuring helped establish a $1.3 billion greenfield aluminum smelter. Mozal, the largest private sector project in the country to date, is expected to generate significant benefits in employment , export earnings, and infrastructure development. IFC fostered the project by serving as legal coordinator and preparing an independent detailed analysis of economic results and environmental and developmental impacts. IFC also supported the project with $120 million in senior and subordinated loans for its own account.

2.1.16 Project Risks in Developing Countries

According to Wang (2002) risks must be identified in rational and systematic manner. Otherwise some risks may be overlooked and it is these unidentified risks that tend to be most disastrous and catastrophic. Typical methods adopted by the private and public sectors to identify risks include experience, checklists, databases, risk matrices, site visits and intuition. As project promoters and sponsors are becoming more experienced in the procurement of projects, they are finding this process of identifying risks increasingly easier.

The success of a contracting firm looking to invest in projects in developing countries depends upon its ability to select those investment options of most benefit, whether these benefits are purely financial or a combination of financial and non-financial gains-such as increased market share. Therefore, once the risks have identified, it is vital that their potential impacts on the projects overall viability is assessed and evaluated so that all possible financial outcomes must be predicted and associated with the various investment parameters.

To facilitate such a comparison, numerous attempts have been made to develop Decision Support System to assist in this process: the practical aspects of it still remain unstructured and lack strong foundation. According to Wang (2002) employing a Decision Support System could deliver benefits including:

1. A set of economic performance measures that would satisfy the needs of various stakeholders involved (financial , government, developers)
2. A streamlined project rating system, which takes into account the combined effect of finances, risks on the overall project attractiveness.
3. Time and resource efficiencies due to the streamlined approach.
4. Increased confidence that predictions are realistic.
5. The facilitation of Go/No-go decision through quantitative results.
6. The clear identification of project risk (non-financial) factors that may have otherwise been overlooked.
7. The identification of critical risk factors for input into the project's risk management plan via sensitivity analysis.
8. Analysis output values can be used in contractual negotiations between various project parties.

2.2 Empirical Literature Review

2.2.1 Studies in other Countries

Christodoulou (2008)“Factors of success for the effective implementation of lean manufacturing projects with in 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. 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 recommends knowledge based customer service excellence, operation, process efficiency and quality management should be given due attention in implementation.

As quoted by Urgaia (2007:42) Measurement and sources of technical inefficiencies in Ethiopian manufacturing industries. The problem of technical efficiency of the firms was decreasing for most of subsectors except textiles and chemical industries. He used panel data of 361 firms, for the period1998-2002. He recommended that the existing technical efficiencies and the level of production of the sector could be enhanced and improved. These have to be made through credit provision of credit, better marketing strategies, workers training, accelerating the slow pace of privatization and designing effective incentive payment strategies.

Marshal, T. Edun and Femi (2011), Bank Lending, Economic Growth and the Performance of Manufacturing Sector in Nigeria. The study investigates the bank lending and economic growth on the manufacturing output in Nigeria. Time series data covering a period 36 years (1973-2009) were employed and tested with the co-integration and vector error correction model (VECM) techniques. The findings of the study show that manufacturing capacity utilization and bank lending rates significantly affect manufacturing output in Nigeria. However, the relationship between the manufacturing output and economic growth could not be established in the country.

These results, therefore, call for concerted the effort by the government, manufacturers and lending institutions to reviewing the lending growth policies and provide appropriate macro-economic environment. These are investment-friendly lending and borrowing by the financial institutions.

2.2.2 Studies in Ethiopia

Kibre and Worku(2005) "Industrial Linkages in the Ethiopian Manufacturing Sector". The Ethiopian manufacturing sector has very weak internal linkages. The paper assesses the extent to which the linkages are weak and more importantly, which types of industries have relatively stronger interactions to each other. The assessment used Wassily Leointief type input–output framework. The findings show that the existence of low level of processing and weak interaction/linkages among the various industries of the economy.

Therefore, the assessment recommends prioritize investment financing those who have most efficient linkages with other sectors. The linkages take place through input-output transactions among the manufacturing industries and between manufacturing and the rest of the economy. The interaction could take either or both of the two forms: backward (demand side) and forward (supply-side) linkages.

***Urgaia (2007)**,"*The growth of Manufacturing in Ethiopia and its contribution to GDP". It has problem of sustainable industrial manufacturing growth. With the objective to identify the major causes of stagnated growth in Ethiopian Manufacturing activity and insignificant contribution to GDP. The methodology employed was Johansen co- integration analysis of Econometric Time-serious models using annual data from 1961/62 to 2004/05. The study finds the growth of Industrial Manufacturing in Ethiopia and its contribution to GDP shows insignificant due to financial constraint, shortage of raw material supply and luck of skilled manpower.

Finally, suggests that due attention in supporting industries by government in terms of finance and professions. Encourage foreign direct investment in manufacturing activities and rate of capital accumulation and expand public infrastructural networks.

Fikadu (2004) the paper titled" Productivity of large and medium scale manufacturing firms in Ethiopia: The effect of trade variables market structure and firm specific effects". The problem of very limited productivity and efficiency though the number of firms in manufacturing sector increases. The research used quantitative, the panal data estimation techniques. The objective was to establish a quantitative relationship among the trade variables, market structure and firm specific effects that determine the productive efficiency of firms and productivity level. The findings showed that industrial sector in general and private manufacturing firms in particular were at infancy in Ethiopia. The contribution to GDP was not well over 10 percent. Performance is highly influenced by the structure of the market in which they operate. High concentration (seller concentration), private firms had no significant impact in enhancing the productivity of the sector.

Policy recommendation, the creation of market and the privatization process need to be followed by the restructuring of firms. Government intervention is required to strengthen the private sectors through capacity building. Restructuring of firms and policy package should include range of policy instruments that reduce high transaction cost, enabling the domestic firms to be competent. This is done by creating market and reducing the high concentration /profit margin/ to have significant effect.

Firkremariam (2004)."Determinants of technical inefficiency of Small Scale manufacturing industries in Ethiopia". The small scale manufacturing industry has the problem of technical inefficiency in different urban centers of the country. The method employed quantitative, stochastic frontiers production function with the objective to estimate technical efficiency. The findings showed that small scale manufacturing industries in Ethiopia are technically inefficient. That is they are unable to produce the potential output with the given set of input and level of technology and significant differences among small scale manufacturing firms within the industry. The policy recommendation suggested was to give emphasis to education, access to finance and market, and provide special support for firms of selected location.

CHAPTER THREE

DATA PRESENTATION AND ANALYSIS

The study is designed to study and describe overall challenges and prospects of Manufacturing Project Financing by Commercial Bank of Ethiopia. This chapter presents the data gathered from MIS of the CBE; questionnaire response from Credit experts/analysts and Credit relationship Managers and appraisal notes of the bank. Directors' interview also analyzed. Concerning the questionnaire, out of 58 job performers to whom the questionnaires were distributed 50 (86.2%) of them successfully completed the questionnaire and returned. Among these 30 of them are from credit appraisal team (experts and analysts) and 20 of them from credit management team (relationship managers). The data obtained through the questionnaire, interview, and document analysis were organized, in tables, analyzed and interpreted in order to get meaningful result.

3.1 Share of manufacturing project financing by CBE's credit portfolio

This section of the chapter deals with presentation, analysis and interpretation of the secondary data collected from CBE various sources. The tables and graphs presenting the secondary data are constructed primarily to examine to what extent CBE is involved in manufacturing project financing engagement in developmental projects. In order to identify to what extent the bank is supporting the economic growth of the country by financing manufacturing projects, comparison and proportion of the projects loan financed has been incorporated. Comparison between approved Agriculture, Domestic trade and service, foreign trade, building and construction, personal, financial institution, and mortgage will be showed below. CBE started project financing before 2008 but massively engaged starting from 2012 in line with GTP of the country by prioritizing agriculture, manufacturing, export and specifically infrastructure project in tripartite agreement where the bank did not assess the projects.

Table 6. Manufacturing project loan approved In '000 birr

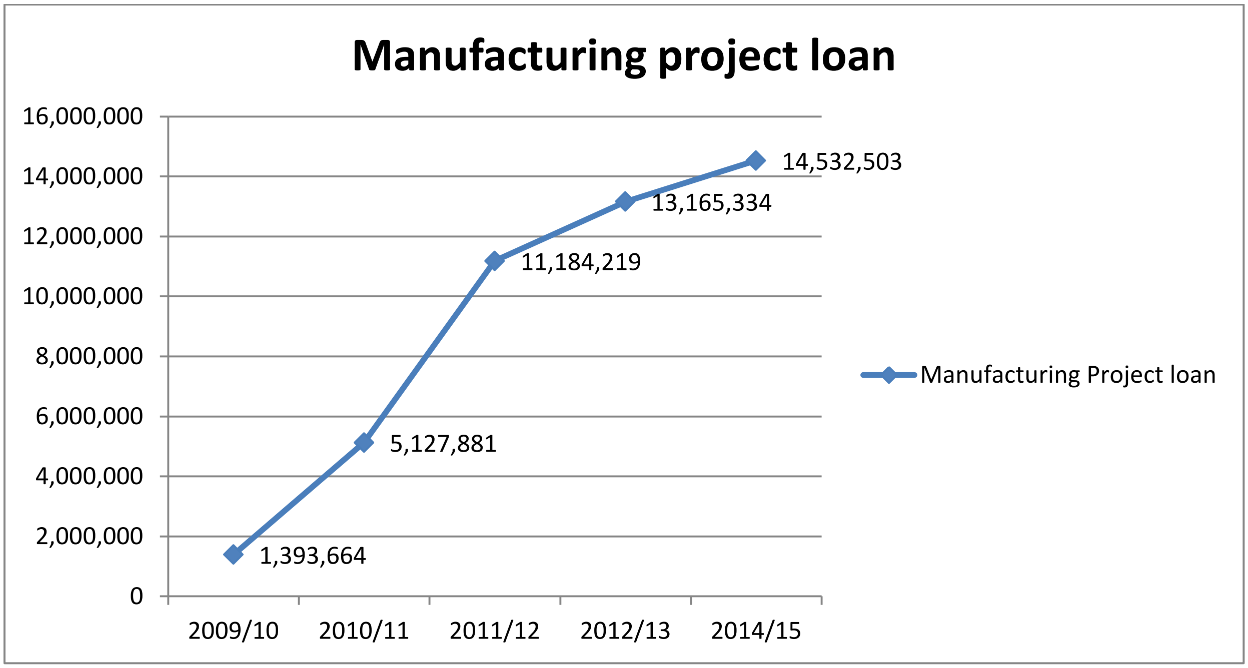
Year	Other Manufacturing	Manufacturing project	Total Manufacturing	% of Mfg. project of total Mfg.	Total % change Mfg. project
2009/10	191,847	1,393,664	1,585,511	87.8	-
2010/11	391,905	5,127,881	5,519,786	92.8	368
2011/12	158,802	11,184,219	11,343,021	98.6	218
2012/13	351,436	13,165,334	13,516,770	97.4	119
2014/15	311,729	14,532,503	14,844,232	97.8	110

Source: Management Information System of CBE

The manufacturing project loan approved over the five years study period can be depicted in the above table. The above table shows the bank's contribution to manufacturing sector is increasing at decreasing rate of the study years. This amount of huge financing supports the national agenda of growth and transformation held by government of Ethiopia. The total manufacturing sector project loans have been remarkably increasing over the study period i.e. on average it increases by 203 percent. Together with the increasing trend of the manufacturing projects, the financing capacity of the bank also increases from time to time. The increment in manufacturing project loan of the bank is mainly due to the growth and expansion of the bank in deposit mobilization strategy.

Even though the Manufacturing sector has increased with the decreasing rate, most of manufacturing projects do not have linkage among themselves and other sectors. But it has poor linkages among the sectors that is backward and forward linkages. Most of the manufacturing sectors import raw materials from abroad due to the low quality of locally produced inputs. On the other hand, the backward (demand side) too was not as competitive enough as global market, Kibre and Worku (2005). Besides to this, an interview conducted with the Directors of the credit processes that they indicated that except Brewery factories and few others cannot generate the required foreign direct investment.

Graph 1. Manufacturing project loan financed



Source: Management Information System of CBE (MIS).

As shown in graph 1 starting from 2009/10 to 2014/15 of five years study period's trends indicate a rapid growth in manufacturing projects, where from 1.4 billion birr 2009/10 to 14.5 billion birr June 2014/15. The main reason was that the Bank prioritize manufacturing sector in line with the country's GTP. Since CBE is a state bank, it is required to facilitate the financing of prioritize area of manufacturing, agriculture and export. As opposed to Urgaia (2007), which states that financial constraints stagnated manufacturing and insignificant contribution to GDP, the current trend seems to resolve financial constraints but shortage of raw materials and skilled manpower unresolved one as indicated in the questionnaire, interview and document review the bank documents.

On the other hand, the expansion of manufacturing project has created significant amount of employment, technological transfer, foreign direct investments and manufactured commodity self sufficiency through import substitution especially in steel and metal manufacturing industries and others.

3.1.1 Comparison of public and private manufacturing project loan approved

When we compare the private and public manufacturing loan approved of table 7, the share of public project loan approved takes the lion share. The share of the public sector increases on the average 74% while the private sector is 26 %. This indicates that financing to the public sector has been given due emphasis.

Table 7.Public and Private Manufacturing Project Loan Approved In'000 birr

Year	Private	Public	Co-operative	Total	Public %	Private %
2009/10	1,047,782	537,729	-	1,585,511	33.9	66
2010/11	835,214	4,684,572	-	5,519,786	85	15
2011/12	1,641,400	9,698,646	2,975	11,343,021	85.5	14.4
2012/13	1,368,641	12,147,909	400	13,516,770	89.8	10.1
2014/15	3,627,940	11,216,292	-	14,844,232	75.5	24.5

Source : Management Information System of CBE

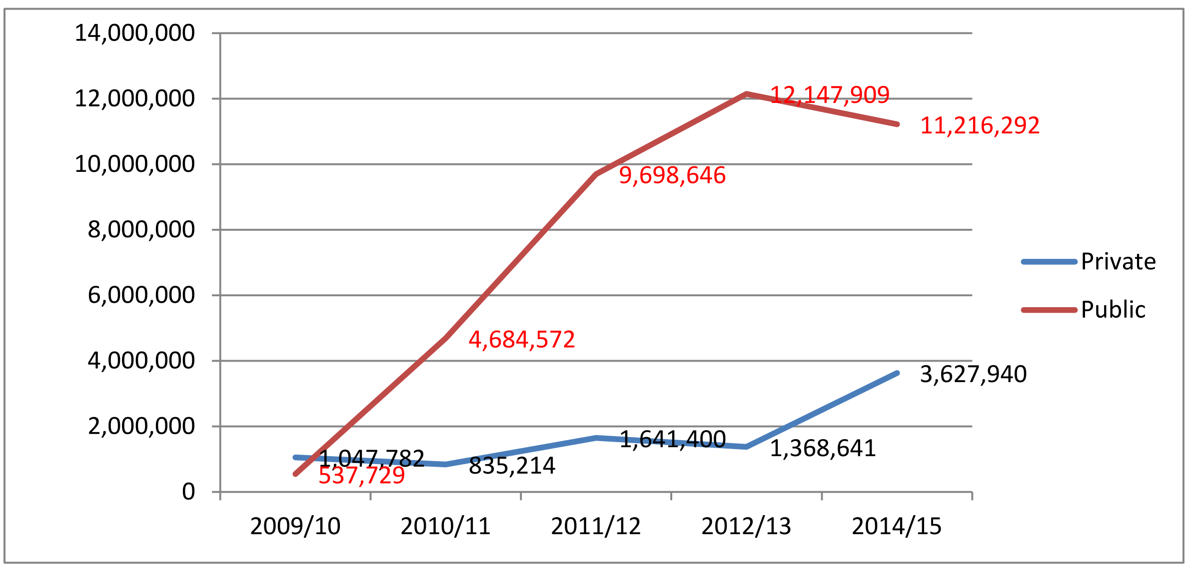
When we compare the private and public manufacturing loan approved of table 7, the share of public project loan approved takes the lion share. The share of the public sector increases on the average 74% while the private sector is 26 %. This indicates that financing to the public sector has been given due emphasis.

However, it shows that slight decrease in private manufacturing by 16.6 percent in the 2012/13. This reduction in study year 2012/2013 is not due to the lesser emphasis to private manufacturing project loan; rather it is mainly due to the less amount of the private manufacturing loan request as compared to the previous years. The lesser request in the year 2012/2013 originates from the higher rate of inflation the country faced that discourages investors to actively engage in project creation and development in general. In absolute terms substantial amount of manufacturing project loan has been financed by the bank.

Due to the nature of investment in public sector is less liquid and long term maturity period the bank will be exposed to liquidity risk. Converting these assets to cash is unlikely due to lack of secondary/capital market. If we assume in extreme case scenario of the lender of the last resort/NBE/ option too, it is remote in our case.

Besides to this productivity of large and medium scale manufacturing in Ethiopia, as stated by Fikadu (2004) the findings show that industrial sector in general and private manufacturing firms in particular were at infancy/”lower” in Ethiopia. And the contribution to GDP was not well over 10 percent due to the performance was highly influenced by market structure and private sectors had no significant impact in productivity. Private sector has been given lower emphasis. Therefore, the bank should give due emphasis to the private sector in order to maintain customers in the long run.

Graph 2. Public and Private Manufacturing Project Loan Approved ‘000 birr



Source: Management Information System of CBE

As shown in graph 2, the trends in public and private manufacturing project loan approved the gap is huge enough coupled by technically inefficient small scale manufacturing industries in Ethiopia. They are unable to produce the potential output with the given set of input and level of technology, Fikremariam (2004). Therefore, due emphasis should be given to private sectors and diversify the concentration risk posed in public sectors.

3.1.2 Comparison of manufacturing financing with other economic sectors

It is clearly shown from the table 8 that the share of manufacturing financing loan advanced from the total loan portfolio of the Bank covers 13.4 %, 28.8 %, 35%, 48.4% and 45 % for the period 2009/10-2014/15 fiscal year for five years under study respectively. This clearly shows that CBE has financed huge amount of money for manufacturing projects that supports the national agenda of the growth and transformation held by the government. From the above table 6, manufacturing financing have been remarkably increasing over the study periods i.e. on average increase 368 %, 218%, 119%, 110% in year 2009/10-2013/14 respectively. This remarkable increment in manufacturing project financing loan during the study year is mainly due to the massive manufacturing projects creation and development in the country from the GTP of the country and CBE's inevitable commitment to support the plan and the investors as well. The bank does not have clearly studied documents of risk factor of each economic sector at the national level and no credit concentration limit set with due consideration of the risk return trade-off and the overall business growth strategy of the bank.

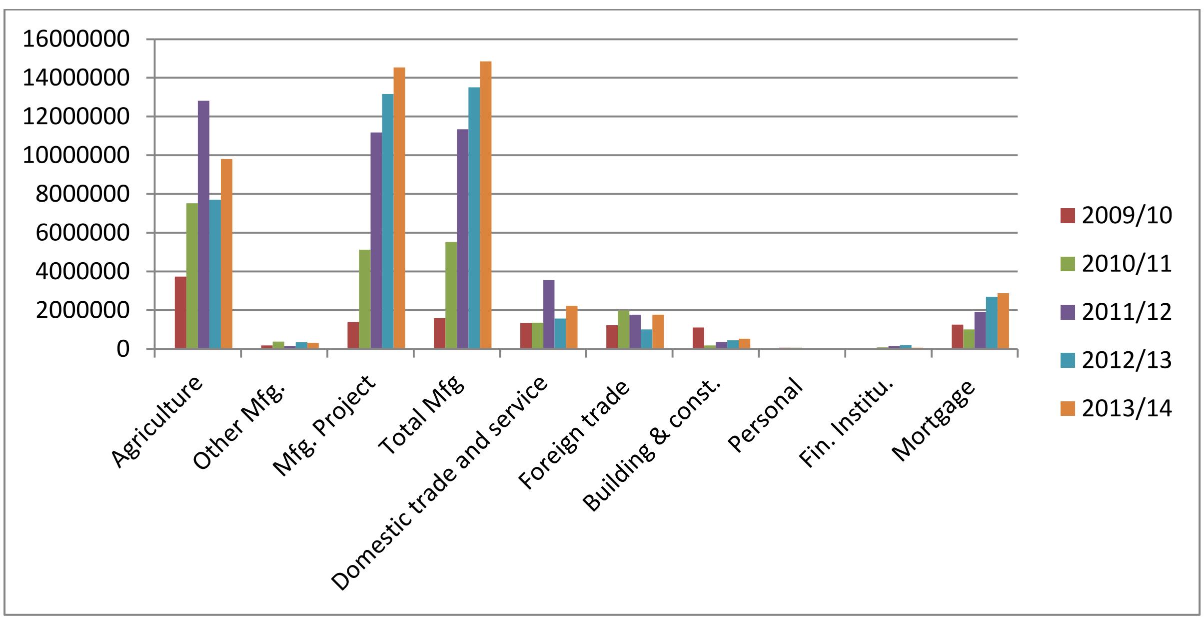
Table 8. Mfg. Project loan financed and Term loan disbursement by economic sectors In '000 birr

Year	Agriculture	Other Mfg.	Mfg. Project	Total Mfg.	Domestic trade and service	Foreign trade	Building & const.	Personal	Fin. Institu.	Mortgage	Total	% oF Mfg.
2009/10	3,737,357	191,847	1,393,664	1,585,511	1,347,682	1,226,442	1,120,958	65,938	-	1,267,584	10,351,472	13.4
2010/11	7,520,524	391,905	5,127,881	5,519,786	1,369,539	1,996,744	191,002	70,799	89,368	1,022,137	17,779,900	28.8
2011/12	12,812,276	158,802	11,184,219	11,343,021	3,562,631	1,775,666	374,340	2,560	148,196	1,920,683	31,940,123	35
2012/13	7,707,495	351,436	13,165,334	13,516,770	1,578,667	1,009,960	459,859	2,893	203,000	2,700,560	27,179,203	48.4
2013/14	9,815,554	311,729	14,532,503	14,844,232	2,232,558	1,777,406	533,801	24,791	79,000	2,875,779	32,183,122	45

Source: Management Information System of CBE (MIS).

As a state bank Commercial Bank of Ethiopia is expected to align its strategy with the macroeconomic policy of the country. As a result, the sectoral distribution of project loan approved in general aligns with priority sector identified by the governments GTP. Therefore, CBE mainly prioritize to finance mainly in agriculture, manufacturing, and exports. Of the total loan disbursement approved, yearly on the average 9.08 billion birr for manufacturing, 8.3 billion for agriculture, 2 billion for DTS, 1.9 billion for mortgage, and 1.5 billion for exports have been disbursed during the study period. Specifically the manufacturing sector yearly on average takes 35 percent of the total loan approved.

Graph 3.Sectoral distribution loan disbursement by economic sector '000 birr



Source: Management Information System of CBE (MIS)-(2009/10-2013/14)

As depicted in the above graph 3 manufacturing sector shows increasing trend in the whole years of 2009/10 up to 2014/15. Meanwhile, the agricultural sector reaches its pick in 2011/12 then declined in 2012/13 and shows recovery during the last period of the study period. While the domestic trade and service, mortgage, and foreign trade respectively taken the rank in the total sectoral distribution. We can see from the above, credit is concentrated in selected sectors cognizant of their contribution to the economy. But there is a need to review portfolio mix of financing to reduce credit risk that may emanate from lack of diversification.

3.1.3 Sectoral Breakdown of Outstanding Balances of Loans and Advances, and Manufacturing project

It has been observed that from table 9, the total yearly sectoral breakdown of outstanding loans and advances, the manufacturing project sector takes the lion share 15.5%, 23.2%, 31.2%, 42.2% and 48.3% from June, 2010 up to June, 2014 of five years of study period respectively. While agriculture sector shows outstanding balances of loans and advances 19%, 22.9%, 23.2%, 17.2% and 13.6 % of the study periods June 2010 up to 2014.

Table 9: Sectoral breakdown of outstanding balances of loans and advances '000 birr

Year	Agriculture	Other Manufacturing	Manufacturing Projects	Total Manufacturing	Domestic Trad.& Serv.	Foreign Trade	Building & construction	Personal & ESL	Financial institution	Total loan and advances
2010 June	4,354,094	46,791	3,552,506	3,599,297	3,439,825	7,769,705	3,348,149	88,007	259,953	22,859,029
2011 June	7,836,769	652,671	7,935,103	8,587,774	3,393,589	10,345,821	3,710,317	100,205	243,211	34,217,686
2012 June	13,552,073	466,838	18,206,648	18,673,486	5,310,050	14,949,084	5,233,753	120,825	487,713	58,326,983
2013 June	12,138,862	793,388	29,721,504	30,514,892	4,038,640	15,479,224	7,607,086	144,848	508,730	70,432,283
2014 June	12,268,849	929,905	43,348,108	44,281,207	4,659,486	17,792,573	9,981,911	293,014	388,142	89,665,182

Source: Management Information System of CBE and own computation

Therefore, we can conclude from this that the total outstanding balances of loans and advances; the manufacturing and agricultural sectors cover 62% of them in June, 2014. Of the total manufacturing, the manufacturing projects constitute 98.7%, 92.4%, 97.5%, 97.4% and 97.9% from June, 2010 up to June 2014. On the other hand foreign trade outstanding balances on June, 2014 shows that export takes 6.5 % and import 13.3%.

When we see the outstanding loans and advances it is obvious that bank finances from the deposit it mobilized so the proportion of the deposit growth and loans and advances disbursed must be matched in order to keep the bank from risk of asset-liability mismatch. The bank overall foreign currency payment is also more than FCY receipt and the growth rate in foreign currency liability is more than foreign currency asset. This implies that the bank does not get the expected foreign currency generation though it's financing of prioritized sectors.

These manufacturing projects were exposed to product risks- where there are product substitute risks where our market is overthrown by cheap China made fabrics. Some companies have to replace old machines with new one to be competitive enough. Though they are established recently the machineries being installed were not new one. In addition to this, due to long term loan financing are vulnerable to default risk i.e. associated with product obsolescence, with political risk (socio economic change), industry life cycle, technological risk and the like.

The diversion of funds available to the other purpose will lead the project shortage of day to day running of the business. This will affect production cycle then sales and the repayment schedule of the bank leads to liquidity risk.

3.1.4 Proportion Non-performing Loan by economic sectors

Loans should be classified as NPL when payment of principal and interest are past due by three months (90 days) or more. The percentage contribution of manufacturing sector in the total non-performing loan as shown in table 10, is 42.62 (out of 1.29 billion NPL is 552.1million). Meanwhile trade, agriculture, consumer loan and DTS take the next higher share amounting 19.84%, 13.68%, 10.15% and 5.2% respectively. Though it is not disputable the contribution of the sectors to the economy, the need for diversification of portfolio in different sector is undeniable. This may help to limit or reduce excessive credit risk that emanate from concentration in the sector. The manufacturing sector is subject to default that would possibly arise from business slowdowns, policy changes, unfair competition and other causes that can harm the sector.

Conservative banks that are in doubt of abnormal risk use strict provisioning in order to absorb potential loss incurred from bad-debts. They reserve additional provision than required by the regulator. In such cases, the actual provision will be definitely higher than the amount of NPLs and it offers extra cushion for credit risk though it has some trade off with liquidity and profitability. In this regard, the CBE held more than NBE's NPL provisioning standard that is why the actual provision is higher than amount of required provision. Here the NPL will be seen in total manufacturing sector due to not obtaining specific data from the CBE any how the overall NPL of the CBE is below the international and NBE regulatory standards.

Table 10: Sectoral distribution NPL as at June 30, 2014 '000 birr

Economic Sector	Total no. of Loans	Performing Loans	Non-Performing Loans (NPLs)	Total OS Loans	% share of sector in the total portfolio	% Contribution of the sector in the total NPL	NPLs to Total Loans each sector (%)
Agriculture	469	12,126,339	142,510	12,268,849	13.68%	11.00%	1.16%
Manufacturing	409	43,729,062	552,145	44,281,207	49.39%	42.62%	1.25%
DTS	2,542	4,560,978	98,508	4,659,486	5.20%	7.60%	2.11%
Trade	503	17,443,840	348,733	17,792,573	19.84%	26.92%	1.96%
Building & Con.	125	1,045,318	130,947	1,176,265	1.31%	10.11%	11.13%
Consumer Loan	96,872	9,076,033	22,627	9,098,661	10.15%	1.75%	0.25%
Financial Institutions	17	388,142	-	388,142	0.43%	0.00%	0.00%
Total	**100,937**	**88,369,712**	**1,295,470**	**89,665,183**	**100.00%**	**100.00%**	**1.44%**

Source: Management information system of the CBE and own computation (2014)

But when we see the actual provision held for loan loss in table 11, with the NBE requirements (NBE directive number SBB/43/2006), Birr 2.40 billion which is more than the required provision of Birr 1.76 billion. The total provision constitutes 2.7% of the total loans and advances. Here the intention is that there is appropriate recognition of NPLs, this ratio can provide an indication of the capacity of bank capital to withstand NPL-related losses. According CBE's key risk indicator for provision coverage from 1-5% is within moderate risk status. As total non-performing loans balance is Birr 1.29 billion, the total provision covers 136% of this balance.

To facilitate the quality of loans and advances as well as to institute resilient non-performing loans management strategy in the bank, it is imperative to analyze susceptibility of the economic sectors to credit risk and analyze the composition of NPLs. For observable reasons, the level and amount of NPL in different economic sectors can vary, most importantly due to business cycle effect, business and trade policy and other external factors that influence each economic sector. Therefore, it is decisive to analyze NPL in these sectors so as to devise appropriate means to remedy and give due emphasis that seek attention.

In this regard, though the NPL ratio of the manufacturing sector shows 1.25% which is lower than Building, DTS and Trade, the contribution of the manufacturing sector to total NPL is by far higher than others, which is 42.2%. As the whole, since the bank maintained the international standards and NBE requirements (which says any single digit NPL ratio is good and the NBE requirement to maintain overall NPL ratio should not above 5% of the total outstanding loan) it is not as such a threat. But it requires continuous monitoring and follows up due to the long term nature of the projects and their status.

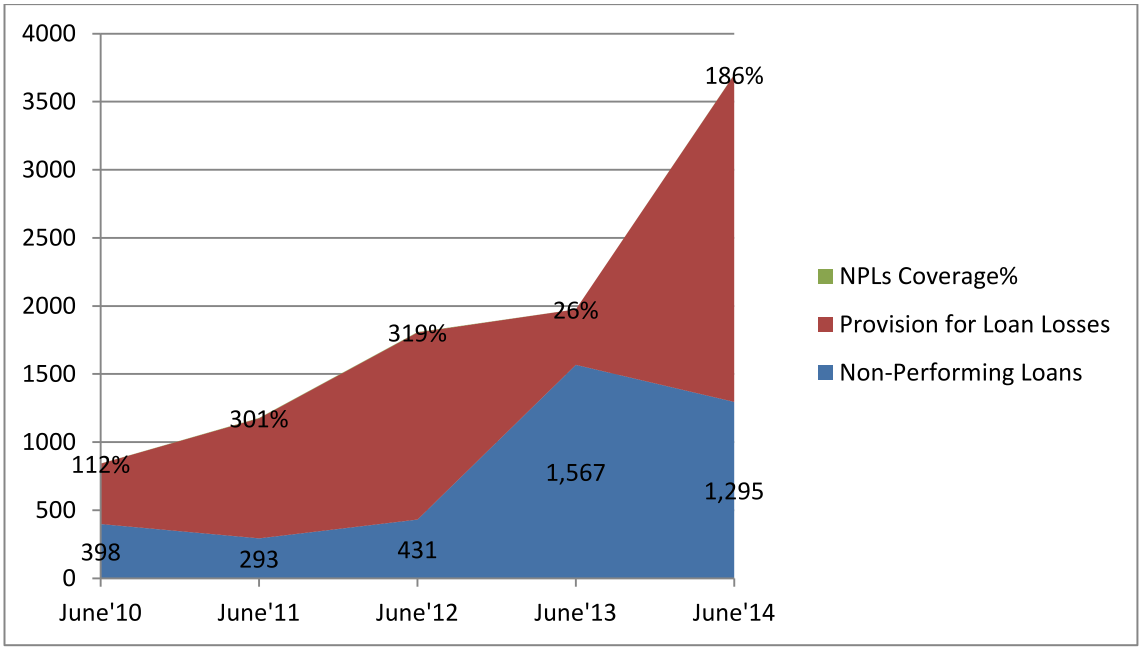
Table 11.Provisions by Asset Classification June 30, 2014 '000 birr

Loan classification	Outstanding Loans and Advances	Net Recoverable amount	Net loans and advances	Required Provision	Actual Provision	Actual provisioning %age	Excess/ Short fall
Pass	87,857,569	0	87,857,569	878,576	1,306,819	149%	428,243
Special mention	512,143	0	512,143	15,364	15,092	98%	-272
substandard	205,422	24,644	180,778	36,156	26,337	73%	-9,819
Doubtful	157,487	48,864	108,623	54,312	12,231	23%	-42,081
Loss	932,561	155,797	776,764	776,764	1,042,907	134%	266,143
Total	**89,665,182**	**229,305**	**89,435,877**	**1,761,171**	**2,403,386**	136%	642,215

Source : CBE MIS and own compilation

As shown in the graph 4 the Non-performing loan (NPL) and the provision amount seems compatible and well beyond the required level of NBE requirements one should not forget that the loan the prioritize sectors which the CBE finance are long term in nature. This implies that the longer the repayment period the higher the probability of default.

Graph 4: NPL and provision amount



Source: MIS of CBE and own compilation

3.1.5 Contribution to earnings from project finance to Manufacturing sector

The percentage share of manufacturing project financing to total manufacturing stands 86.2%, 93%, 97.7% ,97.3%, and 96.7% as at June 2010 up to June 2014 respectively for five years. The figure showed that the dedication of the bank towards manufacturing project financing was significantly high. On the other hand, the percentage share of manufacturing project financed to total loan and advances stands 13.6%, 23.2%, 31.2%, 42.2%, and 47.6% for the study periods as at June 2010 up to 2014 respectively showing remarkable progress.

It had been identified that contribution share of interest income from manufacturing project to total interest income showed 15.9% , 20%, 6.4%, 40.4%,and 53.3% each year under the study periods 2010 up to 2014 respectively. The decline in the year 2012 originated due to the lesser request from the higher rate of inflation the country faced that discouraged investors to actively engage in project creation and development in general. When we see in absolute terms the amount of interest earned from the year 2010 up to 2014, was almost birr 242 million, 431million, 2.2 billion, 3.3 billion respectively. The amount of interest earned each year from project finance to manufacturing sector showed significant amount of contribution.

Table 12: Proportion Interest Income from Manufacturing Project Financing, Total Loans and Advance, and NPL ratio

Proportional share of Mfg. projects, interest income and NPL ratios					
Items	June,2010	June,2011	June,2012	June,2013	June,2014
Manufacturing project financing	3,112,205,741.52	7,940,319,187.04	18,207,324,429.85	29,714,833,806.21	42,724,178,032.51
Manufacturing non-project	429,521,020.15	605,606,306.21	466,397,999.77	800,058,305.92	1,557,029,178.47
Total manufacturing	3,541,726,761.67	8,545,925,493.25	18,673,722,429.62	30,514,892,112.13	44,281,207,210.98
Total loan and advance	22,859,029,392.66	34,217,717,100.22	58,326,966,309.61	70,432,282,102.00	89,665,182,286.33
% of Mfg. project to total Mfg.	86.2%	93%	97.5 %	97.3%	96.5%
% of Mfg. project to total loan	13.6%	23.2%	31.2%	42.2%	47.6 %
Non-performing loans of Mfg.	-	-	-	-	552,145,000.00
% of NPL of Mfg. to total Mfg	-	-	-	-	1.25%
% of NPL Mfg. to total Loan NPL	-	-	-	-	49.39%
Interest income from total loan disbursed	1,521,687,734.07	2,150,883,414.88	3,607,984019.53	5,327,702,118.98	6,216,610,387.77
interest income from Mfg. project	241,734,962.56	430,559,655.87	231,754,781.87	2,165,123,849.89	3,311,660,983.87
Contribution of interest income from Mfg. project to total interest income	15.9 %	20 %	6.4 %	40.6 %	53.3 %

Source: Management Information Service and own computation

The NPL share of the project financed and non-project loan to manufacturing sector were not specifically considered due to data were not separately available from the bank. But it had been identified that more than 96 % were project financed and 4% non-project loan to manufacturing sector which might imply most of them are from project. Any way this has to be further studied which researcher cannot conclude as such (see table 9). In general, what matters is the magnitude of these non-performing assets, with regard to the international standard, NPLs within a single digit can be considered as acceptable to the banking business. Similarly, NBE strictly urges banks to contain the amount of NPLs below 5%.

The percentage share of NPL of manufacturing to total manufacturing loan outstanding constitute 1.25% or out of outstanding balance of total manufacturing 44.3 billion birr 0.6 billion was non-performing this is under low risk status under international standard and practices. On the other hand, the percentage share of manufacturing sector to NPL constitutes 49.39 % of total NPL. This happens due to high concentration of the manufacturing sector but the overall total NPL ratio to total loan and advances including manufacturing sector stands 1.86% implying lower risk level.

3.1.6 Why manufacturing projects fail/become NPL/?

To identify this problem the researcher has reviewed those manufacturing projects which are under NPL. The Bank has financed for 409 manufacturing sector during the study period, out of them 16 of them are under NPL status. Due to confidentiality of customers and company names will not be disclosed. But in general, among the defaulters' two cases especially Textile and Leather and hides will be discussed.

In the case of investment of textile factor the reason for default was identified from the document review as follows. During the initial investment, the Investor enters to investment by dismantling the machineries from abroad and planted it in our country without any foreign direct investment involvement. Where the value of the machines taken as shares to the foreign Investor and the land given by government also as shares of Government to be paid in five years period. Then the company used the working capital to install the machinery and have to pay the government Privatization and Public Enterprise Supervisory Agency (PPESA) according to the agreement made. In addition to this since the Bank grace period was one year, the company has to start the repayment. Not only this, even one of the share holder of the company withdrawn from company by accepting not small amount of money which has to be paid in foreign currency since owner is a foreigner.

In the above case, the time required to plant the machinery took more than one year and the amount financed by the bank diverted to install the machineries then the company become defaulted due to shortage of working capital.

Here it has been identified that the bank was not providing the required amount financing and enough time for project loan repayment depending the type of project and its features. As indicated in the project document there is cost overrun, short period of grace period (one year) given for project and the bank decides the project cost amount only from its angle are among the issues raised on the customers side. The customers also indicated that lack of professionals in the bank employees as one factors in assessing type of project and its features hampered not to get the required amount of financing. These issues have been identified from customer's project document reviews.

On the other hand, in the Leather industry, the company which has been financed by the CBE was performing well. But due to the government policy change in 2009 which banned the export of semi processed hides and skin highly affected this manufacturing company. This company has lost significant amount of their income due to tax imposed for semi processed hides and skins. The policy does not have any financial package and CBE is not flexible enough to reschedule of that significant amount due to NBE strict directive. Shifting from one level of production to the other requires large amount of Investment. The Company has to invest in new machinery, new work force, and find clients locally and internationally require additional working capital. The company tried to negotiate with the bank expressing the case but refused to finance. Others defaulters had different reasons like insufficient team skill, resource competition, failure to manage risks, change in scope, and vision and goal not well defined where owners manage projects without even knowing the process of production were among the major ones.

On the other hand, the diversion of the project finance for unintended purpose, lack of proper management, willingness to repay, poor credit culture, and not having the required consultation are some of them.

In general, the main causes manufacturing projects to be non-performing are: change in government policy; unrealistic deadlines, diverting to unintended purpose, lack of post sanction follow up, poor preparation of feasibility study, under utilization of capacity of production, raw materials shortage and inventors attitude are among the major ones.

3.2 General information on manufacturing project financing by the CBE

This section deals with analysis and interpretation of the primary data collected through questionnaire and interview. After the completion of relevant data collection, descriptive analytical tools such as percentages, tables and ratios, ranking of the variables as means of measuring. As mentioned in the methodology of the study structured and unstructured questionnaire based on the work flow of the credit process has been designed. In this section the appraisal and the risk grading system of the bank will be analyzed based on the questionnaire.

3.2.1 Manufacturing project appraisal

The very purpose of project appraisal is the adoption of a process to enable an independent & objective assessment of the inter-relationship between Technical, Financial, Commercial, Economic, Managerial, Ecological and Social aspects of an investment proposition for arriving at a financing decision. That is determination of the viability of a project or help re-shape project to enhance viability. Nevitt & Fabozzi (2000), “A financing of a particular economic unit in which a lender is satisfied to look initially to the cash flow and earnings of that economic unit as the source of funds from which a loan will be repaid and to the assets of the economic unit as collateral for the loan.”

According to Finnerty (1996), “….the raising of funds to finance an economically separable capital investment project in which the providers of the funds look primarily to the cash flow from the project as the source of funds to service their loans and provide the return on their equity invested in the project.”

Therefore, in the process of manufacturing project appraisal starting from the characteristics of employee, the challenges faced during appraisal and the prospects will be analyzed based on the questionnaire and the interview conducted with the respondents.

3.2.1.1 Analysis of Employees response

In this section part of analysis includes employees' personal data, credit process of the bank, and challenges and prospects of manufacturing project financing.

3.2.1.1.1 Personal data analysis of employees under credit process

In this section, data collected through questionnaire from credit experts, credit analysts and relationship managers work experience and years of service in the credit area of the bank of the sample respondents is analyzed. The data and analysis are put consecutively as follows.

1. **Overall work and credit area experience of the respondents**

Credit process employees' general work experience in the bank is crucial to employees since it helps them to know the culture and work environment of the bank. Because it has its own contribution to easily adopt them to the work of credit process. Therefore, employees' responses about their entire work experience in the bank is organized and put in table and analyzed.

Table 13: Overall work and credit experience of respondents

S.N	Over all Experience in bank	No. of respondents	%	Experience in credit area	No. of respondents	%
1	<=5 years	7	14	<=1 years	11	22
2	6-10 years	11	22	2-5 years	22	44
3	11-15 years	27	54	6-9 years	13	26
4	>= 16 years	5	10	>=10 years	4	8
	Total	50	100	Total	50	100

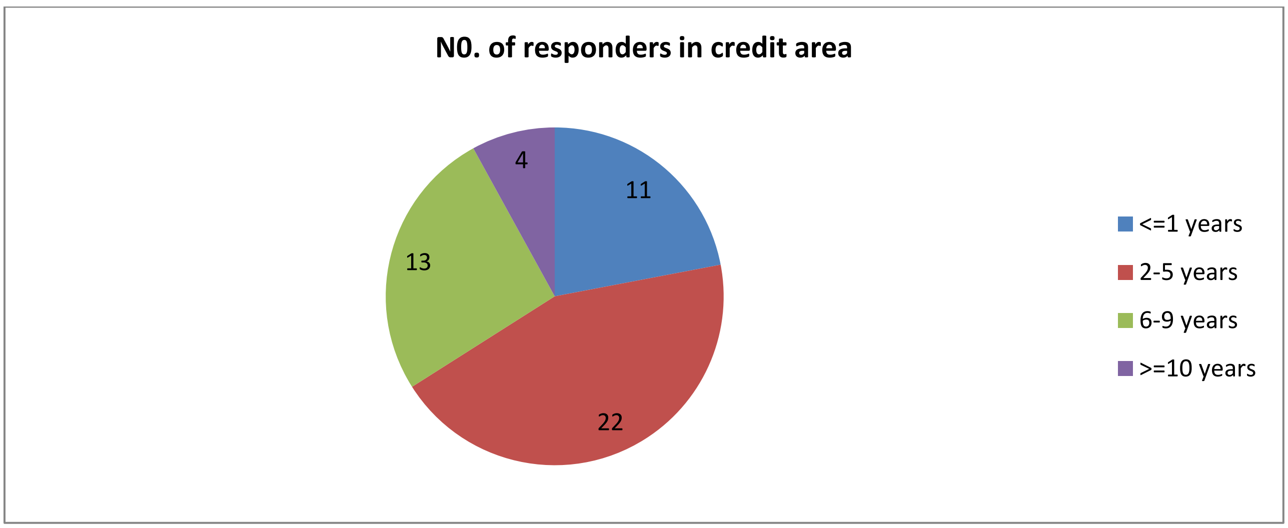
Source : filled respondents questionnaire

As shown in table 12, the lion's share (54%) of the member of employees in the bank has experience between (11-15) years. The others have worked for (6-10 years) that accounted for 36% of the total respondents. Only 14 % of the sample employees have experience of less than or equal to 5 years.

Based on the table 12, the work experience of respondents in credit process of the bank is scarcely distributed with the highest (44 %) of the total respondents had 2-5 years of work experience. The others 26 % and 22 % of employees have (6-9 years) and (<=1years) work experience respectively. Only 8 % of employees have more than 10 years of experience in credit area.

When we sum up into two categories of experiences, 66 % (<=5 years) and 36 % (>=6 years) of the bank employees are under credit process of the CBE. Since 66 % of employees have less than or equal to 5 years of work experience coupled with the nature and complexity of projects, employees lack required experience in appraising project proposals specifically financing of manufacturing projects.

Chart 1: Employees' work experience in credit area of the bank



Source: filled questionnaire of employee respondents (table 12)

3.2.1.2 Process of appraising project financing requests in the CBE

CBE has its own credit policy and procedures which is in line with NBE directives. The policy and procedures of the bank discuss in detail the financing of project loan and other loan starting from the loan request handling to the final loan disbursement and collection. However, the main input for this project financing of project loans is the current available data and information that are collected from different sources internally and externally. Therefore, this section of the analysis try to organize and put employees' responses to the questionnaire, what is observed from different records of the bank concerning project appraisal process and sources of data being used for appraising projects.

There are general steps to be followed in financing project loans as responded by Credit Management Process of the bank, i.e. both wings Credit Appraisal and Credit Management sub processes. The bank follows NBE directives and its own Credit Process Procedure. The following are the general steps which had been followed by the bank.

A) The credit advisors initially contact customers and give general information about the loan eligibility criteria;
B) The Credit Relationship Managers (CRMs) contact customers and collect documents;
C) The Credit Relationship Managers(CRMs) review the documents and see their fulfillment based on the checklist;
D) The Credit Relationship Managers(CRMs) see and write the strength and weakness of the proposals and send the document with the report to the credit appraisal section;
E) Viability test will be made based on market, financial , technical and environmental aspects of the project;
F) Discussion will be made between the CRMs and credit analysts or credit experts as to their assessment on the project case;
G) Both CRMs and analysts recommend on the case; and
H) The recommendations of the two credit performers will be presented for final decision and approval.

The following are cited as sources of data to be used for project loan performing; documents of customers, projects worked out in the past, central statistics authority, customers and revenue offices, National Bank of Ethiopia, Investment office, Ministry of trade, Ministry of industry, the policy and procedure of the bank and others like Ministry of finance and economic development, Ministry of agriculture and rural development, as appropriate.

The appraisal of term loan proposals from lenders' perspectives is assessing the ability of a firm to repay the principal amount and the interest thereon from the cash surplus generated from operations by utilizing fixed assets which generally financed by banks.

3.2.1.3 Challenges faced while appraising manufacturing project

3.2.1.3.1 Customers related challenges

The challenges categorized hereunder are related to customers' proposals and poor credit culture of the customer. The proposals are the blue-print of the project so if there is a problem in blueprint the whole project is in question. The credit culture incorporates the overall attitude, customs, and behavior of the customers in a society towards credit coupled with understanding of project financing is a recent phenomenon required due attention. Although there various documents to conduct appraisal of manufacturing project like prefeasibility study, bill of quantity, specification, design of construction, ownership certificates and others, a feasibility study report is the basic document to perform reliable project appraisal. In order to finance viable project, a feasibility study should provide all the data and be complete and comprehensive. It should include and critically examine the commercial, technical, financial, environmental, legal and other key aspects of the project. Table13 shows the organized data of the respondents of the employees related to customers. Analysis of the responses is made thereafter.

Table14: Customer Related Challenges

No.	Item	Employees agreement level						
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No response	Total
1	The proposal submitted by customers have low quality and are not complete	10 (20%)	38 (76%)	2 (4%)	-	-	-	50 (100%)
2	Poor credit culture on customers of the bank	23 (46%)	20 (40%)	5 (10%)	2 (4%)	-	-	50 (100%)

Source: Filled questionnaire of employee respondents

As shown in the table 13 above, respondents were asked concerning the degree of their agreement on "The proposal submitted by customers have low quality and are not complete" as one of challenge of manufacturing project financing in the CBE. Accordingly, three 96%or 48 of the respondents expressed their agreement stating that it was a challenge by choosing "Agree" and "Strongly agree".

On the other hand, around 4% of the respondents neither agree nor disagree except lack of information or data sources. Therefore, one can infer from the above responses that the absence of quality and completeness of project proposals submitted by customers was one challenge of manufacturing project financing in the CBE.

On the item 2 of table 13 above "poor credit culture of customers of the bank" was presented to the respondents whether it was a challenge of manufacturing project financing in the CBE or not. Accordingly, 86% or 43 of the employees agreed as it is one challenge; only 4% or 2 of the employees disagree with the item being a challenge. The rest 10% or 5 of the employee respondents neither agree nor disagree with the case. One can generalize from the above analysis that poor credit culture of customers of the bank is the other customer related challenge of manufacturing project financing in CBE.

3.2.1.3.2 Employees' related challenges

The other category that affect manufacturing project financing by the CBE is employees' related challenge. Challenges under this category are related to employee's capacity which may be attributed to lack of experience, knowledge and skill, level of related education, resulting in insufficient performance on their tasks. In this regard, respondents requested to put their responses which are compiled and tabulated in table 14.

Table15: Employees' related challenges

No.	Item	Employees agreement level						
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No response	Total
1	Low quality of advisory services rendered by CRMs & credit advisors	15 (30%)	16 (32%)	5 (10%)	10 (20%)	4 (8%)	-	50 (100%)
2	level of knowledge and skill of credit performers not as required	21 (42%)	21 (42%)	2 (4%)	2 (4%)	4 (8%)	-	50 (100%)
3	Capacity and Willingness of front line performers is low	15 (30%)	8 (16%)	3 (6%)	5 (10%)	19 (38%)	-	50 (100%)

Source: filled questionnaire of employee respondents

As first row of above table 14 shows, "Low quality of advisory services rendered by CRMs & credit advisors" that 30 % or 15 and 32% or 16 employees responded "strongly agree' and "agree" respectively that it is a challenge by 62 % level of agreement.However,8% and 20% of them "strongly disagree" and "disagree" as it is a challenge. Only 10% or 5 of the respondents neither agree nor disagree as it is a challenge.

Concerning level of knowledge and skill of credit performers was also assessed whether it was a challenge of manufacturing project financing in CBE or not. In this regard, majority (84%) or 42 of the employees agree that it was a challenge. Only 12% or 6 of the respondents disagree and 4% or 2 of respondents neither nor disagree. Even those respondents who disagreed do not deny that they lack the skills in appraising due to the complex nature of manufacturing projects.

With regard to capacity and willingness of frontline performers (CRMs and credit advisors), 48 % or 24 respondents disagree as it is not a challenge. On the other hand 46% or 23 respondents agree as it is a challenge. Only 6% or 3 of respondents neither agree nor disagree.

From the above, we can deduce that 54 % (including 6% neither agree nor disagree) does not agree as a challenge. But it is at margin which is contradicting with the above responses that witnessed of knowledge and skill was low. However, the directors of credit management and appraisal team with whom interview was made generally witnessed that employees lack the required knowledge of performing manufacturing project loans specially the skills which come through experience. Therefore, these contradicting findings from the respondents shall be approved by further study hereafter. Even though, employees might not respond the fact confessing their low status, the directors' response shall be taken as reliable finding.

3.2.1.3.3 Bank related challenges

The bank related challenges which are under the control of the bank that affect the smooth running of manufacturing project financing in CBE will be analyzed. These challenges are related to loan appraisal time, the support of the research unit to credit processing of the bank, frequency and depth of trainings given to credit performers, the work approach in credit processing, the flexibility in the bank's credit policy and procedures, and availability of data and information in the data base of the bank. The response of these challenges and their corresponding analysis are presented in the coming tables.

Table 16: Bank related challenges

No.	Item	Employees agreement level						
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No response	Total
1	Less loan processing time	5 (10%)	10 (20%)	35 (70%)	-	-	-	50 (100%)
2	low frequency and depth of training given to credit processing	15 (30%)	15 (30%)	10 (20%)	7 (14%)	3 (6%)	-	50 (100%)
3	Insufficient support being rendered by research unit to credit performers	35 (70%)	15 (30%)	-	-	-	-	50 (100%)
4	No team based approach in appraising manufacturing project requests	24 (48%)	12 (24%)	8 (16%)	2 (4%)	4 (8%)	-	50 (100%)
5	Lack of flexibility in the bank's credit policy and procedure	2 (4%)	17 (34%)	28 (56%)	-	3 (6%)	-	50 (100%)

Source: *filled questionnaire of employee respondents*

Based on the employees response as shown in table 15 item "less loan processing time" where 14 days of processing time given, 30% of the total respondents agree by responding "agree" and "strongly agree" and 70% of them neither agree nor disagree with the statement. This shows that an improvement needed to the time allotted is not that much significant. But it requires little improvements so it was least challenge of manufacturing project financing.

On the item number 2 of table 15 above ,"low frequency and depth of training given to credit processing" was another challenge of manufacturing project financing in CBE. This is because 60% of them agree with different degree of agreement level i.e. 30% each "strongly agree" and "agree" while 20% neither agree nor disagree. But 20% of the respondents disagree. This shows that there is a need to deliver training on manufacturing project financing to the performers.

According to the respondents in item number 3 of table 15, “Insufficient support being rendered by research unit to credit performers” was also shown that the employees’ agreement as a challenge of manufacturing project financing in CBE. In this respect, all employees of the credit process (100%) witnessed that there was no formal support from the research unit. This shows that lack of support from the research and development process of the bank to the credit process was the challenge that is affecting the running of manufacturing project financing in CBE.

On the item number 4 of table 15 in the above, “No team based approach in appraising manufacturing project requests” asked to respond either to agree or to disagree. In this regard, 82% of the respondents agree on the item stated as a challenge for manufacturing project financing. Whereas 16% of the respondents neither agree nor disagree and 12% of them disagree as it is a challenge. Therefore, it is logical to infer from the above analysis that lack of team based approach in appraising manufacturing project requests was one of challenge of project financing in CBE.

Finally, in item number 5 of table 15 the respondents asked to reply their agreement level on whether there was lack of flexibility in the bank’s credit policy and procedure or not. 38 % of the respondents agree that it is a challenge while 56% of them neither agree nor disagree. Only 3% of them disagree that it was a challenge.

Generally we can conclude from the above analysis that lack of flexibility of the bank’s policy and procedure was also a cause of manufacturing project financing in CBE.

Table 17: Availability information in CBE internal data base

Data and information availability in the data base of the CBE's as required(internal data base)	Employees' response	
	Frequency	Percent
Yes	6	12
No	42	84
No response	2	4
Total	50	100

Source: filled questionnaire by employee of CBE

With regard to the availability of data and information in CBE's data base, as in table 16, 84 % of the employees agreed that there was no adequate data and information in CBE for the manufacturing project processing. From this response, inadequacy of data and information is a major challenge of project financing of the CBE.

3.2.1.3.4 Country related challenges

Country related problems of data handling, organizing and storing in different organization of the country depend on the level of the county's development. Component of this category are like lack of information and data in different organizations found in the country, and shortage of consultants for manufacturing projects or consulting firms that can properly consult manufacturing project promoters. In appraising of manufacturing project financing performers responded for the following problems in the content of the proposal forwarded for them.

In addition to this in the process of land acquisition, repetitive electricity interruption, delay in delivering license, raw material shortage, frequent policy changes, market fluctuation, foreign currency shortage are among the main challenges.

Table 18: Country related challenges

No.	Item	Employees agreement level						
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No response	Total
1	Lack of properly trained consultants to prepare project feasibility study	17 (34%)	20 (40%)		7 (14%)	6 (12%)	-	50 (100%)
2	Lower availability of data and up to date information	13 (26%)	27 (54%)	4 (8%)	5 (10%)	1 (2%)	-	50 (100%)

Source: *filled questionnaire of employee respondents*

As in table 17, lack of properly trained consultants for manufacturing project feasibility study was the major challenges of project financing in the CBE that 74% of the respondents agree on the idea that it was a challenge. On the other hand, 26% of them did not support that it was a challenge. Hence we can infer from this it is a major challenge.

Concerning "lower availability of data and up to date information outside CBE", 80% or 40 employees of respondents agreed. While 12% of them disagree that it was not a challenge. Only 8% of them neither agree nor disagree. Therefore, lower availability of data and up to date information outside CBE was one of the major problem of manufacturing project financing in CBE.

In general the availability of data and up to date information is not good enough in depth, type and specification. The directors of the credit process replied that data and information is not reliable, updated and crude that cannot be used for specific purposes. In addition to this, the proposals have low quality and are incomplete since they are prepared by least cost for the purpose of cost reduction.

Other reasons and problems provided by the respondents based on open-ended questionnaires concerning the challenges of manufacturing project financing by the bank have been summarized and stated hereunder.

Additionally, the respondents were asked to give response concerning the type of sector which is more challenging in financing project loans. There response was that out of 50 respondents 39 or 78 % of them responded that agriculture is the most challenging projects to finance. This is because lack of experts and knowledge on agriculture and unpredicted weather condition of the country.

Challenges faced summarized below:

Employees and bank related challenges

1. Limit on technical knowledge of the analysts
2. Skill and experience gap on the side of credit performers of the bank
3. Shortage of time of trainings given on project financing
4. Lack of research and development unit for sectoral and specific study
5. Under financing of projects /dissatisfying promoters/

Customer related challenges

1. Proposals submitted lack completeness and quality
2. Return of feasibility study (due to poor quality and/or lacks required information)
3. Poor credit culture

Country related challenges

1. No industry average and lack of standards of projects
2. The economic condition of the country is not favorable to formulate valid assumptions
3. Frequent changes of economic environment in the country.

3.2.1.5 Prospects of manufacturing project financing

From the open ended questionnaire out of 50 respondents 40 or 80 % of the respondents said that there will be good prospect of manufacturing financing in the CBE because of increase in the society's awareness about bank financing, increase in foreign direct investment, and creation of economic stability. As employees' response witnessed that being the second largest project loan financing institution after Development Bank of Ethiopia the benefit generated from increased financing will be significant.

In addition to this, manufacturing project financing has benefit for the country in import substitution, foreign currency generation by exporting manufactured goods, technological transfer, and employment opportunity and finally facilitates the country's development plan towards industrialization.

3.2.1.6 Assessment of project documents and appraisal notes of manufacturing projects

While assessing the manufacturing project document of the bank the following challenges and prospects have been identified. The major ones have been listed below on both sides i.e. from banks and customers perspectives as identified from the document review.

It has been observed that from the customers' side proposal does not contain full information about the marketing, technical, and financial information. The proposal is not prepared as per the need/requirements of the bank. There is shortage of project managers, where owners manage projects without even knowing the proper production process. The customers do not have qualified consultants, frequent change in cost of products (cost overrun), shorter grace period, long loan processing time, and large number of precondition are among the major appraisal documents of the bank customer noted.

3.2.2 Efficiency of Risk Grading System of Commercial Bank of Ethiopia

The purpose of this study is to evaluate the current risk grading system of Commercial Bank of Ethiopia using information obtained from the credit appraisal/performer team and from document review.

The questionnaire prepared included both open and closed ended questions. Closed ended questions were prepared based on five level likert scale and the levels that was given to each closed ended questions was "1" for strongly disagree , "2" for disagree , "3" for neutral , "4" for Agree and "5" for strongly agree. Based on the responses of the target group data presentation and analysis is made by calculating frequency and percentages. On the other hand results of document review and interview is also presented to support the response of the result under each table.

3.2.2.1 Credit Risk Grading Format and Clarity
3.2.2.1.1 Clarity of the credit risk grading form

The first question that was forwarded to the respondents was about the clarity of the formats and instructions of credit risk grading experts and analysts. This question is designed to investigate whether the instructions of the current credit risk grading is easy to use for credit performers/the experts and analysts. To come up with a result percentage is computed in a tabular form.

Table 19: Clarity of credit risk grading form

The format and instructions of credit risk grading are easy and clear to use for credit performers/analysts		
Alternative	No.	%
Strongly disagree	2	4
Disagree	8	16
Neutral	4	8
Agree	29	58
Strongly agree	7	14
Total	**50**	**100**

Source: filled questionnaire by employee of CBE

As it can be seen from table18, 72 % of the respondents believe that the credit risk regarding format is clear and easy to use for credit performers, of which 14 % are strongly agree with the idea. On the other hand 20 % of the respondents do not agree with the idea and they believe that the credit risk grading is not easy for credit performers while the rest 8 % are neutral.

Therefore, it can be inferred that the grading format is not as such difficult to use it for credit performers. In addition to this informal discussion was conducted with some of the performers regarding the simplicity/complexity of the grading system. The finding is that though the grading system is not technically difficult, it would be much better if detailed guideline is developed to make the system more effective.

3.2.2.2 Observations in the parameters

On table 19 the question forwarded for the respondents were related to adequacy of parameters, reasonableness of the weights assigned to the parameters, and explanation given adjacent to the parameters and subjectivity parameters. The four questions were intended to know the opinion of respondents regarding the parameters in general.

Table 20: Observation on parameters

Alternatives	The parameters of credit risk grading used by the bank are enough to grade customers		The weights assigned for each parameters are reasonable and fair	
	No.	%	No.	%
Strongly disagree	1	2	-	-
Disagree	17	34	16	32
Neutral	9	18	9	18
Agree	23	46	25	50
Strongly agree	-	-	-	-
Total	**50**	**100**	**50**	**100**
Alternatives	The explanation given adjacent to each parameters are convincing enough to grade		Subjective credit risk grading parameters influences the credit risk grading system	
	No.	%	No.	%
Strongly disagree	2	4	4	8
Disagree	16	32	5	10
Neutral	10	20	10	20
Agree	19	38	18	36
Strongly agree	3	6	13	26
Total	**50**	**100**	**50**	**100**

Source: filled questionnaire by employee of CBE

As traced in table 19, 46 % of the respondents think that the current parameters are enough to grade customers, while 18 % are neutral and the rest 36 % disagree. This shows they believe that the bank should add additional parameters to grade borrowers. On the other hand, in the open ended question respondents were asked to mention the parameters that they thought should be included in the current risk grading system. They suggested parameters like cash flow, collateral, acid test ratio and the like to be incorporated for better credit risk grading. Better if specific grading or scoring system for projects financing projects. Moreover as described in the literature, Baghchi (2005) emphasized on parameters like profitability, capital structure, present and future cash flows, size of the company and age of business to be incorporated in the grading system

The next response related to parameters was about the weights assigned to each parameter. The table shows that 50 % of the respondents suggest the weight assigned to the parameter is fair and reasonable where as 32 % think the weights assigned are not reasonable. The remaining 18 % is neutral about it. However no one is on the extremes i.e. either strongly disagree or strongly agree.

On the other hand, 42 % of the respondents believe that the explanation given adjacent to each parameters are convincing enough to grade customers, whereas the other 36 % think the explanation given are not convincing while the remaining 20 % are neutral. We can deduce that majority believe convincing but needs further clarification on description.

The last question forwarded concerning the parameters on the above table was to know the influence of subjective parameters on the credit risk grading. Accordingly 63 % of respondents responded that subjective credit risk grading parameters influence the credit risk grading system, of which 26 % strongly agree with it. However the other 18 % do not agree and the rest 20 % are neutral.

From the above respondents and as described in the literature the disadvantages of credit rating system that rely on expert judgment and subjective information are the difficulties in objectivity comparing and reexamining past credit assessment.

3.2.2.2 Competency

The other factor that is taken to evaluate the credit risk grading is competency. This factor is taken because it is believed to influence the grading system of the bank.

3.2.2.2.1 Importance of training and experience

Training and performers' job experience in credit risk grading are the indicators used under competency. The responses tabulated as follows:

Table 21: Importance of training and experience

Alternative	Training should be given for credit analysts before he/she carried out the risk grading		Performers experience related to credit analysis have its own impact to evaluated the customers' credit risk grading	
	No.	%	No.	%
Strongly disagree	2	4	1	2
Disagree	4	8	5	10
Neutral	6	12	5	10
Agree	15	30	19	38
Strongly agree	23	46	20	40
Total	**50**	**100**	**50**	**100**

Source: Primary data

Table 20 shows 86% of the respondents have agreed on the importance of training for credit analyst before carrying out the risk grading, of which 46 % strongly supports the idea of training. Nevertheless the others 12 % disagrees with the idea of training and the remaining 12 % are neutral. The responses indicate that majority of the respondents underlined the importance of training. Moreover as described in the literature that an institution must ensure that adequate training is imparted to staff to ensure uniform ratings Baghchi (2005).

Responses gathered concerning the need of performers' experience and credit risk grading shows that majority (78 %) of the respondents suggest performers experience related to credit analysis have its own impact to evaluate the customer's credit risk grading. While the other 10 % are neutral and the rest 12 % believe that performers experience could not be challenge to conduct credit risk grading.

Moreover the information obtained from the Directors reveal that credit performers experience matters to grade customers and delivering training could not replace experience as it is an art too. However as stated in the literature delivering training could still insure uniform rating.

3.2.2.2.2 Relationship managers and credit risk grading

Another question forwarded was concerning the importance of relationship managers for conducting risk grading. As per the document review some parameters of credit risk grading like rating customer integrity and honesty is challenging for the performers' since they do not have contact with the customer. Hence this question is forwarded to understand the option of the performers in involving the relationship managers while conducting risk grading.

Table 22: Credit risk grading and relationship managers

Alternative	Credit risk grading should be done in collaboration with the relationship	
	No.	%
Strongly disagree	12	24
Disagree	16	32
Neutral	2	4
Agree	7	14
Strongly agree	13	26
Total	**50**	**100**

Source: filled questionnaire by respondents

According to Table 21, 56 % of the respondents do not agree with the interference of credit relation managers while conducting risk grading. On the other hand, 40 % think that performers should work with Credit Relationship managers in conducting risk grading and the remaining 4 % are neutral.

In the open ended question respondents were also required to give their opinion regarding the participation of credit relationship managers in credit risk grading.

Majority of respondents think that participating credit relationship managers is not necessary because the grading system may lose its independency. They replied that the performer can get the needed information on the due diligence (KYC/know you customer) report. However for non financial parameters like integrity and honesty the performer can require information from relationship manager.

3.2.2.3 Evaluation of financial risk factors

As per CBE's credit procedure manual, credit risk rating is conducted based on five primary risk classification factors. Financial risk is the first risk factor that the bank uses to grade borrowers' risk. The Bank has assigned in the system the highest weight to Financial Risk (gave 35 %) followed by Account Performance Risk. Management and Customer Relationship Risks take up third place with equal weights (15%) where Business/Industry Risk holds last place with the lowest weight (10%).No indication is made in the credit procedure for the process followed in assigning these weights.

In order to evaluate these parameters questions related to industry average and about financial statement are forwarded for the respondents' in addition to the document review and the interviews. The responses tabulated below:

Table 23: Influences of industry average and financial statement

Alternative	Lack of industry average influences the rating system of the bank		Financial statements presented fairly reflect companies position	
	No.	%	No.	%
Strongly disagree	4	8	11	22
Disagree	1	2	13	26
Neutral	2	4	6	12
Agree	17	34	12	24
Strongly agree	26	52	8	16
Total	**50**	**100**	**50**	**100**

Source : Primary data from questionnaire

As it can be seen from table 22, majority (86 %) of the respondents reply that lack of industry average influences the system of the bank of which 52 % strongly agree with it. As per the 10 % of the respondents lack of industry average doesn't influence the rating system of the bank and the rest 4 % are neutral.

In addition to the above financial evaluation, interview was also carried out with the Directors as to whether there is an industry average which is prepared for the bank's purpose or not, the response was that though detailed average is not prepared for the each industry type, different industry rate is given among sectors because what is important for one sector might not be important for the other sector.

On the other hand while 24 out of 50 respondents replied that financial statements that are presented don't represent company's position and 20respondents argued the financial statements are representative. Yet the other 6 respondents are indifferent about it.

Moreover the document review obtained reveals some challenges are observed in financial risk parameters, these are:

1. Unaudited financial statements;
2. Inconsistency in days of the fiscal years, even if audited some cover more than 365 days;
3. Change in the fiscal year;
4. It only focuses on single period and does not allow comparative analysis thus all ratios will not be incorporated;
5. The lack of industry average and availability of information;
6. Rating debt service coverage is difficult, to know the interest expense of the business because it is not reported mostly in the financial statement though they have credit facility.

As per the response to the open ended questions and the document review, performers have suggested different financial risk indicators like cash flow of the borrower as it is indicated in the literature review of financial ratios merely offer a backward looking perspective of the company.

Furthermore other parameters like acid test ratio is also suggested because new the service giving business is not favored due to unavailability of stock. In addition return on asset (ROA),return on equity (ROE), sales growth, sensitivity to external market risk (change in foreign exchange, price competitors and capital adequacy), government policy, collateral risk and legal risk are also suggested to be incorporated in rating. Performers also suggested the credit exposure of the borrowers like level of linked indebtedness to be included as parameter, i.e. the more sister companies are exposed to loan more risky the company will be; they also emphasized type and number of availed credit facilities by other banks to be properly weighted.

Regarding the collateral, the interview conducted with the Directors of credit appraisal team as to why the bank doesn't incorporate this risk factor in the risk grading system, the response obtained is that because collateral is considered as second way out in the bank and because it will already be included in the analysis report. So including in the grading system is not necessary.

3.2.2.4 Evaluation of Business /Industry Risk Factor

Another risk factor used by the bank to grade customers is Business/Industry risk which is given the least weight by the bank among all other factors i.e. only 10 % is given. To evaluate Business/Industry risk questions related to business outlook (cyclicality), growth and market share/market competition indicators are considered. These indicators are selected because the bank uses these indicators to evaluate business/industry.

Table 24: Business outlook/Growth and Market share/Market competition

Alternative	It is easy to rate the business outlook and growth of a company		It is easy to rate a company according to its market share or market competition	
	No.	%	No.	%
Strongly disagree	9	18	14	28
Disagree	27	54	25	50
Neutral	4	8	2	4
Agree	8	16	7	14
Strongly agree	2	4	2	4
Total	**50**	**100**	**50**	**100**

Source: Primary data from questionnaire

According to table 23, 72 % agreed with the difficulty of rating based on business outlook and growth, while 20 % of the respondents replied that rating borrower based on business outlook and growth is an easy task whereas the remaining 8 % indifferent. On the other hand, 78 % of respondents believed that rating based on market share and market competition is difficult nevertheless 18 % don't agree with. But the other 4 % are neutral.

As per the document reviews and interviews conducted, it has been identified challenges associated with the evaluation of business/industry risk are:

1. The business/industry risk measurement factors are subjective and no defined parameter;
2. Due to lack of compiled information on the business outlook/cyclicality or growth, the measurement is confined to sales growth to classify the business sector as favorable, stable or unstable, with respect to market competition or market share;
3. In classifying business as dominant, average or weak player there is no profile of the competitors with the respective share to make comparison or to know share position because there is no industry average; and
4. Moreover the measurement factors are broad in definition and it is difficult to determine either on the market share or as the price setter.

3.2.2.5 Evaluation of Management Risk Factor

Management risk is the one of other factor used to evaluate borrowers. As per the procedure manual of the CBE the key indicators of this risk factor are Experience in related line of business, Qualification and Succession plan. Respondents were asked to give their opinion on these indicators and tabulated hereunder.

Table 25: Management and succession planning

Alternative	Convincing enough to grade customers' management experience and qualification based on the documents presented by the customer		It is fair assume all PLC's have succession		It is easy to know whether the company has succession plan or not	
	No.	%	No.	%	No.	%
Strongly disagree	10	20	15	30	9	18
Disagree	22	44	25	50	20	40
Neutral	2	4	4	8	5	10
Agree	12	24	4	8	12	24
Strongly agree	4	8	2	4	4	8
Total	**50**	**100**	**50**	**100**	**50**	**100**

Source: primary data from questionnaire

As shown in the table 24, 32 or 64 % of the respondents believe that it is not convincing enough to grade borrowers' management experience and qualification based on the documents presented by customer. On the contrary32 % said convincing enough and the rest 4 % are neutral. The document review also assures the subjectivity of this risk parameter. As per informal interview as well, this is one of the risk factors that performers always argue about.

Similarly, evaluation of management risk based on succession plan is somehow difficult as it is supported by 58 % of the respondents. However as per the 32 % it is easy to know readiness of company's succession plan. Yet the remaining 10 % are neutral.

With the regard to readiness of PLC's have plan succession, it can be seen that assuming all PLC's as having succession plan is somewhat unreasonable as it is supported by 80 % of the respondents. While 12 % thinks this assumption is reasonable and 8 % still indifferent.

On the other hand information obtained from interview reveals that most of time PLC's are assumed to have succession plan whereas sole proprietors' don't have. This is because in PLC's, there is a group that has interests in the business i.e. shareholders. Hence there is a probability of immediate succession. However in the case of sole proprietorship the probability of immediate succession will be in question though family members are involved.

3.2.2.6 Evaluation of Customer Relationship Risk

Customer relationship risk is one of the risk factor that the bank uses to rate customers loyalty. This factor used parameters are like length of borrowing relationship, customers' integrity and honesty, and availability of credit relationship with other banks. The indicators included in questionnaire.

Table 26: Integrity/honesty and credit relationship with other banks

Alternative	It is easy to know the level of integrity and honesty		Credit relationship with other banks measure the customer relationship	
	No.	%	No.	%
Strongly disagree	12	24	4	8
Disagree	25	50	8	16
Neutral	8	16	8	16
Agree	3	6	24	48
Strongly agree	2	4	6	12
Total	**50**	**100**	**50**	**100**

Source: primary data from questionnaire

As per table 25, 74 % of the responders knowing/identifying customer's integrity and honesty is difficult. However for 10 % of the respondents knowing customers' level of integrity and honesty is an easy task and the other 16 % are neutral.

The credit worthiness, the reliability of statements and agreements, the company's willingness to provide the bank with timely and correct information are important. In contrast, 60 % of the respondents replied that having Credit relationship with the other banks measures are important. Nevertheless, while 24 % of respondents oppose it and the remaining 16 % are neutral.

Furthermore, as per the document review and the informal discussion carried out with some of the performers "rating or measuring of customers' integrity and honesty" is subjective and confined to only track record disregarding customer's cooperation. The other challenge performers raised concerning the customers who had interrupted relationship with the CBE and returned. Because credit risk grading requires the latest three years data but for those who departed the bank lacks the information required.

On the other hand the interview conducted with the Directors also reveals that though having credit relationship with other banks indicates the loyalty; it might not measure the risk level of the customers'. Because now a day most of customers have relationship with other banks for different reasons like one of which is to diversify risk. In the case of letter of credit for example to protect currency shortage customers might have credit relationship with other bank. Therefore, the repayment habit in the bank should be considered to rate customers. Though the length of relationship is also one indicator of customer relationship risk, this indicator by itself is a debatable because sometimes it might not take two or three years to know a customer.

3.2.2.7 Evaluation of Account Performance Risk

The other risk grading factor that the Bank uses is Account performance risk. As the name indicates this risk factor evaluates the account performance or utilization of customer's credit facility. Questionnaire, interview and document review were used to evaluate this risk factor and identify the challenges associated with this factor.

The first challenge is how to rate credit performance of the returnee once who had relationship with CBE. Another major challenge which is stated by performers is that lack of information regarding the time taken to settle letter of credit (L/C) documents or difficulty of getting date advised and settlement dates. Hence, it is difficult to measure L/C facility performance.

In addition to these the question of how to rate poor utilization of that happened due to the foreign currency problem because of customers may not utilize the facility approved due to foreign currency shortage. In the case of pre-shipment facility the challenge is that most of the customers are highly indebted and their risk grade will be very high sometimes not bankable. Moreover the grading system does not give detail parameter as to how to rate non revolving pre-shipment facility. But the argument here is that in the case of pre-shipment export majority risk falls in grade 4 or 5 yet they are worthy customers. Though relationship wing reveals such evidence the appraisal wing argues that in the pre-shipment export the grade expresses them. Here what matters is the risk appetite that the bank is ready to take.

In general, the response shows that *Business* risk parameter is selected by majority of respondents in the first place as highly subjective parameter followed by *Management* risk. *Customer* relationship risk and *Account* performance risk are selected in the third and fourth place respectively. *Financia*l risk is selected by the respondents in the last place which shows less subjectivity.

In the interview questions forwarded for the Directors, Credit Management process, they replied that the common challenges observed in risk grading are:

1. the reliability of documents presented by the customer;
2. lack of management qualification of the project;
3. the challenge in getting information from external party like NBE-where the information obtained from NBE only tells whether the customer has NPL or not, it does not show what the repayment habit was;
4. No specific grading or scoring system for (manufacturing) project financing projects;
5. The credit rating model has short term assessment features and looks less into the dynamic change process of the economy; and
6. It lacks management information system (MIS) on grading, i.e. the aggregation of such grading across the borrowers, activities and the lines of business are some them mentioned.

However risk grading is important to the bank because it shows the probability of default especially if the cause of default is due operation of the business. But if the default is willful default the grading might not indicate the probability of default.

3.3 Summary of the chapter

When we sum up employees' of experiences into two categories, 66 % (<=5 years) and 36 % (>=6 years) of the bank employees are under credit process of the CBE. Since 66 % of employees have less than or equal to 5 years of work experience coupled with the nature and complexity of projects, employees lack required experience in appraising project proposals specifically financing of manufacturing projects. 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.

In five years under the study of manufacturing project financing loan approval has been increasing at 203 % on average during the 2009/10-2013/14. Together with the increasing trend of the manufacturing projects, the financing capacity of the bank also increases from time to time. This is due to the growth and expansion of the bank in deposit mobilization strategy. Specifically the manufacturing sector yearly on average takes 35 % of the total loan.

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. This massive manufacturing project financing has contributed to the economy growth of the country by aligning with GTP of the country. On the other hand prioritizing agriculture, manufacturing and export have their own benefit to the economic development, the portfolio mix of financing may lead to credit risk due to lack of diversification.

The rating system is mainly concerned with financial and account performance risk, but other significant risks such as business/industry, management and marketing risks are not explored well in the rating system. Besides, it has been seen no specific grading or scoring system for project financing projects.

The rating system gives only the acceptance or rejection decision of a project loan proposal i.e. whether to lend or not lend but less efforts have been undertaken for periodic grading or the periodic grading is not captured. In some instances, the basic information on a borrowing client to determine the degree of impact of each risk factor is not a) readily available, b) current, c) dependable, and d) risk factors/parameters are not assessed prudently and objectively.

It gives only single obligator grading/rating; it does not provide any geographic/branch wise portfolio grading; it does not provide the portfolio wise grading system for the Bank as a whole. Less weight-age has been given to the economic issues concerning businesses.

The credit rating model has short term assessment features and looks less into the dynamic change process of the economy, i.e. if any changes occur in the economic cycle or in government policies with respect to business or trade, the existing model does not have a mechanism to reveal the impact of such implications.

The key risk indicators of business parameter are broad in definition and no objective standard is set; and Customer relationship risks are also found to be debatable and very difficult to reach to consensus especially rating customer's integrity and honesty is found to be very difficult for performers. Regarding Management risk rating the parameter succession plan is found to be challenging for the performers.

The amount of interest earned from the year 2010 up to 2014, was almost birr 242 million, 431million, 2.2 billion, 3.3 billion respectively. The amount of interest earned each year from project finance to manufacturing sector showed significant amount of contribution. The share of interest income from manufacturing project to total interest income showed 15.9% , 20%, 6.4%, 40.4%,and 53.3% each year under the study periods 2010 up to 2014 respectively.

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.

Chapter four

Conclusion and Recommendation

Commercial bank of Ethiopia (CBE) is the leading commercial bank in the country with remarkable contribution for the Growth and Transformation plan of the government. However, with regard to project financing in general and manufacturing project financing in particular, it is at its early age. As a result CBE experiences challenges and also enjoy opportunities/prospects as well.

4.1 Conclusion

Commercial Bank of Ethiopia is involved in manufacturing project financing along with remarkable engagement in financing Developmental projects and is playing its part in for the achievement of (Growth and Transformational Plan) GTP of the country. This massive attention given to manufacturing project witnessed that manufacturing sector takes share of 35 % of the total loan approved on average yearly in the five year study period 2009/10-2013/14. Of which the public sector takes 74 %while the private sectors takes 26 %.

Manufacturing project financing loan are mostly large amounts that should be given great concern by the bank in relation to the country's growth and transformation plan. However, manufacturing project financing in CBE has different challenges that can be seen from customers, employees and the bank and the country angles.

The major challenges of manufacturing project financing in CBE were low level of skill of credit performers, absence of quality and completeness of projects proposals submitted by customers, poor credit culture of customers of the bank, lack of properly trained consultants for project feasibility study and difficulty of preparation of project proposal by customers.

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.

The current credit risk grading system of the CBE is found to be important for conducting credit analysis. However the challenges observed is that the parameters are subjective and broad in definition. In areas like Business risk and Management risk are found to be subjective to rate. In Customer relationship risk especially in rating indicators like customer integrity and honesty is a challenge too. No specific grading or scoring system for project financing projects; gives only single obligator grading/rating; and does not provide any geographic/branch wise portfolio grading. Moreover rather than rating availability of Credit Relationship with other banks, rating based on their repayment habit is found to be more useful.

The parameter Account Performance risk is less representative when it comes to rating few products. On the other hand challenges like availability internal and external data and information, reliability of financial statements presented, lack of industry average, and weak integration between credit departments are observed.

An efficient rating system as described in the literature is the one that highlights a negative correlation between best quality ratings and the default rate. Accordingly, in line with this definition of efficient rating, the current credit risk rating/grading system of Commercial Bank of Ethiopia lacks efficiency because there are situations where by the grade does not represent the borrowers.

4.2 Recommendation

Based on the summary of the findings and conclusions the following recommendations are forwarded.

1. Proper advice and seminars shall be made with at least major customers by preparing workshops/brochures about the importance, characteristics and purpose of projects and project financing (for customers and performers) and short guidelines how to access loans.
2. The CBE is advised to enforce and encourage manufacturing project promoters to get prepared feasibility study reports prepared by legally recognized, qualified and certified consultants. This will reduce misallocation and waste of time, financial, material and other sources of the bank. This can be achieved by maintaining a list of licensed consultants and enforce promoters to bring feasibility study only from the listed consultants.
3. The CBE is advised to strengthening and properly organize and encourage research and development process of the bank which is devoted especially to the credit process by developing and maintaining credit related data such as on market, technical, financial and economic and respective risks. This will ease and improve the advising, relationship, appraisal duties of manufacturing project loan performers and the CBE as a whole.
4. Management Information System process of the bank shall be strengthened and assure that maintenance good management system of credit documents of the bank. As rating system is part of a robust information system, which tracks historical default and loss experience. This information can be used for periodic checking of the consistency and back-testing of the system.
5. It is advisable that credit performers shall be given intensive training on the area and help them to have different and frequent exposures for project case processing (especially manufacturing) by even

strengthening team work depending on the type of credit (without compromising conflict of interest).

6. It is advisable that the Bank has to appropriately segment the available credit customers into different logical classes to apply the relevant rating systems. Emphasis should be given on selecting and weighting of risk factors and their associated risk parameters. It is crude and applied to all customers.
7. Financial ratio merely offer a backward looking perspective of the manufacturing company, in addition to this forward looking financial information like cash flow information is believed to narrow the gap, better if the bank include parameters like level of linked indebtedness (sister companies' exposure), ROE, ROA, to be incorporated in the financial risk because it strengthens the evaluation of financial risk of the borrower company.
8. Concerning Business risk factor (which focuses in market share and growth) the bank should prepare more defining parameters (like number of employees, capital, and asset) that objectively could measure the business risk of the company. Also, in relation to Customer relationship risk the bank shall define the parameters in detail to ensure uniform rating.
9. It would be better if the bank prepares its own industry average which can be used for internal rating purpose. Though this may not guarantee effective rating it assures uniform rating and helps the performers to reach to common understanding.
10. It is better that the Bank develop and implement internal rating systems with larger numbers of grades to distinguish finer degrees of credit risk while managing the extra cost required to operate.

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