Determinants Project Failure Financed by Development Bank of Ethiopia: A Case of Jimma District

A Research Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of Master's Degree in Accounting and Finance (MSc.)

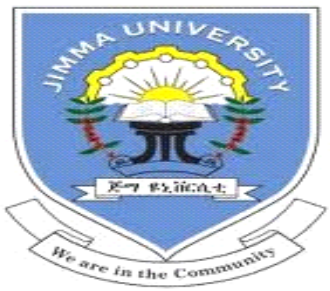
By: Derartu Adugna

Under the Supervision of:

Main Advisor: - Abel Worku (PHD)

And

Co – advisor: Danbobi Note. (PhD Candidate)



JIMMA UNIVERSITY
COLLEGE OF BUSINESS & ECONOMICS
MSC.PROGRAM IN ACCOUNTING AND FINANCE

JUNE, 2020
JIMMA, ETHIOPIA

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Declaration

I, Derartu Adugna declare that this thesis entitled Determinants of Failure for Projects Financed by DBE: A Case of Jimma District is the outcome of my own effort and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for guidance and suggestions of my advisor. This study has not been submitted for any degree in this university or any other university. It is offered for the partial fulfillment of the degree of Masters of Arts Degree in Project Management and Finance.

Researcher's Name	**Date**	**Signature**
_____	_____	_____

Certificate

This is to certify that the thesis entitles “Determinants Project Failure Financed by DBE: A Case of Jimma District’’, submitted to Jimma University for the award of the Degree of Masters in Accounting and Finance (MSc.) is a record of confide research work carried out by Ms. Derartu Adugna under our guidance and supervision.

Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

Main Adviser’s Name	Date	Signature
_____	_____	_____
Co-Advisor’s Name	Date	Signature
_____	_____	_____

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Approved by board of Examiners

External examiner Name	Date.	Signature
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Internal examiner.	Date.	Signature
_____	_____.	_____

Abstract

Projects play vital role in implementation of national policies and strategies. That is way World Bank defined project as building block of development. However, projects can fail because of uncertainty to the future. Therefore, studying of project failure gives opportunity for learning from previous mistakes and improve the decision making process. The concept here is to take advantage of the failure and turn the negative feeling around by analyzing what went wrong and correcting it for the future. Thus, this study identified the major determinant for failure of DBE financed projects, measures their significance and proposes the remedy measures. The study considered 60 projects and 50 participants were selected using simple random sampling method and the projects were those financed by DBE over the last five years and which are operational from 2014 – 2019 w*as collected and the result was analyzed using* binary logistic *models .The finding of this study portrayed statistical significance of some project specific explanatory variables, such as marketing problem and manpower recruitment variation in aggravating project failure, but project size found to play insignificant role in project failure. Moreover, DBE's project planning capacity, exchange rate and literacy level are found statistically significant in increasing project failure. Finally, it was recommended that bank should arrange training for local project managers/owners and make stick follow–up on the implementation of the project as per the schedule**researc***

***Key Words**: Development Bank of Ethiopia, Finance, Project, Project failure*

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First and foremost, I thanks to the **Almighty God,** with your things impossible should have come to possible.

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Derartu Adugna

Table of Contents

Declaration ..... **iii**

Certificate ..... **iv**

Abstract ..... **vi**

Acknowledgments ..... **vii**

Acronyms/Abbreviations ..... **xii**

Chapter One **1**

1 Introduction **1**

1.1 Background of the Study 1

1.2 Statement of the Problem 3

1.3 Research questions 4

1.4 Objective of the Study 5

1.4.1 The General objective of the Study 5

1.4.2 The Specific Objectives of the Study 5

1.5 Hypothesis 5

1.6 Significance of the Study 6

1.7 Scope 6

1.8 Organization of the Study 6

1.9 Definitions of Terms 7

2 Review of Related Literature **8**

2.1 Project Definition and Concepts 8

2.2 Definition of Project Finance 9

2.3 Project critical failures factors 10

2.4 Factors affecting project implementation 11

2.5 Definition and Concept of Project Failure 12

2.6 Cause of Project Failure 13

2.7 Empirical review 18

2.8 Conceptual framework 20

Chapter Three **21**

3 Research Methodology **21**

3.1. Introduction 21
3.2. Research design 21
3.3. Source of Data Collection 22
3.4. Target population 22
3.5. Sampling techniques 22
3.6. Method of Analysis 23
3.7. Model selection 23
3.8. Variable description 24
3.8.1. Dependent Variable 24
3.8.2. Independent variable 24
3.8.3. The credit Management of the Bank 25
3.9. Test statistics 26
3.10. Ethical consideration 27
Chapter-Four 28
4 Result and Discussion 28
4.1. Respondent's profile 28
4.1.1. Respondents' gender 28
4.1.2. Respondents' Current Position in the Bank and in the project 29
4.1.3. Respondents' Experience in the Bank and in the project 30
4.1.4. Respondents' Educational Background 30
4.2. Project specific cause of project failure 31
4.3. Credit management related factors of project failure 34
4.4. Macro environment factors as a causes of project failure 37
4.5. Socio-political Environment factors causes of project failure 41
4.6. Econometric results 42
4.6.1. Multicollinearity Test 42
4.6.2. Heteroscedasticity Test 42
4.6.3. The Goodness of the Model 43
4.6.4. Logit and Logistic Model Estimation Results and Interpretation 43
4.7. Finding and Discussion 47
Chapter Five 49
5 Conclusion and Recommendation 49
5.1. Summary of the Findings 49

5.2. Conclusion 51
5.3. Recommendation 52
5.4. Implication for future research 52
Reference 53
Annexes 56

List of tables

Table of Contents viii

Table 4.1 Sex of respondent 29

Table 4.2 Position of respondents 29

Table 4.3 Respondents Experience in the Bank and in the project 30

Table 4.4 Educational Background of the respondents 30

Table: 4.5 Project specific Cause of project failure 31

Table 4.6 Descriptive statistic of project specific variables 33

Table: 4.7 Credit management related cause of project failure 34

Table 4.8 Descriptive statistics for DBE credit management explanatory variable 36

Table: 4.9 Macro –Economic Environment factors 38

Table 4.10 Summary statistics for macroeconomic explanatory variables 40

Table: 4.11 Sociopolitical Environment factors 41

Table 4.12 Logit and Logistic models estimation results 46

Acronyms/Abbreviations

CCP	Corporate Credit Process
DBE	Development Bank of Ethiopia
GDP	Gross Domestic Product
GTP	Growth & Transformation Plan
LR	Logistic Regression
MDGs	Millennium Development Goals
SE	Standard Error
SPSS	Statistical Package for the Social Science

Chapter One

Introduction

Background of the Study

In recent years, project management has become an important part of any organization (Maylor et al., 2006). This is as a result of the changing nature of managing organizations due to technological advancement, and a complex, competitive global marketplace (Maylor et al., 2006; Panayides et al., 2015; Ramazani & Jergeas, 2015; Klein et al., 2015; Nguyen et al., 2015). Projects require huge capital outlay from organizations and/or governments (Panayides et al., 2015) and, as such, it is crucial to have good project management practices to deliver value for money projects and programmers. The importance of good project management practices cannot therefore be ignored by corporate managers, as failure destroys shareholders' value and, in the government or public sector; it can have a significant effect on various stakeholders associated with the project. However, studies indicate that companies and governments all over the world are losing huge sums of money through projects as a result of project failure (Espiner, 2007; McManus & Wood-Harper, 2008; Asay, 2008; Fabian & Amir, 2011). Research into 214 projects showed that only one in eight information technology projects can be considered truly successful (McManus & Wood-Harper, 2008). Asay (2008) reports in the Guardian that the UK has wasted over US$4 billion on failed IT projects between 2000 and 2008. Health and Information Systems in South Africa, IS projects in China, and all World Bank-funded projects in Africa are all examples of either total failure or partial failure (Heeks, 2002, 2005, 2006). An example is the World Bank's Chad-Cameroon Pipeline project. The project, which cost US$4.2 billion, was abandoned in 2007, citing misuse of revenue by the Chad's president (Fabian & Amir, 2011).

Project finance is different from traditional forms of finance because the financer principally looks to the assets and revenue of the project in order to secure and service the loan. In contrast to an ordinary borrowing situation, in a project financing the financier usually has little or no recourse to the non-project assets of the borrower or the sponsor of the project. In this situation, the credit risk associated with the borrower is not as important as in an ordinary loan transaction: what is important is identification, analysis, allocation and management of every risk associated with the project. In a no recourse or limited resources project financing, the

risks for a financier are great. Since the loan can only be repaid when the project is operational, if a major part of the project fails, the financiers are likely to lose a substantial amount of money. The assets that remain are usually highly specialized and possibly in a remote location. If saleable, they may have little value outside the project. Therefore, it's not surprising that financiers, and their advisers, go to substantial efforts to ensure that the risks associated with the project are reduced or eliminated as far as possible. It is also not surprising that because of the risks involved, the cost of such finance is generally higher and it is more time consuming for such finance to be provided. (DBE Credit policy, 2004)

Project finance is a means of funding projects that are typically infrastructure heavy, capital-intensive or related to public utilities. During its life time, these projects are treated as distinct entities from its parent. A project finance venture undertaken is completely an off balance sheet item for the parent. Therefore, all financing this entity avails, must be repaid exclusively out of its own cash flow and subject to its own assets. The assets of the parent cannot encroach for payback of its subordinate's liabilities even is the venture fails.

Access to finance is a challenge for Ethiopian local market. Local private banks often require a large percentage of loans as collateral, which must usually consist of cash, real estate or durable capital physically located in Ethiopia. The National Bank of Ethiopia must approve loans from overseas institutions that require hard currency debt repayments.

As part of the Government of Ethiopia initiative to develop the manufacturing sector and export oriented investments, the Development Bank of Ethiopia promises to loan out 70% of investment projects in selected sectors including commercial farms, agro processing, export oriented business and manufacturing sector with the remaining 30% covered by owner's equity International Trade Administration report published, October 2019)

To fulfill the needs for successful project implementation in devolved government, certain important factors need to be taken into consideration. From the reviewed literature, projects implementation is the key point to satisfying citizens of any country. It has further shown that population increase has demanded devolution and decentralization of projects so as to reach all the citizens of country. However, little has been done in Sub Saharan Africa more especially the east African region whereby up to the tune of 45% of the public/government funded

projects fail annually as indicated in the same report. This has therefore created a gap that needs to be addressed in Ethiopia and more specifically in Jimma town.

Statement of the Problem

As a result of the changing nature of managing organizations due to technological advancement, and a complex, competitive global marketplace (Maylor et al., 2006; Panayides et al., 2015; Ramazani & Jergeas, 2015; Klein et al., 2015; Nguyen et al., 2015), project management has become an important part of any organization since recent years (Maylor et al., 2006).

As a result, project management practices attempt completion of the project as intended; getting it done most efficiently by minimizing cost and achieving external goals related to customer needs. Goals appear straightforward and achievable, however, projects continue to run late, exceed their budgets or fail to meet project objectives.

Even though many scholars conduct on the area of this study, the dynamism business environment and uncertain situation should be requiring up-to-date realities so, the central premise of this study were to identify determinants of failure for projects in the new scenario to add something new for the bank vision "100% success for all financed projects by 2020" Worldwide project failures continue at an alarming rate, despite growing understanding of detriments of success in project management, increasing maturity, and a stream of successful projects, statistics of challenged and failed projects testify that these failures are much more common than we would like to believe (Anbari, 2003,). In comparison with widely reported success rate, Ethiopia is no exception.

According to the Corporate Balanced Scorecard of DBE (2010), promoting the national development agenda through project finance is the mission of DBE. Hence, in order to achieve this mission, projects financed by the Bank should have been operated successfully. However, failure of projects financed by the Bank becomes a big challenge to achieve the stated mission. According to the annual performance report of the Bank (2013), the percentage of successfully operating project of the Bank as at June 30, 2013 is stood at 31% and it falls down to 28% at the Corporate Credit Process of the Bank which is the main credit processing unit of the Bank and through which more than 75% of the total annual lending amount of the Bank is granted to borrowers. Hence, putting differently, 69% and 72% of the projects that are financed by the

Bank as a whole and Corporate Credit Process are categorized under failure category respectively. From this figure we can easily understand that failure of projects in the Bank is becoming a very serious issue that should be given due attention (Yilikal, 2015)

Although studies have attempted to articulate an accepted theory of determinants of project failure, the literatures have demonstrated many alternative views of definition and causes. What is clear is that the failure of projects is complex and multifaceted. Failure itself can have many levels, in that a project can be an outright failure and abandoned or is delivered to specification but does not meet the needs of stakeholders. Each of these instances can be viewed as a failed project but may have different underlying causes and categories of failure.

The Ethiopian government take initiatives to finance diversified project proposals and pave the way for the implementation of the projects within this process a large amount of many scarified hoping that for the future economic return. For example, 2017 reporter shows that till June 30, 2017, DBR reported 323.85-Million-Birr net profit 13.3 percent decline from its previous year performance.

Despite the advanced evidence of the empirical findings regarding major determinants of failure for projects financed by DBE at global level, no such research was conducted in Jimma town. Thus, this study attempts to investigate determinants of failure for projects financed by DBE with emphasis on Jimma district, Jimma town.

Moreover, previous studies have not examined the role of literacy and supervision as factors that affect projects financed by development bank. In this study, the role of these variable will be examined. In sum, this study attempts to fill the gaps and comprehensively contribute to failure for projects financed by DBE with emphasis on Jimma district, Jimma town.

Research questions

In view of the above research problem, the specific questions that addressed in this study are:

- What are the major credit management determinants of failure for DBE finance projects?
- What are the major inputs or raw material related variables determine the failures of projects financed by Development Bank of Ethiopia?
- What are the major sociopolitical determinants of failure for DBE finance projects?

- Which macroeconomic variables determine the failures of projects financed by the Development Bank of Ethiopia?
- What are the infrastructure factors determining project failure?

Objective of the Study

The General objective of the Study

The general objective of this study was to carefully examine the determinants of failure for projects financed by DBE.

The Specific Objectives of the Study

Specifically, the study intends to achieve the following objectives, the study was try to go intensively to answer the following detailed research objectives.

- To examine macroeconomic variables, contribute for the failures of projects financed by the Development Bank of Ethiopia.
- To identify the role of credit management system for failure of DBE financed projects.
- To examine sociopolitical factors, determine projects failure financed by DBE.
- To identify the significant impact of input/raw material related factors that determine for projects financed by DBE.
- To identify the infrastructure related factors

Hypothesis

H_1: Project cost has positive significant impact on project failure

H_2: Time overrun has positive significant impact on project failure

H_3: Sales short fall has positive significant impact on project failure

H_4: Recruitment variation has positive/negative impact on project failure

H_5: Promoter capacity has negative significant impact on project failure

H_6: DBE planning capacity has negative significant impact on project failure

H_7: Follow-up coverage has negative significant impact on project failure

H_8: Cash flow over estimation has positive significant impact on project failure

H_9: Cost overrun has positive significant impact on project failure

H_{10}: GDP contribution has negative significant impact on project failure

H_{11}: Inflation rate has positive significant impact on project failure

H_{12}: Literacy level has negative significant impact on project failure

Significance of the Study

This study may also contribute to theories of project failure, causes of project failure and the effects of project failure on stakeholders in developing countries. This indirectly makes great contribution to both the academic and the practical fields.

During the time of this study, many projects were on the way and carried out, the bank (DBE) also financed and financing those projects unlike the succeeded projects, the projects goes to fail might be there so, this study will have used as a turning point to run or quit the project for both partners (the bank and the investor). Depending on the finding of the study the DBE also take a measure specially on the proactive way rather than reactive measures. Therefore, it can be said that this research study was helpful in order to determine the possible reasons behind the project failure in the region. Being an under developing country, huge number of projects is ongoing in the country.

Scope

The objective of this research was to investigate the major causes of project failure financed by development banks of Ethiopia, with special emphasis to Jimma district, Jimma town. However, there might be thousands of causes. Since it is not manageable to raise all of them and also problems related to COVID 19, only variables that were raised in majority of literatures were included in this study. Besides, randomly selected projects that were financed DBE Jimma district during the period covering from July 01,2014- June 30,2019 alone were taken into account due to shortage of time and budget. Not all project financed by the bank were included.

Organization of the Study

The study is organized in to five chapters. The first chapter deals with introductory part which consists of background of the study, research problem, objective, significance and scope of the study. The second chapter focuses on literature reviews. The third chapter focuses on discussing the methodology of the study. Empirical results and their interpretation are delivered in fourth chapter. Finally, concluding remarks of the findings and their implications are presented in the fifth chapter.

Definitions of Terms

Project can be considered to be any series of activities and tasks that have specific objective to be completed within certain specifications, defined start and end dates and consumes human and nonhuman resources.

Project failure is a situation when a given project, which consumes human, material and financial resources, fails to deliver an acceptable return on investment, so it is terminated before the completion, no sufficient value is produced, and no benefit is delivered to the customer.

Project financing is said to be non-recourse when lenders are repaid only from the cash flow generated by the project.

Chapter Two

Review of Related Literature

Under this chapter, the available literatures on the area of the research topic under caption are reviewed. These literatures are obtained from books, journals, government publications and other dependable sources. Possible causes of project failure are discussed in detail using the theoretical and empirical perspectives. Before discussing causes of project failure, concepts and definitions of some terms that are related to the research topic are explained briefly.

Project Definition and Concepts

Bierman and Smidth (1970) defined project as a capital investment to develop facilities to provide goods and services (Bierman and Smidth, 1970). Similarly, UNIDO Manual (1972) defined projects as an activity that involves the utilization of scarce or at least limited resources in the hope of obtaining return or some benefits over a long period. According to UNIDO manual (1972), projects have the following unique characteristics.

- Investment of some resources;
- Planning process in investing some scarce resources;
- The invested resources to be capable of analysis and evaluation as an independent unit;
- The achievement of some specific objective(s);
- Costs/benefits or returns on the projects;
- Time dimension in the immediate or future time;
- The size of the project;
- Risk and uncertainty;
- Amount/cost of the investment;
- Impact/outcomes: it must solve problem or meet certain needs of the society.

Projects are essential to achieve the development objectives of countries and are considered as "cutting edge of development" (Gittinger, 1984 pp 9). Rondinelli **(**1983 pp 4**)** similarly called projects as "building blocks of development", because they are powerful means to achieve the development objectives.

The policy framework defines the context for periodic development plans (short, medium and long terms plans) which then require specific instruments for implementation. Projects are the policy and plan instruments, a particular decision scheme meant to convert policies and plans into reality. Therefore, project formulation is an integral part of a more broadly focused and continuous process of development planning (Tsegabirhan, 2007)

According to Tsegabirhan (2007), projects are the smallest operational element prepared and implemented as a separate entity in a national plan or program. In general, thus, sound development plans require good and realistic projects for the latter are the concrete manifestation of the pan as noted above.

Projects in such context are the concrete manifestations of the development plans and programs in a specific place and time. One can think of projects as subunits and bricks of programs, which constitute a component of or the entire national plan. They can be implemented either by public organization or private establishment. According to Chandra (2002), projects are financed from two major sources – Equity and Debt. In project financing, the debt-equity-ratio is varying with the magnitude of flexibility, risk, income and tax generation capacity according to him.

Definition of Project Finance

There is no universally accepted definition of project finance. A typical definition of project financing might be: "The financing of the development or exploitation of a right, natural resource or other asset where the bulk of the financing is to be provided by way of debt and is to be repaid principally out of the assets being financed and their revenues." Other more sophisticated definitions are used for special purposes (A guide to project finance, Dentos, 2013).

According to Cheng(2016) The Journal of Human Resource and Adult Learning, (Vol 12, Num, 1, 2016) Project financing is a specific financial arrangement for a selected project.

Project involves construction of an engineering undertaking (bridge, nuclear power plant or tunnel). It is in the form of an open credit or complete finance throughout the life of the project. Repayment can be arranged in the form of installments of fixed payments over periods of time after the project is completed. Basically, there are two types: non-recourse or 'true' project financing; and recourse or "Credit Supported" financing.

Project critical failures factors

The inability of many projects to generally satisfy the desires and aspirations of the end user is also an instance of failure (Nwachukwu & Nzotta 2010). A project, irrespective of completion time or cost fitting is indeed a failed one if it does not justify its cost and the value derivable from its use. This refers to a case of a white elephant project. In a study (Baker, Fisher & Murphy, 2010) to gauge the value of customer satisfaction as a measure of project success, analysis of responses from project managers caused the researchers to conclude that that project success means much more than merely meeting cost schedules and performance specifications. In fact, the level of satisfaction of the client is a very strong index of project failure or success. Projects evaluation is a crucial task which x-rays the conformance of any given project with international best practices and with the projects own objectives and goals. A failed project is a drain on government funds and a waste of tax payers' money and goodwill. It seriously limits the ability of the government or the individual project sponsor to undertake other needed projects and defaces the landscape. It is therefore necessary to x-ray the factors that trigger project failure as a step towards minimizing project failure and the accompanying wastefulness.

Factors affecting project implementation

There are several factors affecting project implementation process and these have been discussed from different perspectives by different authors. Metzger (1983) listed problems mostly encountered as: Poor planning, undefined contract, unstable problem definition, inexperienced management, political pressure, ineffective change control and unrealistic deadline.

In the views of this author, the successful project implementation may depend to an extent on careful regulation of the factors as stated below:

1. Insufficient capital
2. Inflation
3. Poor planning
4. Political pressures and Government Bureaucracy
5. Contractor competence and organization
6. Variation of project scope and design
7. Changes in consultancy service providers
8. Change in the original design
9. Business/Geographical environment
10. Project complexity

There is a tendency for successive governments to discontinue projects initiated by their predecessors (Fubera, 1985). Rather than do this, the new regimes prefer to start their own projects altogether. A major reason for this is that many contracts are awarded to serve political purposes and so continue to be credited to the regime that awarded it, even if they did not complete it. Again, because many contracts are actually inflated, rather than continue to fund ongoing projects, successive governments tend to use this knowledge to discredit past governments in order to score political points. This has led to a dive in confidence in the public sector, such that funding partners approach long term public sector projects with a lot of caution (Nwachukwu, 1988). This greatly erodes the operation of public-private funding partnerships. Sometimes, this lack of continuity derives from sincerer reasons like inflation, which affects the cost of raw materials and changes the amount of money required to complete a project by

many orders of magnitude. For projects which have been going on for a long time, several cost variations may be occasioned by this, which greatly increases the temptation to abandon them.

Definition and Concept of Project Failure

There is no commonly accepted definition for project failure. Different authors define project failure from different perspective and context. According to Carlos (2002), a project is considered as failed when it has not delivered what was required, in line with expectations. Therefore, in order to succeed, a project must deliver utilizing the minimum cost possible, the expected quality, and on the time scheduled; and it must deliver the benefits presented in the business case.

Even if a project has delivered everything that was in the detailed project designs, it may still be considered a failure if it did not include vital elements that the key stakeholders needed (Carlos, 2002). According to him, project success and failure is not just about the facts, nor is it simply about what was delivered. It is also, crucially, about how the project is perceived.

McConnell (2010) expanded the definition of project failure more than expectation. According to him, project failure is a situation when a given project, which consumes human, material and financial resources, fails to deliver an acceptable return on investment, so it is terminated before the completion, no sufficient value is produced, and no benefit is delivered to the customer. The project is considered "failed" when it does not produce results as proposed, exceeds its budget and time, and does not meet specifications. He concludes that a project is termed as failed when it does not meet the following criteria:

- It is delivered out of schedule (time constraint);
- It is delivered out of budget (cost constraint); • It is delivered out of scope (scope constraint); and
- The project product does not work as expected.

The Ethiopian Foreclosure law (proclamation number 97/1998, Article 3) states that the bank financed business can be considered as failed and foreclosed when a Bank's claims are not paid within the time stipulated in the contract. This definition is also contextually similar with McConnell definition that says projects are considered as failed if not produce

results as proposed or expected, because Bank financed projects are expected to settle their debt as per loan contract agreement.

Similarly, the nonperforming loan directive of National Bank of Ethiopia Number SBB/48/2010 stipulates that those financed projects failed to pay the due loans for more than three years to be classified as loss loan and obliged the bank to hold 100% provision.

DBE's Corporate Balanced Scorecard (2010), considering the above definition of project failure in to consideration, DBE defines successful projects to fulfill the following criteria - otherwise to be considered as failed according to.

- Properly meet their debt services
- Performing above their breakeven point
- Meeting their objectives by generating tax revenue to the government, employment opportunity and generate or save foreign currency.

DBE definition of project success includes meeting of project objective in addition to expectation of fulfilling debt obligation that stipulated in foreclosure law and non-performing directives since the strategic mission of DBE goes far more than loan collection fulfilling its role as a development partner. The success of projects financed by DBE, therefore, highly required from the point of overall contribution to the national economic growth.

Cause of Project Failure

Scholars dwelling on project in general identified various causes for project failure. In 2005, the Office of Government Commerce (OGC), part of the Efficiency and Reform Group within the Cabinet Office in England, identified the following eight common management causes which lead to project failure.

- Clear linkage problems between the project and the organization's strategic priorities;
- Absence of clear demarcation among senior management, ownership and leadership;
- Unclear and ineffective engagement among stakeholders;

- Skills and knowledge gap about project and risk management;
- Too little attention to breaking development and implementation into manageable steps;
- Appraisal of project proposals using current price rather than long-term money value;
- Low understanding and weak relation with the supply industry; and
- Lack of effective project team integration.

In other instances, McConnell (2010) identified the following top five market causes of project failure by considering IT projects as case study.

- **Not Involving Customers:** This is the primary reason for project failure according to McConnell. When you do a project and the customer does not participate in it, the project is doomed to fail.
  Without user involvement you cannot feel committed to the product, your team becomes "hostile" to project expectations, and the development process turns into a blindly managed process when user or market requirements are not met.

- **Unknowledgeable Requirements Set**: Project failure due to poor requirements management takes place when the project team delivers the product without having a clear understanding of what the customer wants and without having any real knowledge of the requirements.

- **Scope Creep**: the next of the top project failure reasons refers to a situation when project scope does not correlate with other constraints like time and cost, and the project is likely to be delivered over budgeted and delayed.

- **Absence of Change Control System:** A change may create a new condition within your project. If no change controls system is introduced, your team will fail to respond to the new condition. Uncontrolled changes will cause project failure, so your primary task is to create a document flow for change requests and implement a system to exchange and process change requests.

- **Lack of Continuous Testing**: Usually lack of testers and their poor skills and knowledge will make a project unacceptable because acceptance tests to see whether the product meets the business requirements are not run. Poor testing may be caused by poor requirements set, lack of change control, inadequately trained staff, lack of time for performing testing.

Mind Tools web site explained the above reasons for projects failure in more summarized way in the document "Why Do Projects Fail?" as presented below.

- **Addressing of wrong business requirements:** If your project does not deliver what the organization really needs, this will inevitably negatively affect how it is perceived. This is why, conducting a thorough business requirements analysis is very important.

- **Poor Implementation:** Being competent only is not enough for good implementation. You need to manage risks issues and scope, the team and communication with stakeholders. Poor implementation can be caused by incapability to control everything under your control.
- **Poor governance:** The project promoters usually supported by the project's governance bodies. They provide direction, guidance, and critical review of the project progress. These governance bodies can also support by providing contacts and insights that help you get things done. If the project promoter lacks passion for the project or does not like to say no to these bodies trying to expand the project scope, the project may face difficulty.

- **Losing focus on the project's benefits:** Projects will have a list of benefits to be delivered and these benefits are expected to be clear, concise, and quantified. But, sometimes project team focuses on detailed planning, building a new system, developing training packs, and mapping out new processes that does not provide the necessary benefits.

The environment changes: In dynamic world business case can become outdated before project implementation actually completed. In such situation, reviewing original requirements

and goals partway is required to decide how to proceed. This may result with changing the scope of your project or even canceling

2.3.2. Financial Failure

Due to shortage of research studies on causes of Bank financed project failures, the researcher is forced to consider similar studies conducted on different projects assuming that causes of project failure could be closely related. With this understanding, indices of ICT projects in the Nigerian public sector, (Akinyoku, 2009) disclosed that failures in IT project were still common in Nigeria. Their study attributed the failures to poor planning, lack of top management support, inadequate skill and expertise of IT project managers. (Ubani, 2010) study on variation factors of project plans and their contributions to project failure in Nigeria identified design errors, management problems and resource delivery constraints as the significant variation factors that significantly contribute to project failure in Nigeria. On the perceived lack of professionalism, inexperienced project managers and team members; granted that certain participants disclosed that project teams in Nigeria may comprise of personnel with high educational qualifications and project management skills while others may not (Odedairo, 2011), Igbokwe-Ibeto (2012)examined issues and challenges affecting local government projects and concluded that corruption, inappropriate timing of budget releases, untimely payment of performance certificates, community and labour problems, contractor's default and inaccurate assessment of the project environment have been responsible for failures in most local government sponsored projects in Nigeria. Finally, Ubaniet al. (2010) study on variation factors of project plans and their contributions to project failure in Nigeria identified design errors, management problems and resource delivery constraints as the significant variation factors that significantly contribute to project failure in Nigeria. On the perceived lack of professionalism, inexperienced project managers and team members; granted that certain participants disclosed that project teams in Nigeria may comprise of personnel with high educational qualifications and project management skills while others may not. Odedairo, Oke and Oyalowo (2011) suggested that project management as a professional career path still remains unrecognized and largely unpatronised in Nigeria. This can also lead to a debate that there may also be gaps between what providers of project management learning are offering and what is needed to deal with the main issues affecting the generic project environment in

13 Nigeria. Nonetheless, the need for sagacity in the deployment of project management skills can never be overemphasized during any project. For this and other reasons, (David, 2006) maintained that it is critical for all project team members to have an understanding of the fundamental project requirements and requisite project management skills. These requirements include project planning, risk management, organizing, motivating, directing and controlling as well as maintaining a positive attitude. Inadequate budgetary allocation was another debatable factor identified as being contributory to project failure in Nigeria. Due to the shortage of research studies on causes of Bank financed project failures, the research is compelled to consider similar studies conducted on different projects assuming that causes for project failure could be closely related. With this understanding, the project failure surveys on IT projects done by two organizations [The Bull Survey (1998) and The Chaos Report (1995)] were reviewed. The Bull Survey (1998), the French computer manufacturer and systems integrator, Bull, requested an independent research company, Spikes Cavell, to conduct a survey in the UK to identify the major causes of IT project failure in the finance sector. The survey carried out on IT projects were identified missed deadlines (75%), exceeded budget (55%) and inability to meet project requirements (37%) as cause of project failure. The key findings of the survey reveals that the major causes of project failure during the lifecycle of the project are a breakdown in communications (57%), a lack of planning (39%) and poor quality control (35%). The Chaos Report (1995) the scope and approach of this landmark survey had been conducted among 365 IT managers from companies of various sizes and in various economic sectors. The project evaluation criteria had considered cost overruns, time overruns and content deficiencies. The KPMG Canada Survey (1997) this study has been conducted by KPMG Canada. The Key Findings of the study identified the followings as the main causes of project failure: 1. Poor project planning: Specifically, inadequate risk management and a weak project plan. Risk management becomes more important as the organization gets bigger, so larger organizations need 14 to pay more attention to this area. 2. Weak business case: The need for the system should be justified in ways that relate directly to the organization's business needs. 3. Lack of top management involvement and support: This often dooms the project to failure before it starts. Securing buy-in from the top, often by a strong business case backed up with a realistic project plan, is an essential step. The Bull Survey (1998) in 1998, the French computer manufacturer and systems integrator, BULL,

requested an independent research company, Spikes Cavell to conduct a survey in the UK to identify the major causes of IT project failure in the finance sector. A total of203 telephone interviews were conducted with IT and project managers from the finance, utilities, manufacturing, business services, telecoms and IT services sectors in UK. All the managers interviewed had previously taken the lead in integrating large systems within organizations in the Times Top 100. The main IT project failure criteria identified by the IT and project managers were missed deadlines (75%), exceeded budget (55%) poor communications (40%) inability to meet project requirements (37%). On the other hand, the main success criteria identified were meeting milestones (51%), maintaining the required quality levels (32%) and meeting the budget (31%) The key findings of the survey reveals that the major causes of project failure during the lifecycle of the project are a breakdown in communications (57%), a lack of planning39%).and poor control (35%).

Empirical review

The KPMG Canada Survey (1997) this study has been conducted by KPMG Canada. The Key Findings of the study identified the followings as the main causes of project failure: 1. *Poor project planning:* Specifically, inadequate risk management and a weak project plan. Risk management becomes more important as the organization gets bigger, so larger organizations need to pay more attention to this area. 2. *Weak business case:* The need for the system should be justified in ways that relate directly to the organization's business needs. 3. *Lack of top management involvement and support:* This often dooms the project to failure before it starts. Securing buy-in from the top,15 often by a strong business case backed up with a realistic project plan, is an essential step. Maurice et.al (2000) had worked more or less the same study on African Development Bank. They used project size, implementation delay, investment cost overrun, economic rate of return of the project and human development index as measure project specific success or failure determinant in their study. In this model, they have used project specific explanatory variables such as total project cost (to proxy project size), cost overrun in percent, time overrun in percent and dummies for economic sector. Moreover, they considered macroeconomic performance of the country, such as increases in energy prices, GDP, inflation rate, and domestic and regional politics as important influencing determinant

in the study. Variables to capture the domestic economic environment – the average growth rate of the economy, the size of the population as well as dummies for regional distribution of customers included for the implementation period 1974 to 1994 to find if these variables have any relation to project success.

Many construction projects are known for their extra costs; in some cases, these extra costs are referred to as failure costs. A failure cost is defined as excessive costs that can be avoided during the project. The occurrence of failure costs is resulted from failure to achieve the project requirements and expectations. On the other hands, some studies assumed that cost failure is a management problem correlated to the quality of the project. They proved that the rise of failure cost due to some factors such as: poor planning, design errors, poor communication, construction deficiencies and poor risk management. Although high awareness against failure cost is provided in the construction industry, many construction companies are unaware of the nature or the root of the excessive costs and how to be controlled (Castillo et al., 2010).

The increasing number of construction project failure and failure cost affect the whole business and may result in company failure. The failure of a construction company badly influences the business community as it causes great losses to stakeholders, investors, creditors, shareholders and employees. As a result of the dynamic nature of the construction industry, it is more vulnerable to bankruptcy compared to other sectors. The bankruptcy rate of the construction companies has increased through the past few years. The combination between the failure factors and the financial crisis worldwide makes it more critical for project managers to observe the risk of cost failure and attempt to reduce its impact. The development of appropriate strategy is essential to pass this problem (Horta et al., 2013)

Conceptual framework

The main objective of this study was to identify cause of project failure financed by development banks of Ethiopia. Based on the objective of the study, the following conceptual model is framed. Project failure is caused by technical support given by the Bank, delays at the implementation stage of the project life cycle, overestimation of project return, input requirement, infrastructure development and manpower quality of projects. So based on theoretical and empirical literature, conceptual framework is developed as follows

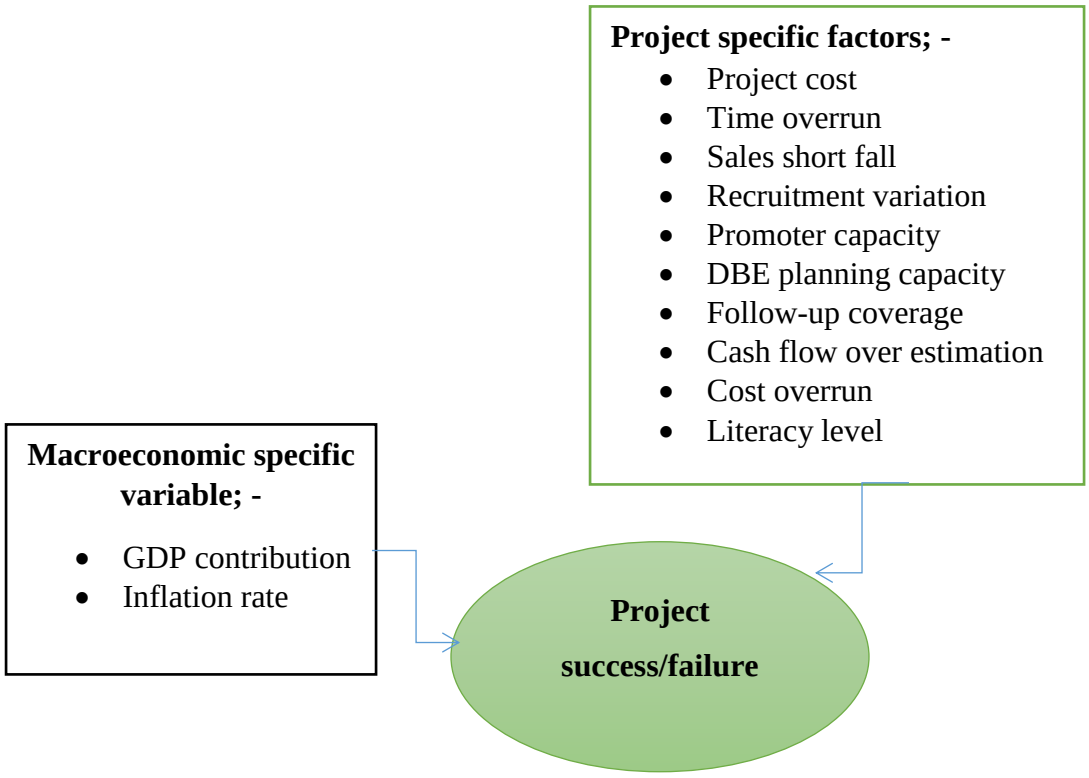

Figure 1: Conceptual framework

Source: Developed by researcher

Chapter Three

Research Methodology

3.1. Introduction

This chapter briefly discusses the research design and methodology: the research design, sources of data, population, sampling, sampling techniques, data gathering tools, and ethical considerations. Each of them was discussed as follows.

3.2. Research design

Research design is the basic frame work which provides guidelines for whole research. The choice of research design depends on the type, depth and extent of the issue under the study. According to Kothari, (2004) research design refers to arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to research purpose with economy in the perspective. The research design used for this study was a both descriptive and explanatory research designs. This was basically to compensate the weakness of one design with the strength of the other. Descriptive research is a fact finding inquiry or investigation. It describes the project failure/success between and within economic sectors to which the sampled projects are belonged. In this research design, the researcher can report what happened in the past and what is happening in the present. The researcher was also made use of both qualitative and quantitative data to gain an in-depth understanding of the project failure/success between and within economic sectors to which the sampled projects are belonged of the study area. Similarly, participants used in this study for in-depth interview were selected using purposive sampling method (one of non-probability sampling methods) and those who could fill the questionnaire were selected using simple random sampling (one of probability sampling methods) method. Here, the former is explanatory research sampling technique and the latter is descriptive in its nature. Both of these were used based on the objective of research.

3.3. Source of Data Collection

The main source of data for this research were both primary and secondary in nature. Both primary and secondary source of data has been used for the analysis. All primary data were collected through document analysis and interview.

3.4. Target population

The target population of this study was projects financed by DBE in five years (2014 – 2019) and at least started operation for a year. The focus of the study was the three main economic sectors of finance: Agriculture, manufacturing and service sectors. From the total 75 of projects, 60 projects of DBE Jimma district branch.

3.5. Sampling techniques

To obtain the representative sample size, the following Taro Yamane (1967) simplified formula at 95% confidence level (which is the accepted confidence level in social sciences) was used.

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

Where n is the sample size, N is population size and e is the level of precision (.05)

The total number of projects financed by DBE during the period under caption was 91.

Hence the required sample size as per the formula given above is as described below.

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

$$n = \frac{75}{1 + 75\ (0.0025)}$$

$$n = 60$$

This means,60 projects were taken and analysis was made. For questionnaire, 50 workers of the bank were taken using simple random sampling method and used for data collection.

3.6. Method of Analysis

In this study, both descriptive and explanatory analyses have been conducted Descriptive statistics like table, mean, percentage, etc. were used to describe the data. Explanatory analysis using econometrics regression model will have employed to analyze cause-effect relation between determinants of failure and DBE financed projects. Setting of major determinants of failure for DBE financed projects is done based on literature review and factors unique to DBE projects.

3.7. Model selection

Logistic regression, along with discriminant analysis, is the appropriate statistical technique when the dependent variable is a categorical (nominal or nonmetric) variable and the independent variables are metric or non-metric variables. When compared to discriminant analysis, logistic regression is limited in its basic form to two groups for the dependent variable, although other formulations can handle more groups. It does have the advantage, however, of easily incorporating non-metric variables as independent variables, much like in multiple regression (Hair et.al, 2010).

In a practical sense, logistic regression may be preferred for two reasons. First discriminant analysis relies on strictly meeting the assumptions of multivariate normality and equal variance-covariance matrices across groups-assumptions that are not met in many situations. Logistic regression does not face these strict assumptions and is much more robust, when these assumptions are not met, making its application appropriate in many situations. Second, even if the assumptions are met, many researchers prefer logistic regression because it is similar to multiple regression. It has straight forward statistical tests, similar approaches to incorporating metric and non-metric variables and non-linear effects, and a wide range of diagnostics. Thus for these and more technical reasons, logistic regression is equivalent to two-group discriminant analysis and may be more suitable in many situations(ibid).

In discriminant analysis, the non-metric character of a dichotomous dependent variable is accommodated by making prediction of group membership based on discriminant z scores. It requires the calculation of cutting scores and the assignment of observations to groups. Logistic regression approaches this task in a manner more similar to that found with multiple regression.

Logistic regression represents the two groups of interest as binary variables with values of 0 and 1. It does not matter which group is assigned the value of 1 versus 0 but this assignment must be noted for the interpretation of the coefficients (ibid).

Logistic regression differs from multiple regression, however, in being specifically designed to predict the probability of an event occurring (i.e., the probability of an observation being in the group coded 1). Although probability values are metric measures, there are fundamental differences between multiple regression and logistic regression (Gujarati, 2004).

3.8. Variable description

3.8.1. Dependent Variable

The dependent variable of this study were, project success or failure, is specified based on the criteria set by Development Bank of Ethiopia. The project to be categorized as successful project according to DBE required properly meeting its debt service fully, performing above breakeven point, and generating or saving at least half of foreign exchange, create half of employment opportunity and generate half of tax revenue for the government from estimated of the same in appraisal report. The project that failed to fulfill any of the above criteria, it is categorized as failed.

3.8.2. Independent variable

3.8.2.1. Macroeconomic variable

The major macroeconomic determinants are change in economic policies, economic growth, and inflation rate. In this study, change in economic policy and energy prices change will not considered since there is no major economic policy change in the country within the last five years and energy prices change is not discriminating the project in its application.

- **Economic growth:** the economic performance of the economic sector in which the given project operating affects the performance of the project. This variable, therefore, captured directly by GDP contribution of the sector in which the project engaged.
- **Impact of inflation**: inflationary situation is not expected to affect all projects similarly. The impact of inflation is, therefore, captured by inflation rate of the commodity in which the project produce is classified.

3.8.2.2. Sociopolitical Variables

The major sociopolitical determinant of project failure/success is demographic variables, literacy level, religion diversity, jurisdiction system, political system, government official's perception for the projects, the politicization of projects as the result of government change, and the problem of corruption. Among these, government officials' perception for the projects and the politicization of projects as the result of government change are not considered as determinant in this study difficulty of information collection and absence of government change in the last five years respectively.

- **Literacy level:** the availability of easily trainable manpower in project area is the main factor for project success/failure. The literacy level of the regions in which the project operating, therefore, plays significant role for project performance. Literacy level of the regions proxy by percentage of literate population from the total.

3.8.3. The credit Management of the Bank

Among major project failure/success determinants that emanate from credit management system of the Bank, over appraisals of collateral and appraisal of project proposals using current price rather than long-term money value are not considered for this study because DBE project financing is not collateral based and the Bank uses discounted project worth assessment methods. Credit management system of the Bank, therefore, represented by project planning capacities, providing technical advice and over estimation of returns from the project.

- **Project planning capacity of the Bank:** poor project planning can expose the project for under/over financing, inconvenience of loan disbursement, incompatibility of repayment schedule with revenue generating nature of the project, etc. These project planning problems finally affect the project performance. Therefore, this determinant is proxy by number of loan reallocation, rescheduling and repayment waving since repayment waving, loan reallocation and rescheduling are the measures taken for correction of the above problems.

- **Over estimation of returns from the project:** project return overestimation leads to financing of unviable businesses in addition to shortening of payback period. Short payback period means short repayment period since project financing solely depends on cash flow for its repayment. The repayment over burden created because of short

repayment period leads to incapability to serve the debt commitment and project failure. This determinant, therefore, is measured by percentage change between DBE's appraisal cash flow and follow-up cash flow of the project.

3.9. Test statistics

Preliminary significance test for each explanatory variable was done using t-test and Chi^2 test for continuous and discrete data respectively. Since Multicollinearity problem happens when there is strong correlation between two or more variables, the existence of Multicollinearity problem among independent variable were checked using variance inflation factor (VIF) and correlation. The occurrence of Multicollinearity can result with wrong results during regression, Pidyck & Rubinfied (1998). The mean VIF result above 10 depicts the existence of Multicollinearity problem with in the explanatory variables and VIF value for each explanatory variable greater than 10 indicates the independent variable with multicollinearity problem, but does not show in relation to other variable. Therefore, to identify the explanatory variables having multicollinearity problem, running of correlation test was very important. The correlation result above 0.5 for two explanatory variables and makes the regression coefficients to be estimated poorly.

The goodness of the model to fit the data in logit regression model can be tested using Wald Chi square, Likelihood ratio (LR) Chi square, Pseudo R^2 or Goodness-of-fit test. Among these tests, Pseudo R^2 test is recommendable for large sample size even though it is not widely accepted for binary models (Aldrich and Nelson, 2000). According to them, if R^2 statistic is close to zero meaning that all coefficients are zero. If pseudo R^2 close to 1, the model is very good. Aldrich and Nelson (2000), recommend that the use of Goodness-of-fit test if pseudo R^2 result closed to zero and accept the model if Goodness-of-fit test is resulted above 50%.

3.10. Ethical consideration

Up on the collection of data the respondents were informed as it was voluntarily to participate in filling the questioner and informed not to write their name. Again, the researcher informed the respondents that the information that they will give would be used only for academic purpose and would be kept strictly confidential, in accordance with the research ethics: the researcher will adhere the rights of respondents and agree with the general research code and ethics in protecting the right of the participants, beneficence, and justice.

Chapter-Four
Result and Discussion

This chapter focuses on presentation and discussion of data collected using questionnaire, document analysis and interview. First, data that deals with respondent's profile, including their current position in the bank and project, their experience in the banking and project area, and their educational qualifications will be presented. Next, document analysis and semi structured interview result upon project specific related is presented and discussed in detail.

Regarding the response rate, the student researcher prepared 50 questionnaires and distributed for workers in the bank. However, due to problem related to Covid 19, it took too much time to distribute and collect data from the participants. First, 35 questionnaires were distributed to those who were available in their workplace at the time of survey while the remaining15 were taken to workers' home by student researcher. Finally, all of the questionnaires were filled and returned successfully. Hence, the response rate is 100% which is of course good.

4.1. Respondent's profile

Respondent's profile like gender their educational qualifications, their current position in the Bank, their experience in the overall banking, business and project area is presented under this section due to inferences we may gate from these demographic variables.

4.1.1. Respondents' gender

As shown in table 4.1 below, 54% were male and 46% were female. This shows that respondents are dominated by male. Here, gender is not used in analysis but simply put to indicate absence of gender bias or simply relatively equal female and male participants in the study.

Table 4.1 Sex of respondent

Sex		Frequency	Percent
	Female	23	46
	Male	27	54
	Total	50	100

Source: survey result and own computation

4.1.2. Respondents' Current Position in the Bank and in the project

As it was shown in table 4.2 below ,30% of the respondents are General Manager or project promoter followed by credit appraisal officer, project manager, due diligence team member, loan review team member and loan recovery team member which accounts 24%, 18 %, 12 %, 8 %, 8 % share respectively (See table 4.2). The respondents' current positions in the Bank and in the project being financed indicate that half of the respondents participate in project management and the remaining participate in project finance, from credit origination to final loan recovery work process. This shows that participants from different position were selected for the purpose of this study and hence representative samples from different positions were selected to collect data from participants that work in different positions in the bank.

Table 4.2 Position of respondents

Position of respondent	Number	Percent
Loan appraisal officer	12	24.0
Loan review team	4	8.0
Member due diligence	6	12.0
Team member	4	8.0
Loan recovery team member	15	30.0
Project promoter	9	18.0
Project manager	50	100.0
Total		

Source: survey result and own computation

4.1.3. Respondents' Experience in the Bank and in the project

Respondents' experience is indicated in table 4.3 below. It is shown that majority of the participants (76 %) have an average experience of 5 years, while 12% have more than 6 years of experience. This shows that participants were able to share their experience they have accumulated during this extended period in the bank.

Table 4.3 Respondents Experience in the Bank and in the project

Years of experience	Number	Percent
1-3 years	6	12
4-6 years	38	76
7-10 years	6	12
Total	**50**	**100.0**

(Source: Survey Result and own computation)

4.1.4. Respondents' Educational Background

In table 4.4 below, educational background of respondents was presented. With regard to the educational background of the respondents', 66 % have at least Bachelor degree, 18 % have at least master degree and 16% were below bachelor degree (See table 4.4.). Hence, we can see that the majority of the respondents meet the required educational level for the position on which they were working. This indirectly shows educational level as a causes for failures in projects financed by DBE.

Table 4.4 Educational Background of the respondents

Education	Frequency	Percent
<BA/BSC	8	16
BA/BSC	33	66
MA/MSC	9	18

Total	50	100

(Source: Survey result and own computation)

4.2. Project specific cause of project failure

Project specific explanatory variables are those causes of project failures that emanate from the project itself. The investment size (project cost) of the sampled DBE financed projects within the last five years and have been operational for at least one year ranges was between Birr 146,000 and Birr 1,800,000,000 and the mean investment size of the sample projects was Birr 60,100,000. This statistical figures have depicted that the involvement of DBE in a wide range of financing without limiting the size of the projects.

Table: 4.5 Project specific Cause of project failure

Project Specific Cause Of Project Failure	**Strongly Disagree(%)**	**Disagree (%)**	**Neutral (%)**	**Agree (%)**	**Strongly Agree (%)**
Project implementation	2	12	2	46	38
Management problem	4	2	4	40	50
Poor Governance	4	22	12	32	30
Size of the project	18	30	18	32	2
Technical failure	4	6	20	48	24
Market and marking problem	4	16	10	42	28
Quality of manpower failure	10	16	8	48	18
Missing objectives	8	12	18	48	14
Losses because of uninsured damage	12	24	28	26	10
Financial insolvency of the promoter	4	8	18	64	6
Absence of change control system	6	20	16	46	12

The above table clearly indicated that majority of the participants reported that poor implementation of projects was reported to play the major share in causes of failure of projects financed by DBE according. This means, most projects in DBE fail due to poor implementation of projects. On the other hand, 14 % of the participants responded that a problem of

implementation has no impact on project failure. Finally, 90% of the respondents agreed the assumption that project failures arise from management related issues.

Regarding the size of projects, 48 % of the respondents disagreed that size of the project is not cause for a project to fail, compared to 34 % of the respondents that agreed that project failure is caused by the size of the project and 18 % of the respondent that were neutral on the effect of project size on project. All these show that majority of participants disagreed that size cannot be raised as one of a basic reason for failure.

Technical failure was also raised as another basic issue in relation to projects failure in DBE. Based on the above survey result ,72% of the respondent conforms that technical failure was a cause for project failure while 10 % of them are not agreed on the issue and 20 % of them are neutral on the case of technical failure and its impact on project failure ,hence from the respondents response, we can generalize that technical failure is highly responsible for a given project financed by the bank and market and marketing problem are also ensured by 70% of the respondents as if it can cause a project to succeed or fail while 20% respondents don't agree that project failure can't be caused by market and marketing problem and also form the presentation the respondents have agreed that quality of manpower failure ,missing objectives ,financial insolvency of the promoter and absence of change control system are causes for a financed project failure because 66% of response tell us manpower failure is causing for project failure, 62 % of the respondent's result conforms that missing objectives affects project failure directly and 58 % of the respondents supports that absence of change control system affects project failure directly while 26 % of the respondents disagreed that absence of change control system doesn't impact a project to fail. Therefore, we can conclude that this factors influence project failure directly. In addition document analysis of loan recovery report describes that management problem or lack of adequate knowledge and experience on how to manage the finance given by the bank by the promoter , problems of market and marketing problem ,shortage and price fluctuations of raw materials and delay in implementing the project such as construction for working progress and procurement of machineries and in raising equity contribution as per the agreement are the major project specific causes of project failure financed by the DBE . Moreover, In order to get deep understanding about the cause of project failure financed by the bank in depth interview was conducted with senior or experienced bank credit officers and the conformed that absence of skilled and quality manpower in the project

or not having the right person for the right position, poor project planning capacities of the promoter, market problem **,**low project management capacities of the project manager and delay in project implementation which means the customer is delayed due to unwillingness to block the equity contributed by promoter are the major causes of project failure which is supplemented by the interview

In support of the above idea, documentary analysis of 30 failed projects and 30 successful projects were compared on the above major variables. The result is indicated using the following table 4.6 below.

Regarding project implementation delay (time overrun), the average time overrun of sampled projects was 21% when compared to the planned schedule at standard error of 7%, this figure grows to 40% for failed projects at standard error of 11% and it goes down to 2% at standard error of 5% for successful projects. Similarly, the time overrun for failed project ranges between -100% and 367%, it ranges between -100% and 100% for successful projects. The t-test statistics has also strongly depicted the significance of the explanatory variable at 95% confidence level, see table 4.6

Variables related to promoters' experience was also investigated in documentary analysis. Accordingly, 72% of failed projects are established by owners with irrelevant educational background or experience compared to successful projects that were that were established with experienced promoters. The promoter support to the project explained with relevant experience or educational background of the project owner for sole proprietorship establishments or the company general manager for private limited and share companies. The assumption is, if the promoter has relevant experience or educational background about the business, he/she can support the project with knowledge and establish smooth relation with employed professionals.

Table 4.6 Descriptive statistic of project specific variables

Project status	Number	Delay	Market problem	Management problem	Promoter Capacity	
					Relevant	Irrelevant
Failed	30	81%	42%	41%	24%	76%
successful	30	10 %	12%	12%	90%	10%

Source: documentary analysis result

4.3. Credit management related factors of project failure

Table: 4.7 Credit management related cause of project failure

Credit management related cause of project failure	SDA (%)	DA (%)	N (%)	A (%)	SA (%)
Over appraisals of collateral	10	38	22	18	12
Project planning capacity of the financer	16	24	22	34	4
Follow up level/ providing technical advice	4	8	18	56	14
Over estimation of return from the project	8	18	20	50	4
Appraisals of project proposal using current price	6	16	18	52	8

Table 4.7 above shows credit management related cause of project failure in DBE. when respondents were asked on overall appraisal of collateral and its effects on project failure ,38 % of respondents disagreed and 10% of respondents strongly agreed while 22% are neutral and 30 % are agreed on the impact of over appraisals of collateral on project failure. This indirectly shows that he nearly half of the respondents' response has shown that over appraisals of collateral has no impact on the financed project to fail. Regarding project planning capacity of the financers, 40 % respondents don't agree that it do not cause project failure while 38 % agreed that project failure is caused by project planning capacity of the financers and the remaining are neutral in this issues.

Document analysis have also been made to investigate causes of project failures in DBE. The result supports findings from the respondents. As indicated in table 4.8 below, the incapability of the Bank regarding project planning is reflected by frequent rescheduling and waver of repayment, and reallocation of funds from one investment component to the other. The mean

of this explanatory variable for the projects under this study was 0.17 at standard error of 0.06. If the mean of failed projects is looked separately, it grows to 0.26 at standard error of 0.06 while it drops to 0.08 for successful projects at standard error of 0.03. The other important variable for project success/failure was follow-up coverage, because follow-up activities is believed as main tool to enhance loan collection, provide technical support to projects, take corrective measure at any deviation from the planned direction and provide feedback for future project financing. Even though, follow-up coverage is believed to have impact on project success/failure, the t-test statistics depicted that the insignificance of the explanatory variable for project failure in DBE case since it is less than 1.73 at 95% confidence level. However, it is statistically significant at 90% confidence interval. The mean follow-up coverage for the projects under study was 87% at standard error of 5%. The mean follow-up coverage for failed projects is a bit less than the total average, that is, 81% at standard error of 7%. The mean of the same for successful projects is 93% at standard error of 6%.

Data from documentary analysis also shows that over estimation of project return leads to financing of not viable projects and shortening of repayment period since determination of repayment period solely bases on payback period or cash flow. Regarding this explanatory variable, 23 observations were missing. The average of the others observations was replaced in the place of the missing for analysis purpose. The mean cash flow over estimation of the projects under consideration and successful projects was the same (31%) at different standard error, 11% and 8% respectively. The mean of this explanatory variable was 32% at 12% standard error for failed projects, which is slightly greater than the total average. The data for this variable vary between negative 173% and 367% for all sampled and failed projects. However, it ranges between negative 113% and 265% for successful projects. However, the t-test statistics has shown the insignificance of the variable for project failure at 95% confidence interval.

Table 4.8 Descriptive statistics for DBE credit management explanatory variable

Project Status	Summary Statistics	Planning Capacity	Follow-up Coverage	Cash flow Overestimation
Failed	Mean	0.26	81%	32%
	Standard Deviation	0.45	55%	91%
	Standard Error	0.06	7%	12%
	Minimum	0.00	0%	-173%
	Maximum	2.33	300%	376%
Successful	Mean	0.08	93%	31%
	Standard Deviation	0.26	50%	82%
	Standard Error	0.03	6%	11%
	Minimum	0.00	10%	-113%
	Maximum	1.50	325%	265%
Total	Mean	0.17	87%	31%
	Standard Deviation	0.38	53%	86%
	Standard Error	0.03	5%	8%
	Minimum	0.00	0%	-173%
	Maximum	2.33	325%	376%
Test Statistics	T-test (Degree of Freedom 58)	2.60	-1.26	0.08

To triangulate these data, in-depth interview was also made with experienced credit officers and the response workers of the bank. When they were asked the main reason for project failure, bank related cases specially problems related to pertinent credit policies set by the bank, Poor follow up function or activities in the bank advice given by the bank , improper credit appraisal (analysis) made by the bank or error in estimating the return of the project, lack of in depth due diligence on potential borrowers/credit applicants and over appraising were raised as the major factors of project failure supported by the interviewee.

4.4. Macro environment factors as a causes of project failure

Table: 4.9 Macro –Economic Environment factors

	SD (%)	D (%)	N (%)	A (%)	SA (%)
Change in economic policies	6	22	12	50	10
The miss much and change in exchange rate	4	26	18	38	14
Increase in energy price /electric city /gas	8	26	26	36	4
Continuous rise of price of the product ,raw materials	2	12	12	60	14

The statement change in economic policies affect project failure has ensured by 60% of the respondents which means they have agreed with change in economic policies has an impact on project failure financed by the bank on the other hand 28 % of the respondents have disagreed the impact on project failure while 12% are neutral in this case and also 52 % and 74 % respondents have agreed that the miss much and change in exchange rate and continuous rise of price of the product ,raw materials and wage causes project failure respectively. From the document being analyzed, lack of foreign currency to import raw materials is a single cause for a project to fail in this section.

In support of the above quantitative findings, document analysis was made on these variable. Basically, economic growth, exchange rate and inflation have their own impact on project performance as important macroeconomic variables. The impacts of these economic variables were measured by taking the average GDP growth of the sub-sectors and inflation rate of the commodities by category for the last five years. Next, the average figures of GDP by sub-sector were tagged to each project to which it classified and the inflation rate of the commodities were fixed to each project based on its product to which it categorized.

However, exchange rate is proxy by investment cost overrun of the project since exchange rate has no direct unique relation to each project unless measured by its impact. The impact of inflation on projects fundamentally reflected by investment cost overrun in countries like Ethiopia, dependent on import for technology, machinery and raw material. The magnitude of exchange rate impact on the projects, therefore, varies with import dependency level for their

investment. With this understanding, the statistical description of exchange rate is discussed in this sub title.

The mean investment cost overrun of the projects under this study is 4% at standard error of 4%, while it is negative 4% at standard error of 3% and 12% at standard error of 7% for failed and successful projects respectively. Moreover, the data for successful projects ranges between negative 100% and 67% whereas for failed projects it varies between negative 27% and 405% for successful projects. The t-test statistics also exhibited that the significance of the explanatory variable at precision level of 5%, see table below.

The mean result of sub-sectoral GDP contribution tagged to projects by their classification was 12.67 at standard deviation of 5.17%. The mean of this explanatory variable for failed project is 12.47% and 12.86% for successful projects at standard deviation of 4.86% and 5.5% respectively. The data also ranges from 6.68% to 29.76% for both failed and successful projects. The t-test statistics also depicted the insignificance of this variable at precision level of 5% to explain failure for DBE financed projects, see table below. The mean for inflation rate is 20.21%. This result is very close to results for the total failed and successful projects. However, the range varies from 9.68% to 49.66% for failed projects and 9.68% to 34.04% for successful projects. The same as GDP contribution, the t-test of this explanatory variable has shown the insignificance of the variable to explain DBE financed projects failure.

Table 4.10 Summary statistics for macroeconomic explanatory variables

Project status	Summary Statistics	Cost overrun	GDP Contribution of the subsector	Inflation rate of the commodity
Failed	Mean	-4%	12.47%	20.03%
	Standard Deviation	22%	4.86%	7.53%
	Standard Error	3%	0.62%	0.96%
	Maximum	67%	29.76%	41.66%
	Minimum	-100%	6.68%	9.68%
Successful	Mean	12%	12.86%	20.39%
	Standard Deviation	56%	5.50%	7.09%
	Standard Error	7%	0.71%	0.91%
	Maximum	405%	29.76%	34.04%
	Minimum	-27%	6.68%	9.68%
Total	Mean	4%	12.67%	20.21%
	Standard Deviation	43%	5.17%	7.29%
	Standard Error	4%	0.47%	0.66%
	Maximum	405%	29.76%	41.66%
	Minimum	-100%	6.68%	9.68%
Test Statistic	T-test (58 Degree of freedom)	-2.07	-0.42	-0.27

4.5. Socio-political Environment factors causes of project failure

Table: 4.11 Sociopolitical Environment factors

	Strongly disagree(%)	**Disagree (%)**	**Neutral(%)**	**Agree (%)**	**Strongly agree(%)**
Literacy level	10	16	24	38	12
Religion diversity	24	32	28	16	
Jurisdiction system	8	26	26	34	6
Government officials perception	6	20	16	42	16
Intervention of political leader on projects	10	30	2	34	24
Problem of corruption and related cases	4	8	2	30	56

Socio political environment related causes were presented in table 4.11 above. As it is indicated, 50%, 64 % and 86 % of the respondents raise literacy level, government officials' perception and problem of corruption and related cases as the major cause a financed project to fail respectively. Of course it is not difficult to imagine the impact of corruption and related cases on economic development and the same is true for the failures of project failure followed by government official's perception towards the project being financed.

Similarly, religious diversity was found to be the major factor in failures of projects financed by development bank of Ethiopia. It is indicated that 56 % respondents disagree that religious diversity affect project performance where as 28% were neutral while too few respondents (16%) of the respondents have accepted that religious diversity has no impact on project failure. Thus from this we can infer that religious diversity has no effect on project success or failure since more of the response has indicated that it cannot impact project failure.

Regarding jurisdiction system, 34 % of the respondents agreed, 6% of them have strongly agreed while 8% have strongly disagreed, 26% of them disagreed and the rest were neutral, hence from this we can deduce that more response is being received as if Jurisdiction system can be a cause for a financed project to fail.

Generally, the result shows that that socio political factors have their role in failure of projects financed by DBE. From lists of socio political factors, corruption and related cases was raised as the major factors. Besides, government official's perception, intervention of political leader on projects and literacy level were also raised as one of the major causes.

Document analysis made on Socio-political Environment factors as a causes of project failure also support the above quantitative findings. Among the sociopolitical variables considered in this study, literacy level of the owners of failed project was compared with that of successful projects. The mean value is 42% at standard deviation of 9%. The mean result of the same is increasing to 44% for failed projects at standard rate of 11% while it decreased to 41% for successful projects at standard deviation of 6%.

4.6. Econometric results

4.6.1. Multicollinearity Test

The VIF test has shown the absence of multicollinearity problem in totality by resulting 5.12 mean VIF, except for literacy level which was exhibited above 10 (see Annex II). However, the verification made using correlation test has depicted the absence of serious multicollinearity problem since it is below 0.55, see Annex I. Therefore, all explanatory variables are used in final regression model.

4.6.2. Heteroscedasticity Test

Heteroscedasticity is a systematic error that happens when the variance of the errors is constant, Gujarati 2005. Heteroscedasticity problem makes the model inefficient to estimate the regression coefficients because of biased variance and covariance of the coefficient. According to Gujarati, in the presence of heteroscedasticity, the usual logit model overestimates the standard errors of estimators. The heteroscedasticity test made using Breusch-Pagan/Cook-Weisberg test of OLS regression has shown that the significance of the problem. Thus, to alleviate the heteroscedasticity problem, the logit model was used with robust.

4.6.3. The Goodness of the Model

As it is shown in the following table, the pseudo R^2 value is 0.3453, which means that the model explains 34.53% of the data and depicted the weakness of the model to fit the data. However, pseudo R^2 is not widely accepted test to show the goodness of the binary regression models. Therefore, the goodness-of-fit test is continued further to check the appropriateness of the model to explain the data. The goodness-of-fit test for the model exhibited that 78.69% of the observations are classified correctly by this regression model and confirmed that the fitness of the regression model to estimate the explanatory variables.

4.6.4. Logit and Logistic Model Estimation Results and Interpretation

Logit model is used to estimate the magnitude, sign and significance of each coefficient. Logistic model is used to estimate the odd ratios. The estimation results of these two models tabulated in table 4.11 and the following explanations refers this table. In both model, thirteen explanatory variables were used, of which 4 explanatory variables are statistically significant at 5% precision level and 2 at 10% precision level. Even though, the significance level of others 6 variables is very low,

As portrayed in the following table, from project specific explanatory variables, time overrun, sales shortfall and recruitment variation are statistically significant for DBE financed project failure. Even though, project size and promoter capacity are not statistically significant, the estimation result depicted that the increase in project investment cost and relevance experience or educational background to reduce the probability of DBE projects failure. Among three DBE's credit management system variables, only DBE's project planning capacity is statistically significant for DBE financed project failure while follow-up coverage and cash flow overestimation are not statistically significant. However, the sign of the coefficients for these variables indicated that the increase in follow-up coverage to decrease the project failure and the overestimation of cash flow to increase project failure.

Regarding macroeconomic variables, the proxy measure of exchange rate – project cost overrun is statistically significant. On the other hand, GDP contribution and inflation rate not statistically significant. However, the sign of GDP contribution of the sub sector in which the project engaged and the inflation rate of the commodity in which the product of the project categorized have exhibited inverse relation with project failure of DBE financed projects.

As far as sociopolitical explanatory variables are concerned, literacy level of the project operator were statistically significant

Among statistically significant explanatory variables, recruitment variation and investment cost overrun were significant at 1% precision level. The coefficient of recruitment variation indicates that the existence of direct relation between explanatory variable and failure of DBE financed projects. The marginal effect (dy/dx) value of the same also has shown that the probability of project being failure is 54% for 1% increase in recruitment variation. This means, the ratio of the probability that the project exposed for failure to the probability of the project being successful is 9.6 to 1 if the weighted average change of actual manpower recruitment below planned in appraisal report increased by 1% according to the odd ratio result. Therefore, running of projects using below from the number of manpower, educational background and experience stated in appraisal report is the major cause for DBE financed project failure.

Similar to recruitment variation, the coefficient of sales shortfall depicts that the existence of significant positive relation with failure of DBE financed projects at 10% precession level. According to the value of marginal effect, the probability of project failure is increasing by 31% when the product sales decreases by 1% from the appraisal report. The odd ratio has depicted that the probability of the project being failed to successful is 1.34 to 1 if the projects product sales decreases by 1% from appraisal report sales estimations. This simply shows that product marketing problem is the one among the major cause of failure for DBE financed projects.

The coefficient of time overrun in project implementation has shown that significant inverse relation with failure of DBE financed projects at precession level of 10%. The marginal effect estimate of the same is also depicts that an increase of time overrun in project implementation from appraisal plan 1%, increases the failure of the project by 23%. The odd ration also justifies that the probability of project failure to project success is 0.38 to 1 as the time overrun increase by 1%. Which means that the prolonging of project implementation rather decreases the failure of DBE financed projects. This result is completely against from what is expected and it may

be reflecting the impact of credit rehabilitation operation of the Bank and the corrective measures taken to correct the problems emanated from project planning capacity.

Similarly, the coefficient of project planning capacity of DBE reflects that the existence of a significant inverse relation between project failure and the explanatory variable. As corrective measures (rescheduling, reallocation and weaving) were taken to alleviate the project planning problem of DBE increases by 1 unit, the failure of projects decreases by 23% according to the result of marginal effect. In other way, the probability of failure to success is 0.37 to 1 when the corrective measures taken to overcome the problems of project planning increases by 1 unit according odd ratio. Being statistically significance of the corrective measures indirectly indicates that the seriousness of project planning problem in DBE, because the inverse of these result explain that the failure of projects increasing in the absence of these measures.

Investment cost overrun, the proxy of exchange rate impact, is strongly significant and positively related with failure of DBE financed projects at precision level of 1%. The marginal effect of this explanatory variable has shown that the increase of investment cost overrun by 1% increases the probability of failure by 80%. The odd ratio of this explanatory variable also depicted that the probability failure to success is 3.82 to 1 whenever the investment cost is increased by 1% from planned at appraisal. The inflection of these results is that the projects experiencing investment cost overrun are venerable for failure.

Table 4.12 Logit and Logistic models estimation results

Project status	Coefficient	Odds Ratio	Robust Std. Error	P>z	dy/dx	[95% Conf.	Interval]
Project cost	-3.69E-09	1.0000000	2.34E-09	0.112	-9.70E-10	-8.31E-09	8.7E-10
Time overrun	-0.9615063	0.3843866	0.4941067	0.053*	-0.2308959	-1.924538	0.0123249
Sales short fall	1.341984	3.8266280	0.7217119	0.063*	0.3091137	-0.0725455	2.756513
Recruitment variation	2.261122	9.5938480	0.6300384	0.000***	0.5433644	1.026269	3.495975
Promoter capacity	-0.0378922	0.9628167	0.6380172	0.953	-0.0329201	-1.288383	1.212598
DBE planning capacity	-0.9987605	0.3683357	0.5472744	0.068**	-0.2311106	-2.071399	0.0738775
Follow-up coverage	-0.0206087	0.9796023	0.4874757	0.966	-0.0051994	-0.9760435	0.9348262
Cash flow over estimation	0.2629797	1.3008000	0.2847966	0.356	0.0321283	-0.2952113	0.8211708
Cost overrun	3.985586	3.8168100	0.8000010	0.006***	1.040757	1.154256	6.816915
GDP contribution	-0.0209139	0.9793033	0.0556711	0.707	-0.003719	-0.1300273	0.0881995
Inflation rate	-0.0493805	0.9518189	0.0333395	0.139	-0.0125569	-0.1147247	0.0159638
Literacy level	-8.61239	0.0001818	4.1566580	0.038**	-2.204247	-16.75929	-0.46548

Number of observation = 122, Wald chi2(18) = 32.99, LR Chi2(18) = 58.38, Prob > Chi2 = 0.0000, Log pseudo likelihood = -55.357257,

Note: 0 failures and 1 success completely determined.

4.7. Finding and Discussion

Twelve determinant variables were used to measure their significance for DBE financed projects failure in projects financed by DBE. All of the variables, except project implementation time overrun have shown that the expected magnitude of influence on the dependent variable - project failure. This is consistent with Maurice et.al (2000) who was made analysis of project success for African Development Bank financed projects. In his finding consistent with this, time overrun of project implementation negatively affected the project success

In this study, the result is shown similar linear relation of project failure as time overrun increases for project implementation but slightly shows opposite relation or inverse relation that is not of course sharp to one another. This gab may be due to the intervention of the Bank to protect the projects from failure through rescheduling of loan repayment, reallocation of loan and interest payment weaving; because these corrective measures found statistically significant in reducing project failure in this study.

Moreover, sales shortfall and recruitment variation were found statistically significant were as project cost and were insignificant. These statistically significant variables, shows importance of human resource for project success in case of most Ethiopian project owners.

Consistent with the above findings, Maurice et.al study considered projects after completion and measured and found out similar results. In their study, cash flow over estimation contributed higher for project failure but loan appraising capacity and technical support were mentioned as project success causes. In this study however, overestimation of cash flow fail to show the existing situation for reasons that was briefly discussed in delimitation of the study. Nevertheless, the result indicated that the positive relation of the variable for project failure. Regarding the importance of follow up, work of DBE is not centered on problem solving activities but things are performed mostly for the sake of report. Similarly, data collected from experience workers of the bank also shows that poor implementation of projects highly contributed to failure of projects financed by DBE. It was also found out that technical failure is a cause for project failure for a project financed by the bank. marketing problems were also raise to contribute to failure of projects.

The impact of economic growth on project performance measured using GDP indictor, though, there is difference in consideration. Maurice et.al utilized project hosting counties' GDP growth for their study, but GDP of the economic sub-sectors in which the project is categorized considered in this study. The estimation of this inductors has shown that statistical significance in Maurice et.al study but not significant in this study. In this study additional macroeconomics explanatory variable, inflation rate, is tested but found statistically insignificant.

On socio political, not all variables that need inclusion were included due to current situation related to COVID 19. only educational background of respondents with failed projects were analyzed and used for data analysis. Maurice et.al found changing political regional states plays major role in determining success or failure of certain project. In this study, literacy level has shown statistical significance for project failure and it was significant.

Chapter Five

Conclusion and Recommendation

5.1. Summary of the Findings

As it was discussed in the previous chapters, the objective of this research it to investigate the major cause of project failure in projects financed by DBE. Basically, it focuses on answering the following basic research questions.

To measure the significance of these four categories, 12 major explanatory variables are considered in this study. Five explanatory variables from project specific, three from DBE specific, three from macroeconomic and one from sociopolitical categories were selected and used in analysis. The regression analysis of these explanatory variables with dependent variable, project success/failure, using logit model exhibited that three of project specific, one of DBE specific, one of macroeconomic and two of sociopolitical determinants are statistically significant. This means that none of the four categories is fully significant for DBE financed projects failure or none of them fully insignificant.

In relation to respondents' view, the survey result shows that the project specific related causes of project failure are ranked as follows from the analysis. These are management problem, poor implementation, technical failure, market and marketing problem, financial insolvency of the promoter, quality of man power failure, missing objectives and poor governance.

The document analysis report result also confirms that management problem, market and marketing problems and delay in project implementation are the major project specific related cause of project failure. And also an in-depth interview conducted with senior credit officers conforms that market problem, manpower quality problem, delay in project implementation causes a project to fail.

In relation to respondents' view, the survey result shows that credit management related causes of project failure are ranked based on respondents' agreement as follows: Follow up level or providing technical advice, appraisals of project using current price, over estimation of return from project and project planning capacity of the financers are major causes a project to fail.

Documentary analysis also shows that focus on traditional market system inefficiency and marketing knowledge gap of local entrepreneurs, unsystematic traditional market arrangement contributes to project failure. Besides, lack of strict follow-up of financed projects by the credit performers, poor credit analysis made by the bank such as Lack of proper market and project viability study made by the bank, over estimation of cash flow or revenue from the project during appraisal and absence of reliable price, market and cost of production data for project planning purpose. Moreover, from credit management related factors Poor follow up function or activities in the bank advice given by the bank, Improper credit appraisal (analysis) made by the bank are supported by interviewee as if it can cause a project to fail.

From macro environment related causes of project failure, instability of product prices was found to contribute to project failures. Regarding the social political cases corruption, and literacy level was raised to be cause of project failed in DBE. The Problems of corruption and related problems and intervention of political leaders on project has also been supported both in survey and documentary analysis. Similarly, governing perception that lacks knowledge in looking business projects as opportunity for family and country as a whole also found to play major role in failure of projects financed by DBE.

5.2.Conclusion

It can be possible to conclude from the findings of this study that the cause of project failure financed by development bank of Ethiopia are factors in connection with credit management, factors in connection with macro environment related factors and factors in connection socio political environments.

In connection with project specific factor District Management problem, poor implementation, market and marketing problem, quality of manpower failure are the major cause. It is also concluded that the following are among the major bank or credit management related cause of project failure are: follow up level or providing technical advice, appraisals of project proposals using current price rather than long term money value, project planning capacity of the financers are the major causes of a financed project to fail. It was found out in this study that project planning capacity; because the model result for correction measures used for solving problems esteem from project planning (loan rescheduling, weaving and found reallocations) found significant with negative effect to project failure. This means that DBE's project planning lack to consider the unique natures of the projects during disbursement and repayment scheduling, found allocation, etc. Because, miss planning of these is leads taking repeated corrective measures by the Bank to protect the projects from failure.

Factors in connection with macro environment, continuous rise of product price, raw materials price and wages, sudden change in economic policies are reason for project failure. Factors in connection socio political environments it has been concluded that the Problems of corruption and related problems and intervention of political leaders on project is an identified cause for project failure. Similar determinant factor found significant in this study for project failure is investment cost overrun, which largely caused by change in exchange rate. Besides, literacy level of the project owners was found to affect a given project. It was also found out in this study that shortage of skilled labor during production process affect the outcome of a given project.

Moreover, it can be concluded that follow-up coverage is a major cause for project failure. The intention of follow-up process is believed to be providing of technical support to projects based on critical finding to insure the success of projects and enhance collection.

5.3.Recommendation

The following recommendation were made based on the findings of the study.

- The finding of this research shows that project investment cost needs more experience or educational background to reduce the probability of DBE projects failure.so bank should facilitate more training and experience sharing programs to skill and experience of project developers, the bank should discuss with owners that their project should be prepared with experienced experts. Besides, additional training and experience sharing programs should be done to empower project managers/owners to improve their marketing knowledge.
- It is also recommended that strict project implementation follow-up should be done in order to verify whether the implementation of the project is conducted as per the schedule or not.
- Besides, follow-up reports have to be conducted with a group of multidisciplinary experts rather than on an individual basis so as to achieve the purpose for which the follow-up report is designed to meet.
- Similarly, bank should critically prepare follow-up coverage to decrease the project failure and the overestimation of cash flow to increase project failure.
- Upon the intervention of political leaders on projects, the bank as well the project promoter should create awareness upon the contributions of the project to the community.
- Moreover, DBE has to assess critically literacy level of the project and has to ensure a feasible strategy to alleviate the problems

5.4.Implication for future research

One of the limitations of this research is that it was done in a time when there was lockup due to covid 19. Participants may worry about their situation and might not feel free while filling the questioner which indirectly might relate to the finding of the research. Hence, it is recommended to make further research by collecting data from participants free from this type of fear.

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Annexes

Jimma University
College of Business and Economics
Department of Accounting and Finance
Questionnaire

This survey is going to be undertaken by a student of Jimma University College of Business and Economics, Department of Accounting and Finance as a partial fulfillment for the award of Master of Project Management and Finance. This questionnaire is designed to obtain information on Cause of project failure financed by development bank of Ethiopia.

The information collected is purely for academic purpose and will be kept confidential. And your personal information will never be linked with your responses. Hence, you are kindly requested to fill the questionnaire and provide your opinion as truthfully as you can.

PART I: General Information/Personal Data Respondent's Background

Pleases tick and fill in the blanks if you select others.

1. Sex

   Male☐ female☐

2. Educational Qualification

   Below BA/BSC☐BA/BSC degree☐

   MA/ MSC☐D. above MA/PhD☐

3. State respondent position in organizations/company. In which position you are currently working?

   I. Respondents from DBE

Appraisal team member☐ Loan review team member ☐Due diligence team member ☐Loan approval team member☐ Loan recovery team member☐

   II. Respondents out of DBE

Promoter ☐Manager of the project being financed ☐

Local government officials ☐

4. For how long have you been working in the Industry/Bank/ project/office?

1 to 5 years☐5 to 10 years☐

11- to 15 years☐16 and above☐

Please tick and fill in the blanks if you select others. Each scale represents the following rating:(5). strongly agree (4). Agree (3). Neutral

(2) disagree (1) strongly disagree

Section B	**No.**	**Causes of failure**	**1**	**2**	**3**	**4**	**5**
Project Specific	**1**	Poor implementation					
	2	Management problem					
	3	Poor governance					
	4	Size of the project					
	5	Technical failure					
	6	Market and marketing problem					
	7	Quality of manpower failure.					
	8	Missing of objective					
	9	Losses because of uninsured items damage					
	10	Financial insolvency of the promoter					
	11	Absence of change control system					

Section C			**1**	**2**	**3**	**4**	**5**
Credit Management	**1**	Over appraisals of collateral					
	2	Project planning capacities of the financers					
	3	Follow-up level/providing technical advice					
	4	Over estimation of returns from the project					
	5	Appraisal of projects proposal using current price rather than long term money value					
Section D			**1**	**2**	**3**	**4**	**5**
		Section D/I Macro-Economic Environment					
Sociopolitical Environment	**1**	Change in economic policies					
	2	The mismatch and change in exchange rate					
	3	Increases in energy prices/electricity/diesel/oil gas					
	4	The continuous rise of price of product, raw materials and wage					
economic Environment and Macro		**Section D/II Sociopolitical Environment**					
	1	Literacy level					
	2	Religion diversity					
	3	Jurisdiction system					
	4	Government officials' perception					
	5	The interventions of political leaders on projects					

	6	The problem of corruption and related cases					

Semi structured interview guide line: This is designed to acquire more additional information and triangulate the result obtained from questionnaire and Your answer will be treated confidentially. The findings of the study will be used for academic purposes.

Thank you for your cooperation

1. What are project specific related factors for project failure for projects financed by DBE? Do the following factors contribute for project failure? How?
    1. Poor implementation/Time overrun;
    2. Management problem;
    3. Poor governance;
    4. Size of the project;
    5. Technical failure;
    6. Market and marketing problem;
    7. Quality of manpower;
    8. Missing of objective
    9. Losses because of uninsured items damage;
    10. Financial insolvency of the promoter
    11. Absence of change control system

Add if you have additional _____

2. What are Credit Management related factors for project failure for projects financed by DBE?

    Do the following factors contribute for project failure? How?

    1. Over appraisals of collateral;
    2. Project planning capacities of the financers;

3. Follow-up level/providing technical advice;
4. Over estimation of returns from the project;
5. Appraisal of project proposals using current
6. price rather than long-term money value;

Add if you have additional _____ What are Macro-Economic Environment and Sociopolitical related factors for project failure for projects financed by DBE? Do the following factors contribute for project failure? How?

1. Change in economic policies;
2. The mismatch and change in exchange rate;
3. Increases in energy prices,
4. Rise of price of goods rate,
5. Literacy level;
6. Religion diversity
7. Jurisdiction system
8. Government official's perception for the project

9.The government change and intervention of political leaders on the project

10. The problem of corruption and related cases

Add if you have additional _____

Annex I: Correlation Statistics

Table – I: Correlation statistics

Variables	Project status	Project cost	Time overrun	Sales short fall	Recruitment variation	Promoter capacity	DBE Planning capacity	Follow-up coverage	Cash flow Over estimation	Cost overrun	GDP contribution	Inflati rate
Project status	1.0000											
Project cost	-0.1736	1.0000										
Time overrun	-0.2674	0.0781	1.0000									
Sales short fall	0.2591	-0.0612	-0.2080	1.0000								
Recruitment variation	0.2646	-0.0464	0.0466	0.0362	1.0000							
Promoter capacity	-0.0470	0.1059	-0.0739	0.0120	0.0711	1.0000						
DBE Planning capacity	-0.2308	0.3065	0.2962	-0.2275	0.0855	0.0171	1.0000					
Follow-up coverage	0.1141	-0.1290	-0.1490	0.0466	0.0064	0.0217	-0.1609	1.0000				
Cash flow over estimation	-0.0075	-0.0611	0.0043	-0.1135	-0.2049	-0.1582	-0.0518	0.1615	1.0000			
Cost overrun	0.1862	0.0022	-0.0601	0.0492	0.2737	0.1084	-0.0598	0.1626	-0.0328	1.0000		
GDP contribution	0.0379	0.2084	-0.0656	0.2040	0.0137	0.1433	-0.0538	0.0127	0.0777	-0.0141	1.0000	
Inflation rate	0.0246	-0.0068	-0.1964	0.0361	-0.0393	0.0553	-0.2506	0.1225	0.0457	0.1070	-0.3211	1.0
Literacy level	-0.1304	0.0007	0.0321	-0.1466	0.0251	-0.0372	-0.0161	-0.1211	0.0261	-0.0358	-0.0347	-0.0

Annex II: Variance Inflation Factor

Table II: Variance inflation factor

Variable	VIF	1/VIF
Project cost	1.35	0.742788
Time overrun	1.59	0.630641
Sales short fall	2.24	0.446032
Recruitment variation	1.40	0.713462
Promoter capacity	5.05	0.197857
DBE planning	1.66	0.602770
Follow-up coverage	5.28	0.189531
Cash flows over estimation	1.54	0.648618
Investment Cost overrun	1.21	0.824909
GDP Contribution of Sub sector	8.62	0.116005
Inflation rate	8.43	0.118636
Literacy level	14.21	0.070375
Mean VIF	6.66	