Post-graduation Studies of St. Mary's school of Masters of Business Administration (MBA)

CAUSES OF PROJECT IMPLEMENTATION DELAY: THE CASE OF PROJECTS FINANCED BY DEVELOPMENT BANK OF ETHIOPIA.

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March, 2023

Addis Ababa, Ethiopia

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A Thesis Submitted to St. Mary's University, School Of Graduate Studies In Partial Fulfillment Of The Requirements For The Degree Of Masters Of Business Administration

Advisor: Temesgen Belayneh (PhD)

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APPROVED BY BOARD OF EXAMINRES

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Declaration

I, **Kidist Abera**, do hereby declare this research work is entirely my original work and it has not been submitted to any other higher educational institute. It was prepared under the guidance of **Temesgen Belayneh (PhD).** All sources of materials used in this thesis have been fully acknowledged.

Name of the participant: **signature**   **date**

Kidist Abera   _____   _____

Endorsement

I, the Undersigned certify that I have read and hereby recommend acceptance of this thesis title; "CAUSES OF PROJECT IMPLEMENTATION DELAY: THE CASE OF PROJECTS FINANCED BY DEVELOPMENT BANK OF ETHIOPIA" by Kidist Abera that was done under my supervision and guidance for submission to St. Mary's University for the award of the Masters of Business administration.

Temesgen Belayneh (PhD)   Signature ————————————————

 St. Mary's University, Addis Ababa   Date   -------------------------------------

Acknowledgments

Contents

Acronyms / Abbreviations

DBE: Development Bank of Ethiopia

KYC: know your Customer

PRLRD: Project Rehabilitation and Loan Recovery Directorate

CRMD: Customer Relationship Management Directorate

LAT: Loan Approval Team

NPL: Non-Performing Loan

NBE: National Bank of Ethiopia

ADBFI: African Development Banks and Finance Institutions

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Abstract

Development Bank of Ethiopia was established with the vision and mission of providing financial supports for development projects that are entitled in helping the economic growth of the country. Financing projects involves higher risks due to problems attached with project implementation processes that may result in delays if not properly managed on time. In this paper, the researcher tried to investigate major causes of project implementation delays financed by the Development Bank of Ethiopia. The study mainly focused in areas considered as major contributors in project implementation delays that includes bank related variables, client related variable and external economic variables. The researcher selected 134 project profiles as secondary data source from which 83(62%) profiles show delay and 51(38 %) completed as per the schedule and distributed 60 questionnaires to project implementation staffs from which 51(85%) collected responses were valid responses. Mixed research approach was used by the researcher to analyze the collected data by using econometrics and descriptive statistics. Secondary data collected were analyzed using stata-13 by making use of econometric regression (Logit Model) to explain project delays and questionnaire were descriptively analyzed using mean and standard deviation with SPSS software. The research identifies and analyses whether the significant determinants of project implementation delay are attributed to clients or Banks or whether delay is attributed to some external factors. The finding of this study reveals that Foreign Currency Shortage, Exchange rate fluctuation, Price escalation, Utilization of loan, Appraisal problem, Competency of the promoter, Procurement process and Fulfillment of conditions were statistically significant cause of project implementation delay of DBE's financed projects.

Keyword: Project,   Implementation   Delay,   Causes,   Project   Financin

CHAPTER ONE
1. INTRODUCTION

1.1Background of the study

The role of banks in a country's economy is critical. They play an intermediation function in that they collect money from those who have excess and lend it to others who need it for their investments. Availing credit to borrowers is one way that banks contribute to the growth of economies. The Development Bank of Ethiopia is a specialized project financing bank that provides medium and long-term loans. The repayment periods for such loans can extend up to twenty years, depending on the nature of the projects. DBE's loans are highly leveraged since they represent 75% of the total capital requirement of the project in normal cases. DBE funds projects that are important for the country's long-term economic growth and align with the priority agendas of the regimes at various times. DBE, as a specialized financing bank, has a huge role in the development process and the achievement and fulfillment of the national development agenda; it catalyzes the economic development of the country (DBE, 2018). The bank has been playing a central role in promoting the overall economic development of the country since its establishment (DBE, 2016).

DBE has thirteen districts for corporate loaning units and one project rehabilitation and loan recovery directorate, which administers and rehabilitates sick projects. The corporate credit directorates handle loans that exceed the district's sanction limit of $25 million. Corporate credit processing has four directorates, which are customer relationship management directorates I, II, III, and IV, which handle forms 25–150 million and above 150 million birrs (DBE, 2016). Thus, this study will focus on projects financed by DBE at the head office, which are projects with total loan amounts above $25 million.

A project can be considered any series of activities and tasks that have a specific objective to be completed within certain specifications and have defined start and end dates (Kerzner, 2009). Project management involves five processes, namely: project initiation, project planning, project execution, project monitoring and control, and project closure. Successful project management can then be defined as having achieved the project objectives within time and budget while utilizing the assigned resources effectively and efficiently. Determining whether a project was successful or not is not nearly as easy as it might seem because there are numerous perspectives on what a project's "success" is (managementhelp.org). Projects seem to be the major vehicle to

deliver development; hence, it is critical to understand their success factors (Assefa, Rivera, & Vencatachellum, 2013).Ethiopia, as one of the developing countries, has designed and launched so many development projects that are carried out through the participation of both private investors and government development organizations to utilize scarce financial resources (mainly from foreign grants and loans and domestic savings) optimally. For the successful implementation of these projects, the government organized so many ministry offices and agencies to provide technical assistance and arranged for project finance with subsidized interest rates since project finance is much riskier than commercial loans.A major player in sponsoring infrastructure projects and providing financing in developing countries, the World Bank defines project finance as the "use of non-recourse or limited-recourse financing." Further defining these two terms, "the financing of a project is said to be *non-recourse* when lenders are repaid only from the cash flow generated by the project or, in the event of complete failure, from the value of the project's assets." Lenders may also have *limited recourse* to the assets of a parent company sponsoring a project. Non-recourse lending is common in project finance; it is likely to use a limited liability special purpose for the project, which also provides a way in which equity can be raised (World Bank, 2016).DBE has been the main strategic government bank for the last hundred years, specializing in project financing, according to the above definition. DBE has financed long-term loans for up to twenty years and is highly leveraged, with debt accounting for 75% of total capital requirements in relatively normal cases for projects important for the country's long-term economic growth in line with the priority agendas of the regimes at different times (DBE, 2016). It also finances a very large loan based on project financial requirements that extends up to 25% of its total capital to a single borrower. The bank charges a subsidized simple interest rate of 12% and has an incentive of 9.5% for projects that are engaged in export activities and those involved in import substitution sectors, even though the project financing is very risky. Because of the specific nature of projects, from finance to liquidation, the possibility of economic, political, and social change, the requirement of costly information for credit appraisal and management, and the involvement of so many participants from implementation to operation, this strategic mission is the driving force behind almost all large establishments in Ethiopia. However, within the long journey of project finance, DBE has been exposed redundantly to poor asset quality as a result of project failure.

The study assesses and addresses the impact of implementation delays on the Development Bank of Ethiopia-financed projects. It is clearly stated in the bank's credit policy that the major aim of the Development Bank of Ethiopia is to extend medium to long-term loans for investment projects in the priority areas set by the government. All projects financed by the bank were approved taking into consideration the project appraisal and its implementation schedule; however, a good number of projects have not been executed in line with the designed implementation schedule. This trend has a significant impact on project operational success and the bank's loan recovery performance (DBE, 2018).

According to the annual report of the bank for the fiscal year 2017/18, the non-performing loan ratio of the bank went up to 39.67%, which means the bank's NPL ratio was in a critically deficient condition. As per standards, guidelines, and rating systems for AADFI and NBE, asset quality is considered a critically deficient condition when the NPL ratio is greater than 20%. The main reason cited in the report that contributed to the bank's increased NPLs has been projected implementation delays. Several causes may be identified as contributing to the implementation delays of projects. This research study intends to identify those causes that hinder projects from being implemented within the scheduled time in the case of projects financed by the Development Bank of Ethiopia.

1.2 Statement of the problem

Project implementation success has been defined in many ways, including a wide variety of criteria. However, in its simplest terms, project success can be thought of as incorporating four basic facts. A project is generally considered successfully implemented if it comes in on schedule (the time criterion), on a budget (the monetary criterion), achieves all the goals originally set for it (the effectiveness criterion), and is accepted and used by the clients for whom the project is intended (the client satisfaction criterion) (Kerzner, 2009).

Delays in project implementation and cost overruns have become commonplace throughout the world, particularly in developing countries (Abebit, 2013). As per the 4th quarter performance report of the year 2018 of the bank, most DBE-financed agricultural and industrial projects are lagging what was planned in the feasibility studies submitted by the project owners and the appraisal plan of the bank. Because of this, the project owner frequently requests additional loans and loan repayment rescheduling. In addition to this, it is currently common to watch foreclosure

advertisements of different banks on television every day, and this simply indicates that many projects could not perform well. Besides, most huge projects financed by DBE are under terrible conditions, especially agricultural sector projects (DBE, 2018). This was the reason why the bank had been forced to stop lending to the agricultural sector. As per the 4th Quarter and Annual Performance Report of the bank for 2018, the NPL ratio was 39.67%; the ratio increases from time to time. The NPLs ratio trend analysis of the bank shows that 10.59%, 12.87%, 17.65%, 24.98%, and 39.67% in the fiscal years 2013/14, 2014/15, 2015/16, 2016/17, and 2017/18, respectively. Accordingly, the main reason mentioned for the fresh entrants into NPL is the effect of the prolonged time taken to implement the project.

Delay hurts the project's success in terms of time, cost, and quality. Many projects experience extensive delays and thereby exceed their initial cost estimates. In addition to affecting the economic feasibility of a project's capital baseline, extensive delays could cause grounds for disputes or lawsuits between owners and contractors, increased costs, a loss of productivity and revenue, and contract termination. Generally, delays are known to result in project failures, increased costs, and losses of productivity and revenue, which in turn affect the economy of the nation (OKAFOR, 2016).

It is well known that the Ethiopian government is working heavily on attracting foreign direct investment into the country in the first and second growth and transformation plans. The government is doing this to shift Ethiopia's economy away from agriculture and toward industry-led agriculture. In the first GTP, most foreign investors invested in the country, especially in the agro-processing, textile, and agriculture sectors. The Ethiopian Development Bank, as directed by the government, finances the majority of foreign projects invested in the country.

DBE gives due attention to the government-focused priority areas that can generate foreign currency for the country and reduce unemployment. To maintain its objective, the bank needs to maintain its sustainability by strengthening its loan recovery. Projects that could not be implemented as per the plan have requested loan repayment rescheduling, which has prolonged the loan repayment period and reduced the current loan repayment status. This has an impact on its sustainability and the performance of credit facilities for other projects. The project implementation problem is a major problem facing the bank. Hence, to reach possible solutions, the causes of project implementation delay have to be identified.

Most research studies conducted so far are mainly specific to project implementation delays of infrastructure projects in the construction sector and conducted in other African countries, like Kenya, Sudan, Ghana, India, and other developing countries. When we come to Ethiopia, compared to its impact on the country's economy, the area is not yet well addressed and researched. In fact, a handful of studies have been conducted so far to identify the cause of project implementation delays. Among these studies, the one conducted by Abebit (2013), titled "Causes and effects of project implementation delay on loan recovery performance: The case of selected projects financed by the Development Bank of Ethiopia," is worth mentioning. However, the study used a descriptive method of data analysis, which has no power to make recommendations. This is because the result of descriptive statistics has less power to forecast the prospects and identify the determinants, as well as to indicate the level of their significance. This study, therefore, contributes to filling this gap. As a major departure from the abovementioned studies, the current study uses an econometrics model to identify the cause of project implementation delay related to the bank, borrowers, and external factors that have led to projects lagging behind their schedule.

1.3 Research Question

To address the problem statement, the following key research questions are set:

¬ Which bank-specific variables have significant causes for project implementation delay?

¬ What are the major client and promoter variables that contribute to project implementation delays?

¬ What are the major external or macroeconomic variables causing project implementation delays?

1.4 Objective of the Study

1.4.1 General Objective

The general objective of the study is to investigate the major cause of project implementation delays for those projects financed by the Development Bank of Ethiopia.

1.4.2 Specific Objectives

The specific objectives of the study were:

¬ To investigate bank-related variables that significantly cause project implementation delays.

¬ To investigate client-related bank variables that significantly cause project implementation delays.

¬ To examine external economic variables that significantly cause project implementation delays. The factors are cost escalation, change in the credit policy of the bank, change in the lending interest rate, and foreign exchange fluctuation.

1.5 Significance of the Study

A lot of research has been conducted on delays in construction projects, and most of them are performed abroad. Little attention was paid to the subject in Ethiopia, particularly in DBE. Regarding the impact that project delay causes, studies should be done and given attention to identify those delay factors and propose mitigation mechanisms. DBE, as a strategic government-owned institution, has a great role in the country's economy. So the implementation of its projects as planned is a great success for the country too. Investigating the causes of project delays benefits the bank, shareholders, project owners, and, ultimately, the country.

The Development Bank of Ethiopia faces project implementation delays in its projects. This delay leads to cost overruns, low loan repayment recovery performance, contract termination, and project failure. Due to such adverse effects, the bank may lose its sustainability unless those cause factors are identified. Hence, project implementation delay is a major headache for the bank, and investigating the major causes of project implementation delay is crucial.

Moreover, identifying major factors of project implementation delay for DBE-financed projects and measuring their significance in leading to project failure help the bank select the focus areas in credit management. The strategies to be proposed in this study may help the bank reduce project delays by applying them to its project due diligence assessment, appraisal, implementation, and follow-up processes.

This study provides policy recommendations by identifying those causes; contribute some research avenues for those researchers interested in this subject matter.

1.6 Scope of the Study

The study focuses on DBE-financed projects in the core processes of the bank at the head office level, which is the Customer Relationship Management Directorate I to IV and the Project Rehabilitation and Loan Recovery Directorate. The study includes types of projects from priority areas in which the bank is providing credit such as Agriculture, Agro-Processing, and Manufacturing. Moreover, the study assesses projects that are under implementation, and operational and those projects which face a problem and are found under the Project rehabilitation and loan recovery directorate.

1.7 Limitations of the study

Due to time, data, and cost constraints, the paper is limited to DBE-financed projects. It would have wider insights if the paper could incorporate or address public projects and could dig out the major causes that hinder mega projects from being implemented as per the schedule so that it could recommend possible mechanisms to mitigate the problem.

It is known that it is hard to get consolidated data from government organizations in the country to make the research. To conduct such a comprehensive study, more resources will be required, including more time, a larger budget, more knowledge, and government support. Therefore, this research is limited to DBE projects due to the reasons mentioned.

1.8 Organization of the Study

The remaining parts of the thesis are organized as follows: The second chapter deals with a theoretical and empirical literature review related to the topic. The third chapter of the paper describes the methodology. The fourth chapter deals with the empirical results and discussions that are presented. Finally, the last chapter constitutes the conclusions and recommendations part of the thesis, and lastly, references and an appendix are attached.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Theoretical Review

2.1.1 Project Definition and Concepts

A project can be considered as any series of activities and tasks that: have a specific objective to be completed within certain specifications, have defined start and end dates, have funding limits (if applicable), consume human and nonhuman resources (i.e., money, people, equipment) and are multifunctional (i.e., cut across several functional lines) (Kerzner,2009).

Projects are essential to achieving the development objectives of countries and are considered "cutting-edge for development" (Gittinger, 1984). Projects are the basic building blocks of development. Without successful project identification, preparation and implementation, development plans are no more than wishes, and developing nations would remain stagnant or regress.

Project success includes completion: Within the allocated time; within the budgeted cost; at the proper performance or specification level; with acceptance by the customer/user; with minimum or mutually agreed upon scope changes; without disturbing the main workflow of the organization; without changing the corporate culture (Kerzner, 2009).

According to (Gittinger, 1984) 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 plan as noted above.Projects in such a context are the concrete manifestations of the development plans and programs at a specific place and time. One can think of projects as subunits and bricks of programs, which constitute a component of the entire national plan. Either public organizations or private establishments can implement them. As per the Development Bank of Ethiopia, policy projects are financed from two major sources: Equity and Debt.

A project is delivered to quality, time, and cost specifications, and to realize them, proper organization of resources is crucial (Nwankwo, 2006). This need for proper organization of resources forms the concept of project management. Project management has been defined as

managing and directing time, materials, and costs to complete a particular project in an orderly and economical manner, to meet established objectives in time, and budgeted amount, and to achieve technical results (Ntamere, 1995). It can also be defined as the planning, directing, organizing, and managing of a company's resources for a relatively short-term objective.

Project management is crucial to the development of businesses and enterprises because it offers a platform for harnessing and integrating the various components of resources, labor, and communication toward project success. It evolved from the need for management to stay informed about all aspects of an organization's activities and commitments given the complexity of the organizational structure. It is dynamic as it can change its composition to suit the needs of the project wherever necessary (Nzekwe, Justina, Oladejo, Esther, Emoh, & Fidelis, 2015).

2.1.2 Project Life cycle /Phase of a project

A project life cycle is the series of phases that a project passes through from its initiation to its closure (PMI, 2013). The phases are generally sequential, and the management and control needs of the organization or organizations involved in the project, the nature of the project itself, and its area of application determine their names and numbers. Functional or partial objectives, intermediate results or deliverables, Specific milestones within the overall scope of work, or financial availability can break down the phases. Phases are generally time bounded, with a start and ending or control point. A life cycle can be documented within a methodology. The project life cycle can be determined or shaped by the unique aspects of the organization, industry, or technology employed. While every project has a definite start and end, the specific deliverables and activities that take place in between will vary widely with the project. The life cycle provides the basic framework for managing the project, regardless of the specific work involved (PMI, 2013).

Most important in this phase is a preliminary analysis of risk and the resulting impact on time, cost, and performance requirements, together with the potential impact on company resources. The conceptual phase also includes a "first cut" at the feasibility of the effort (Kerzner, 2009). In the initiation phase questions like why the project is needed are the project feasible, who are possible partners in this project, What should the results be, and What the boundaries of this project (what is outside the scope of the project) would be answered.

In this phase, the requirements that are associated with a project result are specified as clearly as possible. This involves identifying the expectations that all of the involved parties have concerning the project result (PMI, 2013). Before any person or organization considers investment in a new project, before a contractor can begin to prepare a tender for undertaking work for a customer, or before a company executive can be asked to accept responsibility for managing an internal IT or management change project, the project requirements must be established, documented, and understood. The project has to be defined as accurately and fully as possible before it is allowed to start. The investor must know how the money will be spent and what benefits can be expected as return. The contracting organization needs to know what it is bidding and what its commitments would be in the event of signing the contract. The manager of an internal IT or management change project cannot be expected to carry it out successfully if the requirements are not adequately defined in a project charter or specification.It is mainly a refinement of the elements in the conceptual phase and requires a firm identification of the resources required and the establishment of the realistic time, cost, and performance parameters (Kerzner, 2009). This phase also includes the initial preparation of documentation necessary to support the system. For a project based on competitive bidding, the conceptual phase would include the decision of whether to bid, and the planning phase would include the development of the total bid package (i.e., time, schedule, cost, and performance). Because of the amount of estimating involved, analyzing system costs during the conceptual and planning phases is not an easy task. During the development phase, everything that will be necessary to implement the project is arranged. Potential suppliers or subcontractors are brought in, a schedule is made, materials and tools are ordered, instructions are given to the personnel, and so forth (DANS, 2006). The development phase is complete when the implementation phase is ready to start. All matters must be cleared for the parties that will be carrying out the implementation.

In some projects, particularly smaller ones, a formal development phase is probably not necessary. The important point is that it must be clear what must be done in the implementation phase, by whom, and when.The implementation phase integrates the project's products or services into the existing organization. If the project was developed for the establishment of a marketable product, then this phase could include the product life-cycle phases of market introduction, growth, maturity, and a portion of deterioration. Implementing a project means carrying out the activities proposed in the application form to achieve the project objectives and

deliver results and outputs (PMBOK Guide, 2013). Its success depends on many internal and external factors. Some of the most important cases are a very well-organized project team and effective monitoring of project progress and related expenditures.

The project takes shape during the implementation phase. It involves the construction of the actual project result. Programmers are occupied with encoding, designers are involved in developing graphic material, contractors are building, and the actual reorganization takes place. According to (Jason Charvat, 2003) it is during the implementation phase that the project becomes visible to outsiders, to whom it may appear that the project has just begun. The implementation phase is the doing phase, and it is important to maintain the momentum. At the end of the implementation phase, the result is evaluated according to the list of requirements that were created in the definition phase. It is also evaluated as per on the designs.

The project management team has to have an efficient management system and always has to be flexible to handle current needs and changed situations, as the project is rarely implemented exactly according to the initial plan.Project implementation consists of carrying out the activities to deliver the outputs and monitoring progress compared to the work plan. Monitoring can be defined as control of the project implementation in order to keep the project on track and achieve the results of the project. (Jason C., 2003) The project manager is responsible for the regular monitoring of the project, but the partner organizations should also actively contribute to the effective monitoring of the project.The project application that was approved by the program is the baseline for project implementation. The main document helps the project manager track progress. The project application contains project objectives, a description of the activities for achieving them, and measurable output and results in indicators to show they have been achieved. However, you should not expect the project to be implemented exactly as planned.

No matter how good the original plan is, there will always be some deviation during implementation. This should be anticipated, and project management aims to track this deviation, make sure it stays within the scope of the project, and redirect activities to get back on track. The further the project goes into implementation, the more important it is to track things systematically to avoid drifting away too much from the original outline and falling outside the scope of the project. Remember also that many modifications will be improvements, and that it is this dynamic aspect of project management and the ability to adapt to modifications that are likely to lead to success.

Modifications to objectives often happen in small steps (called "scope creep age") and do not seem to have a major impact. When these small modifications add up, though, they can put the project seriously off target. The project manager should compare all decisions on modifications to the original objectives to make sure this does not happen. Programs do not generally allow modifications to objectives – because it would mean they were getting a different project from the one they had approved.

Project timetables often fail to take into account the time needed for certain administrative procedures that need to be completed before the project can proceed. Two typical examples are obtaining the planning permission for construction work and carrying out public procurement procedures that helps in contracting external services. Both procedures are unavoidable and need to be included in project planning. Some factors cannot be planned for. Bad weather is a typical example of this in infrastructure projects. The only thing to do is including this type of problem in project risk assessments and try to develop project activities so all project progress does not depend on the completion of the activities that may be affected. Another common externality, in particular when it comes to implementation work, is if the project's work depends on the work of other stakeholders. (Jason C., 2003)   Here is a typical example when the project's material investment represents part of a large national scheme: If the large project is delayed, it usually obstructs the project plan as well. In this case, leaving some leeway for unforeseen delays or regular updates on the progress of the other project might be necessary.Although it is extremely important, the follow-up phase is often neglected. During this phase, everything is arranged that is necessary to bring the project to a successful completion. Examples of activities that fall in the follow-up phase include writing handbooks, providing instructions and training for users, setting up a help desk, maintaining the result, evaluating the project itself, writing the project report, holding a party to celebrate the result that has been achieved, transferring to the directors, and dismantling the project team. (Kerzner, 2009)

2.1.3 Establishing project objectives

Define the basic objectives of the project, including what is to be done (specific results), how (quantity, quality, or special requirements), when (deadline), and how much it will cost. Clearly define the project objectives in terms of the desired results. The project objectives should

describe what the project will accomplish. Ask yourself, ''If we achieve these stated objectives, will we consider the project a success?'' (Kerzner, 2009)

Cost: The money and resources required to get the job done, including people, equipment, and other allocations.

Time: the time required to get the job done.

Scope: A description of the features and functions of the products or services to be provided by the project. Define all the deliverables and their features and functions. A deliverable is something provided at the end of the project, such as a product, service, process, or plan.

The project objectives must define the completion condition, describing what will and will not have been completed when the project is finished. This provides measurable criteria for project success. These objectives define not only the project, but also the responsibilities of the project manager, who is measured against the objectives and held accountable for them. The project objectives must be SMART (Specific, Measurable, Agreed upon, Realistic, and Time-limited):

The triangle in Figure 2-1 shows the three principal aspects of a project: time, cost, and scope. The project manager's job is to keep these three aspects in balance. If time is short the resources (cost) must increase or scope must decrease or both. If funds are short the time can be extended or scope reduced or both. If the scope is large the cost will be greater or the time must be extended, or both.

Figure 2.1: The project objectives triangle: Keep the Objectives in Balance
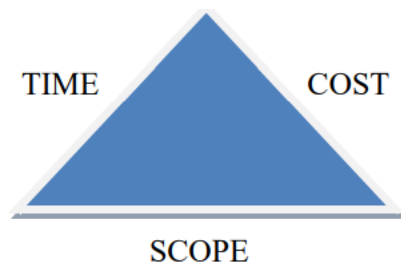
Source: (Kerzner, 2009)

In an ideal world, project objectives would remain constant throughout the life of the project. In reality, however, the relative importance of each objective can change over time. It can be fatal to overemphasize the schedule when funds have become critical. The skillful project manager

aims for a balanced emphasis, remaining flexible to adapt to new circumstances as they occur (Richman, 2002)

2.1.4 Definition and concept of Project Implementation Success

Project implementation success has been defined in many ways including a large variety of criteria. However, in its simplest terms, project success can be thought of as incorporating four basic facts. A project is generally considered to be successfully implemented if it comes in on schedule (time criterion) and comes in on budget (monetary criterion). Achieves all the goals originally set for it (effectiveness criterion). Is accepted and used by the clients for whom the project is intended (client satisfaction criterion). (Kerzner, 2009)

2.1.5DefinitionandConceptof Project Failure

There is no commonly accepted definition for project failure. Different authors define project failure from different perspectives and contexts. A Project is considered to have failed when it has not delivered what was required, in line with expectations. As a result, for a project to succeed, it must be completed at the lowest possible cost, with the expected quality, on time, and with the benefits outlined in the business case. Even if a project delivers everything detailed in the project designs, it may still be considered a failure if vital elements required by key stakeholders are missing. Accordingly, project success and failure are 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 beyond 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 its 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; 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 a 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 to McConnell's 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 the National Bank of Ethiopia Number SBB/48/2010 stipulates that those financed projects that failed to pay the due loans for more than three years be classified as loss loans and obliged the bank to hold 100% provision.

DBE's definition of project success includes meeting the project objectives in addition to expectations of fulfilling debt obligations that are stipulated in foreclosure law and non-performing directives since the strategic mission of DBE goes far more than loan collection and fulfilling its role as a development partner. The success of DBE-financed projects is therefore critical in terms of their overall contribution to national economic growth.

2.1.6 Project Financing Definition and Concept

Chiocha (2011) defines project financing as the raising of funds to finance an economically separable capital investment project, in which the providers of funds look primarily to the cash flow from the project as the source of funds to service their loans and provide the returns of equity invested in the project. Matesehe (2013) also defines project financing as the financing of a particular economic unit in which a lender is satisfied to look initially to the cash flow and earnings of that economic unit as the source of funds from which a loan will be repaid and to the assets of the economic unit as collateral for the loan.

A major player in sponsoring infrastructure projects and providing financing in developing countries, the World Bank also defines project finance as the "use of non-recourse or limited-recourse financing." Further defining these two terms, "the financing of a project is said to be *non-recourse* when lenders are repaid only from the cash flow generated by the project or, in the event of complete failure, from the value of the project's assets. Lenders may also have *limited recourse* to the assets of a parent company sponsoring a project."

In building a more robust picture of project finance, it is helpful to articulate the full list of characteristics and to contrast project finance with corporate finance. Not every project financing Will have every characteristic, but the following provides a preliminary list of common features of project financing (Project financing: Global Trade Funding, 2016).

Capital-intensive: Project financings tend to be large-scale projects that require a great deal of debt and equity capital, from hundreds of millions to billions of dollars.

Highly leveraged and long term: The transactions tend to be highly leveraged with debt accounting for usually 65% to 80% of capital in relatively normal cases. The tenor for project financings can easily reach 15 to 20 years.

Independent entity with a finite life: contemporary project financings frequently rely on a newly established legal entity, known as the project company, which has the sole purpose of executing the project and which has a finite life so it cannot outlive its original purpose.

Non-recourse or limited recourse financing: Since these newly formed entities do not have their credit or operating histories, lenders must focus on the specific project's cash flows. That is why "the financing is not primarily dependent on the value of the physical assets involved or collateral." Thus, credit evaluation or investment decision processes, as opposed to corporate financing, are based mainly on the feasibility study of the project and its sensitivity to the impact of potential adverse factors."

Controlled dividend policy: To support a borrower without a credit history in highly leveraged projects, the project's income goes to servicing the debt, covering operating expenses, and generating a return on the investors' equity. This arrangement usually has contractually binding.

Many participants: It is not uncommon to find a large number of parties involved in the project's implementation. This situation requires the allocation of risk through establishing contractual arrangements like a turnkey agreement between the project company and the other participants.

Costly: Raising capital through project finance is generally more costly than typical corporate finance avenues. The greater need for information, monitoring, and contractual agreements increases transaction costs. Furthermore, the specific nature of the financial structures also entails higher costs and can reduce the liquidity of the project's debt. Margins for project financings also often include premiums for the country and political risks since so many of the projects are in relatively high-risk countries.

2.1.7 Overview of DBE and its Project Financing Schemes

The Development Bank of Ethiopia is one of the state-owned financial institutions engaged in providing short, medium, and long-term credits over the last 107 years. The Bank has been playing a central role in promoting the overall economic development of the country since its

establishment. In it's over a century-old service, DBE has established recognition at the national and international levels. Nationally, it is the sole Bank with reputable experience in long-term investment financing. Internationally, it is recognized as an important on-lending channel for development programs financed by bilateral and/ or multilateral sources.

The recent focus of the government with the revised credit policy of DBE is to provide medium and long-term loans for investment projects in the government priority areas such as commercial agriculture, agro-processing, manufacturing industries, mining, and extractive industries. Recently, the Bank has been given additional responsibility, to support the missing middle, SMEs by providing capital goods in the form of lease financing. In other words, the Bank provides lease-financing services to those small and medium enterprises so that those enterprises could play a critical role in the nation's economy.

The Bank's project financing scheme is mainly involved in providing financial resources (loans) for the establishment of investment projects. Providing credits incorporates various activities like document screening, KYC (Know Your Customer) or due diligence assessment, project appraisal and viability checking, project approval, and loan disbursement. In the feasibility study for the project, the budget required for the establishment of the project is carefully allocated. The budget required to establish the project is the Bank's loan plus the equity contributions of the promoter or borrower and it is usually allocated for building and construction, the purchase of machinery and equipment, working capital requirements, and pre-operating expenses these budgets are portrayed in the investment schedule of the project.

The project to be established its implementation schedule that had been set during its planning stage. However, most of the projects financed by DBE are not able to meet their 21 implementation schedule due to various factors. Hence, project implementation delay is the prevailing challenge in DBE-financed projects.

2.1.8 Due Diligence or Know your Customer (KYC) Assessments of DBE

Due diligence, or KYC, is the assessment that will be undertaken by the bank to identify the integrity of the borrower, protect the bank from entering into relationships with inappropriate borrowers, and check the borrower's creditworthiness (DBE, 2016).

According to (IFC, 2019) KYC undertakings on applicants shall include, among others, data on the character of the applicant, credit information of the applicant, sources of capital or equity of the applicant, business track records of the applicant, managerial competence of the applicant,

whether or not the applicant has engaged on tax evasion, whether or not the applicant has engaged in a breach of the foreign exchange transaction, if applicable and whether or not the applicant has engaged in mal-practices related to checking accounts or in any other illegal and unlawful dealings, if applicable.

2.1.9 DBE Project appraisal process

The goal of project appraisal is to assess the project's technical, market, financial, and managerial viability, as well as its socioeconomic benefits. (Don Dayananda, et al., 2002) The Appraisal study includes

i. **Executive summary** of the appraisal document;

ii. **Promoter background** including credit information;

iii. **Project background**: include Production performance of projects, the financial performance of projects, and Key success and risk factors of projects

iv. **Market aspects of projects**: such as Demand and supply analysis on products or services of projects, Market prospects and major marketing areas of the proposed products or services, Marketing strategy and arrangements for the products or Services, and Price analysis for the products or services of the project.

v. Strengths, weaknesses, opportunities, and threats (**SWOT Analysis**) of projects;

vi. **Technical assessment**: Location and site, Project engineering, Availability of utilities, Availability of inputs, Production process and system of productions, Project implementation plan, and Environmental impact assessment of projects.

vii. **Project management**: The organizational structure of projects, Technical capacity of management of projects, and Human resource requirement and availability issues.

viii. **Financial analysis**: Investment costs, working capital requirements, Pre-operating costs, Financing scheme, Equity requirement of the customers, Revenue estimates, Operating costs, Projected financial statements, Viability and measures of project worthiness, Working capital determination, Economic and social benefits and costs, Conclusion, and recommendations, Loan repayment schedules, etc. are also included as part of the appraisal.

2.1.10 Compliance Checks for Loan Disbursement/Equity Utilization

The next step in the loan administration process after the signing of the loan contract is a compliance check for disbursement/equity release to ensure that the borrower has fulfilled all the requirements as per the agreement stipulated in the loan contract (DBE, 2016). In the loan

disbursement/equity utilization check exercise, however, the borrower's equity contribution must be utilized first. If the funds disbursed are not used for the project as stipulated, for whatever reason, this shall be considered an event of default and the Bank has the right to take legal measures.

2.1.11 Project supervision and Follow-up

The purpose of project follow-up is to ensure that the financed projects are properly implemented and operating; Project follow-up also helps to provide technical assistance as and when required. As per DBE credit policy, all projects financed by the Bank should, therefore, be properly followed up and complete follow-up reports completed on the project at least twice a year. Moreover, Projects deemed unstable, that have been delayed from the schedule and exhibited unreasonably high cost overrun should be followed up more frequently.

2.1.12 Cause of Project Implementation Delay

"Implementation: The process of moving an idea from concept to reality" (Webster's Collegiate Dictionary) in this stage challenges exists since it is about to come from an idea into reality. Project implementation consists of challenging processes in the project management plan to satisfy the project specifications. This involves coordinating people and resources, as well as integrating and performing the activities of the project following the project management plan (PMI, 2013). The ability to implement projects can be more important than the project itself. Investors have come to realize that implementation is more important than the vision of the project (Charan & Colvin, 1999).

Things may not come as planned, there are several causes of project implementation delay and these have been discussed from different perspectives by different authors. (Mohamed, 2015) listed the following reasons for implementation delays:

As per the study conducted by (MOHAMED, 2015) implementation delays, have the following effects;

Acceleration of losses: When construction projects are delayed, the organization loses a lot of money and time in terms of increased costs and not being able to meet its Customers' demands.

Cost overrun: This is one of the most common effects of construction delays. Construction delays might lead to an increase in the price of construction materials as well as the price of labor.

Time overrun: Delay will cause the project to fall behind schedule. This is detrimental to the owner because he might not be able to meet up with his objectives on time.

Disputes: Conflict will arise amongst project participants as to who will bear the responsibilities because of the delay.

Negative social impact: Delays in many community construction projects will have negative effects on the social structure such as riots strikes and boycotts.

Loss of Confidence: This will mostly affect contractors and consultants. This is because when projects are delayed without any tangible explanations, the owner will start questioning their expertise. This alone can cause them to lose many contracts to competitors.

Bankruptcy: Construction projects are delayed possibly due to finance, the organization will utilize most of its assets to complete the projects. If the delay persists, in an attempt to finish the project, the company may run out of cash.

Litigation: If there is no agreement among the project, participants as to who will bear the responsibilities of the project delay, either of them may file a lawsuit against the other.

Total Abandonment: Prolonged project delays might lead to abandonment by the owner or contractor. This may be due to inadequate finance or expertise to complete the project successfully.

2.1.13 Implementation activities and Schedule of the Bank

The Development Bank of Ethiopia extends investment credit to creditworthy borrowers and projects that have received a thorough appraisal and are found to be financially and economically viable and socially desirable projects. As of June 30, 2018, the total number of projects administered at head office was 203; of which 35 loans are under the project rehabilitation and loan recovery Directorate, 32, 34, 41, and 61 of them are in the Customer relationship management Directorate I, II, III and IV respectively. The four CRMDs are responsible to handle the loan from the application to the final settlement of the loan. Therefore, these loaning units handle the project implantation stage, completion, and operational stage. However, if the project is not going as per the plan or couldn't repay the loan as per the agreed term, or if it exhibits any event of default the project is considered sick and transferred to PRLRD (DBE, 2018).

Table 2.1: Implementation Activities Start and Completion Time planned by the bank

Sr. no	Major Activities	Starting time planned	Actual	Completion time planned	Remark actual
1	Loan processing	Apr,2016	Apr,2016	Apr,2016	Apr,2016
2	Electric power installation	May , 2016		Jun ,2016	
3	Building and construction	May , 2016	Nov ,2016	Oct,2016	
4	Procurement of machineries and equipment	May , 2016	July,2016	Sep,2016	
5	Procurement of vehicles	May , 2016		Sep,2016	
6	Procurement of generator	July,2016		Oct,2016	
7	Procurement of imported raw materials	July,2016	July,2016	Oct,2016	
8	Installation of machineries and equipment	Oct,2016		Nov, 2016	
9	Procurement of office furniture and equipment	Nov,2016		Dec,2016	
10	Procurement of local raw material	Nov,2016	June,2016	Jan,2016	
11	Startup of trial production	Dec,2016		Dec,2016	
12	Commencement of operation	Feb,2016		Feb,2016	

The table taken from one of DBE project from the manufacturing sector as sampling to demonstration the major implementation activities and its schedules.

2.1.14 Factors Minimizing Project Implementation Delay

To successfully implement projects the top five factors are clearly defined goals and directions, competent project team members, clearly defined roles and responsibilities, Communication and consultation with stakeholders, and Compliance with the planned budget, time frame, and performance Criteria (Emil, Ioana, & Razvan, 2015). Project implementation is the most resource-consuming and visible phase of the project life cycle involving heavy financial outlay (Ubani, Nwachukwu, & Nwokonkwo, 2010). As such, appreciation of the requirements for

project implementation cannot be overemphasized. A model for successful project implementation was developed by (Slevin & Pinto, 1986). The ten-factor model collectively called the Project Implementation Profile (PIP) is presented below. Even though it is debatable if the factors outlined form "Universal" success factors for project implementation, it is reported that the model has been implemented based on strategies put forward by (Schultz, Slevin, & Pinto,1989), leading to a boost in success levels in the United States.

i. Project Mission: Goals and objectives of any project must be clearly defined at a very early stage in the project. Without this condition, success can hardly be attained as success is measured against the project mission. The project mission is like a beacon and only when it has been realized can the project be said to have been completed. The project should start with a statement of the plan and its objectives.

ii. Top Management Support: This is a very important factor. For any project to succeed, it must receive due support from Management as this support is very crucial to success. (Schultz & Slevin, 1975). Whereas project management represents the pathway for implementation of top management plans, it also depends on top management for authority or direction means that top management support is very important for project success (Beck, 1983). The commitment of top management to projects can go a long way to reduce any conflicts in the allocation of resources and ranking or priorities. Top management support manifests as the allocation of resources including time, personnel, and financial resources. It can go a long way to boost the morale of project managers in the project because they are sure of top management support in conflict situations.

iii. Project Schedule/Plan

Project schedule/plan refers to a specification of time schedules, milestones, and labor and equipment requirements. The importance of developing a project schedule cannot be overemphasized and several parallels between the stages of the implementation process have been drawn. The schedule must include an appropriate evaluation system so that actual performance can be judged against mere budgetary and time projections. The project schedule is a core component of the PIB model. The schedule must include a satisfactory measurement system as a way of judging actual performance against budget and time allowance.

iv. Client Consultation: An important provision of PIB is the clients' consultant. The client is anyone who may ultimately be making use of the outcome of the project. Clients' consultation is very important in project implementation. Maney (1975) showed that the degree of the client's involvement in project implementation affects their support for the project. In addition, according to Anyanwu (2003), a client consultant is the first step in change implementation. However, client consultation should be required throughout the project as there is a tendency to do away with this requirement after an initial client consultation activity.

v. Personnel Recruitment The utilization of human resources and expertise is an important aspect of the efficient management of any organization. Nwachukwu (1988) views the efficient utilization of human resources as a very big asset for any organization (Nwachukwu, 1988). This requirement cuts across both private and public organizations.

vi. Technical Tasks The necessity for personnel goes with a necessity for technological expertise to ensure adequate supervision of the project. Technical task essentially refers to the condition that both the necessary personnel and the prerequisite skills are in place in the project implementation team. Technical incompetence has been identified as a cause of inefficiency and cost ineffectiveness. The users of any technology need to be familiar with the mode of operation to avert risks to personnel and equipment.

Vii. Client Acceptance This is related to clients' consultants. No matter how well a project is carried out, the ultimate acceptance of a project depends on how well the client is carried along all through the stages of the implementation. Acceptance is a very crucial stage in project implementation, which requires that the ultimate user of the project should participate in its implementation, particularly in its Very early stages, but all through the project life. There is a likelihood of acceptance if the user is carried along in the early stages of the project.

viii. Monitoring and Feedback: Nwankwo (2006) emphasized the importance of monitoring and fine-tuning each stage of the project implementation. This means the necessity for key personnel to receive feedback on how the project is fairing in comparison with initial projections. Allowances must be made for adequate monitoring and feedback channels between the project manager and the user and between the project manager and top management. It is important in PIB to monitor not only the project schedule and budget but also the activities of the project implementation team.

ix. Communication: Communication is related to monitoring and feedback discussed previously. Proper and adequate communication channels are important for successful project implementation. Communication ensures that the project team functions very well within itself while also ensuring that the team maintains needed to contact and exchange with the rest of the organization, and the user. Though several modes of communication exist, verbal communication is a very efficient means, more than written communication. High-performing teams have such features as a high degree of administrative communication. Communication is not centered on the provision of feedback alone, but an exchange of vital information, communication of policy changes and new procedures, goals, updates, etc. Communication does not always standalone but is normally applied in the execution of other components of the PIB (Nwankwo, 2006).

x. Troubleshooting: Problems always arise in the course of project implementation and no matter how well-planned a project was initially, problems are often encountered in the day-to-day implementation. Conflict is bound to arise, and can be seen in a positive light as an indispensable force that can propel the wheel of success in project implementation.

2.2 Empirical Results and Facts
2.2.1 Empirical Evidence of other countries

So far, the researcher found one relevant article worked by (Mubila, Lufumpa & Mugerwa, 2000) on African Development Bank. Due to the shortage of research studies on causes of Bank-financed project failures, the researcher 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 projects done by two organizations [The Bull Survey (1998) and The Chaos Report (1995)] were reviewed.

2.2.1.1 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. The survey carried out on IT projects identified missed deadlines (75%), exceeded budget (55%), and inability to meet project requirements (37%) as the cause of project failure. The key findings of the survey reveal 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%).

2.2.1.2 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 considered cost overruns, time overruns, and content deficiencies.

The key findings of the opinion survey indicated that incomplete requirements 13.1%, lack of user involvement 12.4%, lack of resources 10.6%, unrealistic expectations 9.9%, lack of executive support 9.3%, changing requirements & specifications 8.7%, lack of planning 8.1%, didn't need it any longer 7.5%, lack of IT management 6.2%, technology illiteracy 4.3% and other 9.9% were the project impair factor. 30

2.2.1.3 Mubila et.al (2000)

Mubila et.al (2000) worked more or less on 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 determinants 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 the economic sector.

Moreover, they considered the macroeconomic performance of the country, such as increases in energy prices, GDP, inflation rate, and domestic and regional politics as an 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.

Moreover, the regression result by including cost and time overruns as explanatory variables of the level of the economic rate of return at completion resulted in little correlation between the economic rate of return at completion and the cost and time overruns. The researchers further extended the model to consider economic sector differences in project performance and the parameter estimation for the sectoral dummy was depicted as not significant.

To conclude the empirical evidence, except for the study worked on the African Development Bank by Mubila et.al (2000), the data collection and analysis methods used in others studies survey methods and descriptive statistics respectively, are appropriate for qualitative data collection and analysis. In statistical analysis of project success determinant, Mubila et.al applied the OLS Regression Model to correlate economic rates of return at appraisal (AERR) with

economic rates of return at completion (CERR) in a scatter diagram since they considered projects completed the project cycle for their study. To determine the significance of each factor for the probability of success or failure of projects financed by the Africa Development Bank, they applied the probit model using direct and proxy data to measure the determinant.

The area of Bank-financed project failure in general is not a focus area of research as it is shown in the empirical literature review and it is difficult to find any research work in case of

Development Bank of Ethiopia in particular as far as the knowledge of this researcher. Even though, the unique nature of projects requires studying project failure determinants concerning the credit processing system of DBE, the project-specific, macroeconomic, and sociopolitical context of Ethiopia.

The related studies executed by Mubila et.al (2000) on the Development Bank of Africa even is not exhaustive in including explanatory variables for project failure. It completely lacks the explanatory variables from the credit processing system of the Bank because of data problems. Moreover, the observation considered for their study is weak to explain the current causes of project failure, because they considered only projects that are already phased out for their data source.

2.2.2 Empirical Evidence of Ethiopia

Meaza (2015) conducted a study on the Causes of Project Implementation Delay in the Ethiopian Electric Utility Enterprise: The Case of Construction Projects in the Universal Electric Access Program. This study identified the major sources of delay in the implementation of construction projects in the Ethiopian electric utility enterprise. The study employed Qualitative data analysis using frequency and percentages as well as a qualitative description of interview responses. The results showed that 28% of the delays are due to factors related to the employers followed by 23% to factors associated with contractors. Delay in material supply and redesigning of plans accounted for 17% and 12% respectively.

(Yosef et al., 2007) had conducted a study titled Causes of Delays during Construction Phase of Road Projects due to The Failures of Contractor, Consultant, and Employer in Addis Ababa City Road Authority. The research was conducted to assess the causes of excessive delays in the completion of road projects during the construction phase due to the failures of the Employer, Consultant, and Contractor in Addis Ababa City Road Authority projects. Spearman rank

correlation coefficient from the Relative Importance Index (RII) analysis was used to test the agreement between different groups of respondents who participated in the questionnaire survey and to rank the three construction parties according to their responsibility area and importance as perceived by the respondents, which factor causing the delay of road projects. The research identified sixty-five causes of delay. Based on the results, the contractors have the highest percentage of responsibility area that causes the delay of about 40%; while the second was on the part of the Employer, which comprised 26.15%, and the consultant placed third at 23.08%.

The research study identified and ranked the top ten factors causing delays in construction projects in Addis Ababa City Road Authority. Which ranked Poor financial control of the project ranked 1stwith a Relative Importance Index (RII) of 0.905; Difficulties in financing the project by contractor ranked 2nd with a Relative Importance Index (RII) of 0.854; Type of project bidding and award (lowest bidder) ranked 3rd with RII of 0.850. Poor site management and supervision of contractor with RII of 0.839; Selecting inappropriate contractors with RII of 0.823; Lack of high-technology mechanical equipment with RII of 0.819; Inaccurate initial project scope estimate and Ineffective project scheduling with RII of 0.803; Weak control of the project progress with RII of 0.788 and the Contractor's staff is not adequately trained in professional construction management techniques with RII of 0.784 was ranked from 4th to 10th. The study concluded that the main party Contractor did not perform properly his duties and obligations leading to the main contributory factor causing the failure of the project.

2.2.3 Empirical Evidence of Development Bank of Ethiopia

According to the study made by Abebit (2013) on the Causes and effects of project Implementation Delay on Loan Recovery Performance (The case of selected projects financed by the Development Bank of Ethiopia) using the Relative Importance Index the factors for project implementation delay were ranked; The five most important causes of delays found to be a shortage of equity contribution; miss utilization of the disbursed fund; ineffective planning and scheduling of project by the owners; conditions for the effectiveness of the loan are not fulfilled in time to enable disbursement of loan and lack of comprehensives of feasibility study submitted by the project owners.

In general, there are so many researchers conducted in developing countries however, the study focuses on road and construction sectors. Particularly in Ethiopia, there are very few studies carried out on the cause of project implementation delay and they are mainly spotlighted on

government-owned projects. Even if the Development Bank of Ethiopia is the largest project and Investment financing bank in Ethiopia no special focus is given to the bank. In addition, the study conducted also used descriptive analysis, scientific model is not adopted, so they lack the power to forecast the prospects and to identify the determinants as well as indicate the level of their significance.

This study, therefore, will fill the research study gap in the area of the cause of project implementation delay, particularly in the Development bank of Ethiopia financed projects. The study used an econometrics model to identify the significant cause of the delays.

2.3 Conceptual Framework of the Study

From the theoretical and empirical reviewed so far, several causes are ascribed to project implementation delay. According to the above-stated empirical pieces of evidence, the delay factors in most projects are broadly categorized into three: namely, internal-related causes, client-related causes, and external-related causes (Abebit 2013).
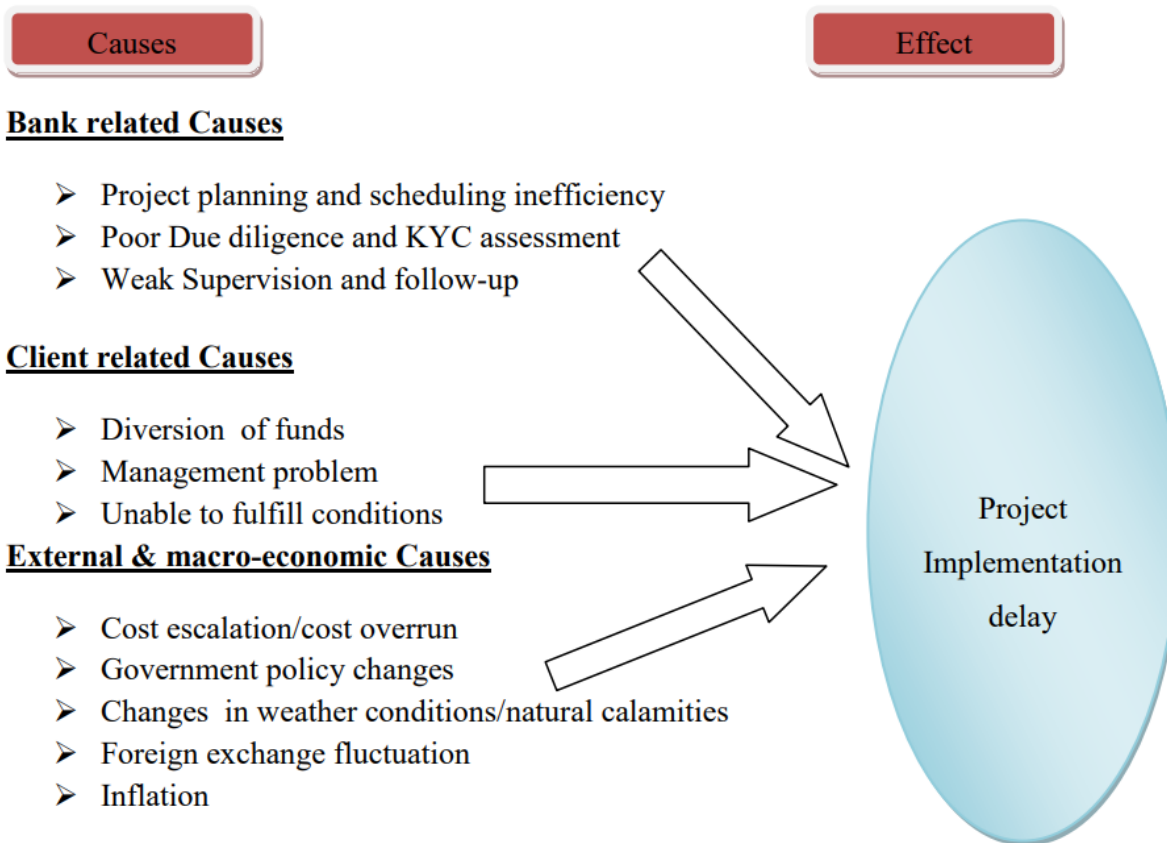
Figure 2.2: Conceptual framework diagram

Source: adapted from literature review (Abebit 2

CHAPTER THREE:

METHODOLOGY

3.1 Research Design and Approach

The choice of research design primarily depends on the objectives of the study that are going to be attained (Adebiyi, 2016). In this regard, a mixed research approach applied to address the problem stated and to achieve the objectives. Both descriptive and explanatory analyses will be conducted. A structured questionnaire survey would develop to get the opinion and understanding of the experienced respondents regarding project implementation. Secondary data collected from the projects file records, DBE quarter and annual performance reports, and follow-up reports of the bank.

3.2 Population and Sampling Size

3.2.1 Target population of the Study

The target populations of the study are the total number of projects of the bank found in the head office. Most of the loans, especially those of Mega Projects, are located in the Head Office. The lending limit of district offices is set at a maximum of Birr 25 million. Hence, due to this low lending limit of districts, more than 80% of the total loan portfolio of the Bank is found in Head Office. According to the information collected from all credit processing units of the DBE as of June 30, 2018, there are 203 projects. These projects are categorized by economic sectors.

3.2.2 Sample Size and Determination

Sample size depends on the nature of the universe (population), several classes proposed the nature of the study, type of sampling, and level of accuracy expected from the investigation (Kothari, 2007). To maintain the representativeness of the samples to all credit-processing units of the Bank and economic sector, 134 projects are considered in this study even though 100 projects at minimum are sufficient according to the simplified formula for proportions sample size determination at 95% confidence level, Yamane (1967). $n = N / [1 + N (e2)]$ Where n is the sample size, N is the population size, and e is the level of precision. The total population size is 203 $n = 203 (1+203(0.05)2 = 203/1.5075 = 134$……………………………………. . Sample size as discussed earlier to conduct the research study both primary and secondary data would employ. The descriptive analysis is used as a base for inferential statistics, so to analyze the

descriptive data 60 questionnaires were distributed, while for inferential statistics secondary data were used and the sample size for the secondary data is 134 projects.

3.2.3 Sampling Procedure Stratified

Sampling method is used in selection of projects for this study to ensure the inclusion of projects from all strata. First, projects are stratified by loaning units, project status and economic sectors in which they are categorized. Then, the required numbers of projects are selected from each stratum randomly.

3.3 Method of Data Collection

The Data was collected from both primary and secondary data through a developed questionnaire and different files of DBE. By reviewing DBE reports, individual project files, and other literature the information gathered as the causes of project delays and methods of minimizing the delays would be used to develop the questionnaire survey to collect data from the targeted respondent. A questionnaire survey was developed to get the opinion and understanding from the experienced respondents regarding the project's implementation delays problem.

3.4 Type and Source of Data

To undertake a comprehensive study both primary and secondary data would employ to conduct the research study. Primary data was collected through a structured questionnaire to supplement the secondary data. Secondary data would gather through the review of DBE working documents follow-up reports, and individual files of different projects from customer relationship management directorates, and PRLR directorates and by reviewing annual and quarterly reports of the bank.

3.5 Data Analysis

Data analysis is the application of reasoning to understand the data that have been gathered. In its simplest form, the analysis may involve determining consistent patterns and summarizing the relevant details revealed in the investigation (William, Barry, Jon, & Mitch, 2013). In order to undertake a discussion and analysis of the findings both descriptive and Econometric analysis was used.

3.5.1 Descriptive Analysis

Descriptive analysis is used to describe a situation, subject, behavior, or phenomenon. It is used to answer questions of who, what, when, where, and how associated with a particular research

question or problem. Descriptive studies are often described as studies that are concerned with finding out "what is". It attempts to gather quantifiable information that can be used to statistically analyze a target audience or a particular subject (Knupfer & McLellan, 1996). The data collected from descriptive research may be quantitative, qualitative, or both. Quantitative data is typically presented in the form of descriptive statistics that provide basic information such as the mean, median, and mode of a data set. Such quantitative data is typically represented in tables, graphs, and charts which make it user-friendly and easy to interpret. The data collected from primary sources were analyzed using descriptive analysis methods. To summarize the collected data and conduct analysis, appropriate descriptive statistics have been employed like percentages, tables, ratios, mean, and standard deviations.

3.5.2 Regression Analysis

Regression analysis is a scientific analysis through which various econometric models estimation can be carried out to identify the significance of variables as well as to evaluate the cause-effect relationship between the dependent variable and explanatory variables in a particular study. The descriptive analysis does not attempt to answer "why" and is not used to discover inferences, make predictions or establish causal relationships. Therefore, in this case, statistical inference can be undertaken, unlike descriptive analysis. Therefore, regression analysis has been carried out in this case. The significance of each explanatory variable has been tested and the appropriate interpretations have also been drawn based on the findings.

3.6 Model Specification

The nature of the data and the variables can determine the type of model to be employed. Especially, to know whether the regression line is linear or nonlinear identifying the predicted variable shall be an essential task. When the dependent variable has a binary response which is 0 or 1, non- linear regression model has to be used. The logistic regression or logit model is the most popular model to be adopted in such circumstances as it is easy to compute and interpret.

3.7 The Logit Model

The probability relation between the independent variable (Xi) and the dependent Variable (Yi) is explained using the following formula;

$Y_i = \beta_0 + \beta_1 X_1 + \cdots + \beta_{13}' X_{13} + \varepsilon$

The probability of a response is presented as where β_0 is a constant, β_i is the probability of a Response and 'X' is a vector of independent variables.

ε: is the error term of the model

Yi: Project Implementation status represented by dummy variable 0 for delay and 1 for Non-delay.

X1: Investment cost presented with total project cost, measured in Birr,

X2: Hard currency shortage presented 1 for available and 0 for shortage,

X3: Exchange rate Fluctuation on the project 1 if it is affected, 0 if it is not

X4: Price escalation 1 if it is affected, 0 if it is not

X5: utilization of loan 1 if the project is properly utilized the loan, 0 if not properly utilized X6: Appraisal work done by the bank 1 if the project is properly appraised 0 if not; it is given by a number of reallocation, additional and rescheduling done to the project because of the appraising work.

X7: Design Change dummy variable 1 if the project changes the original design, 0 if not

X8: Competency of the promoter ranked as per the due diligence format and guideline of the bank 4 = Excellent, 3= Very good, 2 =Good, 1= Satisfactory and 0 = unsatisfactory. The owner's support of the project will be measured by the relevance of educational

X9: Equity contribution number of days the promoter delayed to block the required equity. X10: Debt-equity ratio expressed in the number ratio of debt to equity.

X11: Procurement process number of months delayed to finalize procurement process.

X12: fulfillment of conditions number of the month the promoter accounts to fulfill pre-conditions set by the bank.

X13: Follow-up number of follow-ups conducted in one fiscal year.

3.8 Validity

As defined by (Kothari, 2004) validity is, the most critical criterion that indicates the degree to which an instrument measurement measures what it supposed to measure. In other words, the extent to which differences found from measuring instruments reflect true differences among those being tested. The researcher used IBM SPSS statistical software version to measure correlation between each question in the questionnaire to check if the concept or the construct is

acceptable. A 0.05 or less correlation measure of significance is valid and anything above that is invalid (it will be excluded/removed).

3.9 Reliability

Reliability of instruments concerns the degree to which a particular instrument gives similar results over several repeated trials (Mugenda and Mugenda, 2003). The pilot test was done to check the questionnaire structure and the sequence, meaning, and ambiguity of questions. This 48 was supplemented by Cronbach's alpha 0.7 which has been proven to give a more reliable score (Nunnaly, 1978 cited in Cooper and Schindler, 2008).

As can be seen below, the reliability statistics for all of the variables under investigation shows a value of greater than 0.8 which is more than the standard value. Therefore, from these test results, it can be concluded that the collected data are valid and reliable.

Table 3.1 Data validity and reliability test

Factors	Variable	No. of Items	Cronbach's Alpha
Bank Related	project planning and scheduling inefficiency	6	0.926
	Poor Due diligence and KYC assessment	5	0.905
	Weak supervision and follow-up	7	0.953
Client Related	diversion of funds	4	0.896
	Management problem	6	0.956
	Unable to fulfill conditions	5	0.954
External and Macroeconomic related	Cost escalation/cost overrun	4	0.949
	Government policy changes	2	0.917
	changes in weather conditions/natural climates	3	0.985
	Foreign exchange fluctuation	3	0.955
	Inflation	2	0.918

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Questionnaire Distribution and Response Rate

A total of 60 questionnaires were distributed to the targeted respondent to identify the most important cause of implementation delays and methods to minimize the delays. The survey questionnaires were distributed to DBE Bank staff who work only in the loan processing department. In the confidence that they have exposure to the project implementation process and the challenges that hinder projects in the process of implementation from the beginning i.e. from the loan processing to the commissioning stage. Therefore the questionnaires were distributed to four Customer relationship management Directorates to gather reliable and valid data. As shown in the table below from the total number of a questionnaire distributed the response rate was 85%.This response was good enough and representative of the population and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and above is excellent.

Table 4.1 Response rate of the study

Questionnaire distribution	Number of respondents	Non-respondent	Percentage (%)
60	51	9	85%

Source: own survey (2023)

4.2 Demographic characteristics of respondents

In gathering data we should first ask; how much the respondents know about the subject of the survey before they begin. If respondents are very familiar with our subject then it will likely be easier for them to respond to your questions. This section briefly explains the background of the respondents. It is imperative because the background of the respondents will help generate confidence in the reliability of the data collected, and eventually the findings of the study. Accordingly, (Adinyira and Anokye, 2013) argued that it is always important to have a fair idea of the respondents so as to situate the responses within context. As a result, the relevant socio-

demographic variables of respondents that this research covered included sex, age, education level, position, and work experience in the credit area.

The researcher found that it was important to collect data on the age of the respondents. Age plays a critical role in understanding how people of different ages view the subject area. In this particular case cumulative percentage of 94.1 was from 26-35 implies the respondents are young and are active in understanding cases similarly they are experienced enough. As indicated in the table the respondents' educational levels are BA/BSC and MA/MSC.

Table 4.2 Background of the respondent

Respondent background	Category	Frequency	Percent	Valid percent	Cumulative percent
Age	22-25	2	3.9	3.9	3.9
	26-30	30	58.8	58.8	62.7
	31-35	18	35.3	35.3	98.0
	36-40	1	2.0	2.0	100.0
	Total	51	100.0	100.0	
Educational level	BA/BSC	31	60.8	60.8	60.8
	MA/MSC	20	39.2	39.2	100.0
	Total	51	100.0	100.0	
Position	Director	3	5.9	5.9	59
	Manager	7	13.7	13.7	19.6
	Senior officer	25	49.0	49.0	68.6
	Officer	16	31.4	31.4	100.0
	Total	51	100.0	100.0	
Bank experience	2-5	23	45.1	45.1	45.1
	6-10	25	49.0	49.0	94.1
	11-15	3	5.9	5.9	100.0
	Total	51	100.0	100.0	
Credit experience	2-5	35	68.6	68.6	68.6
	6-10	16	31.4	31.4	100.0
	Total	51	100.0	100.0	

Source: own survey (2023)

The researcher has confidence in the responses of the respondents since39.2% of them were MA/MSC holders so they understand the relevance of the survey to the researcher and 60.8% 50 of them were BA/BSC holders. Therefore, the respondents are capable enough to understand the research question and respond attentively. As depicted in the table cumulative percent of 68.6 of the respondents are managers and senior officers which means they have at least 5 years of working experience in the bank. This indicates that the respondents provide accurate, reliable, and valid information since they are in the process of administering the loan; they have the knowledge and experience of the implementation process and the factors that contribute to project delays.

Regarding work experience as depicted in the table about 49% of the respondents is having work experience from 6 -10 years. Therefore, the probability of getting reliable information is very high as most of the respondents are experienced personnel of the bank. Moreover, Respondents with a longer period of credit service are more experienced and are in a position to explain processes and activities involved in project implementation. They have adequate and enough working experience and are in a better position to understand the project activities well. The respondents had more than5 years of experience in credit administration. These, therefore, suggest that the respondents had wide knowledge and experience to provide valuable responses concerning factors that cause project implementation delay at DBE projects.

4.3 Descriptive Analysis

This section attempts to discuss the findings of primary data collected from DBE through questionnaires. The survey questionnaires were distributed to DBE Bank staffs that are take part in the project implementation of those projects financed by DBE. The questionnaire was completed by experienced DBE Professional staffs that have experience of more than two years in the credit process.

4.3.1 Result of SPSS on Specific factors that cause Project implementation delay

The respondents were asked to state the extent to which promoters-related factors determine the effective implementation of their projects. A five-point Likert scale was used to rate the

responses where: 5 – Very highly contributing, 4 – Highly contributing, 3 - Medium contributing, 2 – Low contributing, 1 – Very low contributing. The findings in form of mean and standard deviations are indicated below in the Tables.

From the findings among promoter-related factors, failure to meet the terms and conditions stipulated on the loan contract was contribute the most delay factor with mean scores of 4 and a standard deviation of 0.916. There are situations predetermined in the loan agreement made between the bank and the customer as pre-conditions. The promoter has to be fulfilled the conditions before the bank stars disbursement. However, it was observed that mostly the promoter/client didn't meet the stated conditions on time due to this the implementation process lags behind the plan.

Table 4.3 SPSS Result of Promoters related cause of delay

Factor	N	Mean	Std. Deviation	Rank
Promoter managerial competency	51	3.82353	0.93179	8
Misallocation of fund by the borrower	51	3.78431	1.10116	9
Promoters ' misbehavior/rent seeking character	51	3.96078	0.93725	10
Unable to contribute the required equity	51	3.84314	1.1895	6
Promoters' Lack of sense of ownership	51	3.31373	1.19147	12
Disputes among shareholders	51	3.09804	1.18752	15
Improper planning and scheduling	51	3.82353	1.12616	7
Failed to meet the terms and conditions stipulated on the loan contract	51	4	0.91652	1
Lack of commitment	51	3.58824	1.16921	11
Unable to tackle the challenges faced during project implementation	51	3.92157	0.86817	3

Lack of adequate experience or exposure to implement the project	51	3.86275	0.87223	4
Design change	51	3.84314	0.90272	5
Frequent change of management	51	3.17647	1.17823	13
Lack of comprehensiveness of feasibility	51	3.15686	0.98737	14
Low capacity of the promoter to cover costs during cost over runs and unseen costs	51	3.96078	0.89355	2

Figure 4.1: Major delay cause on promoter's side
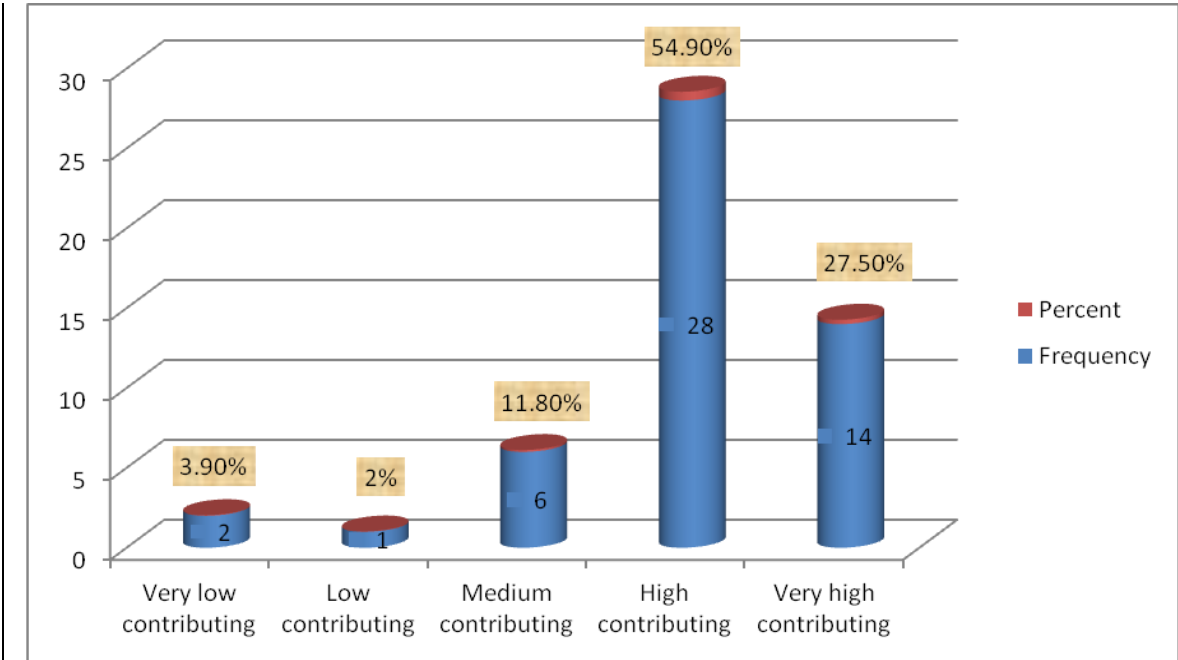
As we depicted in the figure majority of the respondents which is from 51 respondents 42 of them (82.35%) admitted to finding it difficult to finish projects in the specified time due to the promoter's failure to meet conditions that were agreed on the loan agreements. This indicates that most employees or officers that are responsible to process the implementation of the financed projects found it difficult to run projects as per the scheduled time as a result of the stated reason. Un-fulfillment of conditions stipulated in the loan contract can hinder all implementation activities unless the promoter or project owner could not respond on time for the fulfillment of conditions and sets any activities of projects to lag behind their intended planned schedule.

The low capacity of the promoter to cover costs during cost overruns and unseen costs while planning the project is ranked second and being unable to tackle the challenges faced during project implementation is ranked third. Besides, Lack of adequate experience or exposure to implementing the project and Design change during the implementation of the project stood as the fourth and fifth important cause of project implementation delay. However, Lack of sense of ownership of the promoter mean value of 3.31, frequent change of management mean value of 3.17, Lack of comprehensiveness of feasibility study submitted by 53 the promoter mean value of 3.15 and Disputes among shareholders mean value of 3.09 are insignificant factors for project implementation delay.

The results are supported by a study conducted by Abebit (2013) which says, the top-ranked promoter-related factors that cause a delay in the implementation of the project are Delays due to conditions for the effectiveness of the loan are not fulfilled in time to enable disbursement of the loan and Low capacity of the promoter to cover unseen costs while planning the project.

Table 4.4 SPSS Result of bank related cause of delay

Factors	N	Mean	Std. Deviation	Rank
Inadequate technical advice and supervision	51	3.35294	1.0163	9
Improper planning and scheduling of the project	51	3.6902	1.23891	3
Poor credit service delivery	51	3.39216	1.26615	6
Inefficient KYC /due diligent assessment	51	3.70588	1.20489	2
Procurement management problems	51	3.37255	1.18255	7

Inappropriate credit risk management system	51	3.41176	1.16921	5
Unable to pass timely decisions	51	3.94118	0.96771	1
Inadequate competency and lack of the required skills of officers in charge	51	2.98039	1.14	13
Lack of proper implementation of accountability in the bank	51	3.13725	1.0958	11
Inefficient L/C facilities	51	3.23529	1.17624	10
Lack of IT support system in credit processing	51	3.07843	1.29373	12
Stringent procedure of the Bank	51	3.43137	0.98499	4
Lack of experience in project appraisal work	51	3.37255	1.11285	8

Source: own survey (2023)

As shown in the above table from the factors discussed the major significant factors contributing to project implementation delay was Unable to pass timely decisions when unforeseen circumstances occurred with a mean value of 3.94, Inefficient KYC /due diligent assessment or poor credit scoring a mean value of 3.70 and Improper planning and scheduling of the project with a mean value of 3.69.
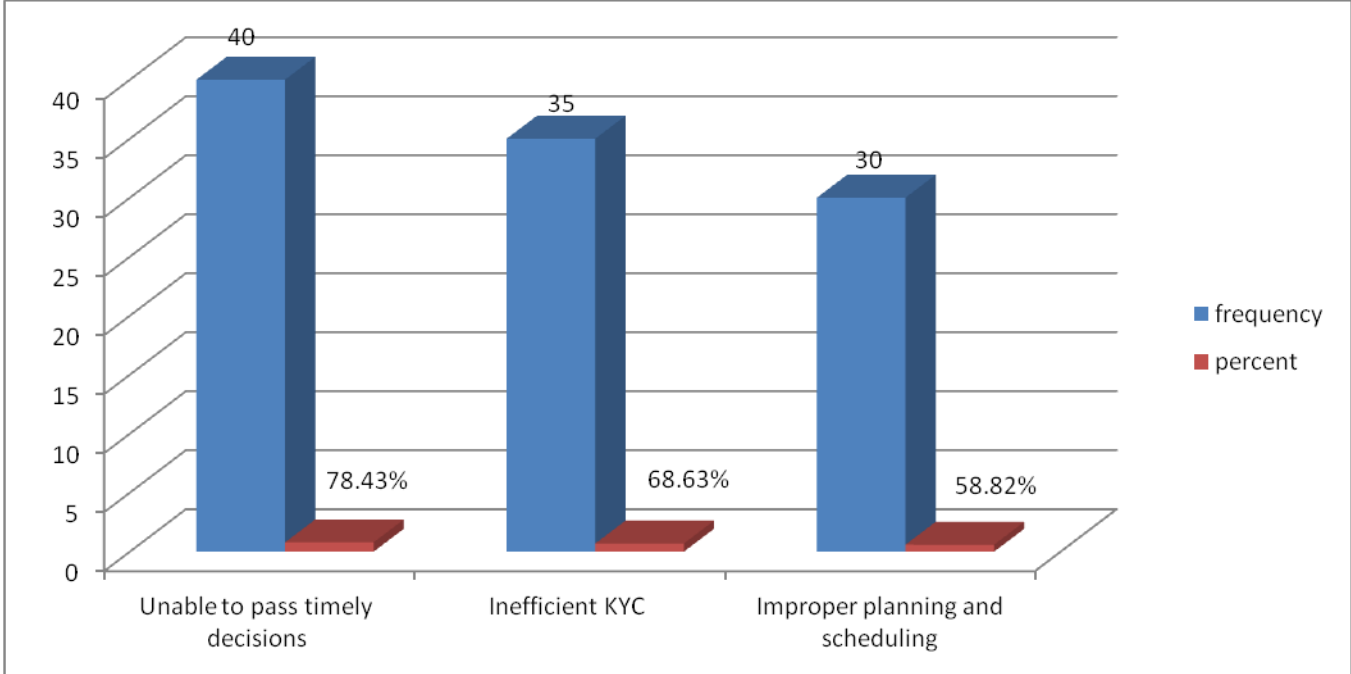
Figure 4.2: Major delay causes on bank specific side

As depicted in figure 4.2 majority of the respondents 40(78.43%) out of 51 respondents admitted finding it difficult to finish projects in the specified time due to bank management which is the incidence of being unable to pass timely decisions when the unforeseen circumstance has occurred on the project, 35 of the respondents(68.63%) ranked Inefficient KYC /due diligent assessment are high and very high contributing factors that cause delays and lack of proper planning and scheduling of the project were rated third 30 from 51 respondents (58.28) admitted improper planning is contributing significant factors to project implementation delay. The results are consistent with a study conducted by Abebit (2013), which identified the cause of delays resulting from the side of the lender or the bank, such as lack of prudent pre-credit risk assessment which is similar to inefficient KYC or due diligent assessment or poor credit scoring identified as major causes of delay in this research.

Table 4.5 SPSS Result of External/Macro-economic related cause of delay

Factor	N	Mean	Std. Deviation	Rank
Cost escalation/cost over run	51	4.05882	0.92546	2
Change in credit policy of the bank	51	3.41176	1.15198	8
Change in lending interest rate	51	2.96078	1.19935	9
Increase in inflation rate	51	3.88235	1.01286	4
Foreign exchange fluctuation	51	4.17647	0.91007	1
Unfavorable weather condition	51	3.78431	1.28552	6
Lack of timely availability of the required infrastructure facilities	51	3.76471	0.97135	7
Lack of commitment from stake holder to provide the requires support	51	3.88235	1.01286	5

Delay in obtaining the required documents from concerned government offices. Municipality regional environmental offices.	51	3.90196	1.00509	3

Source: own survey (2023)

As shown in the above table from the identified factors foreign exchange fluctuation is the major significant cause's project implementation delay with a mean value of 4.17. Besides 51 respondents 41 of them (80.39%) agreed foreign exchange fluctuation is the major contributing factor that hinders the project implementation as per the stipulated time. The second and thirdly ranking factors that contributed to implementation delay were Cost escalation on various investment items with a mean value of 4.05 and Delay in obtaining the required documents from concerned government offices like Municipality, and Regional Environmental offices with a mean value of 3.9. Lack of commitment from stakeholders and an increase in the inflation rate are ranked fourth and fifth. However, Changes in the credit policy of the bank's mean value of 3.41 and Change in the lending interest rate mean value of 2.96 is not a significant cause for implementation delay.

The results are consistent with a study conducted by Abebit (2013), which identified foreign exchange fluctuation and cost escalation were the major cause of delays.
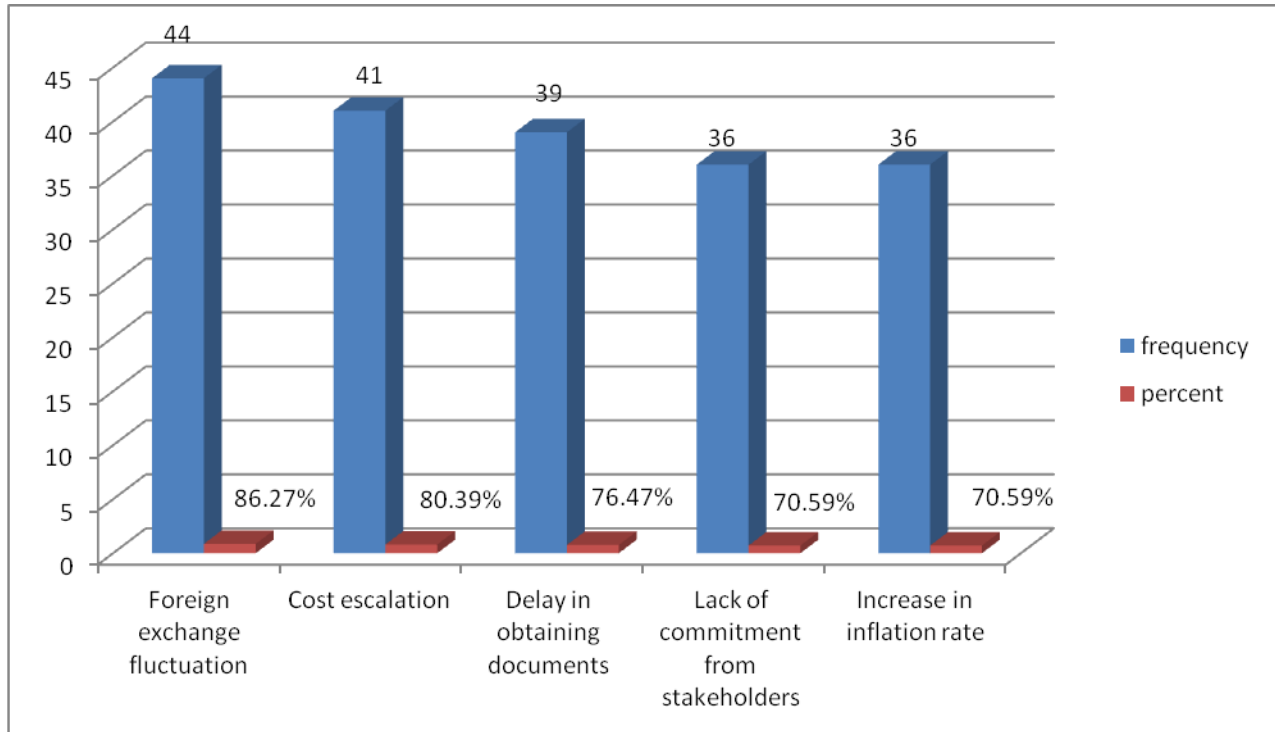
Figure 4.3 major delay cause on external side

Source: own survey (2023)

4.3.2 Major delay causes on external side

4.3.2.1 Result of SPSS rank of cause of delay

Based on the results of analysis the factors in each group, as discussed above, the overall ranking of factors that causes delays have been established as shown in Table 4.12.

Table 4.6 SPSS result of overall cause of delay

Factor	N	Mean	Std. Deviation	Rank
Foreign exchange fluctuation	51	4.17647	0.91007	1
Cost escalation /cost over run	51	4.05882	0.92546	2
Failed to meet the terms and conditions stipulated on the loan contract	51	4	0.91652	3

Low capacity of the promoter to cost during cove during cover cost over runs and unseen cost while planning the project	51	3.96078	0.89355	4
Unable to pass timely decision when unforeseen circumstances occurred	51	3.94118	0.9677	5
Unable to tackle the challenges faced during project implementation	51	3.9257	0.86817	6
Delay in obtaining the required document from concerned government offices. Municipality regional environmental offices	51	3.90196	1.00509	7
Increase in inflation rate	51	3.88235	1.01286	8
Lack of commitment from stakeholders to provide the required the support	51	3.88235	1.01286	9
Lack of adequate experience or exposure to implement the project	51	3.86275	0.87223	10
Unable to contribute the required equity	51	3.84314	1.1895	11
Design change during implementation of the project	51	3.84314	0.902772	12
Managerial competency of the borrower	51	3.82353	0.93179	13
Improper planning and scheduling of the project	51	3.82353	1.12616	14
Unfavorable weather condition	51	3.78431	1.28552	15
Misallocation of fund by the borrower	51	3.78431	1.10116	16
Lack of timely availability of the required infrastructure facilities	51	3.76471	0.97135	17
Inefficient KYC due diligent assessment or poor credit scoring	51	3.70588	1.20489	18
Improper planning and scheduling of the project	51	3.6902	1.23891	19
Misbehavior /rent seeking character of the promoter	51	3.66078	0.93725	20
Lack of commitment and /or not being visionary	51	3.58824	1.1621	21

Source: own survey (2023)

Based on the above tables a total of 37 factors that contributed to the causes of delays in the implementation of the project were identified, ranked, and analyzed. However, based on the above data 21 of the considered significant Variables with mean values greater than or equal to

3.5 are taken as a major or dominant factor for delay in the implementation of a project (Aigbavboa, Thrale, & Mukuka, 2014).

Contribution Percent
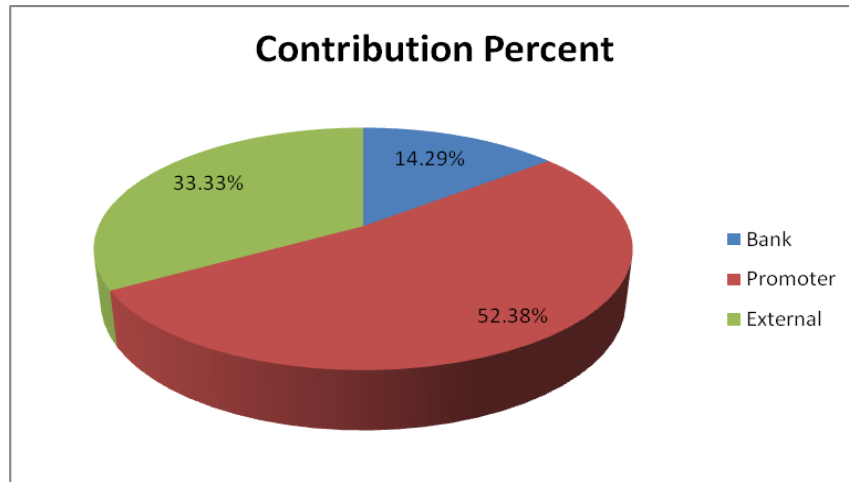
Figure 4.4: Major/Dominant causes of Implementation delay

Source: own survey (2023)

From the major or dominant factors, there are three factors of DBE-related delays, eleven factors of the project owner/promoter-related delays & seven of them were factors due to external/macroeconomic delays. This means that the project owners occupy the major share which is 52.38% and external-related factors and DBE/bank-related factors occupy 33.33% and 14.29%.

4.3.3 Method of minimizing Project implementation delay

The respondents were asked to put forward their valuable ideas for methods of minimizing project implementation delay. As discussed above in the background of the respondent section, the respondents have direct participation in the process of project implementation activities. Therefore the student researcher highly believes that the responses are valuable and stand from the real experience or practice of the respondents. To rank those factors a Likert scale for rating each factor was used as follows: Very highly effective =5; highly effective=4; Medium effective =3; Low effective =2 and low effective =1.

Table 4.7 Method of minimizing implementation delay

Factor	N	Mean	Std. Deviation	Rank
Revision of policy and procedure of DBH in accordance with government strategies	51	3.41176	1.16921	12
Verifying reliable source of equity contribution from the side of borrowers	51	4.33333	0.76594	3
Give due attention on the due diligence preparation and pre credit risk assessment	51	4.19608	0.66392	6
Providing specific training with sector of project and upgrade analytical exercise of project appraisal officers of the bank	51	3.58824	1.11672	11
Providing appropriate technical advice to support the client of the bank	51	3.70588	0.98578	9
Frequent project follow up especially for under implementation project	51	4.2549	0.65858	4
Providing specific training and on job training at the Bank on technical matters for bank responsible staffs	51	3.58824	1.13449	10
Proper project planning and scheduling	51	4.37255	0.63121	2
Proper emphasis on past experience	51	3.78431	0.80781	7
Verify proper utilization of disbursed loan before the next disbursement	51	4.39216	0.69508	1
Consider the time taken for the procurement of machineries and imported goods.	51	3.72549	1.13276	8
Strengthen good and smooth communication experience with the client	51	4.19608	0.52989	5

Source: own survey (2023)

The results of the research revealed that Verify proper utilization of disbursed loans before the next disbursement, Proper project planning, and scheduling, Verifying reliable sources of equity contribution from the side of borrowers, frequent project follow-up, especially for under-implementation projects, and Strengthening good and smooth communication experience with the client has made the top five effective methods of minimizing project implementation delay.

Verifying proper utilization of disbursed loan before the next disbursement will help to monitor the project budget allocation and to verify whether the disbursed fund is utilized for the intended purpose or not. As per the DBE trend, the total investment cost for the project is disbursed at

different phases, and to release the planned fund held for the investment items the bank verifies the proper utilization of the previous fund.

Project planning and scheduling help to decide the project investment cost, the planned implementation schedule, and the completion time, to allocate the budget for major investment items. Generally, give the direction on how to implement the project activities.

In project financing, as per the credit policy of the bank, it is stated that for a new project the equity-debt ratio is 25:75 and 50:50 for local and foreign investors respectively. So that to finance the project the promoter or the owner is expected to contribute the stated equity amount before utilizing the bank loan. Therefore, before any approval of the loan the bank has made due diligence (know your customer), one of the necessities of due diligence is to verify the source of equity of the project owner.

The purpose of project follow-up is to ensure that the financed projects are properly implemented and operating and also helps to provide technical assistance as and when required. As per the credit policy of the bank, all projects financed by the Bank should, therefore, be properly followed up. For under-implementation projects, the bank should be made follow-ups at least quarterly and at any time before every disbursement. (DBE, Loan Manual, 2016)

Good and smooth communication experience with the client including progress tracking and reporting is essential since it is the passing of ideas and information. Besides, it helps the bank as well as the project to tackle the challenges that would happen in the process of implementing the project together. To smoothly implement the project owner should consent to the bank before making any decision that deviates from the loan agreement.

4.4 Econometric Analysis

This section attempts to explain the relationship between the dependent variable which is implementation status and independent variables including project/ total investment cost, foreign currency shortage, exchange rate fluctuation, price escalation, utilization of loan, appraisal, design change, promoter managerial competency, ability to block equity on time, debt-equity ratio, procurement process, condition fulfillment of the borrower and follow-up and supervision. The econometrics analysis is carried out to identify the significance of variables as well as to evaluate the cause-effect relationship between the dependent variable and explanatory variables

in a particular study. In this case, statistical inference can be undertaken unlike descriptive analysis, and secondary data were utilized and 134 project files is reviewed and analyzed. The data are analyzed by using stata13 and the logit model has been used.

4.4.1 Projects' Profile
From the sampled 134 projects, 83(62%) of them have exhibited delay and only 51 (38%) of the projects met their planned schedule the detail is attached in annex 1.

4.4.2 Post-estimation test.
4.4.2.1 Ramsey RESET test
The test result shows that Prob> F = 0.1355 the value is greater than 5% of the significant level; hence, we concluded that we haven't omitted variable bias. The result is attached in annex 7.

4.4.2.2 Multi-collinearity Test
The term Multi-collinearity indicates the existence of exact linear association among some or all explanatory variables in the regression model. When independent variables are multi-collinear, there is overlapping or sharing of predictive power. Thus, if multi-collinearity is perfect, the regression coefficients of the independent variables are undetermined and their standard errors are immeasurable (Gujarati, 2004). According to the rule of thumb, if the VIF of a variable exceeds 10, the variable is said to be highly collinear (Bedru and Seid, 2005), and to see if this problem exists, the variance inflation factor (VIF) was determined. The mean VIF is lower than 10, so we don't have a multi-collinearity 43 problem. Thus, the explanatory variables included in the model were not correlated with each other.

4.4.2.3 Regression assumption Test
The regression assumption test results that include results of Logit regression estimation test results, Logistic Regression with odds Ratio, estat gof overall fitness of the model, model specification Test and Heteroscedasticity and Multi-collinearity test are included in the Annex (2 to 6) part of the document.

4.4.2.4 Regression Results and Discussion
The logit model is used to estimate the magnitude, sign, and significance of each coefficient. The logistic model is used to estimate the odd ratios.

Significance of explanatory variables: As can be seen from table 4.2, the variables "Price escalation", "Procurement process", "Hard currency shortage", "utilization of loan", "Competency of the promoter", "fulfillment of conditions", "Exchange rate fluctuation" and

"Appraisal problem" are statistically significant because their respective p-values are less than 5%, the level of significance. While the rest of the variables are statistically insignificant in the model since their respective p-values are beyond a 5%, level of significance.

Table 4.8 logit regression estimation results

Implementation status	Coef.	Std.Err.	Z	P>Z	[95%Conf.	Interval]
Investment cost	-1.25E-10	8.09E-10	-0.15	0.877	-1.71E-09	1.46E-09
Hard currency shortage	1.31834	0.562524	2.34	0.019	0.215814	2.42087
Exchange rate	1.347574	0.658401	2.05	0.041	0.057132	2.63802
Price escalation	1.805104	0.589439	3.06	0.002	0.649826	2.96038
Utilization of loan	1.653843	0.711702	2.32	0.02	0.258934	3.04875
Appraisal problem	1.101328	0.5413868	2.03	0.042	0.040266	2.16239
Design change	1.311323	0.673728	1.95	0.052	-0.00916	2.63181
Promoter's competency	-0.5193	0.244882	-2.12	0.034	-0.99926	-0.0393
Equity contribution	0.0031	0.004633	-0.67	0.504	-0.01217	0.00598
Debt equity ratio	-1.84266	2.239692	-0.8	0.411	-6.23238	2.54706
Procurement process	-0.09019	0.029935	-3.01	0.003	-0.14886	-0.0315
Fulfillment of conditions	-0.28233	0.135109	-2.09	0.037	-0.54714	-0.0175
Follow -up	-0.34291	0.20145	-1.7	0.089	-0.73775	0.05102
cons	-0.89272	1.37622	-0.65	0.517	-3.58987	1.80443

Among the statistically significant variables, the variables; utilization of a loan other than the intended purpose, Competency of the promoter, and fulfillment of conditions by the promoter to proceed with the implementation process, are promoter-specific variables; whereas appraisal (the analytical practice of the bank) is bank-specific factors and Price escalation happened during the

implementation process, Exchange rate fluctuation and Hard currency shortage are variables related to external factors.

Table 4.9 Logit regression estimation results

Implement status	Coef.	Std.err.	z	p>z	[95%conf.	Interval]
Investment cost	1	8.09E-10	-0.15	0.877	1	1
Hard currency shortage	3.737212	2.10227	2.34	0.019	1.240872	11.2556
Exchange rate	3.848077	2.533576	2.05	0.041	1.058796	13.98541
Price escalation	6.080603	3.584141	3.06	0.002	1.91507	19.30535
Utilization of loan	5.227031	3.720087	2.32	0.02	1.295548	21.08903
Appraisal	3.008159	1.628522	2.03	0.042	1.041088	8.691892
Design change	3.71108	2.500257	1.95	0.052	0.990883	13.89883
Promoter's competency	0.594939	0.1456898	-2.12	0.034	0.368153	0.9614268
Equity contribution	0.99691	0.0046182	-0.67	0.504	0.987899	1.006002
Debt equity ratio	0.158396	0.3547571	-0.82	0.411	0.001965	12,76944
Procurement process	0.913759	0.0273529	-3.01	0.003	0.861691	0.9689737
Fulfillment of condition	0.754028	0.1018763	-2.09	0.037	0.578605	0.9826366
Follow up	0.709699	0.1429688	-1.7	0.089	0.478189	1.053292
Cons	0.40954	0.5635763	-0.65	0.517	6.076491	6.076491

The findings are consistent with Abebit (2013) who says that miss-utilization of the disbursed fund, lack of sufficient knowledge in project management, and Insufficient experience in project appraisal work(good analytical exercise)which is appraisal in this research are the major causes

of delays in implementation of a project. The p-value associated with the chi-square is equal to 0.0000 and indicates that the model as a whole is statistically significant.

The estimated model becomes:

Impstatus=0.89-1.25E10*invtcost+1.32*fcyshort+1.35*exr+1.80*priceesc+1.65*loanutl+1.10*apppbm+1.31*designch0.52*competency-0.003*equity-1.84*debtequityratio-0.09*procurment-0.28*conunfl0.34*followup

4.4.3 Bank related causes of project implementation delay

Appraisal problem: affects the implementation status of the projects positively at a 5% level of significance. The coefficient for an appraisal is 1.10, meaning that; it is expected to be a 1.10 unit increase in the log odds of implementation delay of projects with a unit increase in appraisal problem of the bank. In other words, this tells that the odds ratio is 3.01; it is the amount of change expected in the odds ratio of implementation delay of projects when there is a one-unit change in the appraisal problem of the bank. The bank appraisal study /and analytical exercise could have a huge effect on the implementation status of the project. Poor appraisal/ analytical exercise practices of the bank increase the delayed time of implementation of the projects

Procurement process: affects the implementation status of the projects negatively at 5% of the level of significance. The coefficient is -0.09; it is expected to be a 0.09 unit decrease in the log odds of implementation delay of projects with a unit increase in the Procurement process. In other words, this tells that the odds ratio is 0.91; it is the amount of change expected in the odds ratio of implementation delay of projects when there is a one-unit change in the Procurement process.

4.4.4 Promoter's related causes of project implementation delay

Factors under this category are caused due to the project owner side. Factors that contribute to project implementation delay because of the project owner's capacity, character, capital, and compliance with the terms and conditions stipulated in the loan agreements with the bank and bank policy.

Utilization of loan: affects the implementation status of the projects positively at a 5% level of significance. The coefficient for utilization of loans is 1.65, meaning that; it is expected to be a 1.65 unit increase in the log-odds of implementation delay of projects with a unit increase in

Utilization of loans. In other words, this tells that the odds ratio is 5.23; it is the amount of change expected in the odds ratio of implementation delay of projects when there is a one-unit change in the Utilization of the loan. When the client utilized the loan properly and as per the plan the project implementation tends to be positive, and delays can be reduced.

Competency of the promoter: affects the implementation status of the projects negatively at 5% of the level of significance. The coefficient is -0.52; it is expected to be a 0.52 unit decrease in the log odds of implementation delay of projects with a unit increase in the managerial competency of the promoter. In other words, this tells that the odds ratio is 0.59; it is the amount of change expected in the odds ratio of implementation delay of projects when there is a one-unit change in the managerial competency of the promoter.

Fulfillment of conditions: affects the implementation status of the projects negatively at 5% of the level of significance. The coefficient is -0.28; it is expected to be a 0.28 unit decrease in the log odds of implementation delay of projects with a unit increase in Fulfillment of conditions. In other words, this tells that the odds ratio is 0.75; it is the amount of change expected in the odds ratio of implementation delay of projects when there is a one-unit change in the fulfillment of conditions.

4.4.5 External causes of project implementation delay

Foreign Currency Shortage: affects implementation status of the projects positively at 5% of level of significance. Projects which face foreign currency shortage have high probability of delay. The coefficient is 1.32 meaning it is expected to be a 1.32 increase in the log-odds of implementation delay of projects with a unit increase in foreign currency holding all other variables remaining constant.

Exchange rate fluctuation: affects implementation status of the projects positively at 5% of level of significance. Exchange rate fluctuation leads to cost overrun in the major investment items of the project which likely causes delay to implement the project as per the schedule. Since the promoter may unable to face the cost overrun at the project implementation stage because of budget deficits. The coefficient for exchange rate fluctuation is 1.35; it is expected to be a 1.32 unit increase in the log-odds of implementation delay of projects with a unit increase in exchange rate.

Price escalation: affects implementation status of the projects positively at 5% of level of significance. The coefficient for price escalation is 1.81, meaning that; it is expected to be a 1.81 unit increase in the log-odds of implementation delay of projects with a unit increase in price escalation. In general, the thirteen variables that have been selected as predictors of the dependent variable in the estimated logit model are demonstrated how the effect of those variables on the implementation of the project based on the collected data. Out of the thirteen variables eight of them are statistically significant.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The aim of this study was to understand the causes of project implementation delays in the case of projects financed by development Bank of Ethiopia. It mainly focus on investigating what factors internal to the bank Processes, Client related factors and external factors contributing their share in delayed projects.

➢ From the findings among promoter related factors, failed to meet the terms and conditions stipulated on the loan contract was contribute the most delay factor with mean scores of 4 and standard deviation of 0.916.

➢ 42 (82.35%) respondents admitted to finding it difficult to finish projects in the specified time due to the promoter failure to meet conditions that were agreed on the loan agreements. This indicates that most employees or officers that are responsible to process the implementation of the financed projects found it difficult to run projects as per the scheduled time as a result of the stated reason.

➢ Lack of sense of ownership of the promoter mean value of 3.31, frequent change of management mean value of 3.17, lack of comprehensiveness of feasibility study submitted by 53 the promoter mean value of 3.15 and disputes among shareholders mean value of 3.09 are insignificant factors for project implementation delay.

➢ Major significant factors contribute to project implementation delay were unable to pass timely decisions when unforeseen circumstances occurred with a mean value of 3.94, Inefficient KYC /due diligent assessment or poor credit scoring a mean value of 3.70 and Improper planning and scheduling of the project with a mean value of 3.69.

➢ 40(78.43%) of respondents admitted to finding it difficult to finish projects in the specified time due to bank management which is the incidence of unable to pass timely decision when unforeseen circumstance is occurred on the project.

➢ 35(68.63%) of respondents ranked Inefficient KYC /due diligent assessment are high and very high contributing factors that cause delays and lack of proper planning and scheduling of the project were rated third.

- 30(58.28%) respondents admitted improper planning is contributes significant factors to project implementation delay.
- Foreign exchange fluctuation is identified as major significant cause of project implementation delay with a mean value of 4.17 as was admitted by 41 (80.39%) respondents.
- Changes in credit policy of the bank mean value of 3.41 and Change in lending interest rate mean value of 2.96 are not significant cause for implementation delay.

5.2 Conclusion

Project implementation delay is a significant concern to the clients, lenders, other industry stakeholders, and the country as a whole. Delayed implementation gives a project a problematic start, the longtime taken for project implementation results in time overrun which is invariably followed by cost overrun. Cost- overrun has the ill effect of affecting the financial viability of the project. The cost overrun adversely affects the project to completion as per plan. Therefore, factors that contribute to project implementation delay should be found, and analyzed and put possible mechanisms to minimize the delays. This research is made to investigate the major factors of implementation delay of projects financed by DBE assuming that the cause of project delay emanates from project-specific, Bank specific, and external/macroeconomic-specific factors. To measure the significance of these three categories 13 major explanatory variables are considered in this study. Among statistically significant variables, Utilization of loan, Competency of the promoter, and Fulfillment of conditions are project-specific factors, while, one which is appraisal (analytical) problem is bank related factor and Foreign Currency Shortage, Exchange rate fluctuation, and Price escalation is external related factors that cause project implementation delays of DBE financed projects. Based on the findings that have been discussed so far, the major's factors that are attributed to the delay in the implementation of the project can be summarized as follows:

5.2.1 Causes of project implementation delay

A total of thirty-seven factors that cause delays were identified. Among these factors were the top ten most important factors that contributed to the causes of delays that include Foreign exchange fluctuation, Cost escalation/ cost overrun, Failed to meet the terms and conditions stipulated on the loan contract, Low capacity of the promoter to costs during cover cost overruns

and unseen costs while planning the project, Unable to pass timely decisions when unforeseen circumstances occurred, Unable to tackle the challenges faced during project implementation, Delay in obtaining the required documents from concerned government offices. The municipality, Regional Environmental offices, Increase in the inflation rate, Lack of commitment from stakeholders to provide the required support, and Lack of adequate experience or exposure to implementing the project.

The factors were grouped into three; promoter-related factors, Bank related factors, and external factors. As per the finding from the top ten identified factors five of them (50%) are external/macro-economic factors, four cause 40% of factors are attributed from promoter side and one cause 10% identified from bank side.

The explanatory research is made to investigate the major causes of project implementation delay financed by DBE. The factors are grouped into three which are delays due to project specific, Bank specific and macroeconomic specific factors. To measure the significance of these three categories, 13 major explanatory variables are considered in this study. The regression analysis of these explanatory variables with the dependent variable, project implementation delay/non-delay, using the logit model exhibited that three of them from project-specific, three from macroeconomic-specific, and one from DBE-specific factors is statistically significant.

As per regression analysis the major statistically significant factors that cause implementation delay are the utilization of a loan other than the intended purpose, Competency of the promoter, fulfillment of conditions by the promoter to proceed with the implementation process, appraisal (the analytical practice of the bank), Price escalation happened during the implementation process, Exchange rate fluctuation and Hard currency shortage. Utilization of loan is one serious problem facing DBE projects that affects the implementation status. DBE finance investment projects and the fund allotted for each investment item are disbursed phase by phase. To effect the next phase of disbursement the bank verifies proper utilization of the previous fund. Therefore, if the bank identifies the previous fund is not utilized properly the next disbursement would not be affected. This prolongs the implementation schedules and causes delays.

5.3 Recommendations

Delay is a critical issue that needs to be identified since the prolonged implementation will result in project failure. Hence, having identified those factors contributing to delay of project financed by DBE; it becomes obvious that giving adequate consideration to them at the planning stage and implementing stage would help to reduce the consequences.

Therefore, after close examinations and analysis of the research findings, the following recommendations are forwarded:

►Appraisal documents should focus on the detailed assessment and evaluation of technical, market, financial, organizational, and managerial viabilities and socio-economic benefits of projects. Project appraisal of the bank provides appropriate information on the Project implementation plan and financial analysis. The implementation plan schedule set by the appraisal process should be realistic and achievable. As well as due attention should be given to the allocation of investment costs, and incorporate all investment items in the determination of total project cost. In a summary, the bank should develop technical and analytical knowledge of the staff's work in the appraisal area by providing technical training and should assign appropriate technical employees, and recruit different professionals from different professions.

►Before making any disbursement, the bank should verify for proper utilization of the previous fund in order to mitigate early miss utilization of the disbursed fund. Accordingly, any disbursement activity should implement as per the bank credit policy and the loan contract agreement. In mitigating the loan diversion for investment items, disbursement should affect the supplier/contractor. The Bank should monitor the whole operation of the project and shall detect any deviation in the project against the plan (without the consent of the Bank) and any malpractice and diversion of the fund to other purposes. Any deviation on these issues shall be subject to immediate action on the project to the extent of blocking subsequent disbursements and considered as an event of default, so the bank should take legal action.

► Exchange rate fluctuations lead to price escalation on investment items, leading to cost overruns. In its appraisal plan, the bank should consider this case and incorporate contingency costs at major investment items for unexpected expenses. Which consequently caused cost escalation and frequent budget reallocations.

► The bank conducts due diligence on reports to protect from entering into relationships with inappropriate borrowers. In safeguarding the bank, KYC/due diligence assessment should be done with due attention to identifying the borrower's character, source of capital, Managerial competence, and Whether or not the applicant has engaged in mal-practices related to checking accounts or in any other illegal and unlawful dealings, if applicable. By doing so, the bank can minimize project implementation delays caused due to promoters' sides, such as managerial competency, an unfulfillment of conditions and failure to meet the terms and conditions stipulated on the loan contract.

► The bank should incorporate the foreign currency requirement of the project in the appraisal study and plan the foreign currency requirement of the projects and should provide as required. The Bank should strengthen and support firms involved in export-oriented businesses and ensure that adequate foreign currency is available or adequate arrangements for funds are made before projects are started.

► Projects may not always go as the plan and agreed upon; it is difficult to predict precisely the challenges that might face in the implementation process. So that when special approval is needed, the bank management must pass timely decisions whenever unforeseen challenges are met during the implementation process.

5.4 Suggestions for Further Studies

This study has looked into the factors that affect project implementation delay on Development Bank of Ethiopian financed projects, which focused on the Head office. It further suggests that; Further, to augment the research finding of this study, the study indicates that other research on causes of implementation delay on DBE projects should be done in a wider geographical area. The researcher recommends that an investigation be done on the external factors that cause implementation delays deeply and comprehensively since the external factors are beyond the bank and the client's control so that the government can adopt different strategies to minimize the impact and make the financed project successful and competitive

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QUESTIONNAIRE

CAUSES OF PROJECT IMPLEMENTATION DELAY: THE CASE OF PROJECTS FINANCED BY DEVELOPMENT BANK OF ETHIOPIA.

This questionnaire will have of 4 part

Part 1: Respondent Background

Part 2: Factors that Contributing to Causes of project implementation Delays

Part 3: Effect the project implementation delays

Part 4: Methods of Minimizing project implementation Delays

Objective of the Study

1. To investigate bank related variables that significantly causes project implementation delay.

2. To investigate client related variables that significantly causes project implementation delay.

3. To examine external/Macro-economic variables that significantly causes project implementation delay. The factors are cost escalation, change in credit policy of the bank, change in lending interest rate, foreign exchange fluctuation

4. Exterminate delays in implementation

5. To draw up possible recommendations for successful implementation of projects

STUDENT NAME: **Kidist Abera**

SUPERVISOR: **Temesgen belay (PhD)**

NOTE: Your answer will be treated confidentially. The findings of the study will be used for academic.

Thank you for your corporation

St. Mary's university. Business Administration department

Part I. This part of the questionnaire covers items related to background of the

(Please put (√) or (X) in the appropriate boxes)

1. Gender: male   ☐   female   ☐

2. Age: 22-25 ☐   26-30- ☐   31-35 ☐   36 -40 ☐

3. Please indicate your education level

Diploma ☐   BA or BSC☐   MA OR MSc ☐   PhD ☐   other ☐

4. Please indicate your current position in the Bank.

Director   ☐ Manager   ☐ senior officer   ☐ Office   ☐

5. Please indicate your work experience in the Banking industry.

2-5 years   ☐   6- 10 years ☐   11 -15 year ☐   1 6 - 20 years ☐

above 20 years   ☐

6. Please indicate your experience in credit processing.

2-5 years   ☐   6- 10 years ☐   11- 15 years ☐   16 - 20 years ☐

7. State the number of project that respondent contact / supervised

1 - 3 projects ☐   4 - 6 projects ☐   7 - 9 projects ☐   none ☐

8. State the number of project delays which is faced by respondent.

1 - 3 projects ☐   4 - 6 projects ☐   7 - 9 projects ☐

9. State the sector of projects which involved the most frequent for delays.

Agriculture Industry ☐   industry (manufacturing) ☐   Agro processing ☐

10. State the level of the product and service quality may affect because of project

Implementation delay?

Highly affected ☐   moderately affected ☐   poorly affected ☐   not affected ☐

11. State the level of additional cost that the borrower and bank may incur because of project

Implementation delay?

High cost ☐   Moderate cost ☐   Low cost ☐   immaterial cost ☐

12. Depending on the real experience of project financed by DBE, state the level of time
delay for the project started their normal operation lately.

0-6 month ☐ 7month-1year ☐ 1-2 years ☐ 2-3years☐ above 3 years☐

Part II. Questions related to project implementation delay

Please indicate how much the stated factors contribute to project delay with each of the following statements by putting (√) or (X) that best represent your opinion under the space provided. 1 indicates Very low contributing, 2 indicate Low contributing, 3 indicate Medium contributing, 4 indicates Highly contributing and 5 indicate Very highly contributing.

2.1. Promoter's related causes of project implementation delay How do you rate the under mentioned promoter or borrower related issues that hinders a project not to meet its implementation schedule?

NO	FACTOR	1	2	3	4	5
1	Managerial competency of the borrower					
2	Misallocation of funds by the borrower					
3	Misbehavior/ rent seeking character of the promoter					
4	Unable to contribute the required equity					
5	Lack of sense of ownership of the promoter					
6	Disputes among shareholders					
7	Improper planning and scheduling of the project					
8	Failed to meet the terms and conditions stipulated on the loan contract					
9	Lack of commitment and/or not being visionary					
10	Unable to tackle the challenges faced during project implementation					
11	Lack of adequate experience or exposure to implement the project					
12	Design change during implementation of the project					
13	Frequent change of management					
14	Lack of comprehensiveness of feasibility study submitted by the promoter					
15	Low capacity of the promoter to costs during cover cost over runs and unseen costs while planning the project					

2.2. Bank specific factors that contributes to delay in implementation of a project

How do you rate the under mentioned bank specific factors that are likely to be the causes of delay in implementation of a project?

NO	FACTORS	1	2	3	4	5
1	Inadequate technical advice and supervision					
2	Improper planning and scheduling of the project					
3	Poor credit service delivery					
4	Inefficient KYC /due diligent assessment or poor credit scoring					
5	Procurement management problems					
6	Inappropriate credit risk management system					
7	Unable to pass timely decisions when unforeseen circumstances occurred					
8	Inadequate competency and lack of the required skills of officers in charge					
9	Lack of proper implementation of accountability in the bank					
10	Inefficient trade finance or L/C facilities					
11	Lack of IT support system in credit processing					
12	Stringent procedure of the Bank in utilization of loan.					
13	Lack of experience in project appraisal work(good analytical exercise)					

2.3. External factors that hinder a project to meet its implementation schedule.

NO	FACTOR	1	2	3	4	5
1	Cost escalation/ cost over run					
2	Changes in credit policy of the bank					
3	Change in lending interest rate					
4	Increase in inflation rate					
5	Foreign exchange fluctuation					
6	Unfavorable weather condition					
7	Lack of timely availability of the required infrastructure facilities					
8	Lack of commitment from stakeholders to provide the required support					

| 9 | Delay in obtaining the required documents from concerned government offices. Municipality , Regional Environmental offices | | | | | |

Part III. Questions related to method of minimizing project implementation delay

This part is aimed to identify methods of minimizing implementation delay of projects financed by DBE. Please indicate how much the stated methods are effective to minimize project implementation delay by putting (√) or (X) that best represent your opinion under the space provided. 1 indicates very low effective, 2 indicate Low effective, 3 indicate Medium effective, 4 indicates highly effective and 5 indicate very highly effective.

NO	FACTOR	1	2	3	4	5
1	Revision of policy and procedure of DBE in accordance with Government strategies					
2	Verifying reliable source of equity contribution from the side of borrowers					
3	Give due attention on due diligence preparation and pre-credit risk assessment					
4	Providing specific training with sector of project and upgrade analytical exercise of project appraisal officers of the Bank.					
5	Providing appropriate technical advice to support the client of the Bank					
6	Frequent project follow up especially for under implementation projects.					
7	Providing specific training and on job training at the Bank on technical matters for bank responsible staffs.					
8	Proper project planning and scheduling					
9	Proper emphasis on past experience					
10	Verify proper utilization of disbursed loan before the next disbursement					
11	Consider the time taken for the procurement of machineries and imported goods.					
12	Strengthen good and smooth communication experience with the client					

Annex

Annex – 1. Projects' Profile

PROJECT ID	INVESTMENT COST	IMP START DATE		COMPLETION DATE		DELAY IN DAY	DELAY IN MONTH
		PLAN	ACTUAL	PLAN	ACTUAL		
1	122,977,203.00	Mar-17	Apr-17	Jan-18	Jun-18	151	5.03
2	41,096,426.00	May-15	May-15	Feb-17	Jun-18	485	16.17
3	57,882,121.00	Mar-14	Mar-14	Apr-15	Jun-18	1157	38.57
4	37,975,719.00	Oct-15	Nov-15	Dec-16	Jun-18	547	18.23
5	48,350,721.00	Feb-17	Feb-17	Oct-17	Jun-18	243	8.10
6	115,694,524.00	Dec-16	Dec-16	Jan-18	not yet		
7	39,335,805.91	Feb-17	May-17	Feb-18	Jun-18	120	4.00
8	92,370,231.00	Aug-15	Oct-15	Dec-16	Jan-18	396	13.20
9	105,808,713.00	Jun-17	Oct-17	Feb-18	Jun-18	120	4.00
10	58,281,564.00	Feb-14	Jan-14	Jun-15	Jun-18	1096	36.53
11	32,475,251.00	Dec-16	Dec-16	Aug-17	Jun-18	304	10.13
12	57,673,829.27	Dec-15	Jan-16	Feb-17	Jun-18	485	16.17
13	168,450,449.00	May-14	May-14	Jun-15	Sep-15	92	3.07
14	81,261,096.00	Oct-16	Dec-16	Aug-17	Jun-18	304	10.13
15	92,173,958.00	Sep-14	Sep-14	Oct-15	Nov-16	397	13.23
16	46,855,549.00	Aug-16	Mar-17	Dec-17	Jun-18	182	6.07
17	63,370,940.00	Dec-14	Jul-15	May-16	Jun-18	761	25.37
18	37,680,092.00	Dec-15	Feb-16	Feb-16	Jun-18	851	28.37
19	34,905,197.00	Aug-15	Sep-15	Aug-16	Sep-17	396	13.20
20	52,671,984.00	Dec-14	Apr-15	Jul-15	Nov-16	489	16.30
21	52,906,284.00	Apr-16	Apr-16	Feb-16	Sep-17	578	19.27
22	184,938,109.00	Nov-14	Aug-14	Sep-15	Jul-16	304	10.13
23	18,634,336.00	Jul-14	Jul-14	Nov-15	Jun-18	943	31.43
24	1,320,371,529.00	May-13	May-13	Jun-15	Jan-17	580	19.33
25	572,584,843.00	Nov-15	Mar-16	May-17	Jun-18	396	13.20
26	161,691,802.00	Aug-15	Jun-15	May-16	Jun-18	761	25.37
27	71,647,622.00	Jul-15	Jul-15	May-17	Jun-18	396	13.20
28	36,220,041.00	Jun-17	Aug-17	Feb-18	Jun-18	120	4.00
29	97,067,826.00	Nov-16	Nov-16	Nov-17	Jun-18	212	7.07
30	50,477,318.00	Nov-15	Jan-16	Mar-16	Jun-18	822	27.40
31	65,300,402.74	Jun-14	Sep-14	Dec-15	Jun-18	913	30.43
32	42,820,998.00	Nov-16	Dec-16	Nov-17	Jun-18	212	7.07
33	61,448,275.00	Jun-16	Jun-16	Nov-17	Apr-18	151	5.03
34	54,256,933.00	Jan-14	May-14	Nov-14	Jun-18	1308	43.60
35	1,938,231,612.00	May-16	May-16	Dec-17	Jun-18	182	6.07
36	363,236,008.92	Sep-15	Aug-17	Jan-17	Jun-18	516	17.20
37	633,671,663.00	Jul-16	Oct-17	May-17	Jun-18	396	13.20
38	1,131,480,514.00	Apr-16	May-16	May-17	Jun-18	396	13.20
39	540,448,582.00	Oct-15	Oct-15	Sep-17	Jun-18	273	9.10

40	470,253,983.00	Jan-14	Jan-14	Sep-15	Jun-18	1004	33.47
41	835,850,528.00	May-14	May-14	Dec-15	Jan-18	762	25.40
42	329,617,256.00	Jun-16	Jun-16	Sep-17	Jun-18	273	9.10
43	355,626,293.00	Jul-16	Jul-16	Jan-18	Jun-18	151	5.03
44	221,209,494.00	Sep-16	Jul-16	Aug-17	Jun-18	304	10.13
45	540,833,787.00	Jun-15	Apr-15	Jan-17	Jun-18	516	17.20
46	622,224,612.76	Dec-15	Mar-16	May-17	Jun-18	396	13.20
47	777,202,988.00	Jun-16	Jun-16	Aug-17	Jun-18	304	10.13
48	341,083,770.00	May-16	Oct-16	Dec-16	Jun-18	547	18.23
49	336,732,728.36	Jun-16	Aug-16	Feb-18	Jun-18	120	4.00
50	218,256,285.32	Jan-15	Jan-17	Oct-17	Jun-18	243	8.10
51	52,051,146.00	Sep-16	Sep-16	Jun-17	Jun-18	365	12.17
52	37,841,414.00	Feb-15	Apr-15	Jan-16	Jun-18	882	29.40
53	30,387,564.00	Oct-16	Oct-16	Mar-17	Jun-18	457	15.23
54	39,958,261.00	Feb-15	Jan-15	May-15	Jun-18	1127	37.57
55	359,924,313.00	Mar-16	Mar-16	Jun-17	Aug-17	61	2.03
56	117,157,792.00	May-14	May-14	Jun-15	Oct-15	122	4.07
57	271,934,967.00	May-14	Jul-14	Mar-15	Jun-16	458	15.27
58	21,423,530.00	Sep-15	Sep-15	Jul-16	Jun-17	335	11.17
59	33,492,491.00	May-16	May-16	Apr-17	Jun-17	61	2.03
60	34,029,599.50	Feb-15	Apr-15	Jan-16	Mar-18	790	26.33
61	44,631,543.64	Mar-15	Oct-15	Apr-16	not yet		
62	31,446,988.65	May-15	Jul-15	Dec-15	Aug-16	244	8.13
63	51,668,301.00	Nov-16	Mar-17	Aug-18	not yet	120	4.00
64	282,758,432.00	Feb-15	Mar-15	Jun-17	May-18	334	11.13
65	651,476,992.00	Nov-14	Dec-14	Sep-16	Jul-17	303	10.10
66	124,160,551.00	Sep-16	Oct-16	Aug-17	Jan-18	153	5.10
67	749,578,097.26	Apr-17	Mar-17	Feb-18	not yet		
68	177,302,000.00	Apr-17	Jun-17	Jan-18	not yet		
69	236,318,636.74	Mar-16	Mar-16	Jun-17	Aug-17	61	2.03
70	358,190,170.34	May-15	May-15	Jan-16	Jul-16	182	6.07
71	1,034,456,806.05	May-14	Jul-14	Mar-15	Jun-16	458	15.27
72	352,789,792.06	May-16	May-16	Jan-17	Jun-18	516	17.20
73	2,947,770,404.85	Apr-07	Jul-07	Sep-09	Jun-13	1369	45.63
74	715,103,753.66	May-14	May-14	Dec-15	Jan-18	762	25.40
75	186,589,920.41	May-15	Apr-15	Feb-16	Jan-17	335	11.17
76	62,118,619.12	May-16	May-16	Dec-17	Jun-18	182	6.07
77	112,240,762.65	Sep-15	Aug-17	Jan-17	Jun-18	516	17.20
78	25,857,359.41	Jul-16	Oct-17	May-17	Jun-18	396	13.20
79	41,784,385.35	Jun-16	Aug-16	May-17	Jun-18	396	13.20
80	31,382,725.00	Oct-15	Oct-15	Feb-16	Jun-18	851	28.37
81	140,041,900.98	Jan-14	Jan-14	Sep-15	Jun-18	1004	33.47
82	361,322,831.69	May-14	May-14	Dec-15	Jan-18	762	25.40
83	697,091,635.48	Mar-15	Apr-15	Jul-16	Jan-18	549	18.30

Annex - 2. Logit regression estimation test results

```
Iteration 0:    log likelihood = -89.023655
Iteration 1:    log likelihood = -57.815757
Iteration 2:    log likelihood = -55.358116
Iteration 3:    log likelihood = -55.173943
Iteration 4:    log likelihood = -55.172898
Iteration 5:    log likelihood = -55.172898
```

Logistic regression

					Number of obs	=	134
					LR chi2(13)	=	67.70
					Prob > chi2	=	0.0000

Log likelihood = -55.172898

| | | | | | Pseudo R2 | = | 0.3802 |

impstatus	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
invtcost	-1.25e-10	8.09e-10	-0.15	0.877	-1.71e-09	1.46e-09
fcyshort	1.31834	.5625235	2.34	0.019	.2158142	2.420866
exr	1.347574	.6584005	2.05	0.041	.0571323	2.638015
priceesc	1.805104	.5894385	3.06	0.002	.6498257	2.960382
loanutl	1.653843	.7117017	2.32	0.020	.2589338	3.048753
apppbm	1.101328	.5413682	2.03	0.042	.0402662	2.162391
designch	1.311323	.6737276	1.95	0.052	-.0091589	2.631805
competency	-.5192966	.2448819	-2.12	0.034	-.9992563	-.0393368
equity	-.0030952	.0046325	-0.67	0.504	-.0121748	.0059844
debtequityratio	-1.84266	2.239692	-0.82	0.411	-6.232375	2.547055
procurment	-.0901884	.0299345	-3.01	0.003	-.1488589	-.0315178
conunfl	-.2823255	.1351094	-2.09	0.037	-.547135	-.0175159
followup	-.342914	.2014499	-1.70	0.089	-.7377485	.0519205
_cons	-.8927218	1.376122	-0.65	0.517	-3.589871	1.804427

Annex - 3. Logistic Regression with odds Ratio

```
. logistic impstatus invtcost fcyshort exr priceesc loanutl apppbm designch competency equity debtequityratio procurment conunfl followup
```

Logistic regression

				Number of obs	=	134
				LR chi2(13)	=	67.70
				Prob > chi2	=	0.0000

Log likelihood = -55.172898

| | | | | Pseudo R2 | = | 0.3802 |

impstatus	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf. Interval]	
invtcost	1	8.09e-10	-0.15	0.877	1	1
fcyshort	3.737212	2.10227	2.34	0.019	1.240872	11.2556
exr	3.848077	2.533576	2.05	0.041	1.058796	13.98541
priceesc	6.080603	3.584141	3.06	0.002	1.915207	19.30535
loanutl	5.227031	3.720087	2.32	0.020	1.295548	21.08903
apppbm	3.008159	1.628522	2.03	0.042	1.041088	8.691892
designch	3.71108	2.500257	1.95	0.052	.990883	13.89883
competency	.5949389	.1456898	-2.12	0.034	.3681531	.9614268
equity	.9969096	.0046182	-0.67	0.504	.987899	1.006002
debtequityratio	.1583955	.3547571	-0.82	0.411	.0019648	12.76944
procurment	.9137591	.0273529	-3.01	0.003	.8616907	.9689737
conunfl	.7540282	.1018763	-2.09	0.037	.5786051	.9826366
followup	.7096993	.1429688	-1.70	0.089	.4781894	1.053292
_cons	.4095396	.5635763	-0.65	0.517	.0276019	6.076491

Annex - 4. Estat gof overall fitness of the model

```
. estat gof, group (10)
```

Logistic model for impstatus, goodness-of-fit test

```
(Table collapsed on quantiles of estimated probabilities)

        number of observations =       134
              number of groups =        10
     Hosmer-Lemeshow chi2(8) =       6.51
                 Prob > chi2 =     0.5906
```

Annex - 5. model specification Test

```
. linktest

Iteration 0:   log likelihood = -89.023655
Iteration 1:   log likelihood = -56.820615
Iteration 2:   log likelihood = -55.700493
Iteration 3:   log likelihood = -55.073764
Iteration 4:   log likelihood = -55.021468
Iteration 5:   log likelihood = -55.021422
Iteration 6:   log likelihood = -55.021422

Logistic regression                          Number of obs   =        134
                                             LR chi2(2)      =      68.00
                                             Prob > chi2     =     0.0000
Log likelihood = -55.021422                  Pseudo R2       =     0.3819
```

impstatus	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
_hat	.9713314	.1852285	5.24	0.000	.6082902	1.334373
_hatsq	-.0502189	.0939161	-0.53	0.593	-.2342911	.1338533
_cons	.082655	.2820995	0.29	0.770	-.4702499	.63556

Annex - 6. Heteroscedasticity and Multi-collinearity test

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
        Ho: Constant variance
        Variables: fitted values of impstatus

        chi2(1)     =     5.95
        Prob > chi2 =   0.0148

. vif
```

Variable	VIF	1/VIF
invtcost	1.90	0.527104
procurment	1.68	0.596549
priceesc	1.58	0.632623
loanutl	1.46	0.683350
designch	1.43	0.700693
fcyshort	1.35	0.742902
apppbm	1.30	0.767726
exr	1.30	0.769485
equity	1.16	0.860950
conunfl	1.16	0.862076
competency	1.13	0.887579
debtequity~o	1.10	0.906155
followup	1.06	0.942938
Mean VIF	1.35	

Annex – 7 Ramsey RESET test

```
. ovtest

Ramsey RESET test using powers of the fitted values of impstatus
        Ho:  model has no omitted variables

        F(3, 117) =     1.89
        Prob > F =    0.1355
```