



**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
SCHOOL OF COMMERCE**

**MAJOR CAUSES OF PROJECT
IMPLEMENTATION DELAY, THE CASE OF
DEVELOPMENT BANK OF ETHIOPIA
FINANCED PROJECTS**

By

Belay Teferra

AUGUST 2017

ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL
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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Teklegiorgis Assefa (Assistant Professor). All sources of material used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of earning any degree.

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August 2017

ENDORSEMENT

This thesis has been submitted to Addis Ababa University, School of Graduate Studies for examination with my approval as a university advisor.

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August 2017

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Acronyms

DBE: Development Bank of Ethiopia

NPLs: Non Performing Loans

EEPCO: Ethiopian Electric Power Corporation

ERCA: Ethiopian Revenue and Customs Authority

Abstract

The Development Bank of Ethiopia is a specialized financial institution established to promote the national development agenda through development finance and close technical support to viable projects from the priority areas of the government by mobilizing fund from domestic and foreign sources while ensuring its sustainability. While financing development projects, however, the bank faces different, in their nature and causes, kinds of problems. One of these problems is delay in project implementation resulting cost overrun, repeated additional loan and loan repayment rescheduling request and wastage of resources especially human resource for jobs that can add little value for the operations of the Bank and in terms of promoting new investments. To have successfully operating projects that can meet the predetermined goals, projects should be accomplished on time, if delayed, the causes must be known first. The aim of the study, therefore, is to assess the major factors for project implementation delay. This study investigates the causes of delay in project implementation for DBE financed projects to determine the most important according to the key project participants; the bank and its customers. The research identifies and analyses whether the major causes of project implementation delay are attributed to clients or the Banks policies, procedures and its operations or whether delay is attributed to some external factors such as government related factors like customs, infrastructure problems, suppliers etc. It is new and not yet researched in the bank. The target projects for the study are selected from the three different types of priority area projects namely; industrial, agriculture and agro-processing projects of the Head Office. The projects are selected using purposive sampling. The project mix in terms of investment costs mainly focuses on big and complex ones. The collected data is analyzed by establishing the relative importance of the various factors identified as responsible for project implementation delay and the degree of agreement between the rankings of any two parties is shown by using Spearman's rank correlation coefficient (ρ).

Key words: Bank, Clients, External Factors, Project, Implementation Delay

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

The Development Bank of Ethiopia (DBE) is a state owned bank. The bank underwent various transformations in the past five decades to finally take its present form. In 1945, the Agriculture Bank of Ethiopia was established and renamed in 1949 as Agriculture and Commercial Bank of Ethiopia. It was then restructured and became the Development Bank of Ethiopia (DBE) in 1951. The restructuring continued and in 1970 a merger between the Development Bank of Ethiopia and the Ethiopian Investment Corporation (established in 1963) resulted in the formation of the Agriculture and Industrial Development Bank (AID Bank.) It is this bank that became the present DBE following the 1994 Regulation of the Council of Ministers providing for the bank's establishment and the transfer of all rights and obligation of the AIDB (Mengstu, 1999).

Although different in name, the predecessors of DBE were engaged in providing similar banking service including extending agriculture, industrial, agro-progressing or all types of loans. The DBE extends medium term and long term loans mainly in agriculture, agro-processing and industrial projects (manufacturing firms). Due to the political influence during the former regime, the bank gave more attention to loan disbursement than loan collection as most of its clients were either state owned enterprises or co-operatives organized in line with socialist principle. Loan recovery rate during this time did not matter much because loan granting was not based on project financial or economic viability for many of the clients with the exception of private sector borrowers.

In the wake of the reforms following the downfall of the Derg regime, however, the bank had to work in a condition where the role of market forces and the private sector gained more attention and thereby made efficient loan recovery a decisive instrument for staying in business. Besides, in an attempt to improve the bank's financial position and credibility in the eyes of the international lending agencies, the government assumed the responsibility of collecting huge amount of loans that has remained uncollected during the previous regime. Although the government is making a structural change and responsibility of uncollected loans in the previous

regime, currently the Development Bank of Ethiopia is also facing a serious problem of delay in implementation of projects for timely commencement of operation.

Delays are insidious often resulting in time overrun, cost overrun, disputes, litigation, and complete abandonment of projects (Sambasivan and Soon, 2007). Many projects are of such a nature that the client will suffer hardship, expense, or loss of revenue if the work is delayed beyond the time specified in the contract (Clough, 1986). Then again, delay has cost consequences for the contractor: standby costs of non productive workers, supervisors, and equipment, expense caused by disrupted construction and material delivery schedules and additional overhead costs (Clough, 1986).

Project implementation delay is a major problem facing DBE financed projects. It is endemic and its economic challenge and social impacts are often discussed. However, studies on the causes could not be found in the form of published literatures though they are commonly mentioned in the respective project implementation follow ups and inspections. Hence, investigating the significant factors that cause delay and cost overruns in the projects financed by the bank has paramount importance to tackle the challenges in their respective degree of severity.

The delay in implementation of DBE financed projects is associated with various factors and has negatively impacted the timely collection of loans and the bank's loan statuses. In view of this, the study seeks to investigate the major causes of project implementation delay for DBE financed projects.

1.2. Statement of the Problem

Limitation of financial resources is usually regarded as a major bottleneck to the development of many developing countries. To contain this challenge, efforts are made by governments to develop financial institutions that create access to loan for development projects.

Credit has long been recognized as one of the most important inputs that support the success of development project which ultimately contributes towards economic development. Similarly DBE provides sustainable credit facility for those engaged in agriculture, industrial and agro-processing sectors which can result in development of the country. Currently, DBE gives due attention to the government focused priority areas; that can generate foreign currency to the country and reduce unemployment. So as to achieve this objective, the bank needs to strengthen its liquidity position by enhancing its loan recovery. Provision of credit alone does not support the economic development of the country unless it is accompanied by the existence of factors necessary for efficient utilization of the fund in order to repay the loan in accordance with the agreement. This has an impact on sustainable credit facility for those who want loan for a productive purpose. Despite this fact, project implementation delay is a major problem facing DBE financed projects. Implementation delay will result in time and cost overrun which in turn will result in low loan recovery performance of the Bank. Delays can lead to many negative effects such as lawsuits between clients and banks, owners and contractors, increased costs, loss of productivity and revenue, and contract termination. Due to such adverse effects of delays, the bank will not be able to collect its loan on time which ultimately may lead to loss in the operation of the bank. Thus, it is a series problem for the bank and its customers in particular and the country as a whole. Hence, the major factors that cause projects implementation delay in DBE financed projects have to be identified and analyzed. Moreover, the negative outcomes of implementation delay have to be clearly known and acknowledged to give amicable solutions. Therefore, this study aims at answering the under listed research questions.

1.3. Research Questions

- I. What are the major internal (relating to the bank and Bank's clients) and external causes of project implementation delay for DBE financed projects?
- II. What is the relative importance of causes of project implementation delay for DBE financed projects?
- III. What feasible recommendations/strategies can be done to avoid/minimize delays?

1.4. Objective of the Study

1.4.1. General Objective

The main objective of this study is to identify and analyze the major causes of project implementation delay for DBE financed projects in the eyes of the service providers (DBE staff) and service users (clients), and to suggest possible ways of eradicating or minimizing them.

1.4.2. Specific Objectives

The study has the following specific objectives:

- To identify the causes of project implementation delay due to the Bank;
- To identify the causes of projects implementation delay due to clients;
- To identify the causes of projects implementation delay due to external factors (neither due to the Bank nor its clients)
- To draw up possible recommendations for successful implementation of projects with respect to planning and managing of implementation.

1.5. Significance of the Study

Development Bank of Ethiopia is one of the state owned banks facing project implementation delays in its projects. Delays can lead to many negative effects such as lawsuits between clients and banks, owners and contractors, increased costs, loss of productivity and revenue, and contract termination. Due to such adverse effects of delays, the bank will not be able to collect its loan on time which ultimately may lead to loss in the operation of the bank. Hence, problem of delay in project implementation has to be minimized. To minimize such problems, empirical analysis of factors causing delay is necessary. Therefore, this study adds knowledge to the literature on causes of projects implementation delay so as to devise effective and appropriate

policy and working procedure towards this problem. It is expected to suggest important recommendations which would be of great importance both to policy makers and financial institutions providing financial and technical assistance for projects ranging from simple and small to complex and big once. Moreover, the study will be used as an input for individuals who are interested in the subject matter to undertake similar studies.

1.6. Scope & Limitations of the Study

The study focuses on identifying and analyzing the major causes of implementation delay for DBE financed projects. The study only focuses on DBE financed projects and therefore, only credits officers and/or their immediate supervisors and clients of the bank are used to participate in answering questionnaires of the study. The types of projects selected include from the three priority areas in which the bank is providing credit. Agricultural, Industrial and Agro processing projects are incorporated in the study to analyze causes of delay in implementation. About 80% of the total loan portfolio of DBE is located in Head Office. Samples for the study are selected from Head Office projects only. Regional offices and their respective clients that faced delay in project implementation are not incorporated in the study. Therefore, the study was undertaken to meet its objectives within the limitations mentioned.

1.7. Organization of the Study

As indicated above the scope of the study is organized systematically to make clear the facts in the most comprehensive manner. The entire project will contain five chapters organized as follows. The first chapter of the study deals with the introduction of the study under which Background of the Study, Statement of the Problem, Research Questions, Objective of the Study, Significance of the Study and Scope & Limitation of the Study are discussed in detail. Chapter two will contain an extensive but selected review of related literature on the subject. In this chapter concept of a project, concept of delay with empirical review, project life cycles and conceptual frame works are discussed. The third chapter explains the research type & design, sampling design, data collection method and its analysis technique and results are discussed at the end of this chapter. Chapter four contains the findings or results, discussions and analysis of the study. Chapter five consists of conclusion and possible recommendations made based on the findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition and Concept of Project

A project is a complex, non routine, one-time effort limited by time, budget, resources, and performance specifications design to meet customer needs (Gray, C.F. and Larson, E. W., 2008.) Project management is a set of tools, techniques, and knowledge that, when applied, helps to achieve the three main constraints of scope, cost and time, (Charvat, J, 2003.) However, based on different literatures, 52.7% of projects were not able to complete on time and over cost, and 31.1% not fulfilled the scope [Charvat, J., 2003 and Clancy, T., 2008]. The growth in new knowledge has increased the complexity of projects because projects encompass the latest advances. Today, many companies focus on project management, as it focuses on achieving project objectives. It is important as it applies managerial process and has its tools that give managers a good opportunity to succeed in achieving objectives. A project manager can reform everything right from a project management perspective but the project can still fail depending on its success criteria to help to ensure project success. Project managers can use different techniques and tools that are useful to manage projects efficiently. These include network activity diagram, bar charts, macro and micro cost estimation approaches and resource scheduling techniques. The use of these techniques and tools could lead to better chance of project success. Today, emphasis on an integrated project management process is the focus of all project effort towards the strategic plan of an organization, and reinforces control of both the project management techniques and tools, and the interpersonal skills necessary to orchestrate successful project completion [Clancy, T., 2008]. The following sections discuss the project classification, the factors that contributed to project success as well as resulted in project failure.

2.2 Project Classification

Basically, projects can be classified into three resolution types (Clancy T., 2008):

- i. *Resolution Type 1 (project success)*: The project is completed on-time, on-budget, fulfilled all functions and features as specified.
- ii. *Resolution Type 2 (project challenged)*: The project is completed and operational but over-budget, over the time estimate, and offers fewer functions and features than originally specified.
- iii. *Resolution Type 3 (project impaired)*: The project is cancelled at some point during the development cycle.

2.3 Definition and Concept of Delay

Sanders and Eagles, 2001 define delay as an event that causes extended time to complete all or part of a project. Delay may also be defined as the time overrun, either beyond the date for completion specified by the contract or schedule or beyond the extended contract period where an extension of time has been granted. The type of delay we focus on in this study is the time overrun beyond the date for completion specified by project implementation schedule or by the contract not considering whether an extension of time has been granted.

Project implementation delay is a global phenomenon affecting not only the parties involved in the project but also the overall economy of countries as well. Delay involves multiple complex issues all of which are invariably of critical importance to the parties, in our case the bank and its clients. These issues concern entitlement to recover costs of delay or the necessity to prolong the project with the consequential entitlement to recovery costs for adjustments to the contract schedules. In the case of Development Bank of Ethiopia, project implementation delay causes wastage of resources to process loan repayment rescheduling, processing of additional loans due to cost overrun and projects are losing substantial market shares due to delay.

Questions arise as to the causes of delay and the assigning of fault often evolves into disputes and litigation (Bolton, 1990).

For the purpose of this study, I have classified delay causes into three. The first is the one caused by the Bank's actions such as, unfavorable policies and procedures, bureaucratic loan disbursement, failure to give the required technical advice and feedback, inefficiency of staffs to

properly appraise projects and similar cases, the second is causes originating from the client such as loan diversion, plan (scope) change by clients or clients initiated variations, giving less to the project and the third is external factors such as devaluation of Birr against other currencies, delay in customs clearing, inefficient logistic, delay in suppliers and other government acts.

2.4 Empirical Review on Delays

Delay and cost overrun are inherent part of most projects despite the much acquired knowledge in project management. Although some may argue that this is negligible (Flyvbjerg, 2009), it is important to note that physical and economic scale of projects today is such that it is driven under the platform of profit to the parent organization, and of national interest by the degree of success defined within the iron triangle of cost, time, and scope. It is therefore much appreciated to look at some reasons of delays and cost overrun in project and their mitigation process, so as to increase the perception of project success.

One major factor that has been identified as reasons for cost overrun in most projects is design errors (Ambsisi A., 2011). It is important to note that proper representation of client's requirement and the blue print to achieving good technical input to project execution are usually mapped out based on project designs (Ibid). Thus a design with errors practically means wrong or insufficient representation of project deliverables. This will lead to wrong application of techniques in achieving result, such that as the actual execution phase of the project unfolds these design errors, attempt to correct it will lead to delay and cost overrun. Another way design errors could lead to cost overrun and delay could be seen in the fact that project estimations are done based on the produced designs, as such, having errors in design in a form of omission or misrepresentation will mean that the estimation for the project cost will also include these omissions, thereby leading to extra works, change order etc, thus resulting in delay and cost overrun. Similarly, designs that are done without extensive investigation of site could contain potential errors. This is because such designs could lead to additional work, revision of scope of work, and contract revision as the actual site conditions begins to float up at the construction phase of the project. These will no doubt affect the overall project delivery time and cost. Bordat et al, 2004 cited causes of design errors in most projects as inadequate field investigation, error in design and specifications, plan errors, design changes etc. In controlling project delay and cost overrun due to design errors, the basic thing to be considered is the involvement of professional

skills and application of competent tools throughout the project. Achieving error free design entails good communication with the entire design team and integrating a design process that is properly planned, giving enough time for corrections, extensive investigation and reviews. Similarly, an effective project planning, controlling and monitoring should be established to enhance project performance throughout the project life cycle. Proper site investigation should be done to ensure that all site conditions are noted in the design, and application of value management could be used to obtain the best cost effective design options.

Delay and cost overrun in project could be as a result of scope change. Scope is the term that defines the entire deliverables that is expected at the end of a project. Therefore, logically, it can be said that all project plans, estimation, schedule, quality and base lines are usually designed based on the initial project scope (Ambsisi A., 2011). Thus, any change in the project scope during execution will mean that the entire initial project plan will have to be reviewed such that a reviewed budget, schedule and quality will have to be developed. This means more time and resources will be needed as against the initial baseline. “With each scope change, precious project resources are diverted to activities that were not identified in the original project scope, leading to pressure on the project schedule and budget” (Narayan 2010). Project scope change could be as a result of wrong initial scope definition, inherent risk and uncertainties, sudden change of interest, project funding change, etc. this could lead to change request which in turn could lead to change in project deliverables, budget and/or even the entire project team. Poor scope change management could lead to dispute that may require spending time and money on arbitration and litigation for what the contractor or the client believes he is entitled to. This will no doubt lead to delay and cost overrun of the project. To achieve a proper control for scope change, it is important to first identify the fact that change is inevitable in project and could equally be beneficial to the entire project success. Thus the most important thing to do is to integrate a proper change management plan such that a proactive approach could be adopted involving the project stakeholders and incorporating their needs throughout the project lifecycle. Similarly, to avoid disputes, it is important to always seek approval for changes from sponsor and communicate changes in a timely way. For highly evolving change in project, the scope could be frozen so as to concentrate on the expected deliverable.

Another major reason for cost overrun and delay in project is inappropriate and inadequate procurement and faulty contractual management system (Singh 2009). Contracts read out virtually every aspect of a business correlation, including payment terms, pricing, and service levels. Therefore a contract that has not highlighted the entire project scenario may lead to dispute in the contract system. For instance, if the initial contract does not completely specify every relevant aspect of the project work, this may lead to long chains of negotiations, arbitration and/or mitigation due work change orders and the quest for reviewed contractual agreement with new budgets and schedule. The result will no doubt be a project delay and cost overrun. Similarly, ambiguous contractual agreement with unclear clauses can be of potential dispute thus generating delay and cost overrun in project. In the same vein, delay and cost overrun could be inherent in terms of poor contractor selection and unethical behavior, contract bid amount, difference between the winning bid and second bid, difference between the winning bid and the engineer's estimate, etc (Singh 2009), and since majority of projects are executed by contractors, it is important to note that procurement process and contract management is critical to the successful completion of projects. Thus poor selection of contractors due to low bids, with no technical capability to handle the project will lead to cost overruns, schedule delays, poor quality, and a final result that is not acceptable. Also, a contract management system with clients that have a slow payment schedule could lead to delay and cost overrun.

To solve these problems, the needful and ethical thing to do is to firstly identify the most qualified contractor via an ethical tender system and draft out the most suitable contract type as applicable to the conditions of the project and also explicitly define the terms and conditions that govern the contract in clear clauses. These clauses should spell out the penalties associated to delays and cost overruns and the party to bear risk associated to these events. Similarly all important potential dispute contract clauses should stated in clear unambiguous terms. The use of generic contract templates should be avoided and "careful consideration should be done when forming the contract, about what might happen during its operation, this will ensure that things are included in the contract documents that enable effective contract management"(Ambsisi, 2011).

The complexity of project could also be a contributing factor to delay and cost overrun. Complexity could be define in terms of the size of the project, most mega projects tend to have

relatively long implementation period when compared to small project. This could be affected by inflation, change in material price and changes in exchange rates such that the initial budget may need to be supplemented for the project to be completed. The result could be cost overrun and long chains of negotiation which will lead to delay. Similarly, projects with high degree of complexity usually result in complex plans, schedules and estimations. Such that if care is not taken the tendency of omitting certain aspect of the project plans and/or estimation could be prominent, thereby leading to change orders. This could lead to delay and cost. Also, project complexity could also be defined in term of the diversity of stakeholders with different interest and long chain of communication channel with slow feedbacks (Cerpa and Verner, 2009). Therefore integrating their interest could take a lot of time and resources which when overlooked could result in conflicts and dispute, thus affecting the project in the context of delay and cost overrun. To eliminate or reduce the effect of delay and cost overrun due to project complexity, vigorous planning should be done, incorporating every important aspect of the project scope, milestones, delivery time, stakeholders, and methodology to be used. According Johnsinit2010, “Managing complex projects needs experience, expertise and exposure”.

Thus, project needs its goals and scope to be defined, based on the client requirements. This helps the project to be kept on track and ensures doing only the job that is intended. It is, therefore, important to build a good team with project success interest at heart to achieve this.

A number of studies have been carried out to determine the causes of delay with special emphasis in construction projects. Sweis et al., 2008 studied the causes of delay in residential projects in Jordan and concluded that financial difficulties faced by the contractor and too many change orders by the owner are the leading causes of construction delay. Abd El-Razek et al., 2008 in a similar study in Egypt found that the most important causes of delay are financing by contractor during construction, delays in contractor’s payment by owner, design changes by owner or his agent during construction, partial payments during construction, and non-utilization of professional construction/ contractual management.

Assaf and AlHejji, 2006 conducted a time performance survey of different types of construction projects in Saudi Arabia to determine the causes of delay and their importance according to each project participant (owner, consultant, and contractor). They identified seventy three (73) causes

of delay during the research. The most common cause of delay identified by all three parties was “change order followed by financial difficulties.”

2.5 The Project Cycle

The project cycle considers various stages in which each stage not only is grown out of the preceding ones, but also leads into the subsequent ones. The planning process does not contain such a stringent sequence of events since all aspects of the project have to be considered simultaneously and, if necessary, adjusted to one another.

Therefore, projects cycle is a self – renewing cycle in that new projects may grow out of the old ones in a continuous process and self – sustaining cycle of activity.

As is in the case with aspects of project analysis, there are many equally valid ways in which the project cycle may be divided. There are various models that deal with the project cycle. However, here more emphasis is given to the Basic Models – **The Baum’s** cycle.

2.5.1 The Baum Cycle (World Bank Procedures)

The first basic model of a project cycle is that of Baum (1970), which has been adopted by the World Bank and initially recognized four main stages, namely.

1. Identification
2. Preparation
3. Appraisal and Selection
4. Implementation

2.5.1.1 Identification

The first stage in the cycle is to find potential projects. Project identification could be resource based, market based, need-based, expansion of existing one or well-informed technical specialists and local leaders are also common sources of projects. In general, most projects start as an elementary idea. Eventually, some simple ideas are elaborated into a form to which the title “project” can be formally applied.

2.5.1.2 Preparation (pre-feasibility or feasibility studies)

Once projects have been identified, there begins a process of progressively more detailed preparation and analysis of project plans. At this stage the project is being seriously considered as a definite investment action.

Project preparation (project formulation) covers the establishment of technical, economic and financial feasibility. Decisions have to be made on the scope of the project, location and site, soil and hydrological requirements, project size (farm or factory size) etc

Resource base investigations are undertaken and alternative forms of projects are explored. Complete technical specifications of distinct proposals accompanied by full details of financial and economic costs and benefits are the outcome of the project preparation stage. The project now exists as a set of *tangible proposals*.

Project design and formulation is an area in which local and international consultants are very active especially for big project that cover large areas and have big budgets.

2.5.1.3 Appraisal

After a project has been prepared, it is generally appropriate for a *critical review* or an independent appraisal to be conducted. This provides an opportunity to re-examine every aspect of the project plan to assess whether the proposal is appropriate and sound before large sums are committed.

Appraisals should cover at least seven aspects of a project, each of which must have been given special consideration during the project preparation phase. These are technical, financial, commercial, incentive, economic, managerial and organizational appraisals.

These issues are the subjects of specialized appraisal report. And on the basis of this report, financial decisions are made – whether to go ahead with the project or not. In practice, there can be quite a sequence of project selection decisions. Following appraisal, some projects may be discarded.

In the case of DBE where projects involve loan finance, the bank certainly carries out his own appraisal before completing negotiations with the borrower. Comments made at the appraisal stage frequently give rise to alterations in the project plan (project proposal).

2.5.1.4 Implementation

The objective of any effort in project planning and analysis clearly is to have a project that can be implemented to the benefit of the society. Thus, implementation is perhaps the most important part of the project cycle.

Each project implementing entity has its own internal project cycle with different definitions for various milestones, including project start dates. Some may consider project start to be the date an implementing entity's board approves a project, others the date of first disbursement, still others the date of the signed agreement between the entity and government. In case of the Development Bank of Ethiopia, however, projects are assumed to start implementation immediately after the signing of the loan contract. The Bank, in its project feasibility appraisal format sets out project implementation schedule from loan approval up to commencement of operation. Hence, 'projects implementation' in this study focuses on the period from loan contract signing up to the project commences operation and/or production of the specified products.

In project implementation stage, funds are actually disbursed to get the project started and keep running. A major priority during this stage is to ensure that the project is carried out in the way and within the period that was planned. Problems frequently occur when the economic and financial environment at implementation differs from the situation expected during appraisal.

Frequently original proposals are modified, though usually only with difficulty, because of the need to get agreement between the parties involved. It is during implementation that many of the real problems of projects are first identified. Because of this, the feedback effect on the discovery and design of new projects and the deficiencies in the capabilities of the project actor can be revealed.

Therefore, to allow the parties involved in the project to become aware of the difficulties that might arise, recording, monitoring and progress reporting are important activities during the

implementation stage. There are some aspects of implementation that are of particular relevance to project planning and analysis.

- i. The first is that the better and more realistic a project plan is, the more likely it is that the plan can be carried out and the expected benefit realized. This emphasizes once again the need for careful attention to each aspect of project planning and analysis.
- ii. The second is that project implementation must be flexible. Circumstances will change and project managers must be able to respond intelligently to these changes.

2.5.1.5 Evaluation

The final phase in the project cycle is evaluation. Once a project has been carried out, it is often useful, (though not always done) to look back over what took place, to compare actual progress with the plans, and to judge whether the decisions and actions taken were responsible and useful.

The extent to which the objectives of a project are being realized provides the primary criterion for evaluation. The analyst looks systematically at the elements of success and failure in the project experience to learn how better to plan for the future.

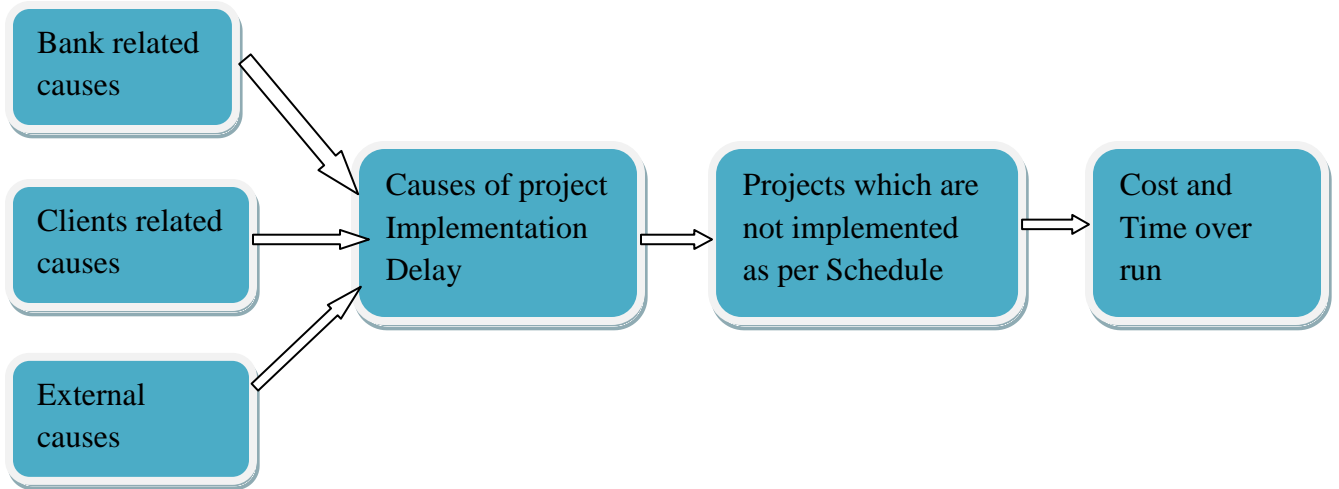
Evaluation is not limited only to completed projects. Continuously evaluating the smooth implementation of the project is highly important. In the case of DBE, monitoring and evaluation is conducted following every release of loan at project implementation stage which is an important task to control that the funds are being used for the intended purpose. It is also a most important managerial tool in ongoing projects and rather formalized evaluation may take place at several times in the life of a project.

Evaluation may be undertaken when the project is in trouble, as the first step in a re-planning effort. Careful evaluation should precede any effort to plan follow – up projects. And, finally, evaluation should be undertaken when a project is terminated or is well into routine operation.

Evaluation can help not only in the management of the project after the initial phase, but will also help in the planning of future projects.

2.6 Conceptual Framework

Figure 1: Conceptual framework



Source: Own Analysis

The conceptual framework states that causes of project implementation delay leads projects not to be implemented as per schedule and this leads to cost and time over run. Cost and time over run leads projects fail to meet their repayment plan and this makes rescheduling of loan repayment by the Bank which results in decrease in loan recovery performance.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Research Type

The study is applied research type because it is aimed at solving a currently experienced problem in project financing. It is also an explanatory research type because it is intended to explain the factors that cause projects implementation delay of DBE financed projects.

3.2. Research Design

The overall research design is self framed questionnaire designed for identification of the most important causes of delay. Initially the most delayed projects and their respective causes are identified by reviewing projects implementation follow up reports, project completion and project operation follow ups conducted by the Bank. In addition, non-structured interviews of the bank's credit officers, their immediate supervisors and clients of projects facing project implementation delay selected based on literature search are conducted.

The purpose of interviewing the key players is essentially to validate a preliminary set of project implementation delay causes gleaned from literature and to determine from their experience other factors which cause project implementation delay.

3.3. Sampling Design

The target populations of the study are the total number of delayed projects of the bank found in the head office. Most of the loans, especially those of Mega Projects, are located in the Head Office. Until very recently, the lending limit of district offices was set at a maximum of Birr 15 million which has recently raised to 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. Therefore, taking samples from the head office projects is representative and hence the study will take sample delayed projects from head office. It also incorporates all agriculture, agro-processing and industrial projects. Hence, convenience or availability sampling technique is used to select from the delayed projects and stratified sampling is used to select samples from all the three priority areas of lending; industry, agriculture and agro-processing. According to the bank's quarterly report as at March 31, 2017, a total of 222 projects have delayed beyond their

respective implementation schedules. This is considered to be the total population of the study. From these, a total of 87 sample sizes are selected as samples for this study. Hence, again to ensure a balanced view, 87 questionnaires to loan officers and 87 questionnaires to clients (a total of 174) questionnaires are distributed.

3.4. Data Collection Method

The data is collected from both the primary and secondary data sources. The primary data is obtained through structured questionnaire and interviews. The secondary data is obtained through review of literatures, Bank's annual reports, bulletins, follow up and inspection reports etc. The data collection process involved two stages. The first stage consisted of literature search for information on the causes of projects implementation delay in Ethiopia and in other countries. The second stage involved non-structured interviews of 15 key credit officers and 15 investors that have already become the Bank's clients involved in the implementation process selected by their understanding of 'what does project implementation delay means'. The purpose of interviewing the key players was essentially to validate a preliminary set of project implementation delay causes gleaned from the literature and to determine from their experience other factors which cause project implementation delay in DBE financed projects. To avoid bias and ensure a balanced view, the interviewees consisted of 87 credit officers and/or immediate supervisors and 87 clients. Questionnaires incorporating all the causes of delay are developed and distributed for data collection. The questionnaire is organized in the form of an importance scale. Respondents are asked to indicate by ticking a column the relative importance of each of the causes of project implementation delay (in terms of 4 = 'very important', 3 = 'important', 2 = 'Somewhat important', 1 = 'not important'). A total of 174 questionnaires are distributed. The convenience or availability sampling approach was used in the selection of respondents. Gabor (1993) and Baley (1994) describe this type of sampling as one where the researcher uses cases that are most convenient and available. It is made up of whoever is willing to participate. The disadvantage of this approach is its potential for bias (Frey *et al.*, 1991). However, in order to avoid bias, the selection of the respondents was given the required attention of the researcher during sample selection and hence, convenience sampling was considered appropriate. The questionnaires were personally delivered to the respondents by the data collectors who also went back to collect them at appointed times. The collection of data took 4 weeks. At end of the

period, 156 questionnaires (89.65%) were received for analysis out of which 76 were responses from clients and the remaining 80 were from the Bank's employees. The response rate by both clients and employees is higher than expected by the researcher. The groups of respondents were most enthusiastic and cooperative.

3.5. Data Analysis

The survey data consisting of the 42 causes of delay were analyzed and grouped into three major areas: Delay associated to the Bank's actions, delay associated to Clients and delay due to external factors.

Table 1: List of causes of delay grouped in three

	Delay Resulted from the Investor's Actions
1	Conflict between shareholders in case of PLCs and S.Cs and between spouses in case of sole proprietors
2	Delay in appointing project managers
3	Diversion of funds for unintended purpose by promoters
4	Lack of program of works by clients
5	Failure to build as per the approved design and specification.
6	Failure to contribute equity contribution in time
7	Plan (scope) change by clients or clients initiated variations
8	Poor professionals management by promoters
9	Poor project design and planning by owners
10	Poor site management
11	Project Management problem at implementation stage
12	Underestimation of complexity of projects by promoters
13	Underestimation of cost of projects by Investors.
14	Underestimation of time for completion by contractors & delay by sub-contractors
15	Owners lack the required technical knowhow and experience in projects
	Delay Resulted from the Bank's Actions
1	Delay in disbursement of loan and equity by the Bank
2	Delay in honoring payment certificates
3	Existence of missed items & long time taken to incorporate them through additional loan
4	Failure to give the required technical advice and feed back
5	Inefficiency of staffs to properly appraise projects
6	Poor supervision, follow up and inspection by the Bank
7	Short implementation period given by the Bank during project appraisal

8	Underestimation of cost of projects by the Bank
9	Unfavorable policies and procedures of the Bank
	Delay due to External Factors (Neither due to the Bank or nor the Investor)
1	Accidents during construction
2	Bad weather conditions
3	Delay in instructions from consultants
4	Delay in suppliers of machineries and equipments
5	Fluctuation in foreign currency
6	Fluctuation of prices of materials and increase in total cost of projects
7	Governments failure to avail the required infrastructures like road, water, power on time
8	Increase in cost of inputs (materials)
9	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPKO and ERCA etc
10	Late deliveries of materials
11	Legal disputes
12	Mistakes with site, soil and foundation conditions investigations
13	Political unrest and upheaval
14	Poor customs clearing and inefficient logistics
15	Shortage of foreign currency
16	Shortage of materials
17	Shortage of skilled and un skilled labor
18	Unskilled equipment operators

A quantitative data analysis technique of putting the Relative Importance of Index (RII) for each cause of delay is used to analyze the data collected from primary and secondary data sources. The aim of the analysis is to establish the relative importance of the various factors identified as responsible for project implementation delay. The score for each factor is calculated by summing up the scores given to it by the respondents. The Relative Importance Index (RII) is calculated using the following formula (Fagbenleet *al.*, 2004):

$$RII = \frac{\sum P U_i}{N(n)} \dots \dots \dots (1)$$

Where,

RII = relative importance index

Pi = respondent’s rating of cause of delay

Ui = number of respondents placing identical weighting/rating on cause of delay

N = sample size

n = the highest attainable score on cause of delay

The Relative Importance Index for all the delay factors is calculated using the equation (1) above.

Table 2: RII and Rank of Delay Factors according to Clients and Employees

Relative Importance Index (RII)							
S/N	Factors of Delay	Clients		Employees		Overall	
		RII	Rank	RII	Rank	Average	Rank
1	Shortage of foreign currency	0.8849	1	0.9094	1	0.8971	1
2	Failure to contribute equity contribution in time	0.8125	3	0.8531	2	0.8328	2
3	Plan (scope) change by clients or clients initiated variations	0.8487	2	0.8031	10	0.8259	3
4	Governments failure to avail the required infrastructures like road, water, power on time	0.7961	4	0.8281	5	0.8121	4
5	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc	0.7862	5	0.8281	6	0.8072	5
6	Fluctuation in foreign currency	0.7566	8	0.8219	8	0.7892	6
7	Fluctuation of prices of materials and increase in total cost of projects	0.7336	13	0.8188	9	0.7762	7
8	Diversion of funds for unintended purpose by promoters	0.7007	16	0.8438	3	0.7722	8
9	Existence of missed items & long time taken to incorporate them through additional loan	0.7599	7	0.7781	17	0.7690	9
10	Underestimation of complexity of projects by promoters	0.7368	11	0.7813	16	0.7590	10
11	Project Management problem at implementation stage	0.6776	21	0.8313	4	0.7544	11

12	Underestimation of time for completion by contractors & delay by sub-contractors	0.6908	17	0.8031	11	0.7470	12
13	Underestimation of cost of projects by the Bank	0.7796	6	0.7125	26	0.7461	13
14	Short implementation period given by the Bank during project appraisal	0.7533	9	0.7375	24	0.7454	14
15	Owners lack the required technical knowhow and experience in projects	0.6875	20	0.8000	13	0.7438	15
16	Increase in cost of inputs (materials)	0.7072	15	0.7656	19	0.7364	16
17	Poor supervision, follow up and inspection by the Bank	0.6875	18	0.7844	15	0.7359	17
18	Poor professionals management by promoters	0.6382	30	0.8219	7	0.7300	18
19	Poor project design and planning by owners	0.6711	24	0.7875	14	0.7293	19
20	Delay in suppliers of machineries and equipments	0.6414	29	0.8000	12	0.7207	20
21	Poor customs clearing and inefficient logistics	0.6776	22	0.7625	20	0.7201	21
22	Shortage of materials	0.6875	19	0.7344	25	0.7109	22
23	Underestimation of cost of projects by Investors.	0.7270	14	0.6844	29	0.7057	23
24	Lack of program of works by clients	0.6612	26	0.7469	22	0.7040	24
25	Late deliveries of materials	0.6513	27	0.7438	23	0.6975	25
26	Delay in disbursement of loan and equity by the Bank	0.7336	12	0.6594	33	0.6965	26
27	Poor site management	0.6283	31	0.7469	21	0.6876	27
28	Failure to give the required technical advice and feed back	0.6711	23	0.7031	27	0.6871	28
29	Unfavorable policies and procedures of the Bank	0.7401	10	0.6188	35	0.6794	29
30	Inefficiency of staffs to properly appraise projects	0.6612	25	0.6813	30	0.6712	30
31	Delay in appointing project managers	0.6447	28	0.6719	32	0.6583	31
32	Failure to build as per the approved design and specification.	0.5362	34	0.7656	18	0.6509	32
33	Delay in instructions from consultants	0.5855	33	0.6750	31	0.6303	33
34	Delay in honoring payment certificates	0.6086	32	0.6438	34	0.6262	34
35	Mistakes with site, soil and foundation conditions investigations	0.4737	40	0.7031	28	0.5884	35
36	Unskilled equipment operators	0.5263	36	0.6063	37	0.5663	36

37	Political unrest and upheaval	0.5329	35	0.5563	41	0.5446	37
38	Shortage of skilled and un skilled labor	0.4967	38	0.5875	39	0.5421	38
39	Conflict between shareholders in case of PLCs and S.Cs and between spouses in case of sole proprietors	0.4770	39	0.5969	38	0.5369	39
40	Bad weather conditions	0.4211	42	0.6125	36	0.5168	40
41	Legal disputes	0.4243	41	0.5625	40	0.4934	41
42	Accidents during construction	0.5099	37	0.4625	42	0.4862	42

Table 3: Index and Rank of Causes of Groups of Delay Factors

Relative Importance Index (RII) by the Three Groups of Factors							
S/N	Groups	Clients		Employees	Overall		
		RII	Rank	RII	Rank	Average	Rank
	Delay Resulted from the Investor's Actions	0.6759	2	0.7692	1	0.7225	1
1	Conflict between shareholders in case of PLCs and S.Cs and between spouses in case of sole proprietors	0.4770		0.5969		0.5369	
2	Delay in appointing project managers	0.6447		0.6719		0.6583	
3	Diversion of funds for unintended purpose by promoters	0.7007		0.8438		0.7722	
4	Lack of program of works by clients	0.6612		0.7469		0.7040	
5	Failure to build as per the approved design and specification.	0.5362		0.7656		0.6509	
6	Failure to contribute equity contribution in time	0.8125		0.8531		0.8328	
7	Plan (scope) change by clients or clients initiated variations	0.8487		0.8031		0.8259	
8	Poor professionals management by promoters	0.6382		0.8219		0.7300	
9	Poor project design and planning by owners	0.6711		0.7875		0.7293	
10	Poor site management	0.6283		0.7469		0.6876	
11	Project Management problem at implementation stage	0.6776		0.8313		0.7544	
12	Underestimation of complexity of projects by promoters	0.7368		0.7813		0.7590	
13	Underestimation of cost of projects by Investors.	0.7270		0.6844		0.7057	
14	Underestimation of time for completion by contractors & delay by sub-contractors	0.6908		0.8031		0.7470	

15	Owners lack the required technical knowhow and experience in projects	0.6875		0.8000		0.7438	
	Delay Resulted from the Bank's Actions	0.7105	1	0.7021	3	0.7063	2
1	Delay in disbursement of loan and equity by the Bank	0.7336		0.6594		0.6965	
2	Delay in honoring payment certificates	0.6086		0.6438		0.6262	
3	Existence of missed items & long time taken to incorporate them through additional loan	0.7599		0.7781		0.7690	
4	Failure to give the required technical advice and feed back	0.6711		0.7031		0.6871	
5	Inefficiency of staffs to properly appraise projects	0.6612		0.6813		0.6712	
6	Poor supervision, follow up and inspection by the Bank	0.6875		0.7844		0.7359	
7	Short implementation period given by the Bank during project appraisal	0.7533		0.7375		0.7454	
8	Underestimation of cost of projects by the Bank	0.7796		0.7125		0.7461	
9	Unfavorable policies and procedures of the Bank	0.7401		0.6188		0.6794	
	Delay due to External Factors (Neither due to the Bank nor the Investor)	0.6274	3	0.7099	2	0.6686	3
1	Accidents during construction	0.5099		0.4625		0.4862	
2	Bad weather conditions	0.4211		0.6125		0.5168	
3	Delay in instructions from consultants	0.5855		0.6750		0.6303	
4	Delay in suppliers of machineries and equipments	0.6414		0.8000		0.7207	
5	Fluctuation in foreign currency	0.7566		0.8219		0.7892	
6	Fluctuation of prices of materials and increase in total cost of projects	0.7336		0.8188		0.7762	
7	Governments failure to avail the required infrastructures like road, water, power on time	0.7961		0.8281		0.8121	
8	Increase in cost of inputs (materials)	0.7072		0.7656		0.7364	
9	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc	0.7862		0.8281		0.8072	
10	Late deliveries of materials	0.6513		0.7438		0.6975	
11	Legal disputes	0.4243		0.5625		0.4934	

12	Mistakes with site, soil and foundation conditions investigations	0.4737		0.7031		0.5884	
13	Political unrest and upheaval	0.5329		0.5563		0.5446	
14	Poor customs clearing and inefficient logistics	0.6776		0.7625		0.7201	
15	Shortage of foreign currency	0.8849		0.9094		0.8971	
16	Shortage of materials	0.6875		0.7344		0.7109	
17	Shortage of skilled and un skilled labor	0.4967		0.5875		0.5421	
18	Unskilled equipment operators	0.5263		0.6063		0.5663	

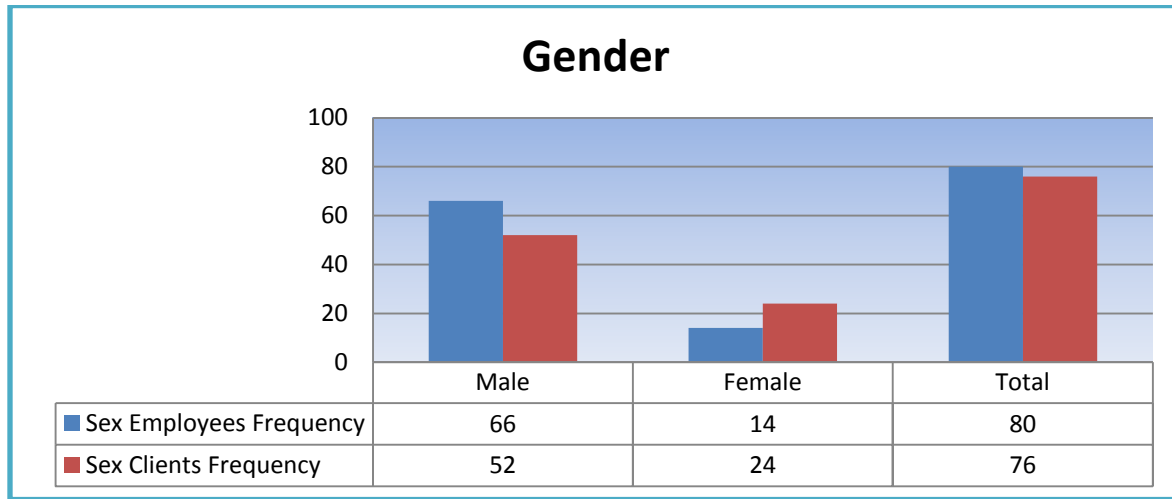
CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 General Characteristics of Respondents

4.1.1 Gender of the Respondents

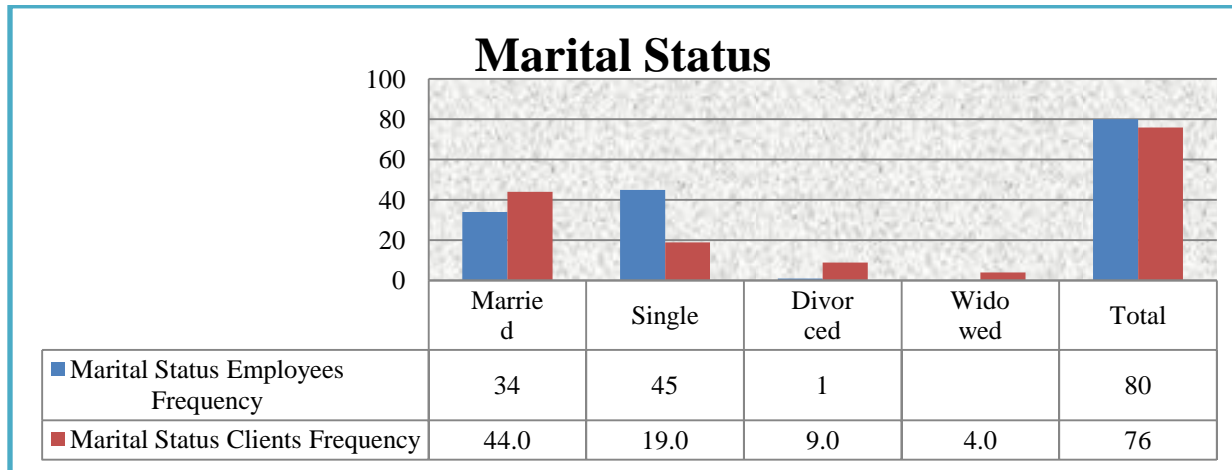
Figure 2: Gender



The above graph shows the sex wise analysis of the respondents. Out of 174 set of questionnaires distributed, with the proportion of (87 for clients and 87 for employees), 156 questionnaires were fully responded of which 76 are from the clients and the remaining 80 are from Bank’s employees. Out of the total respondents from the clients, 52 were males and the rest 24 were females and out of the total respondents from the Bank’s employees, 66 were males and the rest 14 were females. This shows that the majority of the respondents both from the clients and employees side were males than females.

4.1.2 Marital Status

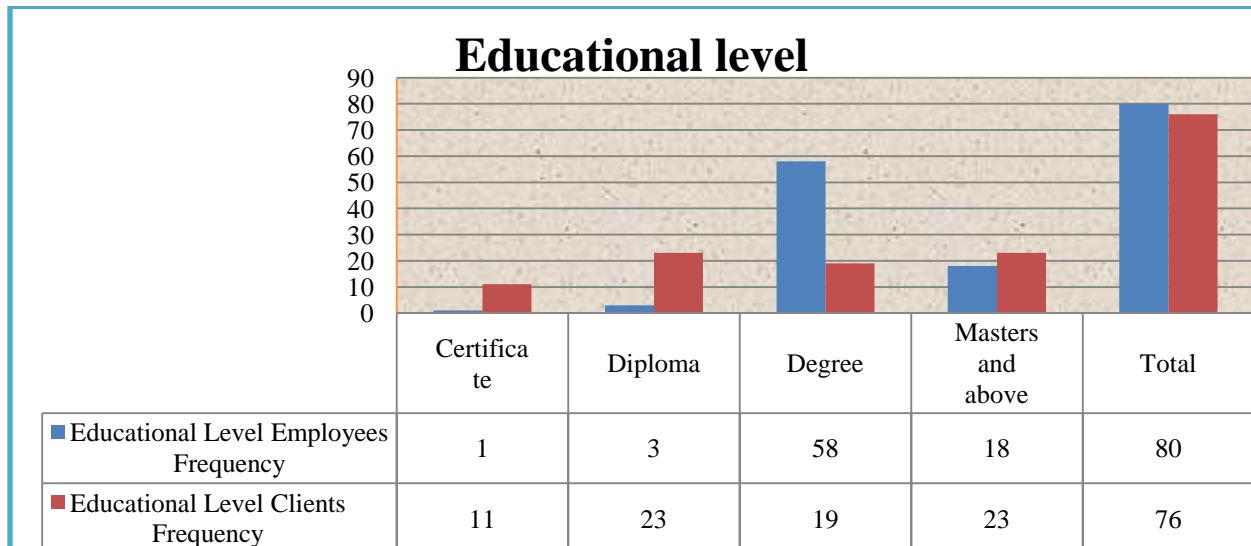
Figure 3: Marital Status



The above graph shows the marital status of the respondents. Out of the total 76 respondents from the clients, 34 were married, 45 were single and 1 divorced. Moreover, out of the total 80 respondent from employees, 44 were married, 19 were single, 9 were divorced and 4 widowed. This shows that the majority of the respondents from the clients’ side are single and from the bank’s employee side, the majorities are married.

4.1.3 Educational Level

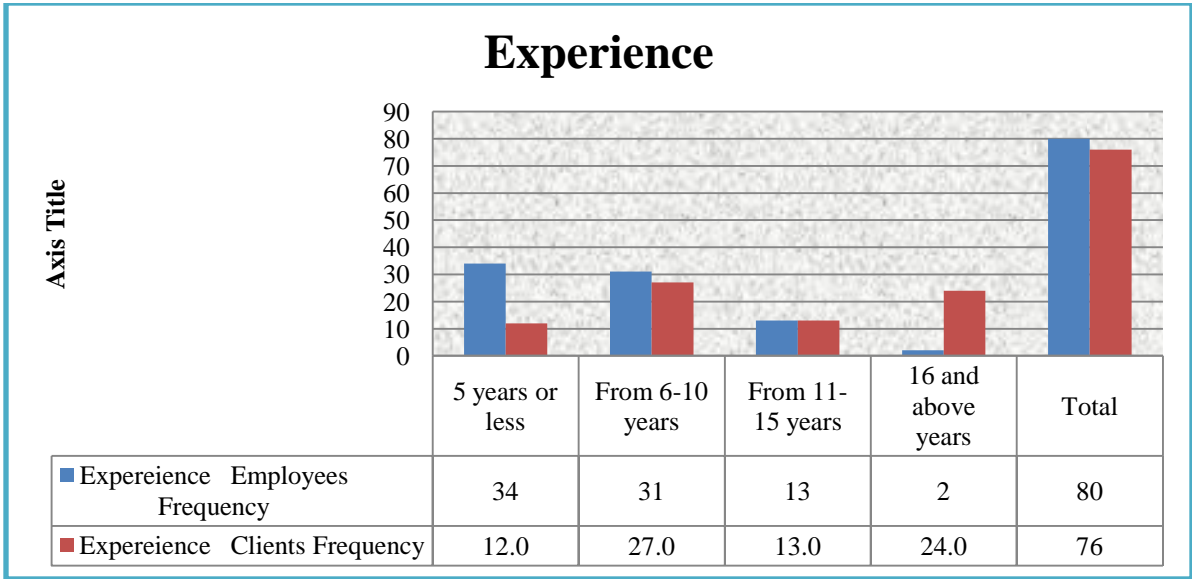
Figure 4: Educational level



The above graph shows educational level of the respondents from client and Bank employees' side. It reveals that, out of the total 80 respondents from the employees side, 1 respondent has certificate, 3 respondents have diploma, 58 respondents have degree and the rest 18 respondents have Masters Degree and above. Moreover, out of the total 76 respondents from the clients side, 11 respondents have certificate, 23 respondents have diploma, 19 respondents have degree and the rest 23 respondents have Masters Degree and above. This shows that the majority of the respondents from Bank's employees side have degree while majority of the respondents from clients side have diploma and masters and above educational level.

4.1.4 Experience

Figure 5: Experience



The above graph shows experience of the respondents from clients and employees side. It reveals that, out of the total 80 respondents from the bank's employees, 34 of the respondents have less than 5 years or less experience, 31 of the respondents have between 6 to 10 years of experience, 13 of the respondents have between 11 and 15 years of experience and the rest 2 of the respondents have more than 16 years of experience.

Moreover, out of the total 76 respondents from the clients side, 12 of the respondents have less than 5 years or less experience, 27 of the respondents have between 6 to 10 years experience, 13

of the respondents have between 11 and 15 years of experience and the rest 24 of the respondents have more than 16 years of business experience.

4.2 Ranking of Causes of Delay

The causes of delay were ranked on the basis of Importance Index explained earlier from the viewpoint of two stakeholders (clients and employees). The list of causes which is categorized into three groups is presented in Table 1.

4.3 Importance of Causes of Delay

The importance index is used to rank the effect of each cause of delay. Table 2 presents the key factors ranked by clients and employees. One causes of delay is selected as the first cause by both the respondents which is 'shortage of foreign currency'. Both clients and employees reported that shortage of foreign currency is the most sever causes of delay for projects implementation delay in DBE financed projects. Clients reported that 'plan (scope) change by clients or clients initiated variations' are the second most important cause and 'failure to contribute equity contribution in time' as the third most important cause. But, employees reported 'failure to contribute equity contribution in time' as the second most important cause and 'diversion of funds for unintended purpose by promoters' as the third most important cause of projects implementation delay.

Government's failure to avail the required infrastructures like road, water, power on time and Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc are rated as the fourth and fifth important causes by clients while these two are rated as the fifth and sixth important causes by employees. The factor selected as the fourth most important cause by employees is 'project management problem at implementation stage' by clients.

4.4 Significance of Causes of Delay

The Importance Index is employed to rank the significant causes of delay. Both parties, clients and employees, contributed to rank the significant factors of delay. From the result in Table 2 above, one can see the top 10 major causes of projects implementation delay in DBE financed projects. Shortage of foreign currency, failure to contribute equity contribution in time and plan (scope) change by clients or clients initiated variations with importance indices of 0.8971, 0.8328 and 0.8259 respectively are rated from first to third. Government's failure to avail the required infrastructures like road, water, power on time and lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc are another critical factors which result in delays and rated as the 4th and 5th major causes. Fluctuation in foreign currency, fluctuation of prices of materials and increase in total cost of projects, diversion of funds for unintended purpose by promoters, existence of missed items & long time taken to incorporate them through additional loan and underestimation of complexity of projects by promoters are rated as the 6th, 7th, 8th, 9th and 10th factors respectively. These 10 significant causes of delays are strongly contributing to projects implementation delay in DBE financed projects.

The perspectives of clients and Bank's employees of the 42 delay factors were analyzed based on the relative importance index. The results are shown in Tables 2 and 3 above. The relative importance index and ranks of delay factors by all the respondents are presented in Table 2. Table 3 illustrates the relative importance index and ranks of groups of delay factors by both respondents.

Top 10 ratings major causes of project implementation delay selected by clients

Table 4: Ranking of causes of delays by client

S/ N	Factors of Delay	Relative Importance Index (RII)	
		RII	Rank
1	Shortage of foreign currency	0.8849	1
2	Plan (scope) change by clients or clients initiated variations	0.8487	2
3	Failure to contribute equity contribution in time	0.8125	3
4	Governments failure to avail the required infrastructures like road, water, power on time	0.7961	4
5	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc	0.7862	5
6	Underestimation of cost of projects by the Bank	0.7796	6
7	Existence of missed items & long time taken to incorporate them through additional loan	0.7599	7
8	Fluctuation in foreign currency	0.7566	8
9	Short implementation period given by the Bank during project appraisal	0.7533	9
10	Unfavorable policies and procedures of the Bank	0.7401	10

Top 10 rating of major causes of project implementation delay selected by employees

Table 5: Ranking of causes of delays by employees

S/N	Factors of Delay	Relative Importance Index (RII)	
		RII	Rank
1	Shortage of foreign currency	0.9094	1
2	Failure to contribute equity contribution in time	0.8531	2
3	Diversion of funds for unintended purpose by promoters	0.8438	3
4	Project Management problem at implementation stage	0.8313	4
5	Governments failure to avail the required infrastructures like road, water, power on time	0.8281	5
6	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc	0.8281	6
7	Poor professionals management by promoters	0.8219	7
8	Fluctuation in foreign currency	0.8219	8
9	Fluctuation of prices of materials and increase in total cost of projects	0.8188	9
10	Plan (scope) change by clients or clients initiated variations	0.8031	10

Generally, both major stake holders agreed that the top ten most important factors causing delay in implementation of DBE financed projects are:

Table 6: Ranking of causes of delays (combined results)

Relative Importance Index (RII)							
S/N	Factors of Delay	Clients		Employees		Overall	
		RII	Rank	RII	Rank	Average	Rank
1	Shortage of foreign currency	0.8849	1	0.9094	1	0.8971	1
2	Failure to contribute equity contribution in time	0.8125	3	0.8531	2	0.8328	2
3	Plan (scope) change by clients or clients initiated variations	0.8487	2	0.8031	10	0.8259	3
4	Governments failure to avail the required infrastructures like road, water, power on time	0.7961	4	0.8281	5	0.8121	4
5	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, investment office, different ministerial offices, regional governments, EEPCO and ERCA etc	0.7862	5	0.8281	6	0.8072	5
6	Fluctuation in foreign currency	0.7566	8	0.8219	8	0.7892	6
7	Fluctuation of prices of materials and increase in total cost of projects	0.7336	13	0.8188	9	0.7762	7
8	Diversion of funds for unintended purpose by promoters	0.7007	16	0.8438	3	0.7722	8
9	Existence of missed items & long time taken to incorporate them through additional loan	0.7599	7	0.7781	17	0.7690	9
10	Underestimation of complexity of projects by promoters	0.7368	11	0.7813	16	0.7590	10

Based on the different groups of delay, the respondents generally agreed that the main causes of delay are attributed to delays resulting from client's actions followed by Bank's actions. External factors are rated third.

- 1. Delay Resulting from the client's actions**
- 2. Delay Resulting from the Bank's actions**
- 3. Delay due to external factors (Neither due to the Bank nor the clients)**

As we can see from table 3 above, clients ranked groups of delay causes due to Bank's actions as first, followed by clients related actions. External factors which are attributed neither to the client nor to the bank are rated at third. Contrary to this, delay causes due to clients' actions are ranked as first by the employees, followed by delay causes due to external factors. Delay causes due to the Bank's actions are rated as third by the Bank's employees.

4.5 Factors of DBE Related Delay Causes

As shown in Table 7 below, nine factors of bank related delay causes are identified and ranked based on relative importance index from the perspective of clients and Bank's employees. Referring to the table, existence of missed items & long time taken to incorporate them through additional loan is ranked first. Besides, underestimation of cost of projects by the Bank is ranked second followed by short implementation period given by the Bank during project appraisal. In addition, poor supervision, follow up and inspection by the Bank and delay in disbursement of loan and equity by the Bank are ranked fourth and fifth.

Table 7: Delay causes resulting from the Bank's actions

S/N	Factors of Delay	Clients		Employees		Overall	
		RII	Rank	RII	Rank	Average	Rank
Delay Causes Resulting from the Bank's Actions							
1	Existence of missed items & long time taken to incorporate them through additional loan	0.7599	7	0.7781	17	0.7690	1
2	Underestimation of cost of projects by the Bank	0.7796	6	0.7125	26	0.7461	2
3	Short implementation period given by the Bank during project appraisal	0.7533	9	0.7375	24	0.7454	3
4	Poor supervision, follow up and inspection by the Bank	0.6875	18	0.7844	15	0.7359	4
5	Delay in disbursement of loan and equity by the Bank	0.7336	12	0.6594	33	0.6965	5
6	Failure to give the required technical advice and feed back	0.6711	23	0.7031	27	0.6871	6
7	Unfavorable policies and procedures of the Bank	0.7401	10	0.6188	35	0.6794	7
8	Inefficiency of staffs to properly appraise projects	0.6612	25	0.6813	30	0.6712	8
9	Delay in honoring payment certificates	0.6086	32	0.6438	34	0.6262	9

4.6 Factors of Clients Related Delay Causes

As shown in Table 8 below, both group of respondents almost agreed on the primary cause of delay resulting from clients based on relative importance index. Failure to contribute equity contribution in time is ranked third by clients while it is ranked second by employees. Overall, it is rated as the primary cause. Plan (scope) change by clients or clients initiated variations which is ranked as second in overall is ranked as second by clients and tenth by employees.

Moreover, clients selected diversion of funds for unintended purpose by themselves as the sixteenth factor while it is ranked as the third major factor by employees. Overall it is ranked the third major cause of project implementation delay. Besides, both clients and employees choose conflict between shareholders in case of PLCs and S.Cs and between spouses in case of sole proprietors as less contributing to project implementation delays from delay causes related to clients. Clients choose as the thirty ninth factor and employees choose it as thirty eighth factor.

Overall, failure to contribute equity contribution in time, plan (scope) change by clients or client initiated variations and diversion of funds for unintended purpose by clients are the top three contributors to projects implementation delay.

Table 8: Delay resulted from the investor's actions

S/N	Factors of Delay	Clients		Employees		Overall	
		RII	Rank	RII	Rank	Average	Rank
Delay Causes Resulting from Clients Actions							
1	Failure to contribute equity contribution in time	0.8125	3	0.8531	2	0.8328	1
2	Plan (scope) change by clients or clients initiated variations	0.8487	2	0.8031	10	0.8259	2
3	Diversion of funds for unintended purpose by promoters	0.7007	16	0.8438	3	0.7722	3
4	Underestimation of complexity of projects by promoters	0.7368	11	0.7813	16	0.7590	4
5	Project Management problem at implementation stage	0.6776	21	0.8313	4	0.7544	5
6	Underestimation of time for completion by contractors & delay by sub-contractors	0.6908	17	0.8031	11	0.7470	6

7	Owners lack the required technical knowhow and experience in projects	0.6875	20	0.8000	13	0.7438	7
8	Poor professionals management by promoters	0.6382	30	0.8219	7	0.7300	8
9	Poor project design and planning by owners	0.6711	24	0.7875	14	0.7293	9
10	Underestimation of cost of projects by Investors.	0.7270	14	0.6844	29	0.7057	10
11	Lack of program of works by clients	0.6612	26	0.7469	22	0.7040	11
12	Poor site management	0.6283	31	0.7469	21	0.6876	12
13	Delay in appointing project managers	0.6447	28	0.6719	32	0.6583	13
14	Failure to build as per the approved design and specification.	0.5362	34	0.7656	18	0.6509	14
15	Conflict between shareholders in case of PLCs and S.Cs and between spouses in case of sole proprietors	0.4770	39	0.5969	38	0.5369	15

4.7 Delay Causes due to External Factors

There are eighteen factors of external related delays that contributed to the causes of delays which are ranked based on relative important index by both clients and employees as shown in Table 9 below. Both clients and employees ranked shortage of foreign currency as the first factor among the external causes related delays factors. Government's failure to avail the required infrastructures like road, water, power on time which is rated as second in overall is rated as the fourth and fifth major causes by clients and employees respectively. Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPSCO and ERCA etc which is ranked as the third cause in overall is ranked as the fifth and sixth by clients and employees respectively. Fluctuation in foreign currency which is ranked as the fourth external cause of projects implementation delay is ranked the eighth by both clients and employees.

Fluctuation of prices of materials and increase in total cost of projects which is ranked as the thirteenth cause by clients and as the ninth cause by employees is rated as the fifth major cause of projects implementation delay from the external factors. From the table, we can say that both clients and employees almost agreed on the ranking of these external causes of projects implementation delay.

Table 9: Delay due to external factors (Neither due to the Bank or nor the clients)

S/N	Factors of Delay	Clients		Employees		Overall	
		RII	Rank	RII	Rank	Average	Rank
Delay due to External Factors (Neither due to the Bank or nor the Clients)							
1	Shortage of foreign currency	0.8849	1	0.9094	1	0.8971	1
2	Government's failure to avail the required infrastructures like road, water, power on time	0.7961	4	0.8281	5	0.8121	2
3	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc	0.7862	5	0.8281	6	0.8072	3
4	Fluctuation in foreign currency	0.7566	8	0.8219	8	0.7892	4
5	Fluctuation of prices of materials and increase in total cost of projects	0.7336	13	0.8188	9	0.7762	5
6	Increase in cost of inputs (materials)	0.7072	15	0.7656	19	0.7364	6
7	Delay in suppliers of machineries and equipments	0.6414	29	0.8000	12	0.7207	7
8	Poor customs clearing and inefficient logistics	0.6776	22	0.7625	20	0.7201	8
9	Shortage of materials	0.6875	19	0.7344	25	0.7109	9
10	Late deliveries of materials	0.6513	27	0.7438	23	0.6975	10
11	Delay in instructions from consultants	0.5855	33	0.6750	31	0.6303	11
12	Mistakes with site, soil and foundation conditions investigations	0.4737	40	0.7031	28	0.5884	12
13	Unskilled equipment operators	0.5263	36	0.6063	37	0.5663	13
14	Political unrest and upheaval	0.5329	35	0.5563	41	0.5446	14
15	Shortage of skilled and un skilled labor	0.4967	38	0.5875	39	0.5421	15
16	Bad weather conditions	0.4211	42	0.6125	36	0.5168	16
17	Legal disputes	0.4243	41	0.5625	40	0.4934	17
18	Accidents during construction	0.5099	37	0.4625	42	0.4862	18

4.8 Agreement Analysis

The Spearman’s rank correlation coefficient (ρ) is used to show the degree of agreement between the rankings of the two parties (employees and clients). The Spearman’s rank correlation coefficient (ρ) is calculated as follows:

$$\rho = \frac{1 - 6\sum d^2}{n(n^2 - 1)} \dots\dots\dots(2)$$

Where:

d = the difference between the ranks given by any two respondents for an individual cause and

n = the number of causes or groups, which in this case is 42 causes or 3 groups.

To determine whether the parties displayed significant agreement in their rankings, the null hypothesis that the two parties do not agree on ranking of important delay factors is tested using a t-test at a 95% confidence level.

Based on the conventional definition of effect size for correlations [*ignoring the sign*], 0.00-0.19 is very weak or very low *correlation*, 0.20-0.39 is weak or low *correlation*, 0.40-0.59 is moderate *correlation*, 0.60-0.79 is strong or high *correlation* and 0.80 to 1.0 is very high or very strong *correlation*.

The following table shows the bivariate correlation of Relative Importance of Index for Clients with Relative Importance of Index for Employees.

Table 10: Correlations between RII of clients and employees

Correlations				
			Relative Importance of index for Clients	Relative Importance of index for Employees
Spearman's rho	Relative Importance of Index for Clients	Correlation Coefficient	1.000	.653**
		Sig. (2-tailed)		
		N	42	42
	Relative Importance of Index for Employees	Correlation Coefficient	.653**	1.000
		Sig. (2-tailed)		
		N	42	42

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

The results of the correlation analysis indicate that there is a positive correlation between Relative Importance of Index for Clients and Employees.

Results of the bivariate correlations table show that the rank correlation of Relative Importance of Index for Clients and Employees is positive. Clients rating of the causes of project implementation delay has a strong or high correlation with the employees ratings of the major causes of project implementation delay, $r=0.653$, $p < 0.05$.

4.9 Significance Test

To determine whether the parties displayed significant agreement in their rankings, the null hypothesis that “the clients and employees do not agree on ranking of important delay factors” is tested using a t-test at a 95% confidence level. The null hypothesis is rejected in both cases. The alternate hypothesis that both parties generally agreed on the ranks is accepted.

The rank correlation coefficients calculated for the three groups of delay factors were 0.650, 0.033 and 0.279 for bank actions and clients’ actions, bank’s actions and external factors and clients’ action and external factors respectively. Again utilizing a *t*-test at a 95% confidence level of the same null hypothesis for the group of delay factors resulted in the rejection of the null hypothesis in all cases. Therefore, both parties generally agree on the ranking of the group factors of delays. See table here below

Table 11: Correlations between the three groups of delay factors

Correlations					
			Delay resulting from the investor's actions	Delay resulting from the Bank's actions	Delay resulting from external factors
Spearman's rho	Delay resulting from the investor's actions	Correlation Coefficient	1.000	.650	.279
		Sig. (2-tailed)		.058	.315
		N	15	9	15
	Delay resulting from the Bank's actions	Correlation Coefficient	.650	1.000	.033
		Sig. (2-tailed)	.058		.932
		N	9	9	9
	Delay resulting from external factors	Correlation Coefficient	.279	.033	1.000
		Sig. (2-tailed)	.315	.932	
		N	15	9	18

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study focused on projects implementation delay in the case of DBE financed projects. The study sought the views of clients and Bank's employees on the relative importance of the factors that cause delays in projects financed by the Bank. The study showed that both groups of respondents generally agreed that out of a total of 42 factors, the top ten influencing factors in causing delay arranged in descending order of importance are:

1. Shortage of foreign currency;
2. Failure to contribute equity contribution in time;
3. Plan (scope) change by clients or client initiated variations;
4. Governments failure to avail the required infrastructures like road, water, power on time;
5. Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc;
6. Fluctuation in foreign currency;
7. Fluctuation of prices of materials and increase in total cost of projects;
8. Diversion of funds for unintended purpose by promoters;
9. Existence of missed items & long time taken to incorporate them through additional loan;
10. Underestimation of complexity of projects by promoters.

Both clients and employees agreed that shortage of foreign currency is the primary cause of delay for projects implementation in DBE financed projects. Failure to contribute equity contribution in time and plan (scope) change by clients or clients initiated variations are the second and third major causes. The degree of agreement between the rankings of the two parties' clients and employees is 0.653 which shows that there is a strong or high correlation between employees' and clients' ratings of the major causes of project implementation delay.

The 42 factors were categorized into three major groups and were ranked.

- 1. Delay Resulting from the clients' actions**
- 2. Delay Resulting from the Bank's actions**
- 3. Delay due to External Factors (Neither due to the Bank nor the Clients)**

The overall rating results show that **delays resulting from the clients actions are** rated first followed by **delays resulting from the Bank's actions.**

5.2 Recommendations

The importance of adequate and timely provision of financial support to investors investing in government priority area projects cannot be over emphasized. Adequate finance is the hub around which everything else revolves. Everybody and everything connected with investing in manufacturing, agriculture and agro-processing sectors is adversely affected by lack of sufficient cash flow. The project is not only delayed but the morale of workers plummet because of non-payment or irregular payment of wages. Subcontractors and suppliers of materials and components and their employees are likewise affected.

The challenge to clients of the Bank and of course, project managers, is to identify ways to eliminate or at least reduce the occurrence of financial crisis during the project implementation process. In that regard, the following recommendations are made.

The DBE has to incorporate in its appraisal study which shows the amount of foreign currency required for a project and pre-plan the source of foreign currency required annually. The total foreign currency requirement should be planned along with the Bank's annual operational plan. The Bank should strengthen and support firms involving in export oriented businesses and must ensure that adequate foreign currency are available or adequate arrangements for funds are made before projects are started.

The Bank should design appropriate mechanism to check that clients coming to the Bank in request for project loans have the required equity contribution at hand so that they will contribute the equity immediately after loan contract signing and get into projects implementation.

Scope creep is the term that has come to mean any change in the project that was not in the original plan. Change is constant. To expect otherwise is simply unrealistic. Changes occur for several reasons that have nothing to do with the ability or foresight of the clients or the project manager. Regardless of how the scope change occurs, it is the job of the project appraisal department of the Bank and the client's consultant and/or the project manager to figure out how, if at all, the change can be accommodated without causing significant cost and time overruns. The Bank's follow up reports should also clearly show any cost and schedule variances.

The government of Ethiopia has availed a number of investment incentives such as tax holidays, loan guarantees, land guarantees to investors involving in manufacturing, agriculture and agro-processing sectors. Such guarantees alone would not bring a change unless the required infrastructures such as power, telecom, water, road and other infrastructures are not complementarily availed on time along with the other incentives.

The different stakeholder government organizations such as DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPKO and ERCA etc should be gleaned towards promoting the investment activities in Ethiopia. As shown in the rankings, shortage of foreign currency is rated as the first cause. Hence, these government organizations should work collaboratively to help the investing activities in projects whose products are meant for export market. This will help to increase the country's export earnings and improve the foreign currency reserve of the country.

Cost escalation on various items, and serious budget deficit resulted from price fluctuation and price escalation is rated among the top ten causes of projects implementation delay. Therefore, the Bank needs to be aware on this factor and revise its cost estimation technique. The Bank shall also incorporate contingency budget plan in the project cost determination during appraisal.

In order to avoid miss utilization of the disbursed fund, the Bank shall monitor the whole operation of the project and shall detect any deviation in the project against plan (without the consent of the Bank). Diversion of funds for unintended purpose by clients shall be subject for immediate action on the project to the extent of blocking subsequent disbursements and/or cancellation of the loan. The disbursement of funds shall be in such a way that the budget

building and construction is directly to contractors and the budget for machinery and equipments, vehicles and major inputs are directly to the suppliers.

Lack of comprehensiveness of feasibility study submitted by promoter's i.e. inadequate investigations and project formulation, frequent changes in scope and revision of drawings due to inadequate project preparation are also the other causes of delay. A feasibility study is, therefore, a pre-requisite for preparation of a major development project on sound lines, and is not ruled out even for a minor one. It is basically an in-depth "three-in-one" study consisting of the technical, financial and economic viability of a project. The study arrives at a definite conclusion about the feasibility of a project after considering the various options. Hence, it should be a thorough feasibility study which does not overlook any significant element affecting the project. Moreover, the Bank's project appraisal officers shall have the required project appraisal and analysis background. They should get the required trainings so that projects are properly appraised and all investment components that are required for a project are incorporated in the appraisal document.

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Annex

Questionnaire on Factors contributing to project implementation delay for DBE financed projects

I am kindly requesting you to participate on this survey questionnaire which is intended to:

- Identify the major factors that contribute for causes of project implementation delay in DBE financed projects;
- Understand the relationship between the factors of delay identified as major causes of delay by both the Bank and Clients;
- Suggest possible ways of eradicating or minimizing the causes of project implementation delay.

The information you will provide will be used as primary data for the partial fulfillment for the Award of Master of Arts Degree in Project Management. All your responses are strictly confidential and the findings of this study will be used for academic purpose only.

Please don't write your name anywhere on this questionnaire. I would like to express my heartfelt gratitude in advance for your kind participation. Please Tick (√) where appropriate in the box.

PART I: Demographic Information

1. Sex: Male Female

2. Age: 25 years or less Between 26– 30 Years Between 31– 40Years

Between 41– 50 Years 51 and above years

3. Marital status: Married Single Divorced Widowed

4. Education level: < grade 8 8-12 12 complete & certificate Diploma

Degree Masters and above

5. Business Experience: 5 years or less From 6 – 10years From 11 – 15 Years

16 & above Years

II: Please tick (√) and give a rate for each cause of project implementation delay, each scale represents the following rating:

4= 'very important', 3 = 'important', 2 = 'Somewhat important', 1 = 'not important'

Which of the following related to internal and external factors stated below contribute most for projects implementation delay of projects financed by DBE?

S.N	Factors of delay	Very Important	Important	Somewhat Important	Not Important
1	Diversion of funds for unintended purpose by promoters				
2	Short implementation period given by the Bank during project appraisal				
3	Conflict between shareholders in case of PLCs and S.Cs and between spouses in case of sole proprietors				
4	Plan (scope) change by clients or clients initiated variations				
5	Failure to contribute equity contribution in time				
6	Existence of missed items & long time taken to incorporate them through additional loan				
7	Delay in honoring payment certificates				
8	Inefficiency of staffs to properly appraise projects				
9	Delay in disbursement of loan and equity by the Bank				
10	Underestimation of cost of projects by the Bank				
11	Unfavorable policies and procedures of the Bank				
12	Delay in appointing project managers				
13	Project Management problem at implementation stage				
14	Underestimation of complexity of projects by promoters				
15	Poor supervision, follow up and inspection by the Bank				
16	Failure to give the required technical advice and feed back				
17	Governments failure to avail the required infrastructures like road, water, power on time				

18	Delay in suppliers of machineries and equipments				
19	Poor customs clearing and inefficient logistics				
20	Lack of cooperation and insufficient communication among different stakeholder government organizations like the DBE, Investment Office, Different Ministerial Offices, Regional Governments, EEPCO and ERCA etc				
21	Underestimation of time for completion by contractors & delay by sub-contractors				
22	Shortage of materials				
23	Poor professionals management by promoters				
24	Owners lack the required technical knowhow and experience in projects				
25	Fluctuation of prices of materials and increase in total cost of projects				
26	Poor site management				
27	Delay in instructions from consultants				
28	Late deliveries of materials				
29	Lack of program of works by clients				
30	Poor project design and planning by owners				
31	Political unrest and upheaval				
32	Shortage of skilled and un skilled labor				
33	Legal disputes				
34	Bad weather conditions				
35	Mistakes with site, soil and foundation conditions investigations				
36	Failure to build as per the approved design and specification.				
37	Unskilled equipment operators				
38	Accidents during construction				
39	Increase in cost of inputs (materials)				
40	Underestimation of cost of projects by Investors.				
41	Shortage of foreign currency				
42	Fluctuation in foreign currency				

Frequency Table for client

Diversion of Funds for unintended purpose by promoters

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	5	1	5		
	Somewhat important	20	2	40		
	Important	32	3	96		
	Very Important	18	4	72		
Sum				213	304	0.7006579

Short implementation period given by the Bank during project appraisal

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	1	1	1		
	Somewhat important	16	2	32		
	Important	36	3	108		
	Very Important	22	4	88		
Sum				229	304	0.7532895

Conflict between stakeholders in case of PLC and S,Cs and between spouses in case of sole proprietors

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	28	1	28		
	Somewhat important	28	2	56		
	Important	15	3	45		
	Very Important	4	4	16		
Sum				145	304	0.4769737

Plan (Scope) change by the clients or clients initiated variations

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	3	1	3		
	Somewhat important	4	2	8		
	Important	25	3	75		
	Very Important	43	4	172		
Sum				258	304	0.8486842

Failure to contribute equity contribution in time

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	3	1	3		
	Somewhat important	7	2	14		
	Important	34	3	102		
	Very Important	32	4	128		
Sum				247	304	0.8125

Existence of missed items and long time taken to incorporate them through additional loan

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	2	1	2		
	Somewhat important	18	2	36		
	Important	31	3	93		
	Very Important	25	4	100		
Sum				231	304	0.7598684

Delay in honoring payment certificates

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	17	1	17		
	Somewhat important	23	2	46		
	Important	22	3	66		
	Very Important	14	4	56		
Sum				185	304	0.6085526

Inefficiency of staffs to properly appraise projects

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	13	1	13		
	Somewhat important	20	2	40		
	Important	24	3	72		
	Very Important	19	4	76		
Sum				201	304	0.6611842

Delay in disbursement of loan and equity by the Bank

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	8	1	8		
	Somewhat important	16	2	32		
	Important	21	3	63		
	Very Important	30	4	120		
Sum				223	304	0.7335526

Underestimation of cost of projects by the Bank

		Frequency	Rate	Rate*Frequency (a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	4	1	4		
	Somewhat important	13	2	26		
	Important	29	3	87		
	Very Important	30	4	120		
Sum				237	304	0.7796053

Unfavorable policies and procedures of the Bank

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	7	1	7		
	Somewhat important	17	2	34		
	Important	24	3	72		
	Very Important	28	4	112		
Sum				225	304	0.7401316

Delay in appointing Project Managers

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	12	1	12		
	Somewhat important	23	2	46		
	Important	26	3	78		
	Very Important	15	4	60		
Sum				196	304	0.6447368

Project management problem at implementation stage

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	10	1	10		
	Somewhat important	23	2	46		
	Important	22	3	66		
	Very Important	21	4	84		
Sum				206	304	0.6776316

Underestimation of complexity of projects by both the Bank and promoters

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	7	1	7		
	Somewhat important	15	2	30		
	Important	29	3	87		
	Very Important	25	4	100		
Sum				224	304	0.7368421

Poor supervision, follow up and inspection by the Bank

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	13	1	13		
	Somewhat important	15	2	30		
	Important	26	3	78		
	Very Important	22	4	88		
Sum				209	304	0.6875

Failure to give the required technical advice and feedback

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	9	1	9		
	Somewhat important	23	2	46		
	Important	27	3	81		
	Very Important	17	4	68		
Sum				204	304	0.6710526

Government's failure to avail the required infrastructure like road, water, power on time

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	7	1	7		
	Somewhat important	11	2	22		
	Important	19	3	57		
	Very Important	39	4	156		
Sum				242	304	0.7960526

Delay to supply machineries and equipment

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	10	1	10		
	Somewhat important	26	2	52		
	Important	23	3	69		
	Very Important	16	4	64		
Sum				195	304	0.6414474

Poor customs clearing and inefficient clearing

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	7	1	7		
	Somewhat important	21	2	42		
	Important	27	3	81		
	Very Important	19	4	76		
Sum				206	304	0.6776316

Lack of cooperation and insufficient communication among different stakeholder government organizations

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	8	1	8		
	Somewhat important	12	2	24		
	Important	17	3	51		
	Very Important	39	4	156		
Sum				239	304	0.7861842

Underestimation of time for completion by contractors and delay by sub-contractors

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	9	1	9		
	Somewhat important	15	2	30		
	Important	29	3	87		
	Very Important	21	4	84		
Sum				210	304	0.6907895

Shortage of materials

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	7	1	7		
	Somewhat important	23	2	46		
	Important	28	3	84		
	Very Important	18	4	72		
Sum				209	304	0.6875

Poor professionals management by owners

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	10	1	10		
	Somewhat important	27	2	54		
	Important	26	3	78		
	Very Important	13	4	52		
Sum				194	304	0.6381579

Owners lack the required technical knowhow and experience in projects

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	7	1	7		
	Somewhat important	22	2	44		
	Important	30	3	90		
	Very Important	17	4	68		
Sum				209	304	0.6875

Fluctuation of prices of materials and increase in total cost of projects

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	9	1	9		
	Somewhat important	14	2	28		
	Important	22	3	66		
	Very Important	30	4	120		
Sum				223	304	0.7335526

Poor site management by owners

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	10	1	10		
	Somewhat important	27	2	54		
	Important	21	3	63		
	Very Important	16	4	64		
Sum				191	304	0.6282895

Delay in instructions from consultants

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	16	1	16		
	Somewhat important	26	2	52		
	Important	22	3	66		
	Very Important	11	4	44		
Sum				178	304	0.5855263

Late deliveries of materials

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	11	1	11		
	Somewhat important	23	2	46		
	Important	27	3	81		
	Very Important	15	4	60		
				198	304	0.6513158

Lack of program of works by clients

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	12	1	12		
	Somewhat important	18	2	36		
	Important	31	3	93		
	Very Important	15	4	60		
	Total			201	304	0.6611842

Poor project design and planning by owners

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	10	1	10		
	Somewhat important	23	2	46		
	Important	24	3	72		
	Very Important	19	4	76		
	Sum			204	304	0.6710526

Political unrest and upheaval

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	25	1	25		
	Somewhat important	25	2	50		
	Important	17	3	51		
	Very Important	9	4	36		
	Sum				162	304

Shortage of skilled and unskilled labor

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	30	1	30		
	Somewhat important	25	2	50		
	Important	13	3	39		
	Very Important	8	4	32		
	Sum				151	304

Legal disputes

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	40	1	40		
	Somewhat important	25	2	50		
	Important	5	3	15		
	Very Important	6	4	24		
	Sum				129	304

Bad weather conditions

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	45	1	45		
	Somewhat important	18	2	36		
	Important	5	3	15		
	Very Important	8	4	32		
	Sum				128	304

Mistakes with site, soil and foundation conditions investigations

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	31	1	31		
	Somewhat important	29	2	58		
	Important	9	3	27		
	Very Important	7	4	28		
Sum				144	304	0.4736842

Failure to build as per the approved design and specification

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	25	1	25		
	Somewhat important	24	2	48		
	Important	18	3	54		
	Very Important	9	4	36		
Sum				163	304	0.5361842

Unskilled equipment operators

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	17	1	17		
	Somewhat important	37	2	74		
	Important	15	3	45		
	Very Important	6	4	24		
Sum				160	304	0.5263158

Accidents during construction

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	29	1	29		
	Somewhat important	22	2	44		
	Important	14	3	42		
	Very Important	10	4	40		
	Sum			155	304	0.5098684

Increase in cost of inputs (materials)

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	4	1	4		
	Somewhat important	21	2	42		
	Important	35	3	105		
	Very Important	16	4	64		
	Sum			215	304	0.7072368

Underestimation of cost of projects by investors

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	4	1	4		
	Somewhat important	16	2	32		
	Important	39	3	117		
	Very Important	17	4	68		
	Sum			221	304	0.7269737

Shortage of foreign currency

		Frequency	Rate	Rate*Frequency(a)	Sample size*Highest rate (b)	c=a/b=RII
Valid	Not Important	1	1	1		
	Somewhat important	1	2	2		
	Important	26	3	78		
	Very Important	47	4	188		
	Sum			269	304	0.8848684

